TUPEB030

Characteristics of HIV Infected Children Dying before ART Initiation in Eswatini

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Background: Without rapid diagnosis and early initiation on antiretroviral therapy (ART), 50% of these children will die by the age of two. Early HIV testing, prompt return of test results and urgent initiation of ART is critical for the survival of HIV-infected children. The objective of this evaluation was to describe the characteristics of children who die before ART initiation.
Methods: We conducted a prospective cohort follow up analyzing data on children, aged 0-12 months, diagnosed with HIV infection between March 2017 and November 2018 from the 26 health facilities providing POC EID in Eswatini. For this analysis, we included all children that ever tested HIV-positive including those lost to follow-up. Data were abstracted from patients' POC EID testing forms, facility ART registers and electronic medical records. Children were tested either at birth or 6-8 weeks after birth.
Results: During the outlined period, 107 children tested HIV-positive at study facilities; 87 (81%) were initiated on ART. Of the 20 (19%) children not initiated on ART, 8 (38%) died before ART could be initiated. Seventy five percent of infant deaths occurred before 12 weeks of age. The median age at testing for the children who died before ART initiation was 7.6 weeks. Six (75%) of the children had received their HIV results before death. The median time from sample collection to results reception was 0 days. The median time from HIV testing to death was 7 days. The proportion of mothers not on ART for those who died before ART initiation was 37.5%.
Conclusions and Recommendations: From our data, death before ART initiation was neither from delayed testing nor non-results reception but mainly from delayed ART initiation after HIV testing. A large proportion of women whose children died before ART initiation were themselves not on ART suggesting some possible negative influence on the decision for their children to initiate ART. The sample size of the children who died before ART was small and a statistical test could not be done. A follow up including a larger study population is recommended.

TUPEB031

Feasibility and Challenges of Mobile Phone Peer Mentoring and Education Support in Nigeria (an Ongoing Project by APYIN with Support from IHVN)

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Issues: With high perinatal HIV infection rates, Nigeria has a growing pipeline of Adolescents Living with HIV (ALHIV). Access to health services and psychosocial support remain barriers to effective client-centered care for ALHIV. Peer education is an effective strategy for engaging adolescents in care2. However, as lay "workers", Peer Educators (PEs) require supportive mentoring and timely feedback to effectively perform their roles1.

Descriptions: Using structured WhatsApp® group, we: engaged newly trained ALHIV peer educators (n=30) and mentors (n=10); provided biweekly interactive continuing education; and complemented face-to-face mentoring with real time chat message responses to questions and challenges. Two lead mentors experienced in social media, moderated discussions on user-driven topics, comments and questions. Mentors and PEs posted comments in response to discussions and questions. Educational topics were posted biweekly and included: HIV facts & myths, ART, adherence, disclosure, stigma, self-care, nutrition, reproductive health, Opportunistic infection and venereal disease prevention, PMTCT, safety on social media and conference updates. Program staff monitored the platform discussions, providing content guidance to maintain focus.

Lessons learned: 1.Feasibility: WhatsApp® group is a very useful tool for engaging adolescent PEs in continuing education & mentoring. 2.Convenience: WhatsApp® platform helped us deliver timely feedback & guidance and support from multiple mentors. Especially during critical challenges e.g. disclosure crisis, access to services, grief, loss & bereavement. 3. Access to Phones: Forty percent (40%) of Peer Educators (PE) and 100% of Peer Mentors owned phones, but only 20% and 40% respectively had access to WhatsApp®. 4.Access to Continuing Education: This was limited to only a few with access to WhatsApp® and phone data.

Next steps: •in WhatsApp® and other online suppDespite growing cell phone availability globally, few PEs and mentors owned internet-ready phones. While WhatsApp groups are convenient and engaging, basic phone technology like test messaging and traditional mentoring should remain core strategies for engaging adolescents groups in Nigeria.To be inclusive, continuing education activities for ALHIV PEs should be facility and community based. Mobile health partnership projects involving health facilities could provide more sustainable phone access for PEs to enhance their participation.

TUPEB032

Access to Sexual Reproductive Health Service for MSM and Transgender Women in Harare, Zimbabwe

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Issues: Despite progress on the general population, HIV prevalence for MSM and transgender women is still high in Zimbabwe, at prevalence of 23.5% vs 13.9% respectively.
Descriptions: In 2015, UNFPA approached Wilkins Hospital to start working with Key populations, mainly MSM. In 2016, PSI Zimbabwe also started to work on a Key population mobilization project that sought to increase HIV testing, treatment and prevention among MSM. Based on community level data and programmatic data this paper shows access to services in 2018 and barriers to services. GALZ worked hand in hand with Wilkins and PSI Zimbabwe using peer educators.1028 MSM were mobilised for HIV testing. 728 through PSI facilities. The rest were linked to Wilkins and Newlands Clinic. Out of the 728 who were referred for HTC services, 31 managed to get ART services, 141 managed to get Prep. Though Prep was higher as compared to ART it can be noted that out of 728 members who accessed HTC services only 172 went through the treatment cascade, 556 were lost through the cascade. indicating low treatment retention. barriers such as stigma and attitudes still limits access. Most MSM who are reached are especially below the ages of 30 and there is need to reach to hard to reach old MSM, affluent, coloured and whites, who are difficult to reach.
Lessons learned: Collaboration: reaching MSM for clinical care was possible through GALZ collaboration with partners providing clinical care.
Diversity and flexibility: A number of approaches were used, ranging from community outreach, facility referrals and 'holding' hands of MSM to access services as the community is diverse and one size fits all approach was not practical.
Ownership and involvement: The project managed to reach this far because MSM community members were part of the mobilising team
Next steps: There is need for continuous engagements with donors and partners providing clinical care as there are still barriers that affects access to care and retention in care among MSM.

TUPEB033

Relation entre le Réservoir Viral et le Succès Thérapeutique chez des Adultes Ayant Initié Précocement les Traitements Antirétroviraux (TARV)

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Contexte: La mesure de l´ADN du VIH-1 dans les cellules mononucléées sanguines est un reflet du réservoir viral. A l´ère des traitements antirétroviraux (ARV) très précoces, nous avons étudié l´association entre le taux d´ADN VIH-1 pré-thérapeutique et le succès virologique 30 mois après le début des ARV dans une population d´adultes africains ayant débuté les ARV très précocement.
Méthodes: Dans l´essai Temprano (2008-2015), des adultes en stade précoce étaient randomisés pour débuter un traitement ARV à base d´efavirenz soit immédiatement (ARV "immédiat") soit plus tard à l´apparition des critères OMS 2009-2012 (ARV "différé"). Tous les participants étaient suivis 30 mois après randomisation, avec une mesure semestrielle d´ARN VIH1 plasmatique et de CD4. Nous avons mesuré l'ADN VIH1 sur des échantillons de PBMCs (Peripheral Blood Mononuclear Cells) prélevés à l´inclusion et conservés congelés à -80°C en biothèque. Nous avons analysé par régression logistique l´association entre l'ADN VIH1 et le succès virologique (ARN VIH < 100 copies/ml) 30 mois après début du traitement ARV chez les adultes du bras "traitement immédiat".
Résultats: Parmi les 1033 patients randomisés en "traitement immédiat", 1013 (98 %) ont eu une mesure d´ADN VIH-1 (femmes 80%; âge médian 35 ans [intervalle interquartile-IIQ] 30-42). A l'inclusion, les médianes [IIQ] des CD4, ARN VIH-1 plasmatique et ADN VIH-1 PBMC étaient respectivement de 465 [379-578] Cell/mm^3, 4,7 [4,0-5,3] $\log_{10}$copies/ml et 2,9 [2,4-3,2) $\log_{10}$copies/million PBMCs. L'ADN VIH-1 était significativement corrélé à l´ARN VIH-1 initial (Test de Spearman : R=0,59, P< 0,0001). A M30, 847 patients (83,6%) avaient un ARN VIH-1 disponible, dont 83,8%< 100 copies/ml. En analyse ajustée sur sexe, âge, CD4, et ARN VIH-1 à l´inclusion, un ADN VIH-1< 3 $\log_{10}$copies/million PBMCs était associé au succès virologique à M30 (RCa 1,50; CI 95% 1,03-2,18; p=0,03). L´ARN plasmatique et les CD4 à l´inclusion n'étaient pas associés au succès à M30.
Conclusions: L'ADN VIH-1, reflet du réservoir, est significativement associé à l´efficacité virologique du traitement ARV précoce chez des adultes africains, indépendamment du niveau initial de charge virale plasmatique et de CD4.

TUPEB035

Présentation Tardive aux Soins des Adultes Séropositifs au VIH et Facteurs Associés à Abidjan (Côte d'Ivoire) a l'Ere du ''Test and Treat''

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Introduction: La présentation tardive aux soins des personnes infectées par le VIH est associée à une morbi-mortalité élevée. Elle regroupe les présentateurs tardifs (PT) et les patients avec maladie VIH avancée (PMVA). Notre objectif était de déterminer la prévalence et les facteurs associés à la présentation tardive à Abidjan à l'ère du ''Test and Treat'' instauré en Février 2017.
Méthode: Nous avons mené une étude rétrospective de Mars 2017 à Février 2019 au Service des Maladies Infectieuses et Tropicales (SMIT) du Centre Hospitalier et Universitaire de Treichville à Abidjan. Utilisant les définitions du Groupe Européen de Consensus pour la Présentation Tardive, les PT étaient les sujets qui se présentaient aux soins avec un taux de CD4 inférieur à 350 cellules/mm^3 ou ayant un évènement classant SIDA et les PMVA étaient ceux avec un taux de CD4 inférieur à 200 cellules/mm^3.
Résultats: 518 sujets de plus de 18 ans se sont présentés aux soins (sur les 1039 inclus dans la file active du SMIT). 303 (58,38 %) étaient des femmes.
Ces dernières étaient âgées de 41,16 (19-83) ans et 276 (91,10%) mono-infectées au VIH-1. 200 (66,01%) étaient classées PT et 130 (42,90%) PMVA.
Quant aux hommes, leur âge moyen était 45,49 (18-75) ans. 186 (86,51 %) étaient mono-infectés au VIH-1. 159 (73,95%) étaient des PT et 112 (52,10%) des PMVA. Les facteurs associés étaient l'âge supérieur à 40 ans (p = 0,00019) et le statut matrimonial ''Vit en couple'' (p = 0,016).
Conclusion et recommandations: La présentation tardive à l'ère du ''Test and Treat''demeure alarmante nécessitant des stratégies innovantes d'incitation au dépistage précoce.
Mots clés: Présentation tardive, soins de VIH/SIDA, Abidjan, Test and Treat

TUPEB036

Qualitative Detection of Proviral-DNA of HIV-1 in Infants to Determine the Efficacy of Antiretroviral Therapy in the Prevention of Vertical Transmission of HIV-1 in the Gambia

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Background: The priority of The Gambia government is to eliminate maternal to child transmission of HIV and in line with this priority, the country implemented an antiretroviral therapy (ART) program. With this, all HIV infected pregnant and breastfeeding mothers and infants have access to ARV drugs. This study aims to determine the prevalence of vertical transmission of HIV among women receiving the ARV drugs.
Methods: Dried blood spot samples were collected from 109 HIV-exposed infants enrolled in 13 PMTCT sites across the country. A qualitative detection of proviral-DNA of HIV-1 was performed using the RealTime Abbott PCR assay. Data from 105 mothers were analyzed using SPSS version 16.0 and association of risk factors to PCR results were analyzed using (Crosstabs) Pearson Chi-Square. The p-value of significant was set at $p < 0.05$.
Results: This study has found that the prevalence of vertical transmission of HIV is 0.0% (0/64) among women that received the ARV prophylaxis then started ART, 7.1% (2/28) among mothers that received HIV prophylaxis only, and 38.4% (5/13) among women who neither receive HIV-prophylaxis nor ART during pregnancy or breastfeeding. Other risk factors of vertical transmission such as late initiation of treatment, default during treatment and first born of twins were found to be significantly associated with vertical transmission $p = 0.001$, $p = 0.022$ and $p = 0.000$ respectively
Conclusions and Recommendations: This study has found that the early intervention of ART at the onset of pregnancy through breastfeeding can eliminates Maternal to Child transmission of HIV-1 and a high risk of vertical transmission was found among women who neither receive prophylaxis nor ART. If the effectiveness of the antiretroviral therapy is maintain, The Gambia, in the near future will attain the WHO's goal to eliminate maternal to child transmission of HIV.
https://www.scirp.org/journal/PaperInformation.aspx?PaperID=72476

TUPEB037

HIV Testing and Linkage to Care in Rwanda, Assessment Made in 5 Selected Sites for the Period of July 2018 to May 2019

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Background: Since July 2016 Rwanda adopted the WHO recommendations of Treat All HIV positive patients. That was an opportunity to increase the number of new patients on treatment and putted the national HIV program in the right direction towards attainment of the 90-90-90 targets. In order to accelerate progress towards those UNAIDS global targets especially the second 90, Rwanda also have provided a series of strategy to improve the linkage of all newly tested for HIV positive to care,One of those strategies was to make an active referral for a specific time and date, where a provider accompanies the client to an appointment including an appointment for co-located services and enrollment into HIV clinical care. This analysis was conducted to calculate the linkage proportion among newly diagnosed HIV positive clients in selected five health facilities.
Methods: We conducted a desk review of HTS registers in different entry points at five health facilities which was selected randomly when we were conducting a data quality assessment, those health facilities are 2 hospitals and 3 health centers, we reviewed also their monthly reports submitted in HMIS. We used Excel to calculate proportion of HIV positive clients and linkage to care according to Age and Sex and different entry point of HIV testing
Results: Overall, 37634 people were tested for HIV, 134(0,35%)were newly diagnosed HIV positive. among the134 tested HIV positive, 18% (12) were children ages 0-14 years and 4% (5) were adolescents ages 15-19 years. Adults aged 20 years and above accounted for 87% (117). Slightly above half (7%, 10,) of all children and adolescent clients tested were female compared to 5% (7) male. Among adults 43% (58) tested clients were females and 44% (59) were males.Further analysis showed that among clients diagnosed HIV positive, only 79%(106) were linked to care and treatment, there were significant gender differences between enrollment in care and HIV treatment ,43% among females compared to men 37% respectively. For those who are not linked to care,50%(14) were from PIT service, 89,3% (25) are aged 20 years old and above in which 57,1%(16) were males
Conclusions and Recommendations: Linkage to care with the strategy to accompany newly tested HIV positive is feasible, but the national program have to initiate other strategies to improve the linkage especially for PIT service. Overall the gender differences between enrollment in HIV care and treatment requires further research

TUPEB038

Facteurs Associés à la Dysfonction Sexuelle Féminine chez les PVVIH de Novo au Burkina Faso

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Objectif: La prise en charge des femmes vivant avec le VIH présentent des spécificités trop souvent oubliées. Le fait d'être séropositive est un des paramètres inhibiteurs de la santé sexuelle. L'objectif de cette étude était d'étudier les facteurs associés à la dysfonction sexuelle féminine chez les personnes vivant avec le VIH (PVVIH) de novo à l'hôpital du jour du Centre Hospitalier Universitaire Yalgado Ouédraogo (CHU YO) à Ouagadougou au Burkina Faso.
Méthodes: Il s'est agi d'une étude transversale descriptive des PVVIH de novo sur la période de février 2017 à janvier 2018 à l'hôpital du jour du CHUYO. Une PVVIH de novo est une patiente dont l'annonce de la séroconversion a été faite il y a au moins 28 jours et naïf du traitement antirétroviral. Le questionnaire auto-administré pour l'évaluation de la sexualité était celui du Female Sexuelle Fonction Index (FSFI). Les données sur les caractéristiques sociodémographiques, les facteurs de risque et les comorbidités ont été également recueillies. Ces données ont été saisies et analysées à l'aide du logiciel SPP dans sa version 20. Le test d'indépendance de Pearson a été utilisé avec un seuil de signification pour p inférieur à 5%.
Résultats: 85 femmes ont été incluses dans l'étude. L'âge moyen était 39 ans. La dysfonction sexuelle était retrouvée dans 82% des cas. Les troubles du désir, de l'excitation, de de l'orgasme, de la satisfaction, de la lubrification et de la douleur étaient recensés respectivement chez 52%, 40%, 34%, 33%,32% et 47% des femmes. Le statut matrimonial était corrélé à toutes les variables du FSFI excepté celle de la douleur. Aucune variable n'était associée au statut socio-professionnel. L'âge influençait sur le désir, l'orgasme, la satisfaction. Il n'y avait pas de lien entre l'intoxication alcoolo-tabagique et les items du FSFI. Les troubles liés à l'orgasme, à la lubrification et à la douleur étaient retrouvés chez les hypertendues. Aucune variable n'était associée au diabète. La dysfonction sexuelle n'était associée à aucun facteur étudié.
Conclusion: La dysfonction sexuelle féminine chez les PVVIH de novo pourrait être liée à des facteurs non spécifiques notamment l'âge, le statut marital et l'hypertension artérielle.
Mots clés: Facteurs associés - dysfonction sexuelle féminine - VIH - Burkina Faso

TUPEB039

Expérience d'Alliance Côte d'Ivoire dans l'Amélioration du Taux d'Enrôlement des PVVIH dans les Soins dans 39 Districts Sanitaires

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Questions: Le 2ème 90 est l'enrôlement et mise sous traitement est le début de la rupture de la chaîne de contamination. Le rapport de revue épidémio programmatique de la réponse au SIDA en Côte d'Ivoire indique qu'au « niveau de la population générale, en 2016, indique une performance de 97% concernant l'indicateur des PVVIH enrôlées dans les soins, toutefois la dynamique observée en 2016, tend à se réduire progressivement au fil du temps passant de 76% en 2017 à 69% à septembre 2018, la performance moyenne se situerait autour de 80% sur les 3 ans». Afin de contribuer à l'amélioration de l'enrôlement des patients dans les soins la stratégie d'accompagnement systématique a été adoptée face à ce défi par Alliance CI.
Description: Les personnes dépistées positives sont accompagnées systématiquement au centre de santé pour l'enrôlement avec une fiche de référence et de contre référence. Au centre de santé, il interagit avec le Conseiller Communautaire sur le site ou le prestataire de santé pour l'enrôlement effectif du patient. La fiche de contre-référence signée par le prestataire de santé atteste l'effectivité de cet enrôlement est retournée à l'ONG par l'ASC et le montant de 2000Fcfa lui est remis pour motiver la référence réussie. Un deuxième niveau de contrôle est réalisé par le chargé de suivi et Evaluation (CSE). Il s'assure au centre de référence du patient de l'effectivité de l'enrôlement en vérifiant la fiche de référence initialement gardée par le prestataire lors de la référence du patient.
Leçons apprises: En 2018, Alliance Côte d'Ivoire et ses partenaires ont obtenu les résultats ci-après en ce qui concerne l'enrôlement et mise sous traitement des personnes dépistées positives. 100% des adolescentes et jeunes filles âgées de 15 à 24 ans positives ont été enrôlées dans les soins et mises sous traitement. Chez les hommes de plus de 25 ans, 528 personnes ont été dépistées positives et 99% ont été enrôlés dans les soins et 98% mis sous traitement.365 Travailleuses du sexe ont été dépistées positives et 350 ont été enrôlées et 96% mises sous traitement. Sur 112 MSM dépistés positifs, 104 ont été enrôlés et mis sous traitement soit 93%. 24 Usagers de drogue ont été testés positifs au VIH, 100% ont été enrôlés et mis sous traitement.
Prochaines étapes: La norme nationale au niveau de la Côte d'Ivoire est de 90%. Avec cette stratégie d'Alliance, le taux est passé de 69% à plus de 96%

TUPEB040

Prevalence of HIV Status Disclosure among Young Adolescent Enrolled on ART in Johannesburg

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Background: The World Health Organisation recognises adolescents as a key population vulnerable from acquiring HIV/AIDS, and adolescence is a critical stage of child growth and development. South Africa has the largest antiretroviral therapy programme in the world; there is progress on initiating HIV-infected children onto treatment and they are surviving into adolescence.
Methods: The retrospective study design was used to analyse the antiretroviral therapy monitoring data on the cohort of 314 HIV-infected young adolescents between the ages of 10 to 15 years. The data were collected from thirteen public healthcare facilities, in the City of Johannesburg Region A sub-district. Frequency tables, summary statistics, Pearson`s Chi-square tests and multiple linear regression were done using IBM SPSS software v 25.
Results: This study found that a relatively low percentage (31.5%) of the HIV-infected young adolescents enrolled on antiretroviral therapy are fully disclosed, while a significant majority (68.5%) are only partially disclosed. The prevalence of HIV status disclosure is high (71.7%) among the young adolescents adhering to clinic appointments, and low (28.3%) among those not adhering to clinic appointments. There was a strong relationship between HIV disclosure status and attending support groups ($X^2(1) = 9.164$, $p = .002$).
Conclusions and Recommendations: There is a need to encourage adolescent to participate in support groups and to adherence to clinic appointment dates. The value of participation in support groups and adherence to clinic visits can be reinforced through involvement of family members and guardians.

TUPEB041

The Effectiveness of Pictogram Intervention in the Identification and Reporting of Adverse Drug Reactions in Naïve HIV Patients in Ethiopia

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Background: In health communication, pictogram has a comprehensive place to aid attention, memory recall, and promote adherence. This study was conducted to assess whether pictorial intervention would help to identify and improve adverse drug reactions (ADRs) reporting in an antiretroviral therapy (ART) clinic in Northwest Ethiopia.
Methods: A cross-sectional study on ART-naïve HIV-positive patients was conducted from July 2015 to January 2016. The patients were randomly categorized into two groups. Group A was subjected to receive pictorial medication information and a pictogram-enhanced tool to identify and report ADRs, while group B did not receive any pictogram-enhanced tool.
Results: A total of 207 ART-naïve HIV-positive patients who were registered for the ART treatment attending Gondar University Hospital ART clinic were included. Bivariate analysis showed that sociodemographic characteristics, such as age, sex, education, employment, and marital status were the main predictors of identifying and reporting ADRs. Males were twice more likely to identify ADRs than females. Univariate analysis revealed that patients assigned to group A showed a significant association with the ability to identify ART medications using pictograms. Patients assigned to group A were more likely to identify lamivudine (OR [95% CI] =7.536 [4.042-14.021], $P \leq 0.001$), tenofovir (OR [95% CI] =6.250 [2.855-13.682], $P \leq 0.001$), nevirapine (OR [95% CI] =5.320 [1.954-14.484], $P=0.001$), efavirenz (OR [95% CI] =3.929 [1.876-8.228], $P \leq 0.001$), and zidovudine (OR [95% CI] =3.570 [1.602-7.960], $P=0.002$) using pictograms. Patients in group A were 4.3 times more likely to identify diarrhea as an ADR using pictogram compared with group B.
Conclusion and Recommendations: The use of pictorial representation resulted in only slight improvement in identification and reporting of ADRs among naïve HIV-positive patients with limited literacy in Northwest Ethiopia. This representation of ADRs merits further investigation with regard to ADR identification and promoting patients' safety, particularly for HIV-positive patients with limited educational levels.
Keywords: Adverse drug reaction, Ethiopia,HIV patients, pictograms

TUPEB042

Impact d'un Paquet Minimum d'Interventions sur le Succès Thérapeutique au Long Terme et la Mortalité sous Traitement ARV dans les Pays à Ressources Limitées

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Contexte: Au Bénin, la couverture nationale en TARV est encore largement en deçà 30% dans plusieurs départements avec un taux de succès thérapeutique et une mortalité globale sous ARV très peu documentés. Nous évaluons dans cette étude, l'impact d'un paquet minimum d'interventions sur le succès thérapeutique au long terme et la mortalité sous ARV.
Méthode: En 2008, une revue de cohorte a permis de constater une la mortalité globale de 17% et un succès thérapeutique (Charge Virale à M≥ 24 mois indétectable) de 61%. Face à ces résultats très alarmants, Nous avons renforcé les interventions usuels par un Paquet Minimum d'Interventions Complémentaire(PMIC): mise en réseau des sites de référence, staffs cliniques hebdomadaires, audit médico-social des décès, activités génératrices de revenus, soutien psychosocial et mise en place d'un groupe consultatif communautaire, éducation thérapeutique pour tous, appuis nutritionnel, soutien scolaire et formation d'insertion socio-professionnelle,. Le succès thérapeutique au long terme et la mortalité à 5ans ont été comparés chez les enfants du PMIC au début de leur suivi sous ARV(GroupeI) et les enfants n'ayant pas bénéficié des interventions (Groupe Non-I) .Chi2 de Pearson pour les comparaisons entre les groupes, le RR (IC95%) et la régression logistique pour la mortalité à 5ans.
Résultat: Au total 312 enfants ont été suivis entre 2009 et 2019, 56,8% (183/312) du GroupeI, 52% de filles, 23% ont moins de 5ans, âge médian 11 ans (3-18), tous sous traitement ARV, 46 hospitalisés dans les 6mois suivant la mise sous traitement ARV. Taux de mortalité globale de 8 pour 100 personne-année. Comparé au Groupe Non-I, taux de succès thérapeutique est meilleure (86% vs 45% ; p=0.002), le gain moyen en CD4 (cell/ml) meilleure (236 vs 123 ; p< 0.05). Proportion d'enfants avec une CV indétectable plus élevée (82,5%vs47, 2%, p=0.002). Aucune différence entre l'âge et le sexe. La mortalité est élevée dans le GroupeI (6,8%vs2%,p=0.0000),RR=5,66(1.49-10.43). Ajusté au stade clinique OMS à l'admission, le délai de mise sous ARV et l'hospitalisation, le taux de mortalité est plus élevée OR (CI95%)=10.31 (1.09 - 97.69).
Conclusion: La mise en œuvre d'un paquet minimum d'interventions permet la qualité de vie et la survie sous traitement ARV au travers l'amélioration du succès thérapeutique au long terme et la mortalité sous traitement ARV et devrait être mis à échelle au niveau de tous les sites de prise en charge du VIH pédiatrie.

TUPEB043

Caractéristiques Épidémiologiques et Cliniques des Personnes Vivant avec le VIH (PVVIH) Décédées en 2018 dans les Structures Sanitaires au Burkina Faso

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Indiquer le problème étudié, la question de recherche : Cette étude décrit les caractéristiques épidémiologiques et cliniques des personnes vivant avec le VIH (PVVIH) décédées dans les structures sanitaires en 2018 au Burkina Faso

Méthodes: Les caractéristiques épidémiologiques et cliniques des patients infectés par le VIH décédés enregistrés au cours de l'année 2018 dans les 112 sites de prise en charge que compte le Burkina Faso ont été colligées à partir des dossiers médicaux et les fichiers de dispensation des antirétroviraux entre le 1er janvier et le 31 décembre 2018.

Résultats: Cinq cents cinquante-neuf (559) patients ont été inclus avec une sex-ratio de 0.91. L'âge médian [intervalle interquartile] était de 44 ans [36-52]. 92% des décédés appartenaient à la tranche d'âge de plus de 15 ans et les adolescents (10-19 ans) représentaient 5% des décès. La provenance était une structure sanitaire publique, associative, privée lucrative et confessionnelle dans 81%, 11%, 5% et 3% respectivement. Le type de VIH était VIH1 dans 94% et VIH2 ou VIH1+2 dans 3% respectivement. Environ deux tiers (64%) des patients étaient enrôlés dans les structures sanitaires pour les soins depuis deux ans et plus. Au moment du décès, 99% des PVVIH étaient sous traitement antirétrovirale dont 92% avec un protocole de première ligne. 47 patients avaient réalisé une charge virale dont 60% de suppression virale (inférieur à 1000 copies/ul).

Conclusions et Recommandations: Cette étude révèle que le profil type d'une personne vivant avec le VIH qui décède au Burkina Faso est un adulte, de sexe féminin, infecté par le VIH1, enrôlé dans les soins depuis au moins deux ans, suivi dans une structure sanitaire publique, qui prend les antirétroviraux et qui a une suppression virale insuffisante. Pour réduire les décès il est nécessaire de réaliser une étude des facteurs associés au décès dans les structures de santé.

Mots clés: décès, PVVIH, antirétroviraux

TUPEB044

IRIS Associated with Thrombocytopenia in a Patient Living with HIV

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Introduction: The incidence of HIV associated thrombocytopenia has significantly declined with the antiretroviral therapy. Immune Reconstitution Inflammatory Syndome (IRIS) has a large variety of manifestation. However, hematologic involvement is not very common.
Case: A 33-year-old male patient with a past medical history of renal lithiasis presented to our Infectious Diseases Department for a positive HIV serology. The initial clinical exam was normal. HIV Viral load revealed 213 000 copies/ml with a CD4 count of 144/µl. The platelet count was 9000 /mm^3 without signs of bleeding. His coagulation profile, renal function, liver function and metabolic tests were within normal limits. The myelogram showed a rich bone marrow. all lines were represented with the presence of many megakaryocytes. The patient was started on Tenofovir-Emtricitabine-Efavirenz. One month later, the patient presented to the department with minimal epistaxis. The platelet count was 6800/mm. viral load declined rapidely to 880 copies/ml and CD4 count increased to 250 C/µl. HHV8 PCR was negative. The patient was hospitalized. He was emergently transfused with platelets. The diagnosis of IRIS was made. He was treated by prednisone for 8 weeks. The ARV treatment was continued. Two weeks later, his platelet count had improved to 39100/mm^3.
Conclusion: Hematologic involvment in IRIS associated to HIV is very rare. The are no standard treatment guidelines for the management of this disease. The risk in the situation is the severe bleeding.

TUPEB045

Temporal Trends in Antiretroviral Treatment Outcomes (Loss to Follow-up and Death) among Adults in the Senegalese National Program against AIDS: A Retrospective Cohorte Study from 2005 to 2018

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Background: The senegalese antiretroviral drug access initiative is the first in the sub-region started in 1998. The aim of this study is to describe trends in mortality, loss to follow-up and attrition in senegalese HIV infected adults over a 14 years period, from january 2005 to december 2018.
Methods: This retrospective cohorte study analysis included all HIV-positive adults aged more than 15 years who initiated ART january 2005 to december 2018. Time to death, LTFU and overall programme attrition were analysed using Kaplan-Meier methods. Predictors of attrition were determined using Cox-regression models.
Results: This analysis included 31180 adults, out of which 66.82% women. The median age was 37years. Overall attrition was 57.39 % with a incidence rate of 1.4/100 patients year. The attrition dropped regularly from 40,6% at month12 to 7,7% at month 60. In the same trend mortality and loss to follow-up decreased drastically between initiation and month 60, from 9,1% to 2% and 25% to 4,4%, respectively. In multivariate cox regression analysis baseline factors significantly associated with attrition were male sexe (HR 1.3 (95% C.I. 1.2-414)) ; being on WHO clinical stage 2,3 or 4 at initiation (HR 1.4 (95% C.I. 1.2-1.7)) ; never been prescribed cotrimoxazole chemoprophylaxis (HR 2.1 (95% C.I. 1.8-2.3)) and HIV infection diagnosed by strategies other than VCT (HR 1.5 (95% C.I. 1.3-1.8)).
Conclusions and Recommendations: Despite a significant decline in attrition over time, loss to follow-up and mortality remain hight in the senegalese national aids program. Innovative stratégies using early diagnostic tools like VCT and targeting mens are key to improve retention.

TUPEB046

Optimizing Index testing through sexual partner notification services in the Burundi cultural context

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Background: According to the UNAIDS 2018 Spectrum projections, 82,041 people were living with HIV in Burundi and of these, 20% remained undiagnosed. To address this gap, new approaches are needed to enhance efficiency and coverage of HIV testing services. However, diagnosing HIV through Partner Notification Services (PNS) has been hampered on the ground since sexual partner's disclosure is considered as "taboo" within Burundi social cultural context. To support Government's efforts to move towards the first 90 of 90/90/90 HIV goals, FHI360 has introduced a targeted testing approach, using PNS since October 2018.
Descriptions: To implement PNS with fidelity, the following activities were conducted: Identification of priority sites, training of HCW and CHW, adequate tool's development and job aid, onsite monitoring and coaching visits, weekly data review. To optimize output, the following clients were targeted for PNS: Newly identified PLHIV and those with high VL. At each site the PNS cascade was analyzed considering the following indicators to identify and address any bottleneck: The listed index client has their sexual partners (SP) elicited, SP elicited are contacted, contacted SP are offered HIV Testing Services and those found HIV+ are linked to ART and re-start index cycle. SP were contacted through phone calls and/or home visits involving community cadres who were oriented on self-testing and familiar with the geographical area.
Lessons learned: From October 2018 to June 2019, the overall yield varied from 1.1%(1.310/117.385) to 3.6%(2.162/60.009). The yield among the indexed cases in general varied from 7.9%(207/2,632) to 26.3%(1,390/5,290). The trend of HIV+ cases tested through the PNS strategy by province from Q1, Q2 and Q3 was as follow: Bujumbura Mairie 8.4%(84/997), 12.3%(143/1.160) and 17.9%(367/2.049); Kirundo 5.3%(34/642), 14.4%(199/1.395) and 16.1%(507/3.150); Gitega 13.8%(16/116), 10.5%(48/458) and 13.3%(142/1.065). Our results indicate the importance to target SP of PLHIV to increase the possibility of finding new cases. The data in the highest prevalence in the Bujumbura Mairie, Kirundo and Gitega demonstrate the need to scale up the PNS activities in all sites. We have also learned that the HIV prevalence is very high among SP network.
Next steps: PNS strategy, implemented with fidelity, is highly recommended in Burundi to move the country towards achieving the first 90 HIV goal by reaching to most PLHIV patients not yet reached.
Keywords: HIV, index testing, sexual partner notification

TUPEB047

Prise en Charge Communautaire de la Coïnfection VIH/SIDA/TB chez les PVVIH

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Questions: Le projet *« scale up of interventions to contribute to the reduction of TB related morbidity and mortality by 2020 »* est un projet communautaire de lutte contre la tuberculose. Son objectif vise à réduire le taux de mortalité et morbidité liée à la tuberculose au Cameroun d'ici 2020. Il est mis en œuvre par AFASO et financé par Camnafaw, sous récipiendaire du Fonds Mondial. L'un des objectifs spécifique vise à améliorer la qualité des soins de santé des PVVIH à travers l'observance thérapeutique et le renforcement de l'accompagnement psychosociale des patients co-infectés de la ville de Yaoundé au Cameroun afin de les amener à avoir une santé de qualité pendant 11 mois de novembre 2018 à décembre 2019.
Le projet prévoit plusieurs activités: Identification des PVVIH co-infectés par le VIH-TB et leur entourage immédiat; Identifier les PVVIH développant une toux de plus de deux semaines, la présence éventuelle de la fièvre et les sudations nocturnes; Dépister les PVVIH co-infectés VIH/TB; Prise en charge médicale et psychosociale Observance thérapeutique.
En effet, le projet a pour cible les patients TB et les PVVIH co-infectés dont les besoins spécifiques relèvent de plusieurs ordres:
Insuffisance des frais de consultation et d'examens de suivi biologique et ordonnances
Le manque de bonnes informations liées à la co-infection VIH/TB;
La stigmatisation et la discrimination au sein de la communauté;
La non observance au co-traitement VIH/TB pouvant entrainer des effets secondaires dus au faible rendez-vous de suivi.
Description: Identification des patients TB; Organisation de l'enquête de l'entourage;
Dépistage des PVVIH co-infectés; Appui médical; Organisation des VAD; Recherche des PDV
Leçons Apprises: Le projet a identifié 260 Patients TB dont 30 PVVIH présentent une co-infection VIH/TB 140 PVVIH sont accompagnés 30 Des patients co-infectés 500 personnes sensibilisées 125 observant en bonne santé et épanouis.
Les patients co-infectés reçoivent les VAD et son pris en charge et 60 patients PDV ont été réintégré dans le circuit de la prise en charge et son devenus observant.
Prochaines Étapes: La prise en charge pluridimensionnelle des patients co-infecté VIH/TB, par le gouvernement enfin de renforcé l´action de CAMNAFAW, prouvent ainsi améliorer le développement de la santé communautaire prisé par l´organisation mondial de la santé.

TUPEB048

Cryptococcal Antigenemia and its Predictors among HIV Infected Patients in Resource-limited Settings: a Systematic Review

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Background: Cryptococcosis is an opportunistic fungal infection that primarily affects people with advanced HIV disease and is an important cause of morbidity and mortality around the globe. There is quite limited reviewed data on the epidemiology of cryptococcal antigenemia in a large HIV-infected population in resource-limited settings.
Methods: articles published in English irrespective of the time of publication were systematically searched using comprehensive search strings from PubMed and SCOPUS. In addition, the Google Scholar and Google databases were searched manually for grey literature. Two reviewers independently assessed study eligibility, extracted data, and assessed risk of bias. The magnitude of cryptococcal antigenemia and its predictors were presented with descriptive statistics and summary measures. The pooled prevalence of cryptococcal antigenemia was also determined with 95%CI.
Results: Among 2941 potential citations, we have included 22 studies with a total of 8,338 HIV positive individuals (male gender 25-76.3% and median age range 30-40 years). The studies were reported in ten different countries during the year (2007-2018). Except for an article, the rest reported the mean CD4 count of the participants < 100 cells/µl. The pooled prevalence of cryptococcal antigenemia at different CD4 count and ART status was at 8% (95%CI: 6-10%) (ranged between 1.7% and 33%). Specifically, the pooled prevalence in Ethiopia was at 7% (95%CI: 3-11%) (range: 3.4%-11.7%). Body mass index (BMI) < 18.5kg/m2, CD4 count < 100 cells, presenting with headache and male gender were reported by two or more articles as an important predictor of cryptococcal antigenemia.
Conclusions: Additional data is needed to better define the epidemiology of cryptococcal antigenemia and its predictors in resource-limited settings in order to design prevention, diagnosis, and treatment strategies. Implementing a targeted screening of HIV patients with low BMI, CD4 count < 100 cells, having headache and males; and treatment for an asymptomatic cryptococcal disease should be considered.
Keywords: Cryptococcal antigenemia, Predictors, Resource limited settings

TUPEB049

Cervical Intraepithelial Neoplasia Recurrence in HIV-infected and Uninfected Women in a Eswatini Cohort, 2014-2016

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Background: Recurrence of cervical intraepithelial neoplasia (CIN) following treatment is known to occur in up to 15% of cases regardless of treatment modality. Studies found that women infected with HIV have higher incidence, prevalence, persistence and recurrence of pre-invasive cervical lesions. We set to examine the prevalence and factors associated with CIN recurrence among HIV-infected and HIV uninfected women in Eswatini.
Methods: A retrospective cohort analysis of HIV-infected and HIV uninfected women who were screened for cervical pre-cancerous lesions, from January 2014 to December 2016 and underwent cryotherapy or LEEP at Mbabane Government Hospital, and who subsequently returned for the 6-month follow-up review was conducted. Multivariate logistic regression was performed to examine the proportion of women with recurrence and to examine the factors associated with recurrence.
Results: The 602 study participants enrolled for the study had a mean age of 30.9 years (SD: 5.7) Of all participants, 359(60%) were HIV infected and 143(40%) of them had a CD4 count < 500 cells/µL. About a third (222;37%) were HIV uninfected and 21(3%) had an unknown HIV status. Cryotherapy was offered to 429(71%) while LEEP to 173 (29%). Few (39/602;6.5%) had recurrence of CIN and 27(69%) were HIV infected. For participants who underwent cryotherapy, the adjusted odds ratio (AOR) for recurrence for positive HIV status was 2.47 (95%CI 1.01-6.02;p=0.022) and 2.46 (95%CI 1.01-6.03; p=0.048) for low CD4 cell count. Anti-retroviral therapy (ART) reduced the odds for CIN recurrence by 70% (AOR 0.31; 95%CI 0.13-0.71; p=0.006).
Participants who underwent LEEP and were on ART (AOR 0.31; 95%CI 0.13-0.71; p=0.006) or were HIV uninfected (AOR 0.27; 95%CI 0.11-0.64; p=0.003) had about 70% reduced odds for CIN recurrence (69% and 73%, respectively). Post adjustment for covariates the odds of recurrence among the study participants treated with LEEP was reduced by almost 60% than those who underwent cryotherapy (AOR 0.38; 95% CI 0.16-0.94; p=0.037).
Conclusion and Recommendation: HIV seropositivity and a low CD4 cell count increased the odds of recurrence, while ART was protective. LEEP was a superior treatment modality compared to cryotherapy for recurrence. LEEP should be considered the treatment modality of choice for HIV seropositive individuals since the odds of recurrence is reduced which potentially reduces the odds of progression to invasive cervical cancer.

TUPEB050

Treatment Outcome of Adult Tuberculosis Patient Attending DOTS Clinic at Two Tertiary Health Facilities in Ogun State, Nigeria

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Background: Tuberculosis (TB) is the ninth leading cause of death worldwide, accounting for 1.2-1.5 million deaths (including those due to HIV/AIDS. Nigeria is a high burden for tuberculosis ranking tenth among the world's 30 high-burden TB countries. Monitoring tuberculosis treatment outcomes is important in evaluating the effectiveness of tuberculosis control programme. Poor TB treatment outcome has severe health consequences of development of drug-resistant Mycobacterium tuberculosis.
Methods: The secondary data was obtained from the facilities central tuberculosis register, with treatment outcome and tuberculosis type categorized based on the guideline of National Tuberculosis, Leprosy and Buruli ulcer Control Programme (NTBLCP) of Nigeria. Treatment outcome and tuberculosis type were categorized according to the national tuberculosis control program guideline. Chi square and multivariate analysis using logistic regression model was used to analyse the association between treatment outcome and potential predictor variables.
Results: Of the 647 patients, treatment outcome was classified as treatment success in 501(77.43%), treatment failure in 6 (0.93%), died in 80 (12.36%), loss to follow up in 21 (3.25%), cured in 269 (41.58%) and treatment completed in 232 (35.86%) patients. Being older and HIV negative were associated with treatment success.
Conclusions and Recommendation: The treatment outcome of tuberculosis patients was unsatisfactorily as a high proportion of patients died (12.3%) or were lost to follow up (3.25%). This is a serious public health problem that can be improved by health education of patients and intensified patient monitoring.

TUPEB051

Shall We Rely on Syndromic Management for Screening T. Vaginalis Infection among STI Attendants?

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Background: *Trichomonas vaginalis* is a flagellated single cell protozoan parasite, which carries the distinction of being the only truly sexually transmitted parasitic infection in humans. Infections have been shown to be associated with sterility, pelvic inflammatory disease, cervical cancers, postnatal complications and adverse pregnancy outcomes. In resource limited setting, WHO recommends syndromic management approach for the diagnosis and treatment of STIs. However, most trichomonal infections remain asymptomatic and undetected. This study aimed to assess and compare syndromic management approach with the most accessible wet mount microscopy for the diagnosis of trichomoniasis in resource limited setting.
Methods: A cross-sectional study was conducted among STI attendants and pregnant women who came for their antenatal care. Syndromic management approach was used to screen STs including trichomoniasis by physicians as per the WHO guideline. Identification of *T. vaginalis* trophozoites was performed by wet mount microscopy of vaginal discharge and vaginal swab.
Results: A total of 222 women were enrolled. About half of study subjects were in the age group of 15-25 years (48.6%, 108). Nearly three-fourth (73.9%, 164) of study participants was illiterates. Only 4 women (1.8%) were suspected to have trichomoniasis by syndromic management approach compared to 14 (6.3%) women who were positive for the trophozoites of *T. vaginalis* through wet mount microscopy. Our finding also revealed that 50% of cases diagnosed by syndromic approach were false positives as per the wet mount result. Half of women with lab confirmed *T. vaginalis* infection were unmarried (50%, 4/8) and women with polygamous relationship (50%, 4/8).
Conclusions and Recommendations: We found that syndromic management is highly insensitive in screening trichomoniasis, even, compared to the less sensitive wet mount microscopy. Hence, wet mount microscopy which is easily accessible in resource limited setting could be a good supplement to syndromic management to screen trichomoniasis.

TUPEB052

Asymptomatic Cryptococcal Infection in Virologically Non-suppressed Patients at Fort Portal Regional Referral Hospital: A Retrospective Cohort Study

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Background: Cryptococcal meningitis is among the leading causes of mortality in Human Immunodeficiency Virus (HIV) infected persons with severe immune suppression. However, data is limited on magnitude and factors associated with Asymptomatic Cryptococcal Infection (ACCI) among HIV positive persons with un-suppressed viral load after six months of anti-retro-viral therapy (ART). This study investigated the prevalence of ACCI among HIV positive persons who failed to suppress viral load after six months of ART in Fort Portal Regional Referral Hospital from October 2017 to July 2018.
Methods: The study used a retrospective cohort design. Data was abstracted on 384 participants from electronic medical registers using abstraction form, entered in Epi-Data and exported to STATA version 15 for statistical analysis. The key variables included age, sex, baseline viral load, baseline CD4, mid-upper arm circumference, presence of opportunistic infections, and WHO clinical stage. Univariate, bivariate, and multivariate analysis was performed. Built a parsimonious model by performing a binary logistic regression analysis until the final model showed non-statistical significance (Chi-square 13.06, p=0.668).Results were presented with odds ratio and 95% confidence interval in publication quality tables.
Results: Out of 384 virologically non-suppressed participants enrolled in the study, 22(5.7%) were identified with Asymptomatic Cryptococcemia using CrAg test. In multivariate analysis, moderate malnutrition (MUAC, 16.0-16.9 cm) was statistically significantly associated with ACCI (AOR 3.88; 95% CI, and 1.19-12.66). However, opportunistic infection (AOR, 0.35; 95% CI, 0.12-1.02), baseline CD4 count of 250-350 cells/ul (AOR, 2.30; 95% CI, 0.12-1.02) and $\geq$350 cells/ul (AOR, 3.43; 95% CI, 0.95-12.31), WHO clinical stages III/IV (AOR, 5.52; 95% CI, 0.40-76.35), and baseline viral load >1000 copies/ul (AOR, 0.92; 95% CI, 0.37-2.26) were not statistically significantly associated with ACCI.
Conclusions: The prevalence of ACCI in Virologically non-suppressed patients is comparable to 6.0% global cryptococcal antigenemia estimate of 2017 and is associated with malnutrition. Virologically non-suppressed persons at 6-months of ART and Malnourished should be screened for ACCI using CrAg test for early detection and management with pre-emptive Fluconazole. Nutritional assessment, counselling and support for people living with HIV should be prioritised.

TUPEB053

Fréquence des Souches de *Mycoplasma* Identifiées dans les Prélèvements Génitaux chez des Femmes à Bamako l'INRSP de 2014 à 2017

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Introduction: Les mycoplasmes urogénitaux constituent un des groupes de pathogènes les plus incriminés dans les infections génitales féminines. Une augmentation de la résistance aux antibiotiques des mycoplasmes urogénitaux a été observée ces dernières années. Ils demeurent cependant des bactéries très peu étudiées au Mali. Ce travail avait pour but de déterminer le profil de résistance aux antibiotiques des mycoplasmes urogénitaux identifiés à l'INRSP.
Méthodologie: Il s'agissait d'une étude prospective qui s'est déroulée de juin 2014 à décembre 2017 chez 230 femmes reçues à l'INRSP avec une demande de recherche des mycoplasmes urogénitaux. Les motifs de consultations les plus fréquents étaient l'infertilité ou le désir d'enfant, les algies pelviennes et rarement la frigidité. Les prélèvements ont été effectués par écouvillonnage vaginal et grattage de muqueuses après la mise en place d'un spéculum en intra vaginal. La cytologie et la coloration de Gram a permis de déterminer le type de flore vaginal selon la classification de Nugent-Krohn-Hillier. Le diagnostic a été réalisé à l'aide du kit Mycoplasma IST 2 (Bio Mérieux) permettant la culture, l'identification, la numération indicative et la détermination de la sensibilité aux antibiotiques d'*Ureaplasma urealyticum* et *Mycoplasma hominis*. Le seuil de signification était de 10^4UCC/ml.
Résultats: L'âge médian des femmes était 21 ans. La flore vaginale était de type IV, III, II, et I dans respectivement 34,78% ; 24,35% ; 30,00% et 6,52% des cas. La fréquence des mycoplasmes dans notre étude était 44,34% (102/230). L'espèce *U. urealyticum* représentait 91,17% (93/102*)* et *M. hominis* 1,96% (2/102). Les ménagères étaient les plus touchées par ces germes (33,91%). Le test de sensibilité aux antibiotiques réalisé sur les souches 63 souches a révélé une sensibilité marquée aux cyclines variant de 75,38% à 92,31%, moindre pour les macrolides variant de 43,07% à 89,23%, et faible pour les fluoroquinolones variant de 7,69% à 12,30%.
Conclusion: Nous constatons une fréquence élevée des mycoplasmes chez les femmes avec une flore déséquilibrée de type III ou IV. La sensibilité aux cyclines reste conservée et celle aux fluoroquinolones demeure très faible.
Mots Clés: *Mycoplasma hominis* - *Ureaplasma urealyticum* - Résistance - macrolides - fluroquinolone

TUPEB055

Le Temps Mis sous la Combinaison d'Equipement de Protection Individuel (EPI ou PPE) au Cours de l'Epidémie de Ebola au Centre de Traitement Ebola(CTE) de Butembo : Le Constat au Bout de 1an

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Background: Le port de l'équipement de protection individuelle du personnel dans le contexte de l'épidémie de la maladie à Virus Ebola(MVE), dans un environnement froid, ne doit pas dépasser 90mn pour garantir le confort du personnel.
Le but de cette étude est de déterminer le temps passé sous la combinaison et d'analyser les facteurs influençant le dépassement de cette norme.
Methods: Du 08 au 21 juillet 2019, une étude transversale a porté sur tout personnel sortant de la zone à haut risque du CTE de Butembo. Les variables suivantes ont été collectées : sexe, date et heure d'entrée, date et heure de sortie, type d'équipe rotative de soins, durée passée sous la combinaison EPI et la catégorie professionnelle.
Les données ont été validées et traitées dans le logiciel Excel et ont été analysées dans le logiciel SPSS. Le test chi2 de Pearson a été utilisé pour l'étude des facteurs associés au dépassement du temps
Results: Au total 2377 sorties ont été notées ; le sexe féminin(32%) ; le nombre médian de sortie journalière est de 167 (min-max 146 - 207) ; les catégories professionnelles sont : aides-soignants(6.4%), infirmiers(29.7%), médecins(13.4%), nutritionnistes(0.1%), psychologues(2.1%), agents de promotion à la santé(0.7%), hygiénistes(47.3%) et logisticiens(0.4%) ; selon la rotation des équipes de soins : équipe du matin(30.9%), équipe de l'après-midi(28.4%) et équipe de garde de nuit(40.7%).
Le temps passé sous la combinaison EPI : médiane 70 mn (min-max 4mn - 257mn) ; proportion de ceux qui ont dépassé la durée recommandé sous EPI, soit plus de 90 mn(31.4%). Il n'existe pas de différence statistiquement significative selon le sexe : masculin(30.9%), féminin(32.4%), p>0.05 ; et selon les groupes de rotation de soins : matin(30.6%), après-midi(30%) et nuit(32.9%), p>0.05. La différence est significative selon la catégorie professionnelle : aide-soignant(30.7%), infirmier(43.9%), médecin(49.8%), nutritionniste(0%), psychologue(42.9%), agent de promotion à la santé(68.8%), hygiéniste(17.4%), logisticien(44.4%), p=0.000).
Conclusions and Recommendations: Il urge que des dispositions soient prises par l'administration afin de veiller à cette disposition qui préserve le confort du personnel
Aussi, cette mesure de routine doit être intégrée dans le mécanisme de suivi des indicateurs afin de garantir la qualité des soins et la préservation du capital humain pour l'amélioration de la prise en charge des patients admis au CTE.

TUPEB057

Adding Antiretrovirals to HIV/TB Co-infected Patients who Started Antituberculosis Is Not Associated with an Increase of Hepatotoxicity: A Cross-multicenter Retrospective Analysis of ANRS Trials

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Background: Tuberculosis (TB) is the most common opportunistic disease in patients infected with HIV. The management of HIV/TB co-infection presents various problems, among which, the possible occurrence of interactions between anti-TB and antiretroviral treatments (ART), the onset of an immune reconstitution inflammatory syndrome (IRIS), and cumulative toxicity. The aim of this work was to evaluate whether the combination of ARTs with anti-TB potentiates the risk of developing liver toxicity, a major adverse reaction of anti-TB, and to identify associated risk factors.
Methods: A retrospective study was undertaken, held from 2005 to 2018, identifying all the clinical trials, sponsored by ANRS, dealing with HIV/TB co-infection (n= 9 studies, multi-country).
We proceeded to an extraction, from our pharmacovigilance database, of all the serious adverse events (SAEs) occurring in these researches. A medical proofreading was performed to classify the SAEs as liver-related and non-liver-related events. Statistics were then computed using Cox´s model.
Results: Among the 1522 SAEs, 1288 (84.6%) were related to non-hepatic events and 234 (15.4%) to hepatic events.
The relative risk assessment for developing hepatotoxicity was conducted on the following three variables: anti-TB, ART, combination of anti-TB+ART. The results of the multivariable analysis suggest that there is no significant difference between anti-TB alone and the combination of anti-TB with ART (95%CI 0.61-1.20; p=0.37).
In our analysis, age and sex have not appeared to be risk factors for developing hepatotoxicity (respectively 95%CI 0.76-1.39; p=0.84 and 0.70-1.29; p=0.57), however it showed that the Asian population is significantly more likely to develop liver toxicity (95%CI 1.11-2.41; p=0.013). Similarly, concomitant treatments (such as cotrimoxazole, fluconazole…) increased the risk of hepatotoxicity (95%CI 1.37-2.43; p< 0.0001). Finally, two clinical trials: ANRS12150 RAP (95%CI 1.06-22.4; p=0.042) and ANRS12292 RIFAVIRENZ (95%CI 2.40-51.4; p=0.002), pharmacokinetic (PK) studies using high dose of rifampicin, showed a greater risk of developing hepatic toxicity.
Conclusions: Based on the associations tested, liver toxicity is indeed related to anti-TB drugs, and may be aggravated by cotrimoxazole,fluconazole... It seems that acetylation profile and the use of traditional medicine in Asia intensifies this risk, which appears to be dose-dependent (as suggested by PK studies´ findings).

TUPEB058

Are Treated HIV/MDR-TB Co-infected Patients More at Risk of Developing Ototoxicity?

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Background: In May 2016, WHO updated the recommendations for the treatment of multidrug-resistant tuberculosis (MDR-TB) supporting the use of a shorter regimen, known as Bangladesh regimen. In Cameroon, the Bangladesh regimen has been progressively implemented since 2013 in 10 treatment sites spread all over the country, with systematic monitoring of clinical progresses and Adverse Events (AE). One of the most severe AE reported in MDR-TB treatment is the hearing ability impairment. We assessed in this study the occurrence of auditory side-effects among HIV/MDR-TB patients, treated with the Bangladesh regimen.

Methods: Between January 2016 and December 2018, 417 MDR-TB patients were started on Bangladesh regimen. Upon treatment initiation, the hearing level of each patient was assessed using an audiometer. A follow-up audiogram control was scheduled at month 2 and at the end of every MDR-TB "intensive phase". The final auditory function was recorded at the end of treatment on the patient´s card.

Results: During the study period, 417 patients were enrolled for the Bangladesh regimen, with 262 (63%) male patients. The HIV status was recorded for 413 (99%) patients with 133 (32%) being HIV-positive; 68 (64%) of the co-infected patients were on highly active antiretroviral therapy. The initial audiogram result was available for 311 (75%) patients with a coverage of 106 (80%) among HIV-positive and 204 (73%) among HIV-negative patients. According to the initial audiogram assessment, 61 (46%) HIV-positive DR-TB patients presented already with hearing loss compared to 135 (48%) HIV-negative (Chi2 =3.61; p=0.46). At the end of the "intensive phase", the audiogram coverage was estimated to be at 310 (74%) among all, with 109 (82%) among HIV-positive and 201 (72%) for the HIV-negative patients. Ninety (68%) HIV co-infected patients presented a hearing impairment at the end of the MDR-TB treatment, compared to 162 (58%) HIV-negative patients (Chi 2= 31.46; p=0.0001).

Conclusions and Recommendations: Management of MDR-TB patients using the Bangladesh regimen has shown good clinical outcomes in developing countries. Nevertheless, HIV/MDR-TB patients are at high risk of hearing impairment. A close and standardized monitoring of the hearing abilities of patients on treatment is key to reduce ototoxicity. We emphasize on systematic data entry for all developing countries in order to be able to assess the auditory outcomes of treated MDR-TB/HIV co-infected patients.

TUPEB059

Flucytosine (5FC)-based Combination Treatment for Cryptococcal Meningitis in Routine Care, South Africa

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Background: 5FC-based combination regimens are preferred for treatment of cryptococcal meningitis (CM) in resource-limited settings. In a network meta-analysis, 1-week amphotericin B and 5FC had superior efficacy and lower toxicity versus other regimens. Despite inclusion on the World Health Organization's Essential Medicines List, 5FC is not registered in South Africa. With support from the Department of Health and Médecins Sans Frontières, a programme was established to accelerate 5FC access. We describe the characteristics and outcomes of patients treated with 5FC-containing regimens since access began.

Methods: 5FC access through individual exemption began in October 2017 and distribution to selected hospitals through the programme in November 2018. Interim clinical guidance materials were distributed. Informed consent was obtained from patients/next of kin. From April 2018 to April 2019, we conducted laboratory-based surveillance at sentinel tertiary/regional hospitals. We obtained demographic/clinical data by chart abstraction or interview among patients with microbiologically-confirmed CM who received 5FC.

Results: Overall, 146 HIV-seropositive patients received 5FC-based treatment at 8 hospitals (4 provinces). All patients had confirmed CM (1 had fungaemia with meningitis symptoms). Seventy six per cent (110/144) were treated for their first episode and the remainder for a recurrent episode. Almost all 5FC-based regimens included amphotericin B deoxycholate (137, 94%), 8 (5%) liposomal amphotericin B and 1 (1%) fluconazole (median duration, 9 days; IQR, 7-12). The median age was 38 years (IQR, 33-44); 51% (75/146) were male. More than two thirds (99/144, 69%) were ART-experienced. The median CD4 count at diagnosis was 34 cells/µl (IQR, 10-87); 77% (103/133) had a CD4 count < 100 cells/µl. More than a quarter (31/121, 26%) had altered mental status at diagnosis. Of 54 (37%) with documented opening intracranial pressure, 45 (83%) had raised pressure (>20 cm H20). Overall, 31 of 144 (22%; 95% CI, 15%-29%) died during admission (median time to death, 13 days).

Conclusions/ recommendations: 5FC combination treatment can be delivered in routine care in a resource-limited country. The in-hospital mortality in this group of severely-immunosuppressed patients is comparable to the overall 21% 14-day mortality reported from the ACTA trial. Urgent action is needed to ensure that access to this life-saving, yet unregistered, medicine is maintained.

TUPEB060

Prevalence of Neisseria Gonorrhoeae and Chlamydia Trachomatis in Men Having Sex with Men and Female Sex Workers in Port-au-Prince, Haiti: Implications for Public Health Policy and Practice

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Background: Over the last 15 years, the prevalence of Human Immunodeficiency Virus (HIV) in Haiti has stabilized to 2.0%. However, key populations (KP) remain at higher risk of contracting HIV and other sexually transmitted infections (STI). The prevalence of HIV is 12.9% among men having sex with men (MSM) and 8.7% among female sex workers (FSW). There is limited data on the prevalence of STI other than HIV in the Haitian population in general and even less among KP. Here we reported the burden of *Chlamydia trachomatis* (CT) and *Neisseria gonorrhoeae* (NG) and risk factors for infections among MSM and FSW in Haiti.
Methods: A cross-sectional study was conducted. MSM and FSW were recruited from 7 health facilities in Port-au-Prince upon signing an informed consent. All samples were tested by nucleic acid amplification test, using GeneXpert. A survey was administered to the participants to collect socio-demographic, clinical, and risk behavior data.
Results: A total of 354 participants with 138 (39%) FSW and 216 (61%) MSM were recruited. Overall, 18.6% participants screened positive for either NG or CT, with significantly higher prevalence in MSM compared to FSW (22.7% vs 12.3%, $p < 0.05$). The prevalence of CT was 11.1% among MSM and 5.1% among FSW. The prevalence of NG was 16.2% among MSM and 8.7% among FSW. There were 32 MSM with rectal STI compared to 15 with genital infections. Participants between 18-30 years old were significantly more likely to be infected with CT and NG (OR: 4.8, 95% CI: 1.3-17.8; OR: 5.2, 95% CI: 1.9-13.9 respectively). Participants who never attended school or had some primary education were significantly more likely to be infected with NG (OR: 2.3, 95% CI:1.0-5.6). Those living with HIV/AIDS were significantly less likely to be infected with CT (OR: 0.4, 95% CI: 0.1-0.9). Participants infected with NG or CT have significantly higher risk of co-infections [OR: 3.5, 95% CI:1.3-9.0 (risk of co-infection with CT); OR: 4.0;95% CI:7-9.4 0 (risk of co-infection with NG)].
Conclusions: Given the high rates of CT and NG infections among MSM and FSW in the metropolitan area of Port-au-Prince, performing routine risk assessments and appropriate screening are critical to the sexual health of these populations and to prevent HIV in HIV-negative subgroups. Periodic risk assessment and testing for asymptomatic NG and CT infections should be offered in Haiti as part of the upcoming guideline on STI management.

HIV, C. *trachomatis*, *N. gonorrhoeae*

TUPEB061

Toward Viral Hepatitis Elimination in Rwanda: Use of Rapid Diagnostic Tests (RDTs), to Detect HCV Ab and HBs AG Carriers

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Introduction: Rwanda has fixed the plan for HCV elimination by 2024 and this was launched in December 2018, the aim of this elimination is screening of about 4 million and treat 110000 patients with chronic Hepatitis. To achieve this goal more strategies were suggested including use of RDTs as screening tests which could be more cost effective comparably to other tests which were used before. This study aims to evaluate the strength and weakness of first use of RDTs in mass campaign screening of Viral hepatitis in Rwanda.
Methodology: This study will examine the screening of viral hepatitis using SD Bioline RDTs, tests of high specificity and high sensitivity. Prevalence of Hepatitis B and Hepatitis C viruses were calculated and compared to what found using ELISA tests used before from 2016 to 2018 in VH screening mass campaign. Cascade of testing for the two tests also were compared. SPSS was used to measure prevalence and in comparison of different outcome variables as well as factors which should influence the difference.
Results: Using RDTs, 164225 people were screened for two weeks in 6 districts (Gasabo, Nyarugenge and Kicukiro in Kigali, Gakenke, Karongi and Rusizi in North and West). Prevalence of HCV Ab positivity and HBs Ag positivity were respectively 6.7% and 2.6% respectively comparably to 6.8% and 3.9% found in previous campaigns using ELISA. 70.1% of samples tested for HCV VL revealed detectable comparably to 42.08% found in previous HCV VL testing (p-value=0.005). 34.4% of patients tested positives were not tested for HCV VL while for previous campaigns 57.9% of patients tested positive for HCV Ab were not tested for HCV VL (p-value= 0.0058)
Conclusion: RDTs Could be cost effective in developing countries due it increases access of testing to more population, there is improvement in cascade of testing. However, we still need control quality with gold standards for measuring technical effectiveness of RDTs. More efforts are needed to decrease rate of lost to follow up from serology testing to nucleic acid testing.

TUPEB062

High Levels of Rifampicin Resistant TB Strains Are Circulating in Pointe-Noire, the Republic of Congo, Formerly Congo-Brazzaville

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Background: Since the occurrence of HIV pandemic, tuberculosis (TB) morbidity and resistant TB cases have been on the rise in several African Countries, over the last 3 decades, including the Republic of Congo. This is mainly due to several structural deficiencies of the country health care system in Congo, the lack of an effective laboratory and technical capacity as well as the malfunctioning of the National TB program. Several active TB cases treated locally were found to be suspicious as not responding well when treated with Isoniazid, Rifampicin, Ethambutol and Pyrazinamide. A laboratory review of theses cases was warranted.
Methods: This is a retrospective study from April 2016 to February 2018 was performed at the Molecular diagnostic medical laboratory HDL located within the Polyclinic of the Foundation Marie Madeleine Gombes, in Pointe-Noire city, Republic of Congo. The HDL lab has been providing for molecular diagnostic testing to assist medical providers involved the care for HIV and its co-morbidities. A few Local physicians following TB patients in Pointe-Noire were wondering about the prevalence of Rifampicin resistant TB among all TB patients. We retrieved the number of patients screened for TB using Xpert MTB/RIF Assay at the HDL lab; the proportion of patients who overall tested positive for TB, and the proportion of Rifampicin resistant TB circulating in Pointe-Noire was evaluated.
Results: During the study period, overall 177 patients were screened using Xpert MTB/RIF. In general, a total of 75 (42.4%) patients tested positive for TB, and 40 patients overall were reported to have a positive test for Rifampicin resistance. The proportion of R-R MTB was 22.6% among all patients who were screened with the GeneXpert Xpert MTB/RIF system; however, R-R MTB resistant cases represented 53.3% of all positive TB patients who were screened during that time frame.
Conclusions and Recommendations: Over half of all patients found positive for TB were carrying TB resistance for Rifampicin. This has a huge implication for the Congolese National TB Program if the country wants to achieve the goals set up by WHO to control TB. There is an urgency to establish technical capacity building at all laboratory and clinical sites collaborating to the TB and HIV programs in order to expend the surveillance of circulating resistant TB, to provide for linkage to care and for effective treatment of screened cases of active TB and prevention of TB transmission.

TUPEB063

Using Quality Improvement to Rapidly Scale-up Tuberculosis Preventive Therapy among HIV Positive Individuals Completing Tuberculosis Treatment in a Military Clinic in Eswatini, January 2017-Dec 2017

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Background: Tuberculosis Preventive Therapy (TPT) reduces TB deaths among HIV positive individuals by up to 80%. TPT is also known to reduce the risk of developing Tuberculosis (TB) by about 60% and prolong survival among HIV positive individuals who successfully complete Tuberculosis treatment. The Eswatini Ministry of Health adopted TPT into its National TB Guideline over 10 Years ago and the Military clinic started to implement TPT around the same time however, by December 2016, TPT enrolment was less than 1%.
Methodology: From January to December 2017, the military Clinic at Phocweni applied Quality Improvement (QI) Methodology to rapidly scale up TPT from 1% to 100% among HIV positive individuals completing Tuberculosis treatment. A process flow gap analysis was conducted to inform the QI interventions. TPT patient literacy and sensitization was done to enhance demand for the services, SOP's were developed, TPT patient listing and appointing was also undertaken. Health care workers were trained, Isoniazid (INH) was stocked, Data collection registers were developed, and TPT Counseling messages for HIV positive clients completing TB treatment were developed.
Results: A total of 372 patients were initiated on TB treatment from Jan - Dec 2017, and 290 (78%) were HIV positive individuals. 164 (57%) HIV positive patients completed TB treatment and were eligible for TPT and all, 164 (100%) were enrolled on TPT. 45% (73/164) were females while 55% (91/164) were males. 95% (156/164) completed the TPT course. TPT enrollment improved from 0% prior to January 2017 to 100% at end of December 2017 among HIV positive individuals completing TB treatment.
Conclusion: Application of Quality improvement methodology is effective in the rapid scale up of TPT to improve survival and reduce mortality among HIV positive individuals. QIP approaches also enhance multi-disciplinary team behaviors which is critical to ownership and sustainability of health interventions.

TUPEB064

Disseminated Kaposi's Sarcoma in an HIV-infected Pregnant Woman: A Management Dilemma: A Case Report from Case Hospital in Uganda and Implications of Care

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Case report: A 38-year-old patient, Gravida 3,(2+0) with one live child presented at 14 weeks gestation with multiple cutaneous, oral KS lesions with lymph node (LN) enlargement and oral candidiasis. She was admitted previously, five times with AIDs defining conditions related to poor ART compliance. She had received anti-retroviral therapy (ART) for over 6 years, on second line regimen: tenofovir (TDF), lamivudine (3TC) and atazanavir/ritonavir (ATVr). She presented with easy fatigability, shortness of breath, severe pallor of mucus membranes and palms with swelling of the lower limbs. Her last $CD4^+$ T-cell count was 77 cells/cm^3 and viral load of 420,734 viral copies/ml more than a year prior to admission. At admission, she was found to be anemic with a hemoglobin (Hb) level of 5.9g/dl, mean corpuscular volume (MCV) 62.20 fL with mean corpuscular Hb (MCH) 19.20 pg in congestive cardiac failure and was transfused 5 unites of whole blood. She also had renal failure and was switched to abacavir ABC-3TC-ATVr. The histopathological report confirmed KS and we commenced chemotherapy with doxorubicin for 6 cycles thrice a week after premedication. She delivered by an elective-cesarean-section at 30 weeks of gestation. The preterm baby scored an APGAR of 8/10 at birth with birth weight of 1.25 kgs, cried immediately and was started on formulae milk and nevirapine syrup. Her ART regimen was switched again as she developed severe bilirubinemia with a hepatomegaly to ABC-3TC-doultegravir (DTG) and added oral fluconazole due to the candidiasis. Her current Hb was 10 g/dl, MCV= 73 fL and MCH=21 pg and are still low. There were no current $CD4^+$ T-cell counts documented and viral load count is now undetectable at 6 months post-delivery. The mother-baby pair are doing well and the current baby's weight is 4.6 kgs.

Lessons learned: This presents a management dilemma and may lead to poor maternal or fetal outcomes with poor virological suppression compromising the quality of prevention-of- mother-to-child-transmission of HIV in routine care programs.

Significant fetal-maternal health complications with treatment challenges are a reality as demonstrated in this patient.

Next steps: Private health facilities need to follow routine HIV documentation standards in order to provide systematic data feeding into the national program as this may have been an immune reconstitution inflammatory syndrome.

TUPEB065

High Burden of Cryptococcal Antigenemia in Patients with Advanced HIV Disease in Malawi

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Background: Cryptococcal meningitis (CM) in people living with HIV (PLHIV) is associated with high mortality rates, ranging from 20%-70% in high to low-income countries. The World Health Organization (WHO) recommends screening PLHIV for cryptoccoocal antigen (CrAg) to detect and treat early cryptococcal infection. We are conducting a pilot study to determine the feasibility of CrAg screening and the prevalence of CrAg at five facilities in Malawi.

Methods: Consenting participants are being enrolled at 2 primary, 2 secondary, and 1 tertiary health care facility. The target population consists of ART-naïve patients newly diagnosed with HIV, ART defaulters, and ART treatment failures (suspected or confirmed) attending HIV testing services (HTS) and outpatient departments (OPD). Enrolled patients receive CD4 testing and those with CD4< 200 cells/ µL and/or WHO stage 3-4 received point-of-care whole blood CrAg testing.

Results: From August 2018-May 2019, 2152 patients have been enrolled, of which 1488 (69.1%) were new HIV+, 453 (21.1%) were treatment failures, and 211 (9.8%) were defaulters. Overall, 988 (45.9%) of enrolled patients have had advanced HIV disease by either CD4 or WHO clinical stage. Notably, 425 (58.8%) of patients with CD4 < 200cells/µL were at WHO stage 1 or 2. Of all patients with AHD, 962 (97%) received CrAg tests and 61 (6.4%) tested CrAg positive. CrAg positivity ranged from 3.9 - 18.8% across facilities. Among all CrAg-positives, 31 (51.7%) were ART-experienced.

Conclusion: A CrAg screening program is feasible within the Malawi HIV Program. The use of CD4 has allowed for the identification of patients and CrAg testing of PLHIV with advanced HIV disease who appeared healthy or only mildly ill (WHO stage 1 or 2). Testing of PLHIV who have defaulted ART or who have treatment failure has led to the identification of the majority of CrAg-positive patients.

TUPEB066

Facteurs Associés à la Rétention à 12 Mois chez les Personnes Vivant avec le VIH (PVVIH) sous Traitement Antirétroviral (TAR) au Sénégal

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Contexte: Dans un contexte de «Fast Track» pour l'atteinte de la cible des 90-90-90, le maintien des patients sous TAR dans le circuit des soins est essentiel pour améliorer la qualité de vie des patients, réduire la morbi-mortalité liée au VIH et stopper la transmission dans la communauté.
Objectifs: L'objectif de cette étude était d'estimer le taux de rétention à 12 mois chez les PVVIH au Sénégal, et d'identifier les facteurs associés à la rétention dans les soins. 3.
Méthodes: Il s'agit d'une étude de cohorte, descriptive et analytique sur la rétention à 12 mois chez les patients nouvellement traités en 2017. Les données suivantes étaient recueillies : âge, sexe, stade OMS, type de VIH, prophylaxie INH, LTCD4+ initiaux, dates de décès, d'initiation du TAR et de dernières nouvelles ou dernier contact. Une analyse multivariée par régression de Cox avec les variables explicatives associées à la rétention avec une significativité $\leq 0,05$ a été réalisée pour identifier les facteurs associés à la rétention à 12 mois.
Résultats: Au total, 4 497 patients ont été inclus dans l'étude et étaient majoritairement infectés par le VIH-1 (88,3%) avec une prédominance féminine (66,8%). L'âge médian était de 38 ans avec un IIQ [29-49]. Environ près d'un tiers (34,6%) ont été diagnostiqués aux stades 3 ou 4 de l'OMS. Parmi les patients ayant initié le TAR, 8,8% étaient décédés et 11,8% perdus de vue à la date de point. Le taux de rétention à 12 mois sous TAR était de 79,5% IC 95% [78,3-80,6]. En analyse multivariée, les facteurs associés de manière significative à la rétention à 12 mois étaient l'absence de prophylaxie à l'INH (HRa=0,43 [0,33-0,57] p< 0,0001), le diagnostic et la prise en charge du VIH à un stade avancé (HRa= 1,60 [1,41-1,82] p< 0,0001) et l'âge supérieur à 38 ans au début du traitement antirétroviral (HRa= 1,17 [1,02-1,33] p=0,02). La prophylaxie à l'INH réduirait de 57% le risque d'attrition à 12 mois de suivi sous TARV.
Conclusions: Le dépistage, la prise en charge précoce du VIH et la prophylaxie à l'INH sont des facteurs associés à une bonne rétention à 12 mois de traitement antirétroviral. Pour améliorer la rétention des patients dans les soins, il est indispensable de systématiser l'utilisation de stratégies innovantes de dépistage comme l'autotest et de contrôler le strict respect des recommandations en matière de chimioprophylaxie à l'INH. Mots clés : VIH/sida, TAR, rétention à 12 mois, INH.

TUPEB067

Tuberculosis Preventive Therapy Uptake among People Living with HIV/AIDS in Northern Nigeria

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Background: Tuberculosis is the leading global killer of People Living with HIV (PLHIVs) resulting in 39,000 deaths each year in Nigeria. Isoniazid Preventive Therapy (IPT), the standard TB preventive therapy used in Nigeria has been shown to reduce mortality and prevent tuberculosis in PLHIV significantly. Despite efforts and strategies to scale it up in Nigeria, the process has remained very slow. This intervention set out to increase IPT uptake in 90 health facilities supported by Institute of Human Virology, Nigeria (IHVN) in four states while monitoring the trends in IPT utilization in a bid to increase access among PLHIVs.
Methods: A monitoring intervention tool was developed to track clinic attendance, eligibility status and percentage uptake of Isoniazid (INH) among PLHIVs from October 2017 to March 2019. Facilities with low INH uptake [AY1] were evaluated and identified reasons for low coverage include: stock out of INH, documentation gaps and poor clinician awareness. Challenge-specific interventions such as folder tagging and electronic prompts of eligible clients prior to clinic visits, clinician sensitizations and active tracking of eligible clients were implemented. Data was collected over an 18-month period, from October 2017 to March 2019. Analysis was done using Excel and STATA.
Results: Pre-intervention (October 2017 -Feb 2018) only 1924 patients were placed on INH. Interventions were instituted in March 2018. Within 6 months post-intervention (March 2018-August 2018) a total number 18,367 patients were commenced on INH. This was followed by a sudden decline in October 2018 due to stock out of INH. Remedial stock re-distribution resulted in a steady increase on INH uptake and a total number of 43,075 patients commenced INH within the review period.
Conclusions and Recommendations: Capacity building of health care workers, proper documentation, availability of INH and use of electronic prompts of eligible clients for IPT resulted in marked improvements in TPT uptake. However there is need to strengthen the drug logistics for optimal IPT uptake among PLHIVs.

TUPEB068

Awareness and Uptake of Hepatitis B Vaccination among HIV Positive Patients Attending the HIV Clinic at Garki Hospital, Abuja, Nigeria

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Issues: Studies, show that approximately 10% of Human immunodeficiency Virus(HIV) infected populations are co-infected with the Hepatitis B virus(HBV). In areas where both infections are prevalent, such as Sub-Saharan Africa, Co-infection is said to be as high as 25%.
Although the WHO recommends the HBV Vaccine for HIV positive individuals, Actual uptake of vaccination among this population in Nigeria, is suspected to be low. This Study aims to ascertain the awareness about, testing for and uptake of HBV vaccination among HIV positive patients attending the HIV Clinic at a secondary health centre in Abuja, Nigeria.
Descriptions: This was a cross-sectional study carried out using a semi-structured questionnaire on 323 HIV positive patients attending the HIV Clinic in Garki Hospital between August and November, 2018. The gender break down of which came to 205 female and 118 male participants respectively.
Lessons learned: Out of a total of 323 patients who participated in the study, 81% of the respondents had heard about Hepatitis B virus, 56.5% had heard about the HBV Vaccine but only 20% of them reported having gotten at least 1 dose of the HBV vaccine with most of them stating never having heard of the vaccine as the reason for not being vaccinated.
Although approximately 81% of respondents said they had heard about the HBV virus, a fewer number had heard about the vaccine and fewer still had taken at least one dose of the vaccination.
There was also a significant association between factors like level of education, gender and uptake of the HBV vaccine.
Our study has gone on to show that there is a severe knowledge deficit regarding the hepatitis B vaccine and it's importance among HIV positive patients in Nigeria. There is also an alarmingly low level of uptake of the vaccine in this population.
Next steps: More work, therefore needs to be done, regarding sensitization, uptake of vaccination as well as follow-up to ensure proper vaccination procedures and sero-conversion confirmation.
Therefore, it is highly recommended that the government, as well as other well meaning HIV care groups, pay attention to the area of sensitization as regarding the vaccination of HIV positive patients, as well as providing vaccines at a cost that this high risk group can afford with the eventual aim of reducing morbidity and mortality as well as the cost of healthcare in this group.

TUPEB069

Evaluation of Performances of a Rapid Diagnostic Test for Detection of Hepatitis C Antibodies (HCVAb) at Laquintinie Hospital Douala, Cameroon

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Background: In Cameroon the prevalence of hepatitis C varies from region to region. To ensure safe blood transfusion prompts a meticulous screening of viral infections such as hepatitis C among donors. In low and middle income countries especially in community area, rapids diagnostics test are commonly used for that purpose. The objective of this study was to evaluate performances of diaspot-AcHCV, a rapid diagnostic test usually used for the qualitative detection of Hepatitis C antibodies.
Methods: A cross-sectional and prospective study was undertaken at the blood bank of Laquintinie during six months from October 2018 to march, 2019. Hepatitis C antibodies detection was performed on blood of each donor by 2 techniques: immunonographic- Diaspot®-HCVAb and ELISA-Fortress (Gold standard). Comparison of categorical variables was performed by Epi info 7.0 using a X2 test and for $p< 0.05$, the difference was considered as statistically significant.
Results: Out of 3442 blood donors ignoring their HCVAb status, men were predominant compared to women (93% vs 7%) and the mean age was 49.5(1.9 years (min:17 ; max :68). The prevalence of HCVAb by Diaspot®-HCVAb was 4.3 % (147/3442) and 2.5% (86/3442) by FORTRESS-ELISA. Diaspot®-HCVAb performances were: sensitivity 54.65%(47/86), specificity 98,54%(3256/3356), positive predictive value 31.97% (47/147), negative predictive value 98.81%(3256/3295), accuracy 95.96 % (3303/3442).
Conclusions: This study revealed the low performance of Diaspot®-HCVAb used for the screening of hepatitis C antibo in our context. In addition, Diaspot®-HCVAb test gives false positives results (1.8%). A local technical evaluation must be always done prior the use as far as rapid diagnostic tests (RDT) concern.
Keywords: Rapid diagnostic tests, performances, Hepatitis C antibodies (HCVAb).

TUPEB070

Dépister et Traiter dans l´Urgence l´Hépatite B chez la Femme Enceinte Séropositive et chez les Adolescents Infectés afin de Prévenir la Survenue de Complication et du Cancer: Succes et Doutes

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Questions: Près de 30% des personnes vivant avec le VIH, vivent avec un ou des virus des hépatites. En s'attaquant au foie, ces virus complexifient le traitement et la prise en charge des maladies. Le foie assure de multiples fonctions indispensables à notre organisme: il permet le passage des éléments nutritifs et des médicaments dans la circulation sanguine, il stocke l'énergie et la libère selon nos besoins. C'est également un filtre qui élimine les déchets du sang. Enfin, il produit des éléments essentiels au bon fonctionnement de notre système immunitaire et à la coagulation du sang. C'est donc un organe essentiel et vital
Comment susciter l´intérêt du dépistage précoce, de la prévention ,de la vaccination et du traitement pour prévenir les complications et la survenue du cancer? Telles sont les questions que le projet Yelen que finance SIDACTION au Centre SAS cherche à résoudre.
Description: Une ligne budgétaire du projet a été prévue pour effectuer le dépistage des usagers et ou patients infectés par le VIH et déjà suivie. Les femmes enceintes ont été priorisés afin de réduire le risque de contamination des bébés car le dispositif en matière de vaccination ne prévoit pas de vaccin contre l´hépatite dans les 10 premiers jours de vie du nourrisson. Les personnes identifiées ont été dépistés systématiquement dans un laboratoire de la place. Les positifs ont été pris en charge tandis que les négatifs ont été vaccinés. La cible du projet composés d´adolescents infectés , de femmes allaitantes et de femmes enceintes ont été toute sensibilisés aux façons d´éviter la maladie.
Leçons Apprises: L´ensemble du personnel ont été formés par un médecin spécialiste du centre national de transfusion sanguine. SUR 152 personnes identifiées, 110 ont été dépistés soit 72% parmi lesquelles on trouve 38 femmes enceintes, 37 adolescents et 35 femmes allaitantes. 2 positifs ont été identifiés dont 1 chez les adolescents. Les négatifs ont été tous vaccinés. On note également une meilleure connaissance des facteurs de contamination chez près de 1100 bénéficiaires du projet .
Prochaines Étapes: Étendre la sensibilisation à l´ensemble de la file active du centre qui estimé à 2019 patients. Proposer le dépistage à 500 personnes dont 200 femmes enceintes et 150 adolescents.

TUPEB071

Prevalence of Hepatic Steatosis in Individual Living with HIV Mono-infection or Genotype 4 HCV Co-infection as Measured by Controlled Attenuation Parameter: An Egyptian Cross-sectional Study

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Background: Egypt has a low prevalence of HIV in the general population about 0.01% with 25.5% the estimated prevalence of HCV co-infection. With the growing evidence on the accelerated development of hepatic fibrosis in co-infected patients, there is no data about the prevalence of hepatic steatosis (HS) in people living with HIV (PLHIV) either HIV mono-infected or HCV co-infected. The aim of this study was to assess the prevalence of HS and to determine the associated factors in PLHIV.
Methods: In this cross-sectional study conducted between May 2017 and January 2019, a total of 97 individuals living with HIV mono-infection or genotype 4 HCV/HIV co-infection attending Imbaba Fevers Hospital, Cairo, were subjected to transient elastography and controlled attenuation parameter (CAP) measurements using a FibroScan 502 equipment (Echosens, France). After signing informed consent, demographics, body mass index (BMI), measurements of liver function, HIV viral load, CD4+ cell counts, and data on antiretroviral therapy (ART) were collected. All patients received emtricitabine/tenofovir plus efavirenz for ≥ 6 months. HS was defined as CAP measurement >238 dB/m (≥ S1), and severe HS as CAP measurement >260 dB/m (≥ S2). Significant hepatic fibrosis was defined as liver stiffness measurement (LSM) >7.1kPa (≥F2).
Results: The Mean age was 35.7±9.5 years, 72 were males (74.23%), 41% reported intravenous drug use and 50 patients (51.45 %) had genotype 4 HCV co-infection. The mean CAP reading was 212.01± 45 dB/m. HS was identified in 35 patients (36.08%) and 15 had significant steatosis (15.46%). The mean LSM was 5.6 ± 2.6 kPa and 15.46% had significant liver fibrosis. HCV co-infection was an independent risk factor for significant hepatic fibrosis but not for significant HS (p=0.01 vs p=0.3). Longer duration of ART and higher BMI was independently associated with significant HS (p< 0.01). Plotting those with HIV mono-infection vs. those with HCV co-infection showed that co-infected patients were more frequently males and drug users and had higher LSM (5.45 vs.4.8 KPa) (All p < 0.01). Both groups were comparable regarding age, BMI, CAP score, CD4 count, the distribution of different steatosis stages and duration of ART (All p >0.1).
Conclusions and Recommendations: Our findings reflect s that in contrast to higher BMI, HCV co-infection was not associated with more advanced HS in PLHIV. The strongest independent covariate for advanced HS was the longer duration of ART.

TUPEB073

Hepatitis B Virus Carriage in Children Born from HIV-Seropositive Mothers in Senegal: The Need of Birth-dose HBV Vaccination

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Background: Hepatitis B is a major public health problem in Senegal, a country with high prevalence and a transmission occurring mainly during infancy. Only, one 6-8 weeks vaccination campaign was initiated in 2005 and it was part of the expanded program of immunization. The aim of this study was to determine the prevalence of HBsAg in children born from HIV-seropositive mothers using dried blood specimens.
Methods: Specimens were collected between July 2007 and November 2012 from children aged 2-48 weeks in Dakar and decentralized sites working on HIV mother-tochild transmission prevention. HBsAg detection was performed using Architect HBsAg Qualitative II kit (Abbott Diagnostics, Ireland) and for all reactive samples confirmation was done using Architect HBsAg Qualitative II Confirmatory kit (Abbott Diagnostics, Ireland).
Results: Nine hundred thirty samples were collected throughout the country with 66% out of Dakar, the capital city. The median age was 20 weeks and 88% of children were less than 1 year of age with a sex ratio of 1.27 in favor of boys. HBsAg was detected in 28 cases giving a global prevalence of 3%. According to age, HBsAg prevalences were 5.1% for children less than 6 weeks, 4.1% and 4.6%, respectively, for those aged 12-18 weeks and 18-24 weeks of age. The HIV prevalence was 2.6% with no HIV/HBV co-infection.
Conclusions and Recommendations: This study showed a high rate of HBV infection in children under 24 months, confirming again the relevance of birth-dose HBV vaccination needed and recently implemented in Senegal as recommended by WHO in order to achieve in Sub-Saharan Africa the elimination goals such as prevention of new infections, the diagnosis and treatment of hepatitis B infected children.
Keywords: HBsAg; infants; dried blood specimens; Senegal; immunization.

TUPEB074

The Prevalence of Hepatitis B Virus Seromarkers in Patients with HIV/HCV Co-infection. An Egyptian Cross-sectional Study

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Background: Because of their overlap in transmission routes, individuals with predisposing risk behaviours are at risk of co-occurrence of HIV, HBV and HCV. This modifies the outcome of each infection alone and leads to significant morbidity. Studies show that occult HBV infection is relatively common among HIV patients. The aim of our study was to estimate the prevalence of HBV serological markers, HBsAg and HBcAb total, among HIV/HCV coinfected patients in Egypt.
Methods: This is a pilot cross-sectional study conducted in Imbaba Fever hospital, Cairo, over the period between November 2018 and May 2019. It included 131 patients with confirmed HIV/HCV co-infection presenting to the HIV/HCV co-infection clinic to start HCV treatment with direct-acting antivirals (DAAs). Demographic, clinical and laboratory data were collected and all patients signed an informed consent to use their data anonymously. Enrolled patients were screened for HBc Ab total and HBs Ag using Enzyme Linked Immunosorbent Assay (ELISA).Chi-square test and Student t- test were used to compare categorical and continuous variables.
Results: A total of 131 samples were analyzed, 89 (67.9 %) were found to have isolated anti-HBc and five (3.8%) with both anti-HBc and HBs Ag. The mean age of the patients was 35 years,95% were males. 86.3%(n=113) gave history of intravenous drug use amongst whom 78(69%) were positive for HBcAb total and four (3.5%)positive for both HBc Ab and HBs Ag .Only 15 individuals reported risky sexual behavior(11.5%), one of them was positive for both tests(6.7%) and 11 had isolated HBcAb seropositivity(73.3%).The mean HCV viral load 4,038,433 copies/ml.The mean CD4 T-cell count was 467.38/mm^3, the mean HIV viral load 94,560.46 copies/ml, the mean time since HIV diagnosis was 1.5 years and 49.6%(n=65) were receiving antiretroviral therapy.However there was no significant association between any of these clinical , virological/immunolgical varibles and the studied HBV serological markers.
Conclusions and Recommendations: The prevalence of Isolated HBcAb among this subgroup was high. The presence of which may denote occult HBV infection and risk of HBV reactivation. HBV infection is particularly relevant in the HIV/HCV co infection group and we recommend screening for HbcAb total alongside other HBV markers as a routine.

TUPEB075

Discordancy between CD4 Count and CD4 Percentage as a Predictor of Significant Hepatic Fibrosis in HIV/HCV Coinfected Patients: An Egyptian Cross-sectional Study

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Background: The CD4 count and CD4 percentage (CD4%)are both imporatant predictors of HIV disease progression and treatment outcomes.Although patients may show discordant relationship between their CD4 count and CD4%,the clinical relevance of this is unclear.The aim of this study was to evaluate the prevalence of discordance between CD4 count and CD4% and the degree of discordance as a predictor of significant hepatic fibrosis in HIV/HCV-coinfected patients.

Methods: This is a cross sectional study conducted on 131 patients with confirmed HIV/HCV co-infection attending Imbaba Fever Hospital,Cairo, over the period between November 2018 and May 2019. Patients were subjected to demographic, clinical, laboratory assessment and liver stiffness measurement by using transient elastography(TE).Low and high discordance between CD4 count and CD4 % was defined as CD4 cell percentages that differed from the expected CD4 %, given the observed absolute CD4 count, by ±7 percentage points; we defined very low and very high discordance as differences of ±14 percentage points.Degree of discordance was defined as the CD4 percentage points above or below the expected CD4%for a corresponding CD4 count. Fibrosis biomarkers (APRI and FIB-4 scores) were calculated.The ROC curves were used to analyze the diagnostic accuracy of discordance degree for prediction of significant hepatic fibrosis in comparison with APRI and FIB-4 scores.

Results: Out of 131 patients who were enrolled, 95 % were males.The mean age was 35 years. Low/vey low discordance was seen in 55 % (n =72), high/very high discordance was seen in 6.9% (n = 9) and 38% (n = 50) had concordant values.Forty % of patients had significant liver fibrosis (≥ F2)as evident by TE.Low/vey low discordance was associated with significant liver fibrosis (p value < 0.001).The degree of discordance had area under ROC curve(AUROC)of 0.906 (95% CI: 0.849-0.963) with best cut off 1.55 percentage points below the expected CD4%at which sensitivity and specificity were 94.83%and 71.88% respectively;compared with APRI that showed AUROC curve of 0.837 (95% CI: 0.765 -0.908) and FIB-4 that had AUROC of 0.744 (95% CI: 0.658-0.830).

Conclusions and Recommendations: Discordance between absolute CD4 count and CD4 percentage is common in HIV/HCVcoinfected patients and is associated with significant hepatic fibrosis. we recommend the use of the discordance degree as part of routine evaluation in those patients to exclude advanced liver fibrosis.

TUPEB076

Collaboration for Hepatitis C Treatment Simplification in Rwanda: The SHARED Study

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Background: Sub-Saharan Africa (SSA) counts more than 11 million people infected with hepatitis C virus (HCV), of whom only 2.2% have been treated. In Rwanda, 140,000 people are estimated to have HCV infection, and simplified treatment regimens are needed to support HCV program scale-up. We studied the safety and effectiveness of DAA regimen and simplified laboratory protocols through the SHARED study (Simplifying Hepatitis C Antiviral Therapy in Rwanda for Elsewhere in the Developing World). This collaborative effort involved program leaders, researchers and physicians from the Rwandan Ministry of Health, academic institutions, and implementing partners.
Methods: This study took place at the Rwanda Military Hospital in Kigali- Rwanda where we prospectively assessed the safety and efficacy of 12 weeks of treatment with ledipasvir/sofosbuvir (LDV/SOF) (90mg/400mg fixed-dose combination) among 300 Rwandans with HCV genotypes 1 and/or 4. Exclusion criteria included decompensated cirrhosis, hepatitis B co-infection, and uncontrolled HIV. Primary safety and tolerability outcomes were proportion with grade 3/4 adverse events (AEs) and premature study drug discontinuation due to an AE. We used Abbott platforms to determine HCV viral load and GT and sequence-based BLAST analyses to determine HCV subtype. Nested within the study, 60 participants were enrolled into a limited laboratory-monitoring arm (SHARED 2), where on-treatment lab results were blinded to study clinicians.
Results: Overall, 62% (186/300) were women and 10% (29/300) were HIV co-infected. In total, 261 participants (87%) achieved SVR12. Genotype subtype 4r was significantly associated with lower response rate ($p < 0.001$). There were no drug-related serious adverse events or treatment discontinuations in the SHARED 1 or SHARED 2 groups, and treatment efficacy did not differ between both groups. Self-reported adherence by pill count was >98%.
Conclusions: The DAA regimen and limited laboratory monitoring protocol utilized in this study were safe and effective. Ongoing efforts in treatment simplification, expanding training and task shifting, increased screening and case finding, and strong advocacy to reduce the cost of essential commodities will increase access to HCV treatment in Rwanda. Future research will assess the safety and effectiveness of pangenotypic regimens in this population.

TUPEB077

Contribution du GeneXpert dans le Diagnostic de la Tuberculose en Milieu Décentralisé: Exemple de l'Etablissement Publique de Santé (EPS) de la Paix de Ziguinchor (Sénégal)

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Introduction: Le GeneXpert MTB / RIF (Xpert) a permis un diagnostic précis et rapide de la tuberculose active**.** Trente-deux mois après sa mise en place dans notre structure, nous avons réalisé ce travail pour apprécier sa rentabilité sur les prélèvements provenant de toute la zone sud du Sénégal.
Méthodes: Nous avons mené une étude rétrospective sur les résultats du GeneXpert réalisés sur les prélèvements pulmonaires extra pulmonaires soumis au laboratoire de mycobactériologie du service d'Avril 2015 au 30 Novembre 2017.
Résultats: Durant cette période, 1206 GeneXpert ont été réalisés. La majeure partie des prélèvements reçus par le laboratoire étaient d'origine pulmonaire avec un total de 883, contre 256 pour les prélèvements extra pulmonaires. Le Genexpert était positif dans 34,31 % (n = 303) des prélèvements pulmonaires et dans 18,36 % (n = 47) des prélèvements extra pulmonaires. Le test était positif pour 17/104 liquides de ponction pleurale, pour 21/41 prélèvements de pus, 1/23 LCR, 4/4 liquides de ponction ganglionnaires, 0/3 liquides de ponction péricardique et 6/78 liquides de ponction d'ascite. Le taux de résistance à la rifampicine était de 6,6% (n=20). Une co-infection TB/VIH était retrouvée chez 125 patients. Pour ces malades, le GeneXpert était revenu positif 38/94 dans les expectorations, 11/21 dans les aspirations gastriques, 1fois/8 dans les liquides séreux, 1 fois/6 dans le LCR, 2 fois/4 dans le pus. Le sexe ratio est de 1,43 et la moyenne d'âge était de 44.13 ± 17.43 ans avec des extrêmes allant de 15 à 96 ans. Les principaux motifs de prescription étaient : toux chronique 72,2% (n=870), cas de rechute 5,8% (n=70), contrôle de traitement 3,3% (n=40).
Conclusion: Le geneXpert reste un outil particulièrement rentable dans le diagnostic de la tuberculose pulmonaire et du dépistage précoce de la résistance à la Rifampicine.

TUPEB078

Routine Point-of-Care HIV Testing at Birth: Results from Pilot in Eswatini

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Background: The WHO recommends early testing of HIV-exposed infants (HEI), rapid return of results, and prompt treatment initiation among HIV-positive infants. Eswatini introduced point-of-care (POC) Birth Testing (BT) at three high volume maternity sites. BT was offered to all HEI born at, or presenting to, maternities within 3-days of birth. National guidance indicates that infants testing negative return for 6-8 weeks' test; HIV-infected infants start NVP-based regimens immediately and return at 14-days to begin LPV/r. We analysed data from Eswatini to assess the BT cascade.
Methods: Prospective data were collected on tests occurring 1 Aug 2017-30 Nov 2018. Variables included number and percentage (%) of HEI birth tested, turnaround time (TAT) from sample collection to results receipt, positivity, % of infected infants ART-initiated, TAT from sample collection to treatment initiation, and % of infants testing negative re-tested at 6-8 weeks. Data were also abstracted from facility-based medical databases to assess 6-months retention among infants testing HIV+ at birth.
Results: Of 4,322 eligible HEI, 3,309 (76.6%) received a birth test 3,177 (89.1%]) tested either positive or negative and 3,114 (98.0%) results reached the caregiver. Median TAT from sample collection to caregiver receipt was 0 days (range 0-31; IQR 0-0). Twenty-six HIV-infected infants were identified (yield = 0.8%), 25 initiated on treatment (96.1%); six on day 14 after diagnosis, nine at 15-30 days, six at 30-60 days and four after 60 days. One infant died after diagnosis, but prior to initiation. The median time from sample collection to treatment initiation was 25 days (range 8-228; IQR 17-45). Of children initiated on treatment, 96% (n=24) were initiated LPV/r-based regimen and 4.0% (n=1) on NVP-based regimen. Twenty-two (88%) ART-initiated infants were still on ART six months out, whilst 3 (12%) were LTFU by 3 months' post-initiation. Out of 3,125 HEI testing negative at birth, 2,676 (85.6%) re-tested at 6-8 weeks.
Conclusions and Recommendations: BT is feasible in this setting. However, not all eligible infants were tested, possibly due to staff shortages at night and on weekends or queues for platform. Treatment initiation within recommended timeframes was challenging; caregivers wanted to consult male family members. Majority of HIV+ infants were initiated on LPV/r-based regimen suggesting policymakers consider new formulations to use at birth, or better linkage to early ART.

TUPEB079

Diagnostic de la Tuberculose chez les Patients Infectés par le VIH à Partir des Urines : Expérience du Centre Hospitalier de Référence Mère et Enfant de Ngaba (CHRME/NGABA) à Kinshasa/RDC

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Contexte et justificatif: Dans le monde la tuberculose (TB) est la principale infection opportuniste et la principale cause de décès chez les personnes vivant avec le VIH (PVVIH). Ces dernières ont un risque 20 - 30 fois plus élevé de développer la TB active en comparaison avec ceux qui sont VIH négatifs. L'une des grandes problématiques dans la coïnfection TB-VIH est le diagnostic de la TB chez les patients présentant une immunodépression avancée lorsqu'on sait que la production des crachats et voire la mise en évidence de bactéries deviennent difficiles.
Objectif: évaluer l´apport de la technique de diagnostic de la tuberculose chez les patients infectés par le VIH à partir des urines.
Méthodes: Etude transversale réalisée entre Mai et Novembre 2017 auprès des personnes infectées par le VIH avec une immunodépression avancée et qui étaient présumés tuberculeux. Ces patients ont été tous suivis au CHRME/NGABA de Kinshasa/RDC
Le diagnostic de la tuberculose (pulmonaire et extra pulmonaire) a été réalisé par la recherche de l´antigène bactérien le lipoarabinomannane à travers les urines (TB lam) et le Xp ert MTB/RIF à partir des crachats lorsque le prélèvement était possible.
Résultats: sur 132 patients infectés par le VIH présumés tuberculeux dont 52% référés pour une prise en charge et dans un mauvais état général, 92 étaient du sexe féminin (69,6%) et l´âge moyen était de 40,7 ans.
La détection de l´Ag Lam sur les urines était positive chez 88 patients présumés TB (66,6%) dont le taux de CD4 moyen était de 174 c/mm3 (3 - 699)
le Xpert TBM/RIF réalisé sur crachat chez les patients présumés TB dont l´Ag LAM était positif était confirmé positif dont 90% de cas (n=10) ,le seul cas (n=1) avec genexpert positif chez qui l´Ag LAM était négatif présentait une résistance à la rifampicine.
Conclusion: Le test de diagnostic TB LAM est un test très prometteur pour le diagnostic de la TB chez les patients infectés par le VIH présentant une immunodépression avancée.
Réalisé au chevet du patient, Il permet, certes, d'obtenir un diagnostic rapide de la tuberculose et aussi de démarrer rapidement le traitement antituberculeux évitant ainsi de compromettre la vie du patient.
Toutefois sa sensibilité et sa spécificité devraient être étudiées dans notre contexte.

TUPEB080

Accuracy and Usability of the Blood-based INSTI HIV Self-test in an Observed Field Study in the Republic of Congo

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Background: The HIV INSTI self-test (INSTI) result provided within 1 minute, making the INSTI the quickest rapid HIV self-test in the word. Following two field trials of the HIV INSTI self-test in South Africa, and Kenya, we opted to investigate its accuracy and its reliability in a setting with lower HIV prevalence, as well as its acceptability and ease of use by untrained volunteers in the Republic of Congo, formerly Congo-Brazzaville.

Methods: This was a prospective and cross-sectional observational field study of the INSTI self-test in April-May 2018 at the Clinique de la Fondation Marie-M Gombes, in partnership with the University of Ottawa, Canada. Participants were enrolled in Pointe-Noire, Loubomo and Brazzaville. The untrained user was evaluated for process success or difficulty by a silent, non-interacting observer in the same room. Overall processes include self-test Usability, Interpretation and Comprehension. All self-test results were compared to the Vironostika HIV uniform II Ag/Ab EIA, a 4th generation ELISA test as per Congo standard HIV testing algorithm, allowing to calculate the sensitivity and specificity of INSTI.

Results: Overall 500 participants were enrolled, including 392 males and 108 females. 11 subjects (7 males, 4 females) with previously unknown HIV status had tested positive with the INSTI self-test. They were all confirmed positive with the ELISA Vironostika HIV uniform II Ag/Ab test and subsequently counselled and linked to care. All participants who tested negative with INSTI were confirmed negative by EIA. 22 subjects or 4.4% interpreted their results as invalid. All 478 participants with valid interpreted INSTI results were in 100% concordance with the Vironostika ELISA confirmatory test, INSTI Sensitivity: 100% (11/11) and INSTI Specificity: 100% (467/467). The usability survey revealed that 99% of participants found the Instructions easy to follow and the process easy to use. 100% responded they were confident to navigate through all of the steps. 100% responded positively to be linked to care in the case both the INSTI self-test and confirmatory HIV tests turned out to be positive. 100% of participants were enthusiastic and happy to use the INSTI self-test again.

Conclusions: The INSTI HIV self-test was found highly reliable and accurate. This self-test was reported easy to use by untrained Congolese volunteers. All of them were open and enthusiastic to use it again

TUPEB081

Validation du Point of Care (POC) GeneXpert dans la Quantification du VIH-1 dans l'Atteinte des 90-90-90 au Sénégal

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Dans le cadre de la mise en œuvre pour l'atteinte des trois 90, l'introduction des POC pourrait améliorer les délais d'exécution et, de rendu des résultats de la charge virale (CV) du VIH. Leur utilisation apparait comme une stratégie complémentaire au système conventionnel existant. Cependant du fait de la grande variabilité des souches virales, une évaluation de leurs performances est souvent nécessaire afin de garantir la qualité des résultats. L´objectif de cette étude était d´évaluer les performances du test Xpert® HIV-1 Viral Load (Cepheid) avec le test Abbott HIV-1 Real Time® Assay (Abbott) pris comme référence.

Méthodes: La performance du test Xpert® HIV-1 Viral Load a été évaluée sur un total de 200 échantillons, dont 100 plasmas choisis rétrospectivement dans une biobanque avec une CV mesurée par la technologie de Abbott et 100 autres échantillons de sang total prélevés de manière prospective dans 7 structures de santé de Dakar, Sénégal. La charge virale a été effectuée simultanément avec les 2 tests. L'analyse des résultats a été faite après une conversion logarithmique (log_{10}) des valeurs de CV, puis un calcul de la différence de log (D-log). Une valeur de D-log supérieure à 0,5 était considérée comme significative. Les performances ont également été évaluées par le calcul de la sensibilité (Se), la spécificité (Sp), la corrélation avec la droite de régression ainsi que la concordance par le diagramme de Bland- Altman.

Résultats: Les résultats de Xpert® HIV-1 et Abbott HIV-1 étaient disponibles pour 188 échantillons (10 résultats invalides avec test Xpert® et 02 avec le test Abbott) ; 176 résultats étaient concordants (D-Log≤0,5) et 12 résultats discordants (D-Log>0,5) avec des valeurs de charge virale >3,0 log10 copies/ml. Parmi ces derniers, 10 échantillons étaient surestimés par le test Xpert®. Une bonne corrélation (r =0,98) a été observée avec une différence moyenne de 0,00733 log_{10} copies/ml (IC 95%= 0,0019 à 0,0127). La Se et la Sp étaient respectivement de Se=93% et Sp=95% pour un seuil de détectabilité à 1,6 log10 copies/ml, et de Se=100% et Sp=98% pour un seuil à 3,0 log10 copies/ml.

Conclusions et Recommandations: Le test Xpert® HIV-1 Viral Load présente d'excellentes performances avec une tendance à surestimer la charge virale du VIH-1 en comparaison avec Abbott. C'est donc un outil prometteur pour la décentralisation de la CV du VIH-1 et l'atteinte des 3X90 dans le cadre de l'intégration TB-VIH au Sénégal.

TUPEB082

National External Quality Assessment for CD4 T Cell Testing in Support of HIV/AIDS Care in Cameroon: Lessons Learned

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Background: Running an External Quality Assessment (EQA) program is critical to the quality assurance process. In the case of EQA for CD4 enumeration, it helps to provide reliable and precise results, which are essential to evaluate disease progression and monitor effectiveness of antiretroviral therapy for HIV-infected patients.

Methods: The Chantal BIYA International Reference Center for research on prevention and management of HIV AIDS (CIRCB) as the reference laboratory, in collaboration with the International Quality Assessment and Standardization of Indicators relevant to HIV/AIDS (QASI) program, distributed panels for CD4 enumeration to 65 sites across the country. Analysis on trends and performance in pre analytic, analytic and post analytic phases was conducted.

Results: Analysis of participation and performance was carried out. From 2014 to 2018, we observed an increase in the number of participating sites from an initial 15 sites in the first session to 65 sites in the 10th session. We observed a reduction in the number of unacceptable results submitted from 50% to 10% over the evaluated period. Specific challenges included errors in pre analytic phase(17.5%), analytic phase(77.0%) and post-analytic phase(5.5%). Submissions of unacceptable results was lower in sites utilizing point-of-care instruments than those using traditional cytometry instruments.

Conclusion: In the context of an EQA program, correct practices and strategies of error prevention can reduce errors. Continued education, application of specific on-site corrective-action, and timely curative maintenance are critical to increase laboratory performance and also serve as tools to improve the clinical management of patients. This EQA program could be extended for other HIV-1 testing like viral load and early infant diagnosis point-of-care in partnership with QASI.

TUPEB083

HIV and Lifestyle Diseases

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Background: Sub Saharan Africa(SSA) is facing a rapidly growing number of people with chronic Non-Communicable Diseases (NCDs) while at the same time experiencing high death rates from infectious diseases mainly HIV/AIDS, tuberculosis(TB) and malaria. Although this region comprises 10% of the world population, it carries the highest burden of diseases in the world. It is well known that some of the infectious diseases increase the risk of certain chronic diseases and vice-versa. The study aims to explore the relationship between HIV, its treatment and Lifestyle diseases.
Methods: Meta-analysis and scientific systematic literature review. Also, I conducted individual interviews with medical personnel at KCMC referral hospital.
Results: Introduction of Antiretroviral therapy (ART) in SSA having a high prevalence of HIV has been recognized as a public health priority through reduction of its price, raised donor funding and enhanced political commitment e.g. WHO '3 by 5' initiative. This has consequently associated with an increased risk of developing metabolic syndrome. HIV has been linked with an increased risk of developing both diabetes and cardiovascular disease in women. The prevalence and incidence of gestational diabetes in pregnant women is markedly increasing in SSA compared to the industrialized world due to increased use of ART.
Conclusions and Recommendations: The impact of these co-morbidities in SSA is likely to be large. Roll-out of ART coverage within the region is an essential response to the HIV epidemic; however, it is likely to lead to a growing number of exposed women suffering adverse metabolic consequences. HIV disease requires a long-life treatment, meticulous adherence to ART and intensive clinical and laboratory monitoring. Therefore, robust and sustainable healthcare systems are needed to provide adequately trained staff, laboratory facilities and a reliable supply of effective drugs with fewer side effects.

TUPEB084

Impact des Anémies sur la Mortalité des Personnes Infectées par le VIH à N'Djaména

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Introduction: L'anémie toucherait plus de 90% des personnes infectées par le VIH. L'objectif de l'étude est d'évaluer sa gravité au sein de ces personnes hospitalisées.
Patients et Méthode: Il s´agit d´une étude prospective et descriptive réalisée de novembre 2016 à avril 2017 dans le service des Maladies Infectieuses. Etaient inclus dans cette étude tous les patients infectés par le VIH hospitalisés, âgés de 15 ans et plus, ayant un taux d'hémoglobine inférieur à 12g/dl. Les données ont été exploitées grâce aux logiciels Epidata et Epinfo.
Résultats: Au total 105 malades ont été enregistrés. Une prédominance féminine est observée avec un sex-ratio de 0,61. L´âge moyen était de 34 ans. Le taux médian d´hémoglobine était de 6,82g/dl, la valeur la plus basse était de 2,10 g/dl. L'anémie était normocytaire (61,9%), microcytaire (33,3%) et macrocytaire (4,8%).
Les pathologies les plus fréquemment associées étaient la tuberculose (20%) et les diarrhées (19%). Le médicament le plus utilisé était le cotrimoxazole (44,7%) suivi du fluconazole (35,2%).
Le taux de mortalité global était de 38,1%. Il est plus élevé pour les patients ayant un taux d'hémoglobine inférieur à 8 g/dl (OR=1,21) et ceux ayant moins de 50 cellules CD4/mm^3 (OR=5,86) par rapport aux autres patients.
Conclusion: Les anémies observées au cours de l´infection par le VIH sont généralement de type normocytaire. Elles sont de mauvais pronostic lorsque l'immunodépression est profonde. La transfusion sanguine immédiate et l´introduction rapide des antirétroviraux sont recommandées en cas d´anémie sévère.
Mots Clés: Anémie - VIH - Tchad

TUPEB085

Mental Health Screening among HIV Patients through Task Sharing Approach in Ethiopia

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Background: Globally, mental health problems are more common among people living with HIV (PLHIV) than among the general population, which affects HIV treatment adherence and retention. To address this challenge, we used a task sharing approach among lay healthcare workers (case managers (CM)) and clinicians to integrate mental health services into HIV services at pilot hospitals in the Amhara and Tigray regions of Ethiopia. In this model, lay healthcare workers proactively screened and linked potential clients to clinicians for further diagnosis and treatment.
Methods: We retrospectively analyzed secondary data, including patient demographics and diagnosis information, from PLHIV on ART or waiting to start ART who were screened for Mental Health Disorders (MHD) by CM at four hospitals (Gondar University, Dessie, Mekelle and Axum). We extracted data from quarterly reports during pilot implementation period (January 1, 2013-March 31, 2014).
Results: There were 19 CM trained to screen PLHIV for MHD and link them to clinicians for further evaluation, and 15 clinicians (86.7% were nurses) who were trained to detect and manage common MHD among PLHIV in ART clinics. During the first 3 months of implementation period of the project, which was the initial period when screened patients were not double-counted, CM screened 5862 PLHIV for MHD. Of these, 63.0% (3691) were women, and almost all (97.8%; n=5734) were adults aged ≥15 years. CM referred 687 (11.7%) patients with potential MHD to clinicians for further evaluation and management. Among the total patients screened by CM, 7.7% (454) had a confirmed diagnosis of MHD by clinicians. The reported magnitude of MHD was 6.7% and 8.3% among men and women, respectively. In later quarters, there is a decreasing trend on number of PLHIV diagnosed with MHD due to repeated screening of PLHIV every quarter to identify new instances of MHD, according to the standard operating procedure. The concordance between the CM's screening results and the clinicians' diagnoses was 67.8% during the pilot implementation period.
Conclusion and Recommendations: Routine screening of HIV-infected patients for MHD helps to proactively identify and manage patients with co-morbidities. The integration of mental health services into HIV care through a task sharing approach is a feasible strategy that could increase access to the service among HIV-infected patients in resource-limited settings.
Key words: mental health, HIV, task sharing, integration, Ethiopia, Africa.

TUPEB087

Some Possible Risk Factors of Hepatotoxicity in HIV/AIDS and TB Patients on Treatment in Fako Division, Southwest Region of Cameron

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Background: Human immunodeficiency virus/ acquired immunodeficiency syndrome (HIV/AIDS), Tuberculosis (TB), malaria and neglected tropical diseases are responsible for about 32% of the burden of ill health in Africa, and seriously impact on health outcomes in every region of the world. Hepatotoxicity is historically the 3rd most common reason for drug withdraw and toxicity related discontinuation of treatment. This was a follow-up study, which aimed at identifying possible risk factors for the development of hepatotoxicity in HIV/AIDS, HIV/TB and TB patients on treatment.
Methods: This prospective follow-up study last for 4 months (February-May 2019) in fako division, southwest region of Cameroon which involved HIV/AIDS, HIV/TB and TB patients. The levels of liver enzymes (transaminases, gamma GT, and unconjugated/total bilirubin) was measured by Spectrophotometer method using Serum extracted from 2ml of blood collected in dry tube. Hepatotoxicity induced by treatments was defined in accordance with the international consensus criteria; an increase in serum liver enzymes greater than three times the upper limit of normal levels after treatment.
Results: A total of 92 naïve HIV/AIDS and TB participants who had normal values of liver enzymes at initiation of treatment were recruited and follow-up for 1-12 weeks. On basis of gender we had more 52/92 (56.5%) of females as compared to 40/92 (43.5%) of males. We observed a very high incidence rate and incidence proportion of 17.921 cases per 1000 persons-days and 50/92 (54.4%) respectively. Also, the mean ± 1SD of age (years), BMI (kg/m^2) and Hb (g/dL) was 38.69 ± 12.39 years, 23.86 ± 4.79 and 10.42 ± 2.38 respectively. The time of hepatotoxicity onset was statistically significant (χ2=23.4241; p=0.00003; CI=0.05). Alcoholism was significantly associated with occurrence of hepatotoxicity (χ2=3.8446; p=0.04 CI=0.05) while Age, Gender, and opportunistic infection were not.
Conclusions and Recommendations: The occurrences of hepatotoxicity in HIV/AIDS, HIV/TB patients and TB on treatment is becoming frequently common and its association with alcoholism, implies patient's life style should be closely monitored especially those taking these treatments. With such a high incidence it will be good the patient´s liver function test and their metabolic capacity are done before the initiation of treatment.
Keywords: HIV/AIDS; Tuberculosis; Alcoholism; Hepatotoxicity.

TUPEB088

Anxiety and Depression among HIV Patients of the Infectious Disease Department of Conakry University Hospital in 2018

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Background: Anxiety and depression continue to be significant comorbidities for people with Human Immunodeficiency Virus infection. The aim of this study was to determine the prevalence of anxiety and depression disorder among HIV patients.
Methods: In this cross-sectional study, we described Socio-demographic, clinical and psychosocial variables related to anxiety and depression in HIV[l1] patients of the University Teaching Hospital, Conakry, Guinea. The Hospital Anxiety and Depression Scale (HADS) was used for measuring depression and anxiety in the prior month. An 8+ cut-off was used to identify possible cases of anxiety and depression. Multiple logistic regression analyses were performed to identify factors associated with symptoms of anxiety and depression.
Results: The prevalence of anxiety and depressive symptoms among HIV-infected patients was 13.8% and 16.9%, respectively. Multivariate analysis showed that individual having BMI ≤18 (AOR = 3.62, 95 % CI (1.37, 9.57)) and who did not receive ART (AOR = 18.93, 95 % CI (1.88, 188.81)) were significantly associated with depression. Similarly, having age < 40 years (AOR = 2.81, 95 % CI (1.04, 7.58)) was also significantly associated with anxiety.
Conclusion: Prevalence of symptoms of anxiety and depression is high in this HIV patients. Social-demographic and clinical factors, rather than HIV disease status, were associated with risk of depression and anxiety. Ministry of health should give training on how to screen anxiety and depression among HIV patients and should develop guidelines to screen and treat depression and anxiety among HIV patients.
Keywords: Depression, Anxiety, HIV/AIDS, Guinea

TUPEB089

Cortisol and Thyroid Hormone Levels in HIV Positive Patients in Etinan L.G.A., Akwa Ibom State

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Background: Endocrine alterations are associated with early and late phases of HIV infection. This study was conducted to determine the serum levels of cortisol and thyroid hormone in HIV-infected patients.
Methods: In this study, levels of CD4, cortisol & thyroid hormones were estimated in 182 people living with HIV and 60 age/sex-matched apparently healthy and HIV sero-negative volunteers (control group). CD4, cortisol, and thyroid hormone levels were determined in participants using enzyme-linked immunosorbent assay
Results: This study showed that the mean CD4 count (823.5±220.19cells/mm^3) and T4 (6.42±1.94mg/dL) levels of HIV sero-positive participants were significantly lower (p=0.0001) than the mean CD4 count (520.3±308.30cells/mm^3) and T4 (9.99±2.91mg/dL) levels of HIV sero-negative participants. On the contrary, the mean cortisol (226.6±145.25ng/ml) and TSH (5.75±6.89mU/L) levels of HIV positive subjects were significantly higher (p=0.0001) than the mean cortisol (126.5±66.81ng/ml) and TSH (0.61±0.73mU/L) levels in HIV sero-negative participants. The comparison of CD4, cortisol, TSH, & T4 levels in HIV sero-positive HAART-naive participants, HIV sero-positive participants on ART, and HIV sero-negative participants showed that the mean CD4 count was significantly higher (p=0.0001) in HIV sero-negative participants (823.5±220.19cells/mm^3) when compared with those of HIV sero-positive HAART-naive participants (610.1±322.55cells/mm^3). Mean cortisol (242.1±159.25ng/ml) of HIV sero-positive participants on ART and HIV sero-positive HAART-naive participants (203.7±119.00 ng/ml) was significantly higher (p = 0.0001) than that of HIV sero-negative participants (126.5±66.81ng/ml). Mean TSH (5.29±5.83mU/L) of HIV sero-positive participants on ART and HIV sero-positive HAART-naive participants (6.44±8.21mU/L) was significantly higher (p=0.0001) than that of HIV sero-negative participants (0.61±0.73mU/L). Mean T4 level in HIV sero-negative participants was significantly higher (p=0.0001) than that of HIV sero-positive participants on ART (6.47±1.86mg/dL) and HIV sero-positive HAART-naive participants (6.34±2.07mg/dL).
Conclusions and Recommendations: There is need for replication of these outcomes in other large longitudinal studies so as to substantiate the evidence of endocrine dysfunction and the effect of hormone replacement therapy in persons living with HIV so as to ameliorate the quality of life and drastically reduce mortality of these individuals.

TUPEB090

Rwandan Young Medical Students' Approach to Integrate HIV Care with Emerging Comorbidities and NCDs; Miraculous Weapons

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Issues: HIV/AIDS is a serious public health concern in Africa. WHO reports that In 2017, there was more than 1 million case of HIV new infection in Africa where over 600,000 people died due to AIDS related illnesses. HIV leads to immunosuppression thus making the individual prone to NCDs specifically cancers. Bearing that in mind; young medical students enrolled in Rwanda Village Community Promoters (RVCP) and Medical Students' Association of Rwanda (MEDSAR) started the HIV/AIDS Raising awareness project (HRAP) and Youth Education Activities on NCDs (YEAN) projects with the purpose of tackling the problem in the scope of Rwanda through miraculous weapons of early screening and prevention.
Descriptions: Instead of waiting for the community to come to us, we decided to reach them. The HIV/AIDS raising awareness project (RVCP) is a 2 years project of my experience executing its activities in RVCP working under the auspices of University of Rwanda. Structurally, we prepared weekly outreaches vulnerable communities in rural and urban settings of Rwanda (single mothers, sex workers and young adolescents) to give free and privacy based HIV tests, counseling, preventive measures including condom demonstration and contraceptives awareness as well as advocacy. To integrate it with NCDs battling, the YEAN project was started as a 2 years project by MEDSAR where medical students conduct mass screening of blood pressure, Body Mass Index and blood glucose to depict HIV-NCDs co-infection as early as possible and combat risk factors for NCDs especially in HIV positive people through monthly sport days in universities, car free days, kitchen gardens building and establishment of specific smoking areas.
Lessons learned: HRAP and YEAN projects innovatively contributed to the HIV testing and counselling policy of Rwanda Ministry of Health which reported that among female sex workers, 83% use condom and 89% did HIV free testing last 12 months. It dramatically increased hospital visits for HIV and NCDs confirmatory checkup and potentially reduced new infection.
Next steps: The significance of these projects is remarkable that young people can join hands with the world and conduct grassroots prevention of HIV and associated comorbidities. African young people are recommended to collaborate with heads of states and private sector to consider these projects involving screening and prevention and develop alike project to tackle HIV and associated co-morbidities in African countries.

TUPEB091

Prévalence des Principaux Facteurs de Risques Communs aux Maladies Non Transmissibles chez les Personnes Vivant avec le VIH et sous Traitement Antirétroviral à Bobo-Dioulasso au Burkina Faso

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Contexte: A l'instar de la population générale, les personnes vivant avec le VIH (PvVIH) au Burkina Faso sont confrontées à l'émergence des maladies non transmissibles (MNT) source d'un sur risque cardiovasculaire. La prévention et le contrôle des MNT passent par la connaissance de leurs facteurs de risque peu connus dans cette population spécifique. L'objectif de la présente étude était de déterminer la prévalence des principaux facteurs de risques communs aux MNT chez les PvVIH à Bobo-Dioulasso au Burkina Faso.

Méthodes: Une étude transversale a été réalisée de janvier à novembre 2018. Nous avons inclus les PvVIH suivies en ambulatoire à l'hôpital de jour adultes de Bobo-Dioulasso entre janvier 2007 et janvier 2017 et sous traitement antirétroviral (ARV) depuis au moins deux ans. L'échantillon a été obtenu par tirage aléatoire simple. L'instrument STEPS de l'Organisation mondiale de la santé (OMS) pour la surveillance des facteurs de risque des maladies chroniques adapté a été utilisé pour la collecte des données.

Résultats: Nous avons inclus 434 patients dont 73,2% étaient des femmes. L'âge médian des patients (intervalle inter-quartile) était de 44 (37-49) ans. Dans 46,5% des cas, les patients n'étaient pas scolarisés. Le taux médian de la dernière mesure des CD4 était de 540 (371-686) cellules/µl. La prévalence de l'hypertension artérielle, du diabète et de l'hypercholestérolémie totale était respectivement de 35,1%, 6,2% et 34.2%. La prévalence du tabagisme (fumé et non fumé) était de 4,7%. La prévalence de la consommation d'alcool au cours des 30 derniers jours était de 27,6%. Près de deux tiers (62,8%) des patients consommaient moins de cinq portions de fruits ou de légumes par jour. La prévalence de l'obésité était de 14,4%. La prévalence de l'obésité abdominale était de17,2% chez les hommes et de 75,4% chez les femmes. La prévalence de l'inactivité physique était de 41,4% chez les hommes et 28,9% chez les femmes. Le syndrome métabolique a été trouvé chez 10,4% des PvVIH. Enfin 80,9% des PvVIH avait au moins un facteur de risque commun aux MNT.

Conclusion: L'importance des facteurs de risque chez les PvVIH dans notre étude impose des stratégies de prévention des maladies non transmissibles adaptées aux PvVIH selon une approche multisectorielle lors des différents contacts avec le système de santé dans le cadre de leur prise en charge.

Mots clés : Burkina Faso, Facteurs de risque, Maladie Non Transmissible, Prévalence, PvVIH

WEPEB032

Prevalence of Hypertension and Associated Inflammatory Markers among HIV Patients in Tanzania

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Background: There still remains a dearth of data regarding the association between chronic inflammation and Hypertension (HTN)in sub-Saharan Africa (SSA) that accounts for more than 70% of the global burden of HIV infection. Therefore, we assessed the levels of biomarkers on a cohort of HIV+ individuals and its associations with HTN in Tanzania.
Methods: We conducted a cross-sectional study at the largest (patient volume) HIV clinic in Tanzania from March to May 2018. Purposive sampling was used to identify 407HIV+ patients on treatment. The World Health Organization (WHO) STEPwise approach for non-communicable disease (NCD) surveillance was used to collect data. Anthropometric measurements were collected. BPwas collected using Omron® M4-I.HTN was defined as per WHO guidelines ≥ 140/90mmHg. Enzyme-linked immunosorbent assay (ELISA) was used to test for inflammatory markers (CRP, IL-6, IL-18, sTNFR I, sTNFRII). Bivariate and multi-variate analysis was conducted to examine association between the markers and HTN. We further conducted age adjusted, age- sex adjusted and age-sex- alcohol adjusted models to control for any confounders.
Results: The prevalence of Hypertension was 63.5% (n=258). With a higher prevalence in male (71.4%) than female (61%) participants. Older participants >55 years (OR: 6.5), Overweight (OR: 2.6),obesity (OR: 2.31,) elevated waist circumference (OR 1.62 and history of alcohol consumption (OR:1.49) were significant predictors of hypertension. In the age-sex- alcohol adjusted models only being overweight (OR:2.7) was significantly associated with HTN.Comparing the highest to the lowest quartile at multivariate level, C-Reactive Protein (OR: 2.05) and Interleukin 6 (OR: 1.87) showed significant association with HTN in the age-adjusted models.
Conclusion: Our study shows that High CRP and IL-6are important contributors to the prevalence of GMD. These findings point to the importance of creating awareness, education and screening for HTN among HIV patients in high epidemic countries more rigorous studies are needed to know the exact mechanisms of inflammation in HIV patients. A lot of work needs to be done to understand the role of inflammation in HIV, associated biomarkers and the progression of cardiovascular disease

WEPEB033

Diabetes Prevalence by HbA1c and Oral Glucose Tolerance Test among HIV-infected and Uninfected Tanzanian Adults

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Background: The burden of diabetes is increasing in sub-Saharan Africa, including among people living with HIV/AIDS. We assessed the prevalence of diabetes and the roles of HIV, antiretroviral therapy (ART) and traditional risk factors among adults in Tanzania.

Methods: There were 1,947 participants: 655 HIV-uninfected, 956 HIV-infected ART-naïve, and 336 HIV-infected on ART. WHO guidelines for haemoglobin A1c (HbA1c) and oral glucose tolerance test (OGTT) were used to define diabetes and prediabetes. Risk factors were evaluated using multinomial logistic regression analysis. Relative risk ratios (RRR) were generated comparing participants with diabetes and prediabetes against the reference of those with no diabetes.

Results: Mean age was 41 (SD 12) years; 59% were women. The prevalence of diabetes was 13% by HbA1c and 6 % by OGTT, with partial overlap among participants identified by the two tests. Relative to HIV-uninfected, HIV-infected ART-naïve had increased relative risks of diabetes (HbA1c: RRR=1.95, 95% CI 1.25-3.03; OGTT: RRR=1.90, 95% CI 0.96-3.73) and prediabetes (HbA1c: RRR=2.89, 95% CI 1.93-4.34; OGTT: RRR=1.61, 95% CI 1.22-2.13). HIV-infected participants on ART showed increased risk of pre-diabetes (RRR 1.80, 95% CI 1.09, 2.94), but not diabetes. CD4 count < 200 cell/µL increased risk and physical activity decreased risk of diabetes by both HbA1c and OGTT.

Conclusion: Diabetes was prevalent, especially among HIV-infected ART-naïve adults, and ART mitigated this risk. Being more physically active was associated with lower risk of diabetes. HbA1c and OGTT identified different participants as having diabetes or prediabetes. Overall, the finding of high burden of diabetes among HIV-infected persons, both ART-naïve and ART-experienced, suggests that health systems should consider integrating diabetes screening and treatment in HIV clinics to optimize the care of HIV patients and improve their health outcomes.

WEPEB034

Subclinical Atherosclerosis among HIV-infected Adults Attending HIV/AIDS Care at the Referral Center in Abidjan, Côte d'Ivoire

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Background: Antiretroviral treatment (ART) has dramatically reduced AIDS-related morbidity and mortality. As a result, the improvement of life expectancy of HIV-infected patients has been associated with the occurrence of non-communicable diseases among which the most worrying are cardiovascular disease (CVD). In this study, we measured carotid intima media thickness (CIMT) to determine the prevalence of subclinical atherosclerosis (SA) and associated factors to inform prevention, early detection and prompt management of CVD within HIV treatment programs in Sub-Saharan Africa (SSA).
Methods: In a cross-sectional study, HIV-infected adults (ART-treated at least 6 months) were consecutively recruited at the Department of Infectious and Tropical Diseases (DITD) of Treichville university hospital, Abidjan (Ivory Coast). CIMT measurement and determination of carotid plaque presence were performed by using B-mode ultrasound. The main outcome was the proportion of patients with subclinical atherosclerosis. Univariate and multivariate logistic regressions were used to identify factors associated with subclinical atherosclerosis.
Results: Of 201 patients, mean age 48 years, 150 (74.6%) were females and 133 (66.2%) of the patients were classified as having WHO stage 3 or 4 HIV disease. A total of 130 (64.7%) patients were on first-line ART regimen and 67 (33.7 %) were on second line ART regimen. The mean CD4+ count at enrolment was 568.26 ± 286 cells/mm^3 and the mean duration on ART was 8.7 ± 4.5 years. Overall, 130/201 (64.7%) had subclinical atherosclerosis. Independent predictors of subclinical atherosclerosis included age [odds ratio (OR) 2.31; 95% confidence interval (CI) 1.12-4.83; p = 0.024], hypertension; OR 4.58; CI 1.49-20.1, p = 0.017 and duration of ART exposure; OR 2.22; CI 1.19-4.22, p = 0.013.
Conclusions and recommendations: Overall there is a high prevalence of subclinical atherosclerosis (64.7%) among HIV-infected adults in Abidjan. These findings may have broad implications for screening for subclinical atherosclerosis within HIV care and treatment programs in sub-Saharan Africa.

WEPEB035

Cancers Solides Associés à l'Infection à VIH au Centre Hospitalier-universitaire Yalgado Ouédraogo: Aspects Épidémiologiques, Cliniques, Histopathologiques et Thérapeutiques

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Contexte: Chez l'homme, plusieurs types de virus sont susceptibles de provoquer des tumeurs malignes. Ces virus incriminés ont une forte affinité avec le VIH. Ainsi, depuis le début de l'épidémie de l'infection à VIH, certains cancers ont été clairement associés au sida. L'objectif de cette étude était d'étudier les tumeurs malignes solides associées à l'infection à VIH dans le service de chirurgie viscérale du Centre Hospitalier Universitaire Yalgado OUEDRAOGO en présentant les aspects épidémiologiques, cliniques, histopathologiques et thérapeutiques en vue d'améliorer la prise en charge de ces patients.
Méthodologie: Etude transversale réalisée chez des patients adultes infectés par le VIH venus consulter en oncologie médicale ou ayant été hospitalisés dans le service de chirurgie viscérale du CHU/YO pour tumeur maligne solide du 1er janvier 2011 au 31 décembre 2013. Les données ont été saisies à l'aide d'un micro-ordinateur et analysées sur le logiciel EPI INFO dans sa version 3.5.1. Pour la comparaison de nos données le test de Chi 2 a été réalisé avec un seuil de significativité de 5% ($p< 0,05$)
Résultats: L'étude a porté sur une population de 726 patients parmi lesquels 27 (3,7%) répondaient à nos critères d'inclusion (19 femmes, 70,4% et 8 hommes 29,6%). L'âge moyen était de 44,8 ans ± 9 ans [32-73]. Les cancers classant sida représentaient 37,1% et les cancers non classant sida 62,9% de l'ensemble des cancers. Les femmes au foyer étaient les plus touchées (51,9%). Le VIH1 était le type prédominant avec 21 cas (77,8%). Le taux moyen de CD4 était de 373 cellules/µl. Les cancers du col utérin (n=10 cas), de l'œil (n=6), du sein (n=5), du colon (n=2), de la lèvre (n=2), de l'ovaire (n=1) et de la prostate (n=1) ont été retrouvés.
Quant au volet thérapeutique : 22 patients étaient sous antirétroviral, 18 patients sous chimiothérapie. Deux patients ont bénéficié chacun de la chirurgie et de l'hormonothérapie. Le taux de survie était de 70,3% au bout de 3 ans.
Conclusion: Cette étude a permis de montrer que les tumeurs malignes solides étaient une réalité au sein des patients séropositifs au VIH. Les femmes au foyer sont plus exposées et le cancer du col utérin le plus fréquent. Le dépistage du cancer du col de l'utérus chez toutes femmes infectées par le VIH doit être effective.

Mots clés: VIH - SIDA - Cancers solides - CHU/YO - Burkina Faso

WEPEB036

AIDS-defining Malignancies (ADMs) from Rwanda Cancer Registry

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Background: Rwanda has experienced under-reporting cancer cases due to there was no functional cancer registry. To address this, Rwanda has launched the National Cancer registry by the Ministry of Health through the Rwanda Biomedical Center and by funding support to Albert Einstein College of Medicine from the National Cancer Institute of the National Institutes of Health of the United States (P20 CA210284 and U54 CA 190163).This was a tool to identify the most occurring cancer in Rwanda, including AIDS-defining malignancies.

Methods: Retrospective data collection done from four hospitals in Rwanda; Butaro Hospital, Rwanda Military Hospital, Central Hospital of Kigali and Central Hospital of Butare from 2007-2018. Registrars abstracted data on all cancers and HIV status from patient files and electronic medical records in pathology, surgery, internal medicine, pediatrics, gynecology, and outpatient clinics. Abstracted cancer cases were coded and classified according to the International Classification of Diseases for Oncology 3rd edition (ICD-O-3) and entered into Canreg5 software. HIV associated cancers were then extracted and exported into excel to provide descriptive statistics.

Results: To date, a total of 15580 cancer cases have been registered; 9316 among females and 6264 among males. Of registered cases, HIV status was known for 6078 (39%) cases, 844 (5% of 15580) of which 503 females and 341 males were HIV seropositive. The most common ADMs diagnosed were 1883 (12.2%) cervical cancer, 389 (2.5%) Kaposi sarcoma (KS) and 580 (4.1%) Non-Hodgkin's lymphoma (NHL). For cervical cancer, 193 (10.2%), 800 (42.5%) and 890 (47.3%) were diagnosed in HIV+, HIV-, and HIV status unknown, respectively. For KS in men, 151 (38.8%), 34 (8.7%) and 75 (19.3%) were diagnosed in HIV+, HIV-, and HIV status unknown, respectively whereas in women, 76 (19.5%), 10 (2.6%) and 43 (11.1%) diagnosed in HIV+, HIV-, and HIV status unknown, respectively. For NHL in men, 28 (4.8 %), 105 (18.1%) and 205 (35%) were diagnosed in HIV+, HIV-, and HIV status unknown whereas in women, 26 (4.5%), 73 (12.6%) and 145(25%) diagnosed in HIV+, HIV-, and HIV status unknown, respectively.

Conclusions: Considering the results, the picture shows which ADMs are most common and the HIV unknown status gap. These data will inform cancer prevention and control policy and priorities, especially in people living with HIV, for the government of Rwanda.

Keywords: Cancer registry, AIDS-defining malignancies.

WEPEB037

Trend of the Prevalence of High-risk HPV Infection among Rwandan Women Living with HIV Over 15 Years

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Background: High-risk human papillomavirus (hrHPV) causes virtually all cervical cancer as well as most other anogenital cancers and a significant proportion of oropharyngeal cancers. Cervical cancer, an AIDS-defining malignancy, is the most common HPV-related cancer and is typically the 1st or 2nd most common female cancer in most African countries. This is due in part to the high prevalence of HIV, a strong risk factor for cervical cancer. We examined the trend of the prevalence of high-risk HPV (hrHPV) infection among Rwandan women living with HIV (WLWH) over a period of 15 years.

Methods: Prevalence of hrHPV DNA was measured at three different time periods in three different groups of women using three different but comparable hrHPV tests: RWISA, conducted in 2005, a MY09/MY11 PCR test, HPV Demonstration, conducted in 2010, used Hybrid Capture 2 (HC2), and U54, conducted 2016-18, used the Xpert HPV test. The trend of the prevalence of hrHPV infection was compared for the three studies and by age (30-34, 35-39, 40-44, 45-59 and 50-54 years) and CD4 cell count (< 200, 200-349, 350-499 and ≥500 cells/mm^3) groups.

Results: The prevalence of hrHPV for the three studies (RWISA, HPV Demonstration, and U54) decreased over time, from 42.45% to 39.16% to 26.46%, respectively (p-trend < 0.001). In all three studies, hrHPV prevalence decreased with increasing age (p-trend< 0.001 for all studies) and increasing CD4 cell count (p-trend< 0.01 for all studies). However, CD4 cell counts increased over time (p-trend < 0.001), so that the percentage of WLWH withCD4 counts of ≥500 cells/mm^3 increased from 8% in 2005, 42% in 2010, and 61% in 2019. Thus, age- and CD4 count-adjusted hrHPV prevalences were much more similar over time: 31.95% for RWISA, 37.55% for HPV Demonstration, and 27.17% for U54.

Conclusions and Recommendations: The prevalence of hrHPV among Rwandan WLWH has been decreasing over the past decade most likely due to improving HIV care and management over time. The fact that more women are of recent having higher CD4 cell counts indicates the role ART has played in improving the quality of life for people living with HIV and has had an impact on hrHPV infection and clearance. These results could give more insight to Rwandan HIV policy makers and care providers in the era when HPV testing is at the forefront of cervical cancer prevention and control.

Keywords: Trend, HPV, HIV, cervical cancer

WEPEB038

The Prevalence of Anal High-risk HPV Infection and Anal Squamous Intraepithelial Lesions among Rwandan Women Living with HIV

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Background: Women living with human immunodeficiency virus (WLWH) are at increased risk of oncogenic or high-risk human papillomavirus (hrHPV) infection. These HPV types are responsible for several malignancies, including invasive cervical cancer (ICC) and anal squamous cell carcinoma (ASCC). Women living with HIV are up to 15 times more likely to develop ASCC compared to HIV-uninfected women. Emerging data show a high prevalence of anal hrHPV infection among WLWH in middle and high-income countries, as high as 50% in select cohorts This was a small pilot study aimed at determining the prevalence of individual anal hrHPV types (16, 18, 31, 33, 35, 39, 45, 51, 52, 56, 58, 59, 66, and 68) and anal intraepithelial lesions.

Methods: We recruited **57** WLWH in a pilot study to assess point prevalence of anal hrHPV and anal squamous intraepithelial lesions (ASIL) from women participating in a cervical cancer screening study at Rwanda Military Hospital (RMH). Almost half of the women had cervical intraepithelial neoplasia grade 2 or more severe disease (CIN2+) on cervical biopsy and the rest of the women had cervical hrHPV infection as detected by the Xpert HPV platform but with pathology less than CIN2. One anal swab was collected, for both cytology and hrHPV testing. All women then underwent high resolution anoscopy (HRA) with HRA-guided anal biopsies taken on visible lesions. Cytology specimens were collected in the PreservCyt medium and transported to the RMH research laboratory for HPV testing using the AmpFire HPV genotyping assay (Atila Biosystems, Mountain View, CA, USA).

Results: Out of the 57 women recruited into the study, 55 had valid anal hrHPV results and 22 (40%) were positive for anal hrHPV. Visible lesions, mainly clinically classified as high grade SIL (HSIL), were found in 24 (42.1%) of the 57 study participants and anal biopsies were taken on them. Preliminary pathology results indicated that 12 (50%) of the biopsies taken were low grade SIL, 1 (4.2%) was HSIL and the rest were normal.

Conclusions and Recommendations: Preliminary results from our pilot study indicate a relatively high prevalence of anal hrHPV (40%) with a relatively high number of visible anal lesions (42.1%). This highlights the importance of screening for anal HPV among high risk individuals such as WLWH as well men who have sex with men (MSM) in order to prevent ASCC.

WEPEB039

Aspects Actuels du VIH / SIDA chez les Patients Âgés de 50 Ans et Plus au Centre Hospitalier Régional de Saint-Louis (Sénégal)

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Contexte: L'avènement de la trithérapie antirétrovirale a entrainé une baisse de la morbi-mortalité liée au VIH et un vieillissement de la population séropositive. Peu d'études locales se sont intéressées aux patients âgés infectés par le VIH. Notre objectif était de décrire les aspects épidémiologiques, cliniques, immuno-virologiques, thérapeutiques et évolutifs chez les PVVIH âgés de 50 ans ou plus, suivis au Centre Hospitalier Régional de Saint-Louis au Sénégal.
Méthodes: Il s'agit d'une étude rétrospective, transversale, descriptive et à visée analytique,concernant les PVVIH âgés de 50 ans ou plus suivis au Centre Hospitalier Régional de Saint-Louis. La saisie et l'analyse des données ont été effectuées grâce au logiciel Epi info7.
Résultats: Parmi les 289 PVVIH suivis dans notre cohorte en 2019, 95 patients étaient âgés de plus de 50 ans soit une prévalence de 32,9%. L'âge moyen est de 58,4±7,2 ans. On note une prédominance féminine avec un *sex ratio* (41/54) de 0,76. Ils étaient mariés dans 53 cas (55,8%), veufs dans 24 cas (25,3%), divorcés dans 15 cas (15,8%) et célibataires dans 3 cas (3,1%). Le suivi des patients a été instauré dans le cadre d'une prise en charge dans 74 cas (77,9%), d'une enquête familiale dans 16 cas (16,8%), d'une tuberculose dans 2 cas (2,1%), d'un dépistage volontaire dans 2 cas (2,1%) et un cas (1%) de prévention de la transmission mère-enfant. Les stades cliniques 3 et 4 prédominaient à l'inclusion avec respectivement 27 cas (30,7%) et 24 cas (27,3%). L'IMC moyen à l'inclusion (19,63 ±3,9Kg/m2) était inférieur à l'IMC moyen sous traitement (23,9 Kg/m2 ±4,6) sans différence significative (p=0,4). L'IMC à l'inclusion était lié au stade clinique initial (p=0,04). Le VIH-1 était prédominant avec 84 cas (88,4%). Le taux moyen de lymphocytes TCD4+ actuel sous traitement ARV [538,4±251cells/mm^3] était supérieur à celui du taux de LTCD4+ à l'inclusion [169,4 ±118,7cells/mm^3] sans différence statistiquement significative (p=0,5). La charge virale moyenne était de 1541±9125copies/mm3). Une charge virale indétectable était obtenue chez 60 patients (76%). Les patients sont majoritairement sous TDF-3TC-EFV avec 39 cas (41,5%) suivis de TDF-3TC-LPV/r avec 28 cas (29,8%) et AZT-3TC-NVP avec 8 cas (8,5%). La durée moyenne de suivi était de 7,9 ans ±4,6 ans.
Conclusions et Recommandations: La prévalence de l'infection à VIH chez les patients âgésde plus de 50 ans suivis dans notre cohorte est élevée avec une bonne réponse immuno-virologique.

WEPEB040

Distribution Pattern of Human Heat Shock Protein-60kda among Miscarriages Women with Positive and Negative Antibodies to Chlamydia Trachomatis in Sokoto, Nigeria

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Background: *Chlamydia trachomatis* is the most common bacterial Sexually Transmitted infection in the world. Chronic *C. trachomatis* infection induces up-regulation of both human and chlamydial heat shock trotein-60KDa, which share 50% amino acid sequence which may have a negative effect on pregnancy due to autoimmunity which may affect the developing embryo during pregnancy.
Methods: This was a case control study conducted to determine the role of C. trachomatis and distribution pattern of human heat shock protein-60KDa among women with miscarriages in relation to positivity of C. trachomatis in Sokoto Metropolis. Forty five women with miscarriages and forty five women without any history of miscarriage served as study subjects and controls respectively. Antibodies (IgG) to C. trachomatis and human heat shock protein-60KDa were estimated using enzyme linked immunosorbent assay.
Results: The mean age and standard deviation of the cases and controls were 27.2 ± 7.5 and 29.0 ± 5.7.The overall seroprevalence of *C. trachomatis* was 7.7%, (5/45) in the cases (11%) and 4.4% (2/45) in the control group (χ2=0.6196, df=1, OR=2.688 (95% CI: 0.4930 to 14.65); p= 0.4312). The mean and standard error of mean concentration of the human heat shock protein-60KDa were 20.9 ± 0.8 and 23.2 ± 1.6 (ng/mL) among the cases and controls respectively. The mean and standard error of mean of HSP-60KDa among women with miscarriage and control subjects with IgG to *Chlamydia trachomatis* and without IgG antibodies to *Chlamydia trachomatis* are 23.8 ± 3.2, 20.6 ± 0.8, 13.0 ± 5.0 and 23.6 ± 1.6(ng/mL) respectively
Conclusions and Recommendations: Our results depict that women with previous exposure to *C. trachomatis* have 2.688 odds of miscarriage. We recommend further studies of cellular and humoral immune response to the region of sequences similar to both human and chlamydial heat shock protein-60Kda.

WEPEB041

Evaluation of the Syndromic Approach in the Management of Genital Discharge among High Risk Population in Kigali, Rwanda

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Background: The importance of treating sexually transmitted infections (STIs) has been more widely recognized since the advent of the HIV/AIDS epidemic, and there is good evidence that its control can reduce HIV transmission. In Rwanda, the guidelines for the prevention and management of STIs recommend the syndromic approach, which uses the presence of symptoms and signs, without laboratory test, to guide STI management. Gonorrhea and chlamydia are frequent causes of urethral discharge in men and common cause of cervicitis and vaginal discharge in women. We evaluated the effectiveness of the syndromic management of gonorrhea and chlamydia among high risk population living in Kigali.
Methods: A cross-sectional study was conducted from November 2016 to January 2019, among female sex workers (FSW) from 7 health centers (HC) in Kigali and patients presenting with genital discharge at Projet San Francisco (PSF) clinic. Patients self-reported any genital symptoms. Men with STI symptoms and FSW provided a urine sample, while female patients with vaginal discharge provided vaginal swabs. Laboratory diagnostic test for gonorrhea and chlamydia were done at PSF, using the GeneXpert platform.
Results: At PSF clinic, we tested 1666 patients with genital discharge as STI symptoms (1080 men and 586 women). Of the 1080 men, 648 (60 %) had gonorrhea, 71 (7%) had chlamydia and 142 (13%) had both. Of the 586 women, 110 (19%) had gonorrhea, 48 (8%) had chlamydia and 42 (7%) had both. At Kigali HCs, 199 FSW were received. Among the 69 FSW with genital discharge, 3 (4%) had gonorrhea, 10 (14%) had chlamydia and 3 (4%) had both. Of the 130 asymptomatic FSW, 53 FSW (41%) were diagnosed with either gonorrhea and/or chlamydia, 18 (14%) had only gonorrhea, 29 (22 %) had only chlamydia and 6 (4%) had both gonorrhea and chlamydia. The sensitivity of the syndromic approach is 23.19% (95%CI: 13.87% - 34.91%) and the specificity is 59.23% (95%CI: 50.27% - 67.76%).
Conclusions and Recommendations: This study shows that the syndromic management of gonorrhea and chlamydia has a particular low positive predictive value among women. Among the patients with genital discharge, 80% of men had a positive laboratory result for gonorrhea and/or chlamydia, compared to only 34% of women. The prevalence of gonorrhea and chlamydia among asymptomatic FSW is high. Alternative strategies to the syndromic management of STI should be developed and validated specifically for the high risk female population.

WEPEB042

Examining the Role of Socio-behavioral Factors on the Occurrence of Sexually Transmitted Infections among AFRICOS Participants

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Background: Sexually transmitted infections (STIs) are a major cause of morbidity and healthcare-seeking in resource poor countries. STIs can also increase the risk of both HIV acquisition and transmission. In order to implement effective STI prevention programs, it is first important to understand the social drivers of STI transmission. The aim of this study was to explore associations between socio-behavioral factors and STI prevalence in four African countries.

Methods: This cross-sectional analysis utilized data from the enrollment visit into the ongoing multi-site African Cohort Study (AFRICOS) enrolling participants in Kenya, Nigeria, Tanzania and Uganda since 2013. At each visit, a clinician performs a physical examination and queries participants about symptoms concerning for an STI. The main outcome was presence of STI at enrollment based on symptomatic definitions. An STI diagnosis was defined as the presence of any of the following existing symptoms: vaginal or penile discharge; genital ulcer; blood in urine; burning/painful urination; vaginal itching; painful intercourse; lower abdominal pain; swollen lymph nodes at groin; genital warts; and/or post coital bleeding. Logistic regression models were used to estimate odds ratios (ORs) and 95% confidence intervals (95% CIs) for factors associated with STI prevalence.

Results: As of September 1, 2018, 3415 participants were enrolled. Of these, 2847 (83.4%) were HIV-infected and 1990 (58.3%) were female. At enrollment there were 263 syndromically-diagnosed STIs (7.9%) among HIV-infected individuals and 39 (6.9%) among HIV-uninfected individuals p= 0.42. Out of the 263 STI cases 79% were female. Among participants who reported never using a condom with their regular partner STI prevalence was 44% compared to 3% for those who reported frequent condom use (p< 0.001). In the fully adjusted model, increased odds of prevalent STI were observed with female gender (aOR 1.90 [95% CI 1.12-3.51]), transactional sex (aOR 1.66 [95% CI 0.86-3.22]), married (aOR 1.11[95% CI 0.72-1.74]) and HIV-infected (aOR 1.17 [95% CI 0.55-2.48]).

Discussion: The study findings highlight that female participants are at increased risk for STI acquisition. There is need for women emancipation to bargain for safe sex even within relationships. Education is also key in bargaining for safer sexual options like condom use and other protective measures like testing for STIs before sex.

AFRICOS socio behavioral STI

WEPEB043

Assessing Health Care Services Delivery and HIV Testing among STIs Cases in Rwanda

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Background: Sexually Transmitted Infections (STIs) remain a major public health challenge especially in developing countries. Untreated or inappropriately treated STIs can cause severe complications resulting in poor quality of life and high costs for the community and health systems. We aimed to determine the reliability of reported data on STIs and to assess the quality of services given to clients in Rwanda
Methods: We selected 16 health facilities which reported more than 500 cases of STIs in 2014. Patients records for the period of July to December 2014 were reviewed to analyze characteristics of patients. We also selected 10 STIs cases randomly in OPD registers at each visited health facility to check for STIs and a total of 160 extracts were collected using structured questionnaires.
Results: STIs screening was systematic in 15 of the 16 sites. Of 73,402 clients received, 46,298(63%) were screened for STIs (range; 675-7982). Among them, 3,918 (8%) clients had one or more STI syndromes. Of the patients with STIs, 2,432 (62%) were aged 20-35 years. About 795 (22%) STIs cases were tested for HIV and 106 (13%) were HIV positive. Of 4,281 first-visit pregnant women who were screened for syphilis, 55(1.3%) tested positive and 15(27%)co-infected with HIV. Among 160 records of clients checked, the most frequent syndrome was vaginal discharge;48%, urethral discharge; 27%, genital ulceration; 9.5% and low abdominal pain; 7%. In these cases, 54(34%) sex partners were invited and 20 (37%) respected the invitation. An average of 2.5 providers was trained in STIs (std 4) and for HIV training, the average was 4.4 with a standard deviation of 3.
Conclusions and Recommendations: STIs cases care is well conducted in Rwanda. HIV cases findings among STIs cases should be emphasized on as well as active sex partner notification and care

WEPEB044

Cost Effective Population-level Neisseria Gonorrhea and Chlamydia Trachoma Detection Using Pooled Urine Specimens and the GeneXpert System

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Background: Untreated *STIs* can result in complications and increase risk of HIV acquisition and transmission. While point of care diagnostics (POCs) are critical for detection of STIs in low-resource settings, screening remains resource intensive; many settings utilize syndromic management, presenting a challenge for asymptomatic patients. POC STI detection can better direct treatment. Sample-pooling can reduce the cost associated with STI screening.

Methods: Annual CT/NG screening was conducted to measure sexual risk within an cohort of n=2750 individuals in a study of population mobility within a universal test and treat trial (NCT01864603). In the first two rounds of annual CT/NG testing (2016-17), urine samples were individually screened utilizing the GeneXpert system. In the third annual testing (2018) samples were pooled to reduce costs. Based on other studies and 3% STI prevalence in previous years, pooled aliquots of five samples were adequate for specificity and sensitivity. First catch urine (20-30 ml) was collected, of which 7 ml was transferred into a *CT/NG preservative* tube. Urine (1ml) was then pipetted into pools of 5 samples, vortexed, and processed with the GeneXpert system. If pools were negative, all samples in the pool were considered negative. Positive pools were individually re-screened.

Results: Overall**,** n=2568 unique samples were pooled and screened; n=114 (4.4%) were positive for CT, NG or both. This STI prevalence rate was comparable, though slightly higher, than previous STI prevalence in the same population (3.1% and 3.3% in the first and second year, respectively).

Cost Savings: Samples were processed in n=514 pools, an additional n=565 individual samples re-screened from positive pools. A total of n=1079 tests were conducted. Cost was estimated at $18.75 per test, not including machine maintenance, loss due to errors/failures, and other costs. The pooling strategy cost $20,062.50; comparative cost of conducting individual sample testing with this same population would have been $48,150.00. Sample pooling resulted in a 58% reduction of costs, in addition to reduced time, water and electricity.

Conclusion: Urine sample pooling resulted in comparable STI prevalence as compared to individual sample processing in the same population, and reduced costs by 58%. Pooling urine samples can be leveraged in high volume and resource-limited settings. Our study demonstrates cost effective approaches to providing population-wide STI testing.

WEPEB045

STI Including HIV Prevention among Internally Displaced Persons (IDP) in Borno State: Outcome of Free Mobile Medical Outreach in Two Local Government Area of Borno State

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Background: The recent upsurge in incessant violence clashes between the Nigerian government forces and the non-state armed groups has increased the number of internally displaced persons (IDPs) in Borno State-the epicenter of the Nigeria humanitarian crisis. As of 2019, it is estimated that about 2 million persons have fled their homes and are or internally displaced in the state. Most of these IDPs are sheltered in formal and informal camps in the affected areas. The IDPs are at an increased risk of acquiring Sexually Transmitted Infections (STIs) and HIV/AIDs due to sexual and gender-based violence, exploitation, social instability, ignorance and poverty. Despite their vulnerability, majority of the IDP have inadequate access to STI prevention information, treatment, care and support services. The project aimed to increase access and utilization of displaced vulnerable population living in IDP camps located in Ngala and Mongonu, Borno State to STI including HIV prevention information & services.

Methodology: Royal Heritage Health Foundation (RHHF) with funding support from United Nations Population Fund (UNFPA) provided STI and HIV prevention information and services through free Mobile Medical Outreach as part of a comprehensive Reproductive Health project to the IDPs living in camps located in Mongonu and Ngala LGAs of Borno State. The outreach was held for 12 days consecutively across 14 camps across in State (12 in Mongonu and 2 in Ngala). During the outreach, sexuality education, Syndromic management of STIs and HIV testing services were provided by trained health workers.

Results: A total of 18,743 (3,312 Male and 15,431 Female) persons were reached with STI and HIV prevention Messages while a total of 4795 (918 Male and 3877 female) persons were diagnosed and treated for STIs during the outreach. In addition, 859(128 Male and 729 female) persons were counselled and tested for HIV and all positive clients 87(12 Male and 75 female) referred for HIV treatment, care and support services.

Conclusion and Recommendation: The mobile outreach was an effective strategy for reaching vulnerable population with essential STI and HIV prevention information & services. There is also need to prioritize and implement interventions that promote sexuality education among vulnerable groups especially adolescents affected by conflicts.

Keyword: Internally Displaced Persons, HIV, STI, Mobile Outreach

WEPEB046

Targeted Point-of-Care Testing Compared with Syndromic Management of Urogenital Infection in Women (WISH): A Cross-sectional Screening and Diagnostic Accuracy Study

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Background: WHO recommended approach to manage STIs performs poorly as about 60% of infected patients stay asymptomatic, untreated and at high risk of HIV infection. WISH study in Kigali, sought to improve case-finding and infection management in women by introducing point-of-care tests. The main aim was to compare the performance of the WISH and the WHO algorithms with gold standard testing.
Methods: This cross-sectional screening and diagnostic study recruited 18 years women or older with or without urogenital symptoms at risk of acquiring STI in Kigali. Participants had interview about current urogenital symptoms. Next, the WISH algorithms were implemented. All participants had point-of-care tests for bacterial vaginosis and *Trichomonas vaginalis* regardless of symptom reporting. Women with a positive risk score had point-of-care tests for *Chlamydia trachomatis* and *Neisseria gonorrhoea.* Vulvovaginal candidiasis was treated presumptively. Nucleic acid amplification tests for *C trachomatis*, *N gonorrhoeae*, *T vaginalis*, bacterial vaginosis, and vulvovaginal candidiasis were the gold standard, and all patients provided swabs for these.
Results: 705 participants were enrolled in the study and completed a study visit. Compared with gold standard testing, the WISH algorithms had a good sensitivity and high specificity for *C trachomatis* (sensitivity 71.7%, specificity 100%), *N gonorrhoeae* (sensitivity 76.0%, specificity 100%), and *T vaginalis* (sensitivity 68.5%, specificity 97.4%), high sensitivity but low specificity for bacterial vaginosis (sensitivity 95·2%, specificity 41·2%), and moderate sensitivity and specificity for vulvovaginal candidiasis (sensitivity 64.4%, specificity 69.4%). The performance of vaginal pH testing for bacterial vaginosis improved by increasing the cutoff to 5.5, followed by confirmatory testing (sensitivity 73.6%, specificity 100%). The WHO algorithms had moderate sensitivity and poor specificity for all infections compared with gold standard testing: *C trachomatis* sensitivity 58.3%, specificity 44.7%; *N gonorrhoeae* sensitivity 66.0%, specificity 45.2%; *T vaginalis* sensitivity 60.4%, specificity 45.6%; bacterial vaginosis sensitivity 61.6%, specificity 46.0%; and vulvovaginal candidiasis sensitivity 74.6%, specificity 50·6%.
Conclusion: Point-of-care testing for urogenital infections might improve case-finding and infection management and is feasible in resource-poor settings. Additional studies in other populations are warranted.

WEPEB047

Projected Cervical Cancer Incidence in Swaziland Using Three Methods and Local Survey Estimates

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Background: The scarcity of country data (e.g. a cancer registry) for the burden of cervical cancer (CC) in low-income countries (LCIs) such as Swaziland remains a huge challenge. Such data are critical to inform local decision-making regarding resource allocation [1]. We aimed to estimate likely cervical cancer incidence in Swaziland using three different methodologies (triangulation), to help better inform local policy guidance regarding likely higher "true" burden and increased resource allocation required for treatment, cervical cancer screening and HPV vaccine implementation.
Methods: Three methods were applied to estimate CC incidence, namely: 1) application of age-specific CC incidence rates for Southern African region from GLOBOCAN 2012 extrapolated to the 2014 Swaziland female population; 2) a linear regression based model with transformed age-standardised CC incidence against hr-HPV (with and without HIV as a covariate) prevalence among women with normal cervical cytology; and 3) a mathematical model, using a natural history approach based on parameter estimates from various available literature and local survey estimates. We then triangulated estimates and uncertainty from the three models to estimate the most likely CC incidence rate for Swaziland in 2015.
Results: The projected incidence estimates for models 1-3 were 69.4 (95% CI: 66.7-72.1), 62.6 per 100,000 (95%CI: 53.7-71.8) and 44.6 per 100,000 (41.5 to 52.1) respectively. Model 2 with HIV prevalence as covariate estimated a higher CC incidence rate estimate of 101.1 per 100,000 (95%CI: 90.3-112.2). The triangulated ('averaged') age-standardized CC incidence based across the 3 models for 2015 was estimated at 69.4 per 100,000 (95% CI: 63.0-77.1) in Swaziland.
Conclusions and Recommendations: It is widely accepted that cancer incidence (and in this case CC) is underestimated in settings with poor and lacking registry data. Our findings suggest that the projected burden of CC is higher than that suggested from other sources. Local health policy decisions and decision-makers need to re-assess resource allocation to prevent and treat CC effectively, which is likely to persist given the very high burden of hr-HPV within the country.

WEPEB050

Integrating HPV Testing for Cervical Cancer Screening in WLHIV in Zambia

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Issues: Cervical cancer remains the most frequent cancer in Zambia accounting for over 30% of new cancer cases annually. It is also the most common cause of death for cancer in the country. Women living with HIV (WLHIV) are 4 - 5 times more at risk of developing cervical cancer. Zambia has an estimated 345,000 WLHIV aged between 25-49 years old. The Ministry of Health (MoH) in Zambia, established the national cervical cancer screening program in 2006 using the Visual Inspection with Acetic Acid (VIA) with enhanced digital cervicography. To date over 600,000 women have been screened at least once in their lives of which only about 20% are WLHIV. Zambia has made progress in integrating Human Papilloma Virus (HPV) testing for cervical cancer in WLHIV. We aim to integrate HPV testing in cervical cancer screening for WLHIV in Zambia

Descriptions: The government through the MOH held a series of meetings with key stakeholders, including the Ministry of Health and Wellness from Botswana. Botswana through Jhpiego conducted a feasibility study on self-collection of the samples for HPV testing for cervical cancer screening. Their lessons were shared and adapted to fit the Zambian context.

Lessons learned: · PEPFAR funded implementing partners identified funds from within their budgets to support this initiative· A stakeholder engagement meeting was held to develop guidelines (including tools for M&E) for HPV testing for cervical cancer screening

· A training for cervical cancer screening providers was held for 4 of the 10 provinces in Zambia

· Procurement of consumables was initiated through the Centre for Infectious Disease Research in Zambia (CIDRZ) central laboratory

· Validation of the Hologic Panther & Cobas4800 to support the GeneXpert as primary tools for DNA started were initiated

· Screening expected to initiate in August 2019 (the two months after HPV vaccination for 14-year-old girls to prevent cervical cancer was started)

Next steps: It is possible to integrate HPV testing for cervical cancer screening in WLHIV in a country like Zambia there is strong government commitment in a coordinated approach with implementing partners and support from other governments within the sub-region.

WEPEB051

Practices and Preferences of Cervical Cancer Diagnosis Disclosure among HIV Infected Women in Western Kenya

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Background: Disclosure of chronic disease diagnosis impacts patients´ adherence to therapy and affects their psycho-social wellbeing. This study examines disclosure practices and preferences of healthcare providers (HCPs) and HIV-positive Cervical Cancer (CxCa) patients and relates them to the Communication Privacy Management (CPM) Theory (Sandra Petronio, 2002).
Methods: The study was conducted at AMPATH Cervical Cancer Centres in Western Kenya. Qualitative data collected through semi-structured interviews were conducted in English and Swahili, audio recorded, transcribed and translated. 13 HCPs(7 males, 6 females) who attend to CxCa patients were purposively sampled and 26 HIV positive CxCA patients randomly selected. Transcripts were independently coded by 2 researchers, then co-coded to generate emerging themes. An observation checklist was used to collect quantitative data in 10 randomly selected disclosure sessions and analyzed using SPSS.
Results: Median ages for HCPs was 45yrs and patients 44yrs. Emerging themes were less time for consultations, minimal information shared by HCPs and lack of post-disclosure counseling. In relation to CPM theory:
Private information: CxCa diagnosis was private information in this context. Lack of privacy emerged. The few rooms used for disclosure were not locked and did not guarantee privacy. *Privacy dialectics:* Lack of specialized training on diagnosis disclosure emerged. The HCPs used their own discretion in making decisions.
Privacy boundaries: Boundaries on sharing information were blurred. HCPs did not seek patients consent before sharing information and patients had no problem with this.
Control/ownership: Ownership of diagnosis information was evident. Patients were specific about disclosure on their part, especially after the stigma they faced with disclosure of HIV.
Privacy rules: Patients chose to maintain privacy outside the hospital. They set rules on disclosure of diagnosis and explained to co-owners their concerns. Others concealed diagnosis to guarantee privacy.
Conclusion and recommendation: Participants´ satisfaction with disclosure process was diverse with some being content and others not. Training of HCPs on privacy of medical information and skills on disclosure of chronic disease, and addressing administrative challenges is critical to improving diagnosis disclosure and its outcome.
Key words: cervical cancer diagnosis, chronic disease disclosure, Communication Privacy Management Theory

WEPEB052

Urea and Creatinine Evaluation in People Living with HIV under Antiretroviral Therapy in Eastern Cameroon

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Background: Due to the increased life expectancy of HIV-infected patients since the use of highly active antiretroviral therapy (HAART), renal impairment has become an important cause of morbidity and mortality (1). Our study aimed to evaluate urea and creatinine (biochemical markers of renal failure) in people living with HIV on antiretroviral therapy followed at the Garoua-Boulai Protestant Hospital.
Methods: This was a descriptive and analytical study done from September 2018 to April 2019, participants were recruited after an informed consent. 2ml of serum were collected for spectrophotometer analyses. All the data collected were analysed using SPSS.20.0.
Results: 101 patients were included, all infected with HIV-1 and following the first line of Antiretroviral drugs (ARVs). 72.27% of them were female. Most of them did not attend school and predominantly those in the informal sector. The majority of patients were in WHO clinical stage 4 (64.35%) and 79.20% of them were under Tenofovir (TDF) + lamivudine (3TC) + Efavirenz (EFV) protocol.
Biochemical analyses performed from serum showed high uraemia in 0.99% of patients with an average of 19 ± 10.24 mg / dl and elevated creatininaemia in 16.83% of patients with an average of 93.38 ± 30.27µmol/l. According to the ART protocols used and the clinical stage of the patients, those who had a high proportion of uraemia and high creatinaemia were under TDF + 3TC + Nevirapine(NVP) (20%) and TDF + 3TC + EFV(17.5%) and those in clinical stage 4 (21.53%).
Conclusions and Recommendations: Alteration of renal function was common among the people living with HIV on antiretroviraltherapy followed at the Garoua-Boulai Protestant Hospital. It was predominant in patientswith clinical stage 4 and in those with a TDF protocol, hence the need to monitor uraemia and serum creatinine in these patients to optimize the beneficial role of these drugs.

WEPEB053

Renal Function Is Preserved Following Tenofovir Disoproxil Fumarate (TDF) Initiation among Rwandan's Living with HIV

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Background: Tenofovir disoproxil fumarate is the antiretroviral drug most commonly used and associated with renal dysfunction. However, few studies have examined this association in sub-Saharan Africa despite recent scale-up of antiretroviral therapy(ART) to all people living with HIV (Treat All) in this region. We assessed estimated glomerular filtration rate (eGFR) change among HIV infected Rwandan adults following first-line TDF-based therapy initiation.
Methods: This prospective, observational study was conducted in 10 Rwandan health centers in the Central Africa International Epidemiologic Databases to Evaluate AIDS Study. Participants were ART-naive adults (≥18 years) living with HIV who initiated TDF-based ART from 1st July 2016 through 30th July 2018. The primary outcome was eGFR change from pre- (within 12 months) to post-TDF initiation (within 6 months). We first used t-tests or nonparametric tests to compare baseline characteristics among groups of patients defined based on whether or when they had creatinine measurements. Then we used paired t-tests (for normally-distributed variables) and the sign test or signed rank tests (for variables not normally distributed) to statistically test for differences between the mean (or median) pre- to post-TDF eGFR and creatinine measurements.
Results: : Of 476 subjects with pre- and post- TDF eGFR measurements, 264 (55.5%) were female and mean age was 35.9 years (SD 9.6). Mean pre-TDF eGFR was 92.4 (SD 24.0) and mean post-TDF was 96.0 (SD 21.0) mL/min/1.73m^2. Mean pre- to post-TDF change thus increased 3.60 (SD, 26.6) mL/min/1.73m^2 (p=0.001).
Conclusions and Recommendations: We detected a statistically significant but clinically small renal function improvement within 6 months following TDF initiation among 476 ART-naïve patients. This supports continued TDF use for first-line treatment as Treat All is implemented throughout sub-Saharan Africa.

WEPEB054

Dolutegravir-based First-line Regimen: High Acceptability and Viral Suppression from an Early Adopter Study in Nigeria

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Background: Nigeria adopted dolutegravir (DTG) as part of first-line (1L) antiretroviral therapy (ART) in 2017. However, there is limited documented experience using DTG in sub-Saharan Africa. Our study assessed DTG acceptability from the patient's perspective as well as treatment outcomes at 3 high-volume early adopter facilities in Nigeria.
Methods: This is a mixed method prospective cohort study with 12 months of follow-up between July 2017 and January 2019. Patients who had intolerance or contraindications to non-nucleoside reverse-transcriptase inhibitors were included. Patient acceptability was assessed through one-on-one interviews at 2, 6, and 12 months following DTG initiation. Treatment-experienced patients were asked about side effects and regimen preference compared to their previous regimen. Viral load (VL) and CD4 tests were assessed according to the national schedule. Data was analysed in MSExcel and SAS 9.4.
Results: 229 patients were interviewed at 12 months (206 treatment-experienced, 23 treatment-naive). Median age of subjects was 46years, 65% were female. 99.5% of treatment-experienced patients preferred DTG to their previous regimen. 32% of patients reported at least one side effect. "Increase in appetite" was most frequently reported (15%), followed by insomnia and bad dreams (10%). An average weight gain of 5.5% ($P< 0.0001$) compared to baseline was noticed among patients at 12months. Weight gain was not significantly higher in patients with complaints of increased appetite and there was no significant difference in weight gain between males and females. Average adherence was 99% and 3% reported a missed dose in the 3 days preceding their interview. Among participants with VL results (n=199), 99% were virally suppressed (< 1000 copies/ml), and 94% had VL < 50 copies/ml at 12 months. Percentage of patients with CD4 < 200cells/mm^3 reduced from 15% to 8% at 12months.
Conclusions: This study is among the first to document self-reported patient experiences with DTG in sub-Saharan Africa, and demonstrated high acceptability of DTG-based regimen among patients. Viral suppression rate was higher than the national average of 82%. "Increase in appetite" was the most reported side effect throughout the study, an uncommon finding in previous studies. A significant weight gain was observed among patients however further evaluation of this association is required. Our findings support the recommendation of DTG-based regimen as preferred 1L ART.

WEPEB056

Reaching Men through Moonlighting HIV Services in Drinking Places in Chipata District in Zambia

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Issues: Despite their many social and economic advantages, men are less likely than women to seek out health care, to take an HIV test or to initiate and adhere to HIV treatment. Consistent with experiences in many African countries, program data in Zambia show men, including adolescent boys, account for only 30% of those reached by HIV prevention, treatment and support services. With PEPFAR funding through CDC, ICAP at Columbia University in Zambia in close collaboration with the Ministry of Health implements moonlighting HIV prevention and treatment services in partnership with the districts health office (DHO) teams in Kapata Urban Clinic in Chipata district Eastern.

Descriptions: In partnership with owners of drinking places and District Medical Offices, ICAP selected a comprehensive team of trained community based volunteers (CBVs) to provide HIV testing Services, and clinicians to support onsite testing and counselling with antiretroviral therapy (ART) initiation in the drinking places at nights to reach men. Orientation sessions were conducted to DHO teams, CBVs and health care workers on the concept of moonlighting in relation to targeted testing, ART initiation focusing on reaching men. Owners of drinking places provided rooms for HIV testing and counseling services and immediate ART initiation. Where there is limited space tents are used to create space for a conducive HIV services. Positive Health, Dignity and Prevention (PHDP) package and supportive care services were provided by CBVs to men who tested positive.

Lessons learned: Before the intervention, from July to November 2018, a total of 2819 men were tested for HIV, 160 were found HIV positive and 123 (77%) initiated on treatment. From December 2018- April 2019, a total of 3434 men were tested; 213 were HIV-positive and 184 (86%) of those were initiated on ART. There were more men identified representing 50% increase of men identified during the implementation of moonlighting services in Kapata Urban Clinic. The linkage to treatment also improve from 77% to 86%. The district community managers engaged with local authorities (police, councils and owners of drinking places) to facilitate the implementation of moonlighting HIV interventions in the nights.

Next steps: This intervention will be expanded to more districts to improve HIV services for men in Zambia and offer a model for replication in other settings.

WEPEB057

Increasing Access to Treatment through Community Antiretroviral Therapy Initiation Using Starter Packs in Eastern and Western Provinces in Zambia

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Issues: As countries work toward reaching epidemic control and achieving an AIDS-free generation, equitable access to antiretroviral therapy (ART) is necessary. While coverage of ART is high among those aware of their status in Zambia, clients identified as positive in community-based settings may face unique challenges to timely presentation to health facilities and ART initiation. One client-centered approach to overcome these barriers is providing ART services in the community, beyond health facility settings.
Descriptions: ICAP in Zambia, through CDC funding, and in partnership with provincial health offices in Eastern and Western province, supported the implementation of community-based ART initiation immediately upon HIV diagnosis from community-based testing. To support immediate ART initiation in the community and address barriers to uptake in health facility referrals, 'starter packs' of two-week supply of ART were packaged and provided to clients who tested HIV-positive. Community-based ART initiation was supported by a comprehensive team including community counselors, laboratory technicians and clinicians. Community counsellors ensured client contact information were documented to ensure subsequent follow-up. All clients initiated on ART were reviewed after two weeks at the nearest health facilities providing ART services. Clients who tested HIV-negative were linked to prevention services including pre-exposure prophylaxis, cervical cancer screening and/or voluntary medical male circumcision.
Lessons learned: Before the implementation, from October to November, 2018, a monthly average of 2412 clients were tested for HIV, 180 were HIV positive and 137 (76%) initiated ART**.** After the implementation from December 2018 to April 2019, a monthly average of 5358 clients tested for HIV in the community of which 397 tested HIV-positive. Out of those, 358 (90%) initiated ART. The use of starter packs to initiate clients on ART has improved linkage to care from 76% to 90% and minimized gaps in immediate ART initiation among clients testing HIV-positive in community settings.
Next steps: Community-based ART initiation is an effective approach to increase access to HIV treatment services. Expansion of starter packs throughout Zambia may contribute to reaching epidemic control.

WEPEB058

Optimizing Uptake of Dolutegravir (DTG) Based Regimen in North-West Nigeria; A 6-month Retrospective Review

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Issues: With the release of the 2018 Nigerian Rapid advise on ARVS, Dolutegravir(DTG) based regimen TLD (Tenofovir /Lamivudine/ Dolutegarvir) was adopted as the preferred 1st line medication for HIV treatment due to improved tolerability, high genetic barrier, dosing convenience, efficacy and cost-effectiveness. Despite these benefits, the transition of clients, especially women of reproductive potential has posed a challenge with initial fears of increased risk of neural tube defects. This abstract aims to provide a review of best practices and key lessons learnt with transitioning clients to the DTG-based regimen TLD.

Descriptions: The USAID funded and Management Sciences for Health (MSH) implemented Care and Treatment for Sustained Support (CaTSS) project supports comprehensive HIV services in Kebbi, Kwara ,Niger, Sokoto and Zamfara states in north west Nigeria with 1,378 and 6,605 clients respectively transitioned to TLD in October to December 2018, and January to March 2019 periods, with a cumulative total of 7983. With a male to- female transition ratio of 60 to 40, the transitions were done primarily by the health care workers (HCWs) who had been provided with training on transition to TLD in all supported states

Lessons learned: By implementing specific targeted interventions such as targeted clinic day text messaging to health care worker (prescribers and dispensers), enhanced client education of the benefits of TLD at support group meetings, weekly performance tracking, targeted mentorship and handholding of underperforming sites, and client centered counselling for informed decision making, the project recorded a TLD uptake of over 300% in 6 months between Oct 2018 and March 2019

Next steps: As more countries continue to scale up uptake of TLD for 1st line ARV medications, it becomes imperative that best practices be imbibed into country programming. With new evidence demonstrating decreased risk of neural tube defects associated with using DTG at conception, it is critical that women are provided with distinct opportunities to make an informed decision without any form of coercion with regard TLD Uptake.

WEPEB059

Antiretroviral Adverse Drug Reactions Pharmacovigilance in Harare City, Zimbabwe, 2017

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Background: Key to pharmacovigilance is spontaneously reporting all Adverse Drug Reactions (ADR) during post-market surveillance. This facilitates the identification and evaluation of previously unreported ADR's, acknowledging the trade-off between benefits and potential harm of medications. Only 41% ADR's of documented in Harare city clinical records for January to December 2016 were reported to Medicines Control Authority of Zimbabwe (MCAZ). We investigated reasons contributing to underreporting of ADR's in Harare city.
Methods: A descriptive cross-sectional study and Centers for Disease Control (CDC) guided surveillance evaluation was conducted. Two hospitals were purposively included. Seventeen health facilities and 52 health workers were randomly selected. Interviewer-administered questionnaires, key informant interviews and WHO pharmacovigilance checklists were used to collect data. Likert scales were applied to draw inferences and Epi info 7 used to generate frequencies and proportions.
Results: Of the 52 participants, 32 (61.5%) distinguished the ADR defining criteria. Twenty-nine (55.8%) knew the system's purpose whilst 28 (53.8%) knew the reporting process. Knowledge scored average on the 5-point-Likert scale. Thirty-eight (73.1%) participants identified ADR's following client complaints and nine (1.3%) enquired clients' medication response. Forty-six (88.5%) cited non-feedback from MCAZ for underreporting. Inadequate ADR identification skills were cited by 21 (40.4%) participants. Reporting forms were available in five (26.3%) facilities and reports were generated from hospitals only. Forty-two (90.6%) clinicians made therapeutic decisions from ADR's. Averaged usefulness score was 4, on the 5-point-Likert scale. All 642 generated signals were committed to Vigiflow by MCAZ, reflecting a case detection rate of 4/ 100 000. Data quality was 0.75-1.0 (WHO) and all reports were causally assessed.
Conclusions and Recommendations: The pharmacovigilance system was useful, simple, and acceptable despite being unstable, not representative and not sensitive. It was threatened by suboptimal health worker knowledge, weak detection strategies and referral policy preventing ADR identification by person place and time. Revisiting local policy, advocacy, communication and health worker orientation might improve pharmacovigilance performance in Harare city.

WEPEB060

Suivi Démédicalisé par les Pairs Éducateurs des Hommes Ayant le Sexe avec d'Autres Hommes (PE HSH) de 2017 à 2018: Expérience du Centre d'Écoute, de Soins, d'Animation et de Conseil (CESAC) de Bamako

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Contexte: L'ARCAD-SIDA est une association communautaire et un acteur clé dans la lutte contre le VIH/SIDA au Mali et en Afrique de l'Ouest qui a vu le jour depuis 1994. Elle a mis en place le CESAC de Bamako en 1996 en collaboration avec l'Etat Malien et la Coopération Française pour la prévention et la prise en charge des personnes infectés par le VIH ou atteints du Sida. Depuis ces activités étaient menées par des professionnelles de santé à ce qui concernent le conseil dépistage, la prise en charge des malades dans le cadre de la prescription des ARV, de la dispensation ainsi que leur suivi. En 2017 pour atteindre les objectifs des trois 90-90-90 de l'ONUSIDA, l'ARCAD-SIDA a adopté la démédicalisation pour atteindre les personnes à haut risque. Le but de cette étude était d'évaluer le suivi démédicalisé par les pair-éducateurs des hommes ayant le sexe avec d'autres hommes (PE HSH).
Méthodes: Pour mettre en œuvre cette stratégie, des PE HSH ont été formé sur le conseil dépistage, la disponibilité des kits de dépistage auprès des PE HSH ; orientation et accompagnement des PE HSH des cas positifs sur le site pour la confirmation de la sérologie et la prise en charge ainsi que le renforcement de l'observance. Ainsi, après initiation aux ARV par un prestataire médical le suivi et la dotation aux ARV étaient assurés par les PE HSH.
Résultats: De Juin 2017 à Décembre 2018, 33 HSH dépistés positifs pour le VIH âgés de 18 à 48 ans ont fait l'objet d'une orientation par leurs pairs pour une confirmation de leur sérologie et une prise en charge ARV. Tous les 33 étaient du VIH-1 et 75,7% d'entre eux avaient une tranche d'âge entre 18 et 34 ans. Parmi ces patients, 93,9% ont initié le traitement ARV et 93,5% était sous le schéma TDF/3TC/EFV. Les lymphocytes T CD4 Nadir étaient plus de 500 cellules/ mm^3 chez 35,5% des patients. Le dernier bilan biologique effectué au moment de l'évaluation montrait un taux de lymphocytes T CD4 supérieur à 500 cellules/mm^3 chez 71,4% ; une charge virale inférieure à 50 copies/ mL chez 85,7% des HSH et 93,5% des patients étaient dans le suivi. Il y a eu 2 cas de décès.
Conclusion: La démédicalisation a permis de toucher les HSH plus difficiles à atteindre et de leur permettre de faire un bon suivi grâce aux pairs éducateurs qui leurs apportaient leurs ARV ainsi qu'un soutien pour l'observance.
Mots Clés: Suivi démédicalisé, PE HSH, CESAC Bko

WEPEB061

Suivi Démédicalisé par les Pairs Éducatrices Travailleuses de Sexe (PE TS) de 2017 à 2018: Expérience du Centre d'Écoute, de Soins, d'Animation et de Conseil (CESAC) de Bamako

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Contexte: L'ARCAD-SIDA est une association communautaire et un acteur clé dans la lutte contre le VIH/SIDA au Mali et en Afrique de l'Ouest qui a vu le jour depuis 1994. Elle a mis en place le CESAC de Bamako en 1996 en collaboration avec l'Etat Malien et la Coopération Française pour la prévention et la prise en charge des personnes infectés par le VIH ou atteints du Sida. Depuis ces activités étaient menées par des professionnelles de santé à ce qui concernent le conseil dépistage, la prise en charge des malades dans le cadre de la prescription des ARV, de la dispensation ainsi que leur suivi. En 2017 pour contribuer à l'atteindre des objectifs les trois 90-90-90 de l'ONUSIDA, l'ARCAD-SIDA a adopté la démédicalisation pour atteindre les personnes à haut risque. Le but de cette étude était d'évaluer le suivi démédicalisé par les pair-éducatrices des travailleuses de sexe (PE TS).
Méthodes: Pour mettre en œuvre cette stratégie, des PE TS ont été formées sur le conseil dépistage, la disponibilité des kits de dépistage auprès des PE TS ; orientation et accompagnement par les PE TS des cas positifs sur le site pour la confirmation de la sérologie et la prise en charge ainsi que le renforcement de l'observance. Ainsi, après initiation aux ARV par un prestataire médical le suivi et la dotation aux ARV étaient assurés par les PE TS.
Résultats: De Juin 2017 à Décembre 2018, 63 TS dépistées positives pour le VIH âgées de 18 à 44 ans ont fait l'objet d'une orientation par leurs pairs pour une confirmation de leur sérologie et une prise en charge ARV. Parmi celles-ci 96,8% étaient du VIH-1 et 61,9% d'entre elles avaient une tranche d'âge entre 25 et 34 ans. Parmi ces patientes, 100% ont initié le traitement ARV et 93,7% étaient sous le schéma TDF/3TC/EFV. Les lymphocytes T CD4 Nadir étaient plus de 500 cellules/ mm^3 chez 38,1% des patientes. Le dernier bilan biologique effectué au moment de l'évaluation montrait un taux de lymphocytes T CD4 supérieur à 500 cellules/mm^3 chez 73,7% ; une charge virale inférieure à 50 copies/ mL chez 84,2% des TS et 90,5% des patients étaient dans le suivi. Il y a eu 6 cas de transfert vers d'autres sites.
Conclusion: La démédicalisation a permis de toucher les TS plus difficiles et mobiles à atteindre et de leur permettre de faire un bon suivi grâce aux pairs éducatrices qui leurs apportaient leurs ARV ainsi qu'un soutien pour l'observance.
Mots Clés: Suivi démédicalisé, PE TS, CESAC Bko

WEPEB062

Southern African Development Community Member States Efforts to Leave No One Behind

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Background: The Southern African Development Community (SADC) with its 16 Member States (countries) has over 10% of all people living with HIV (PLHIV). The impact of **HIV** on health systems, socio-economic and development stalls progress towards achieving health-related sustainable development goals (SDGs) and the UNAIDS fast track goals. The aim of the study was to review progress towards reaching the fast track goals by 2020.
Methods: Data was extracted in April 2019 on the following indicators:
1) Population size per country;
2) Number of people living with HIV (PLHIV);
3) HIV treatment cascade;
4) HIV incidence and
5) Change in HIV incidence from the UNAIDS country factsheet and 2017 Global AIDS Monitoring report and database.
Results: Based on 2017 estimates, South Africa, Mozambique and Tanzania have the highest number of PLHIV. South Africa, Eswatini, Malawi and Namibia are in the lead to achieve the 1st 90. With respect to progress towards the 1st 90 goal, Angola, Comoros and Madagascar were below 50%. Nine countries (Botswana; Comoros; DR Congo; Lesotho, Mozambique, Namibia, eSwatini, Zambia and Zimbabwe) exceeded the 2nd 90 goal, achieving above 95% of PLHIV on ART. Three countries (Botswana, Comoros, and Lesotho) exceeded the 3rd 90 target and three achieved below 60% of the 3rd 90 goal. Seven countries exceeded the African region HIV incidence rate (4%), with Lesotho at 9%. Nine countries had more than 20% change (reduction) in new HIV infection since 2010 with Zimbabwe at (-44%) and Malawi at (-40%) in the lead.
Conclusions and Recommendations: The comparisons reveal important and common strengths and challenges among SADC member states. Universal Test and Treat and access to ART is largely responsible for a steep decline in new infection and AIDS-related deaths. Progress observed is due to SADC and member state leadership commitment, evidence based interventions and partnerships developed with stakeholders to galvanise efforts to achieve these goals. However, variation in screening for HIV and access to HIV treatment is a serious threat that can jeopardize the progress in this region. Opportunities for robust, co-ordinated and integrated patient-centred and systems response showing greater solidarity, bold funding and shared responsibility will not only reduce infections within SADC but will also reduce the burden at a global health level.

WEPEB063

Age as a Determinant of HIV Disclosure among Adolescent: Retrospective Record Review

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Background: HIV status disclosure to young adolescents enrolled on ART remains a challenge for both caregivers and healthcare workers. This study sought to understand the relationship between age and HIV status disclosure among adolescent.
Methods: The retrospective study design was used to analyse the antiretroviral therapy monitoring data on the cohort of 314 HIV-infected young adolescents between the ages of 10 to 15 years. The data were collected from thirteen public healthcare facilities, in the City of Johannesburg Region A sub-district. Frequency tables, summary statistics and independent t-test were done using IBM SPSS software v 25.
Results: There is a significant difference between the current mean ages mean for the two disclosure categories ($t(312) = -10.573$, $p < .05$). The mean age of the partially disclosed young adolescents was significantly lower ($M = 11.8$ years, $sd = 1.513$) than the mean age of the fully disclosed ($M = 13.6$ years, $sd = 1.113$). This implies that the age of a young adolescent enrolled on ART was found to influence their HIV disclosure status - young adolescents above 13 years of age have a high prevalence of status disclosure when compared to those below the age of 13 years.
Conclusions and Recommendations: There is a need to provide support to adolescent younger than 13 years so that they can be prepared to accept and disclose their status. Programmes must also sensitise adolescents so as to reduce stigma levels.

WEPEB065

Community-led HIV Prevention Shadow Reports. Assessing Progress and Gaps in National HIV Prevention Responses from a Community Perspective

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Background: As Zimbabwe continues scaling up antiretroviral services (ART), Differentiated Service Delivery (DSD) and Routine Viral Load Testing (RVLT) play an important role in improving lives of people living with HIV (PLHIV). The current DSD system was introduced in 2014 to decongest health facilities, minimize lost to follow up cases and retain more PLHIV in care. RVLT was introduced in 2016 to measure HIV care outcomes. Community monitoring offers an opportunity to better understand the challenges and opportunities of DSD and RVLT implementation in Zimbabwe.
Methods: Zimbabwe National Network of People living with HIV (ZNNP+) and Zimbabwe Young Positives (ZY+) with support from the International Treatment Preparedness Coalition (ITPC) launched a Community Treatment Observatory on RVLT and DSD targeting 4 health facilities in 2 provinces in Zimbabwe. Data was collected from May 2018 to March 2019. Respondents were PLHIV receiving ART and convenient sampling was used. Qualitative and quantitative tools were used.
Results: Prevention: Males have considerably lower access to HIV testing services than female counterparts (23% Adult Males; 38% Adult females and 9 % Young Males; 24% Youth females). Top reasons for not getting an HIV test include; People do not see the need 81%.
Treatment and care: Almost half of the respondents (43%, n= 204) preferred to pick ARVs individually because of their proximity to the health facility.
Viral load services: All 4 health facilities reported limited access of routine viral load services (including pregnant, lactating mothers and adolescents). 162 out of 204 responded that viral load testing schedule is inconvenient to them, the health facilities have strict cut off time and days of collecting samples.All 4 health facilities indicated poor turnaround time of RVLT results due to inefficient transporting system, breakdown of the machines and delays from the laboratory on processing the samples. A third of the respondents (32%, n=204) were not aware of the guidelines on how often to go for a viral load test and 12% highlighted that VL test entails considerable out of pocket expenditures.
Conclusions: Community monitoring is an effective model to assess and monitor ART services being offered to PLHIV on treatment as well as gathering data for evidence-based advocacy work. The model also places PLHIV at the centre of monitoring and assessing ART services thereby promoting meaningful involvement of PLHIV in HIV programming.

WEPEB066

Apport Bénéfique du Transport Groupé des Échantillons dans l'Amélioration de l'Accès à la Charge Virale pour le Monitoring des Patients sous ARV et l'Atteinte du 3è 90 au Bénin

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Background: Le Bénin est un pays à épidémie généralisée avec une prévalence de 1,2%. En 2018, le nombre de PvVIH est estimé à 70663, 46208 connaissaient leur statut sérologique (65%), 44231 sont sous traitement ARV (soit 96%). Pour se conformer aux recommandations de 2015 de l'OMS demandant entre autre de monitorer la PEC des PvVIH par la charge virale (CV). En 2016, le Bénin a adopté la stratégie de transport groupé des échantillons. Quelle a été la contribution de cette nouvelle approche pour le 3è 90 en fin 2018 ?.
Objectif: Evaluer l'apport du transport groupé des échantillons dans l'amélioration de l'offre de la CV aux PvVIH sous ARV et le 3è 90.
Methods: Etude retrospective conduite dans les 12 départements et 117 sites de PEC du Bénin. Chaque site proche de la plateforme était chargé de réaliser les prélèvements de CV des patients avec centrifugation et aliquotage et conservation au congélateur du site. Le transport est hebdomadaire pour les sites situés à moins de 10 km (très proches), bimensuel pour les sites distants de 10 à 50 km et mensuel pour les sites à plus de 50 km des plateforme. Le déplacement du technicien de laboratoire est couvert par une compensation forfaitaire. Ce coût annuel total s'élève à 1200 euros pour tout le pays. La collecte des échantillons à l'aller est couplée à la récupération des résultats en retour.
Results: Au total, le circuit de transport des échantillons a été efficace pour les sites éloignés (90% des sites ont utilisé le circuit avec un large accès aux PvVIH), viennent en seconde position, les sites très proches avec 60% des sites qui étaient réguliers (70% des patients ont bénéficié de l'accès à la CV). Les sites moyennement éloignés venaient en dernière position avec 45% d´accès à la CV. Dans six (06) départements sur les douze, l'offre de la charge virale est supérieure à 60% contrairement aux autres départements où l'offre est comprise entre 43 et 58% .
Grâce à l'utilisation du transport groupé des échantillons, l'accès à la CV entre 2016 et 2018 au Bénin est passé successivement de 32% à 58% pour l'ensemble de la file active des (25806/44231) PvVIH. Au plan national, la suppression virale obtenue était de 79% pour le troisième 90; ce résultat varie entre 67 et 88% à l´intérieur des départements en 2018.
Conclusions and Recommendations: Le transport groupé des échantillons de charge virale permet d´améliorer une couverture optimale de la CV dans le but d'atteindre le troisième 90.

WEPEB067

Comparaison de RocheCOBAS®AmpliPrep/COBAS®TaqManHIV-1v2.0 et Abbott m2000sp/m2000rt pour la Mesure de la Charge Virale Plasmatique HIV-1 de Patients au Sénégal

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Contexte: Une quantification précise de la charge virale (CV) du VIH-1 est cruciale pour évaluer l´infection et l´efficacité des traitementsantirétroviraux (ARV). Malgré l'installation croissance des plateformes de CV, l'accessibilité et la disponibilité de ce paramètre restent faible à cause du déficit en ressources humaines qualifiées et des ruptures des intrants et réactifs nécessaires. Des solutions doivent être trouvées pour aider les pays en développement à combler leur retard par rapport aux 3 «90» fixés par l'ONUSIDA en 2020.
Objectifs: Comparer la quantification de la CV VIH-1 entre deux méthodes de PCR en temps réel: Roche COBAS®AmpliPrep/COBAS®TaqMan®HIV-1v2.0 et Abbott m2000sp/m2000rt.
Matériel et méthode: Elle portait sur 231 des charges virales quantifiables. Et pour ces derniers nous les avons classés selon le niveau des charges virales suivantes: (< $3Log_{10}$; $3Log_{10}$-$4Log_{10}$; 4Log-$5Log_{10}$; $5Log_{10}$-$6Log_{10}$et >$6Log_{10}$ copies/ml). La méthode de Bland-Altman et le diagramme de Bland-Altman ont été utilisés pour la comparaison des deux méthodes.
Résultats: La concordance varie de 92 à 98% selon pour les charges virales allant de $1,6Log_{10}$(40copies/ml) à plus $6Log_{10}$ (>1million copies/ml). Nos résultats ont montré que ces deux techniques donnent des résultats similaires et que tous les biais observés sont inférieures à $0,5Log_{10}$copies/ml qui est la variation clinique significative. Cette concordance a été confirmée par la comparaison globale de charge virale obtenue à l'aide d'une droite de régression linéaire. La droite de régression linéaire montre une corrélation avec R^2=0,83 et une concordance de 95% entre les deux techniques.
Conclusion: Ces deux méthodes sont interchangeables, ce qui permettrait d'améliorer la disponibilité de charge virale pour aider à une atteinte du 3eme"90"de l'ONUSIDA fixé pour 2020.

WEPEB068

Continuous Quality Improvement across the Viral Load Testing Spectrum at the Infectious Diseases Institute, Uganda

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Background: Viral load (VL) testing is the gold standard for monitoring patients on antiretroviral therapy (ART). However, efficient implementation of VL monitoring (low rejection or failed samples rates and short turnaround time) for all patients poses complex technical and logistical challenges. We introduced a quality improvement (QI) initiative, to improve efficiency and coverage of routine VL testing at the Infectious Diseases Institute (IDI). We present annual VL coverage in the subsequent two years and the proportions for rejected /failed samples.

Methods: We used retrospective clinic data from electronic medical records to populate a VL cascade at the IDI clinic. It comprised patient identification, sample collection/transfer for testing at national level, management of results returned, and patient management actions based on the result. At baseline (Jan 2015), point prevalence of VL coverage was 14%. The QI team brain stormed root causes, analyzed using fishbone tool, and formulated three key areas for improvement; 1) Increase VL coverage and reduce proportion of failed/rejected samples 2) Reduce turn-around time by providing a dedicated QI VL focal person to manage VL results 3) Introduce a special clinic to ensure appropriate action for those with detectable VL.

Results: Viral load coverage at IDI increased substantially from 14% (2015) to 82% tests (2016) and 89% (2018). Failed samples reduced from 70 (2015) to 21 (2017). However, the rejection proportion increased to 1.054% (2016) from 0.168% (2015), this was addressed by meeting with the laboratory team and reduced to 0.78% (2017). Failed and rejected samples resulted from: insufficient/clotted samples, improper handling/transportation and poor sample labelling. Overall 10% results (VL > 75 copies/ml) were appropriately referred to the clinic. The QI team addressed VL challenges in the monthly clinic meeting.

Conclusions and Recommendations: Implementing a quality improvement system increased VL coverage. A VL monitoring cascade is key in identifying gaps for better treatment outcomes.

WEPEB069

Impact Positif du Psychologue Clinicien et de la Santé dans la Prise Globale des PVVIH pour l´Atteinte des 3x90 de l´ONUSIDA Cas de l´ONG Action Santé pour Tous (AST)-Togo

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Questions: Quel est l´impact d´un psychologue clinicien et de la santé dans la prise en charge globale des PVVIH ?

Description: Beaucoup de personnes dépistées séropositives deviennent angoissées par rapport à leur vie future, d´autres sont réticentes à adhérer au traitement. A l´ONG AST situé à Lomé-Baguida nous avons mis en place depuis 2013, une approche de prise en charge globale des PVVIH basée sur l´implication active du Psychologue pour la gestion de la peur, l´angoisse, l´anxiété bref la situation dépressive qui entoure le VIH .chaque PVVIH dépistée ou referee à AST bénéficie de l´intervention du Psychologue qui la rassure par rapport à toutes ses inquiétudes lui faisant obstacle. ce rôle du Psychologue contribue à écarter ou dissiper cette peur, angoisse, anxiété et réticence chez les PVVIH; permettant ainsi son maintien dans le circuit de soins. il aide le client à construire deux (2) types de réseaux à savoir: primaire (proches-parents) et secondaire qui est professionnel(les soignants) autour de soi. Ce faisant, la majorité des PVVIH est maintenue dans le continuum de soins et nombreux sont observants au traitement ARV.

Résultat: - Augmentation de notre file active : de 580 en fin décembre 2013 cette file active est passée à 1442 en fin mai 2019 soit une augmentation de 59 % -Sur les 1442 PVVIH nous avons 1285 sous traitement ARV - Sur 1285 PVVIH sous ARV, 1259 sont maintenus dans le continuum de soins. De janvier 2018 à juin 2019, 266 patients ont bénéficié de charge virale; sur ces 266 on a 242 PVVIH sous ARV qui ont leur charge virale supprimée soit un toux de 90.97%.- Etat psychologique stable: sur 391 cas de conjugopathie, de dépression et de stress enregistrés de façon confondue de 2015-2019 nous avons 297 cas stabilisés soit un pourcentage de 75.95%

Leçons apprises: L´implication du Psychologue Clinicien dans la prise en charge des PVVIH a permis de: - réduire le taux d´abandon du traitement ARV, -maintenir les PVVIH dans le continuum de soins, - renforcer les compétences d´auto-soins et d´autoadaptation des PVVIH, -stabiliser l´état psychologique des PVVIH

Prochaines étapes: Arrivée à avoir une charge virale indétectable chez 90% des PVVIH sous ARV de notre file active conformément au 3èm 90 de l´ONUSIDA.

WEPEB070

L'Observatoire Communautaire sur le Traitement : Un Outil de Surveillance et d'Amélioration de la Prise en Charge des PVVIH au Sénégal

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Contexte: La Coalition Internationale pour la Préparation au Traitement (ITPC), avec l'approbation du FM de lutte contre le Sida, la Tuberculose, et le Paludisme, d'une subvention de trois ans (Janvier 2017-Décembre 2019), a mis en place un observatoire régional communautaire sur le traitement du VIH en Afrique de l´Ouest.
L'amélioration de l'accès aux traitements antirétroviraux pour les PVVIH dans 11 pays prioritaires de l'Afrique de l'Ouest est l'objectif du projet.
Travailleuses du sexe TS), hommes ayant des relations sexuelles avec d'autres hommes (HSH), utilisateurs de drogues par voie injectables (UDI), femmes enceintes et jeunes constituent les cibles prioritaires du projet.
A l'instar des réseaux de PVVIH des 11 pays ciblés, le RNP, a collecté et analysé des données quantitatives et qualitatives sur les barrières d'accès au traitement et aux soins VIH durant l'année 2018 dans 15 sites de 03 régions du Sénégal.
Méthodes: Le projet a mis en place une équipe de 12 collecteurs de données qui se rendent 03 fois par semaine dans les sites auprès des prestataires désignés pour la collecte des données.
Les 09 sites de Dakar, 03 de Kaolack et 03 de Ziguinchor ont donné un échantillon quantitatif N= 34 257.
349 entretiens semi directifs ont été menés dont 74 % chez les PVVIH 0% chez les UDI et 2% chez les HSH.
Résultats: 34.257 personnes ont reçu le test de dépistage répartis ainsi : 1% de HSH, 0% de TS, 1% de UDI, 29% de Jeunes hommes, 15% de jeunes filles et 45% constitué d'autres personnes non prédéfinies.
32.959 ont retiré leurs résultats, soit un taux de rendu des résultats de 96%.
1114 personnes ont eu leur statut sérologique positif dont 58 HSH soit un taux de 23%, 2 UDI, 129 femmes enceintes, 75 jeunes hommes, 64 jeunes filles.
7413 PVVIH ont reçu un traitement antirétroviral dont 1486 initiants et 2791 ont bénéficié d'un test de CV.
Les recommandations de l´analyse des données ont permis aux membres du GCC de rencontrer l´équipe de la PNA afin d´éviter les ruptures d'ARV et celles des Ministères de la Santé et des Finances pour observer une meilleure qualité de la PEC des PVVIH.
Conclusions et Recommandations: L'OCT devient un outil incontournable de surveillance et d'amélioration de la PEC des PVVIH à travers des évidences solides.
Des plaidoyers ont été menés avec des résultats plus que satisfaisants au Sénégal.
La pérennisation de ce projet devient indispensable avec l'extension des sites de collectes de données.

WEPEB071

Recherche des Absents au TAR Comme Condition de Succès des 90 90 90 : Apport du FSMOS à Travers 29 Structures Communautaires au Burkina Faso

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Questions: L'atteinte des 90 90 90 constitue une priorité pour la fin du Sida en d'ici à 2030. Cependant, force est de constater qu'il y a une faiblesse dans le suivi du traitement par certaines PVVIH qui sont quelques fois déclarés « absents aux traitements ARV », ce qui ne favorise pas l'atteinte du deuxième et du troisième 90.Ainsi, les efforts du FSMOS ont consisté à financer des structures communautaires pour permettre de réaliser des activités de recherche de ces PVVIH absents au traitement ARV.
Description: L'approche consiste pour le FSMOS, de financer les structures communautaires pour la recherche des absents au traitement.Les subventions sont mises à la disposition des associations avec lesquelles une convention de financement est signée. Ces associations interviennent au sein des structures de santé de prise en charge et gèrent les files actives des PVVIH. Les listes de PVVIH qui sont absents depuis trois mois sont remises aux acteurs de terrain qui procèdent ainsi à leur recherche. Les stratégies de recherches sont les appels téléphoniques, les visites à domicile, les prises de renseignement par le voisinage et les membres des clubs d'observance.
Lorsque ces PVVIH sont identifiés et retrouver, des entretiens sont réalisés pour déterminer les raisons de l´absence au traitement en vue de résoudre les entraves et les réorienter vers les centres de santé pour la poursuite du traitement conformément au protocole de prise en charge.
Leçons apprises: L'intervention a permis d'améliorer l'état de santé et surtout les résultats des traitements de 3 500 PVVIH. De 2017 à 2018, les interventions ont permis retrouver et de réintégrer 400 PVVIH qui étaient absent du circuit du traitement pour plusieurs raisons. L'approche a ainsi permis de réduire les cas échecs et d'améliorer le suivi des effets secondaires des médicaments.
Prochaines étapes: La recherche des absents au traitement ARV a un impact sur la qualité et le succès du traitement et réduit les échecs thérapeutiques et les cas de décès lié au Sida.
Le besoin d'étendre l'expérience à l'ensemble des sites de prise en charge des PVVIH est un défi à relever pour le pays en vue d'accélérer l'atteinte du deuxième et du troisième 90.
La pérennité de l'intervention exige une subvention conséquente et des acteurs disposés à offrir le service à tous les niveaux. En cela, l'instauration d'une collaboration entre les acteurs communautaires et les sites de prise en charge reste une condition de succès.

WEPEB072

Sociodemographic and Clinical Risk Factors of Viral Load Suppression among Adult HIV Positive Patients Receiving Treatment in Nigeria

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Background: Viral Load suppression (VLS) improves clinical outcomes for HIV-positive patients and prevents transmission of HIV. Standard guideline to routinely monitor viral loads of clients is provided in Nigeria. However, the guideline may lack optimal adherence in practice, thus, limiting the effectiveness of clinical services to clients. UNAIDS estimated that over 70% of the people living with HIV (PLHIV) may be virally unsuppressed in 2016. We investigated the sociodemographic and clinical factors associated with viral suppression to determine the effectiveness of the HIV program among adults in Nigeria.
Methods: A cross-sectional study of adult patients (≥15 years; n = 887) on Antiretroviral Treatment (ART) for 12- 48 months was conducted. Participants were sampled from 69 health facilities across the 6 geopolitical zones in Nigeria, using probability proportional to size sampling technique. The variables of interest were treatments across geopolitical zone, current age, sex, ART regimen type (AZT+3TC+NVP, TDF+3TC+EFV, and others), regimen line, duration on ART, and missed clinical appointment status. Eligible participants were enrolled, blood samples collected, and tested for viral load. Multivariable logistic regression analysis was performed using SPSS.
Results: Majority of the participants were females (71.5%), between 30-39 years (39%) and on first-line drugs (99%). Most of the participants were virally suppressed (77.3%; CI 73%, 82%) with South West zone showing highest outcome (86.3%; CI 77%, 92%) and South East showing least suppression (69.9%; CI 47%, 86%). Current age (50+ vs 15-24, OR 3.8; CI 1.9, 7.6), regimen type (TDF+3TC+EFV vs AZT+3TC+NVP, OR 2.0; CI 1.2, 3.0), and missed clinical appointment (No vs Yes, OR 2.7; CI 1.7, 4.2) were associated with VLS.
Conclusions and Recommendations: One in four adult clients receiving ART were virally unsuppressed on their current regimen. Current Age, regimen type, and poor adherence to clinic appointments may be important factors contributing to virologic suppresion among adults. Innovative intervention for improved adherence to clinical appointments and review of the regimen types in Nigeria is needed in the program. Further studies are required to decipher the implication of age in VLS among adults.
Keywords: Viral Load suppression (VLS), adherence, regimen, regression, sociodemographic

WEPEB073

La participation des Adolescents Educateurs de Pair en Charge Virale Indétectable dans le Suivi des Enfants à Virémie Élevée: Cas du Club des Adolescents du Centre Solidarité Action Sociale de Bouaké

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Le suivi de l'observance thérapeutique chez les jeunes et adolescents constitue l'un des nouveaux défis de la lutte contre l'infection à VIH/Sida dans le monde. En effet, les avancées constatées (gratuité des ARV, accessibilité au traitement,…) ont favorisé une meilleure espérance de vie chez les enfants nés avec le VIH. Du coup, ces enfants qui décédaient avant l'âge de 5 ans, sont aujourd'hui devenus des jeunes garçons et filles qui développent des projets de vie tous comme les jeunes de leur âge. Aspirant à une suppression virale chez tous leurs pairs en souffrance thérapeutique, des initiatives ont été prises et des actions de solidarité ont été menées à travers la pair-éducation.

Méthodes: Recrutés, formés à la pair- éducation et affectés dans leur zone d'habitation, sept Educateurs de Pair âgés de 19 à 22 ans, tous indétectables et ayant une bonne expérience dans l'observance thérapeutique, ont été sélectionnés par le personnel soignant et communautaire. Leurs actions consistent à réaliser des Visites à Domicile chez leurs pairs détectables. Ils rendent régulièrement chaque mois des visites à leurs pairs en vue de partager et échanger leurs expériences, en leur expliquant les gestes utiles pouvant les amener à l'indétectabilité.

Résultats: En Mai 2018, sur une file active de 250 patients PVVIH de 0-24 ans, 102 avaient une virémie élevée, soit 40,80% de détectabilité. Après l'évaluation en Mai 2019, nous avons obtenu 78,80% (197 patients) d'indélébilité contre 59,20% (148 patients) d'indélébilité en 2018, soit une hausse de 19%(49 patients) indétectable. L'action des Educateurs de pair a permis à tous les enfants, et jeunes de comprendre un tant soit peu l'intérêt de l'indétectabilité.

Conclusions et recommandations:

- Etendre l'action des Educateurs de pair en formant d'autres,
- Développer le leadership,
- Faire des plaidoyers et partager leurs expériences au monde entier.

WEPEB074

The Trend of Long Term Immunologic Response to ART in the Context of a Low Normal CD4+ Value and Determinant Factors in Ethiopian

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Background: The rate of CD4 cell change differs among patients and associated factors are inadequately documented. This study investigated the trend of change in CD4 cell count over six years and the rate of immunologic response at twelve months following HAART. The rate of complete immunologic recovery in a group of patients with different base line CD4 count (< 100 and ≥ 100cells/ul) were estimated and compared. It also assessed the factors associated with immunologic response and recovery.
Methods: Records of 293 clients initiated on ART between 2007 and 2009 included from Ethiopian Federal Police Referral Hospital, that serves individuals from all ethnic groups, were reviewed. The median rate of CD4 increase and the rate of immunologic non-response were estimated. Incidence rates of complete immunological recovery calculated and compared between the two baselines CD4 cell. The effects of various predicting factors on immunologic response and attaining complete immunologic recovery assessed using Cox proportional hazards regression analysis.
Results: Rapid rate of increase in CD4+ count observed during the first six months of treatment followed by a relatively slower rate of increase throughout the six years. The baseline and post HAART six months median CD4+ cell counts for the cohort were 115 (IQR=64 - 176) and 222 (IQR = 153 - 326) respectively and this increased to 274, 299, 344, 365, 396 and 466 at 1, 2, 3, 4, 5 and 6 years respectively. 69.6% (204) attained the target CD4+ count of 366cells/µl. The incidence of complete immunological recovery was 21 during 100 PYO, and patients with baseline CD4 count of ≥ 100 cells/µl reached the end point of immunological recovery 2.7 times faster than patients with baseline CD4 < 100 cells/µl. CD4 cell change differed by time, sex, and use of CPT, with a faster increase observed during the first six months of treatment. CD4 cell increase was faster among females, and patients who were not taking CPT at base line had a better CD4+ gain (AHR of 1.65 with 95% of CI 1.08, 2.51).
Conclusions and Recommendations: Initiating treatment before a significant immunologic dysfunction occurs might result in preservation of the immune system and a better immunological recovery. Despite the low normal CD4+ range in the community, the trend of change following HAART is comparable to other setups with high normal values. Time on ART, base line CD4 count, sex of patients and CPT were found to be predictors of immunologic recovery.

WEPEB075

Developing an Electronic Dashboard to Monitor HIV Viral Load Testing in Côte d'Ivoire

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Background: Viral load (VL) testing is the gold standard for ARV treatment monitoring to achieve viral suppression. CI has 17 laboratories capable of VL testing and is working to scale up access to testing and optimize how test results are managed for ARV treatment monitoring. Building and harnessing data from effective information systems to monitor testing data has been a priority for the Ministry of Health (MoH), leading to a collaborative effort to develop a user-friendly dashboard that monitors VL testing. This tool is used by clinicians monitoring ARV treatment and the MoH for programmatic oversight.
Methods: I-TECH along with the US Centers for Disease Control and Prevention- Project RetroCI, PEPFAR and the MoH Directorate of Health Information (DIIS) collaborated to develop a VL dashboard for CI. I-TECH modeled the dashboard on software code shared by USAID Kenya/CHAI. CI´s VL dashboard connected to the OpenELIS (OE) laboratory information system, which I-TECH helped develop and currently used in 67 public laboratories in CI. The VL dashboard was designed to aggregate data collected by OE and produce data visualizations, which are available via the website https://chargevirale.openelisci.org/vl_dashboard/.
Results: The VL dashboard website became publicly available in July 2018, with an initial 10 VL testing laboratories transmitting data to the dashboard via the OE interface. The remaining 7 VL testing laboratories began transmitting data in January 2019. The VL dashboard presents a range of data visualizations, including data by region and month, by sample source (dried blood spot, EDTA plasma), demographic data (gender, age), and population trends (number of those tested with low VL, less than/greater than 1,000 copies). Suppressed and unsuppressed VL's, as well as suppression rates, are available and can be stratified by age and sex. Turnaround time for VL laboratories is also available.
Conclusions: The VL dashboard has enabled rapid analysis of 16 months of VL testing data from across CI and is currently being used to monitor VL suppression in PLHIV and tracking the loss of patients to clinical follow-up. It has also enabled the National HIV Program and its implementing partners to swiftly respond to VL testing access and data quality issues. To achieve real-time results reporting, I-TECH is working on linking OE to the VL dashboard using a consolidated server to automate this process.

WEPEB076

Étude Longitudinale de la Rétention sous Soins des PVVIH HSH à Douala au Cameroun

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Introduction: Dans la logique de cible des 3 X 90, les services VIH à l'endroit des populations ont été drastiquement modifié : le dépistage s'est intensifié, et le nombre de personnes sous traitement explosé, mettant d'ailleurs le stock d'ARV sous tensions au niveau national. A alternatives-Cameroun par exemple, nous sommes passés de moins de 100 patients sous ARV en 2016 à 500 en 2018, suite aux nouvelles stratégies liés à la cible des 3 x 90. Cette évolution rapide pose la question de la rétention à long terme des patients, d'où l'objet de cette étude longitudinale.
Méthodes: Les participants de l'étude, qui aura duré 15 mois, devaient être HSH et dépisté positif au VIH. Le recrutement se faisait à la suite d'un test positif au VIH, y compris pour les patients déjà pris en charge. Au premier contact, un questionnaire était proposé au participant sur les besoins du patient. Un test de syphilis était également proposé, avec les bilans de suivi : ASAT/ALAT, Créatinine, CD4 et Urée. Le bilan de suivi et le test de syphilis était renouvelé au sixième mois, et la charge virale incluse. Au douzième mois, le bilan de suivi était à nouveau proposé ainsi que le questionnaire. A chaque rendez-vous, les participants, contactés systématiquement la veille, recevaient des frais de transport. Tous les services étaient disponibles et offerts directement au centre de santé communautaire. Un questionnaire sur l'observance et autres conditions de vie était proposé tous les 3 mois.
Résultats: Nous avons recruté au total 178 participants. Au sixième mois, la rétention des participants était de 100%, 89.90% au neuvième mois, 76.71% au douzième mois et 91.19% au quinzième mois. Il a été noté que certains bénéficiaires rencontrent des difficultés pour des rendez- vous en semaine, parce qu'ils sont à l'école ou au travail. Les résultats de certains bilans mettent un temps considérable à être disponibles, notamment les charges virales. Cependant, nous notons, au 18è mois, plus de 92% de charge virale indétectable.
Conclusions et Recommandations: Si la rétention est largement facilitée par la disponibilité surplace de la totalité de services liés au VIH. La rétention au long terme reste un défi pour la prise en charge des HSH par les OBC. Nous avons noté que la durée de l'étude était plutôt courte pour les objectifs élaborés, et mériterait d'être renouvelé pour mesurer sur le long terme les détails de l'observance des PVVIH HSH.

WEPEB077

Improving Viral Load Monitoring among Pediatric and Adolescent Clients in Selected Low-performing Facilities in Hhohho and Shiselweni Regions, Eswatini

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Issues: Viral load (VL) monitoring helps identify ART-enrolled children and adolescents not adhering or suffering lack of drug efficacy. In Eswatini, only 24% of children on ART received VL testing in 2016. EGPAF Eswatini's AIDSFree project supported 5 facilities to implement quality improvement projects (QIPs) to address VL. At baseline (2016-2017) VL testing rates among children and adolescents < 20 years old ranged from 0% to 39%.
Descriptions: With support from EGPAF clinical mentors, facilities set up multi-disciplinary QI committees and reviewed data for gaps and root causes using a *fishbone diagram* and the *Five Whys*. Root causes included: poor patient flow, leading to some eligible children being missed for monitoring; long turnaround time; limited knowledge and capacity of health care workers on VL assessment in children; and lack of job aids and SOPs around VL monitoring. Health facilities changed client flows, making it a prerequisite to assess eligibility for VL testing before ART refill at every visit. Using job aids, facilities educated clients/caregivers on importance of VL monitoring and developed a VL register to document results. Facilities appointed a focal person to compile VL results, prioritizing children and adolescents with high VL who then received stepped-up adherence counselling (SUAC). In cases of persistent high VL, clients were referred to a doctor and second-line therapy. Pediatric clients with suppressed VL were encouraged to maintain adherence. Each QIP was implemented over a period of 9 months (2016-2018).
Lessons learned: Within the 9 months, VL testing improved in all 5 facilities: Facility 1: 39% (107/274) to 98% (289/295); Facility 2: 0% (0/13) to 75% (36/48); Facility 3: 8% (3/36) to 61%(37/41); Facility 4: 15% (7/48) to 96% (50/52); Facility 5: 34% (10/29) to 90% (28/31). From all 5 sites, a total of 88 children who had an unsuppressed baseline VL received SUAC and a repeat VL test after 3 months. Upon results reception, 64% (56/88) had suppressed VL. Among the 36% (32/88) who were persistently unsuppressed, 69% (22/32) were switched to second-line regimens, while 21% (10/32) were not switched, as social issues, not the efficacy of first-line drugs, were what was affecting ART adherence.
Next steps: VL monitoring for children and adolescents is scaled up at all supported facilities in Hhohho and Shiselweni regions. EGPAF Eswatini will develop a change package to share with Ministry of Health's National AIDS Programme.

WEPEB078

Déterminants Liés aux Issues Thérapeutiques Défavorables des Personnes Vivant avec le VIH (PVVIH) Suivies dans un Site de Prise en Charge Décentralisé

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A l'ère du Test and treat les praticiens sont toujours confrontés aux défis liés à l´ optimisation du traitement ARV du fait des échecs thérapeutiques et de la faible rétention aux soins .C'est dans ce cadre que s'inscrit notre étude avec comme objectifs de déterminer la prévalence des issues thérapeutiques défavorables dans un centre de PEC décentralisé et d'en déterminer les facteurs associés

Methodologie: Il s'agit d'une étude transversale , descriptive et analytique portant sur les PVVIH , suivies du 1er février au 31 Décembre 2018. Tous les sujets âgés de 18 ans et plus , sous traitement ARV depuis plus de 6 mois, et ayant bénéficié au moins d'une charge virale après la mise sous ARV ont été inclus. L'échec thérapeutique a été défini comme toute CV >1000cp/ml après 6 mois de traitement ARV Perdu de vue : tout patient qui ne s´est pas présenté à la structure de soins pour retirer les ARV depuis trois mois après le dernier RDV .Une fiche de recueil des données a été remplie à partir des dossiers médicaux mais aussi par entretien avec les patients pour les données complementaires.La saisie et l'analyse des données ont été faites à l'aide des logiciels EXCEL et EPI INFO 2002

Resultats: Au total 331 patients ont été colligés, de profil VIH-1 dans 89% des cas , ils étaient mariés dans 55% des cas et provenaient de la zone rurale dans 97% des cas . 80% étaient non ou faiblement scolarisés (80%) .L' âge médian était de 44 ans avec un ratio F/H de 3,4 A l'inclusion, 56 % était symptomatique classé au stade 3 ou 4 de l'OMS Ils présentaient une immunodépression sévère avec un taux médian de CD4 de 217 cellules /mm3 . La charge virale était détectable chez la moitié des patients (168 patients) avec une médiane de 97000cp/ml .Le schéma antirétroviral associait 2 INTI à 1INNTI dans 89% des cas . La durée médiane de suivi était estimée à 60 mois (Extrêmes 6-204). Les issues thérapeutiques défavorables étaient de 36 % (119 patients) . La proportion d'échec virologique était de 19% , celle de PDV de 20% et la létalité était de 4% .Ces issues thérapeutiques défavorables était associées à l'âge inférieur à 25 ans (p=0,007) ,à la mise sous traitement ARV tardive (CD4 à l' inclusion inférieur à 200 cel /mm3 (p=0,02)

Conclusion: Ces résultats suggèrent la nécessite de rendre accessibles les nouvelles classes thérapeutiques pour le traitement de première ligne du patient infecté par le VIH. Mais aussi de développer des stratégies visant à réduire la déperdition aux soins

WEPEB079

Prevalence and Characteristics of HIV Drug Resistance in Art Experienced Youth in Ndola, Zambia

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Background: HIV drug resistance (HIVDR) threatens epidemic control of HIV in Zambia. Knowledge of HIVDR in youth will contribute to identifying effective antiretroviral therapy (ART) regimes, improving clinical decision making, and supporting effective behavioral change interventions. This analysis examines the prevalence and characteristics of HIVDR among adolescents and young adults from four HIV clinics in Ndola, Zambia.

Methods: Baseline data from a randomized controlled trial (RCT) Project YES! (Youth Engaging for Success) were analyzed. RCT participants were 15-24 years old, knew their HIV status, and had been on ART for 6 months or more. All participants completed a baseline survey and viral load (VL) test. Participants with VL failure (1,000 copies/ml or more) underwent HIVDR testing. Mutations in the protease and reverse transcriptase enzymes were analyzed.

Results: A total of 99 out of 272 youth (36%) had VL failure, of whom 77 had successful HIVDR amplification. Of the 77, 75% had at least one drug resistant mutation and 62% required a drug change. Among those with at least one mutation, the estimated prevalence of HIVDR to NRTI, NNRTI, and major PI mutations were 81%, 65.5%, and 1.7%, respectively. The most common HIVDR mutations were M184V (81%), K103N (65.5%), V106A (36.2%), Y188C (36.2%), and Y181C (36.2%).

Conclusions and Recommendations: The prevalence of HIVDR among youth failing ART was high. The high frequency of Y181C and Y188C NNRTI HIVDR mutations may compromise the effectiveness of third-line salvage candidates, such as Etravirine and Rilpivirine, among patients with no prior exposure. Closer monitoring of HIVDR at start of treatment, or at first-line failure, can better inform clinical decision-making and ART policies. Further studies are needed to estimate the prevalence of primary transmitted HIVDR in youth and children starting HIV treatment.

WEPEB080

pol Gene Purifying Selection in Children with Discordant Immunolovirological Response to Antiretroviral Therapy

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Background: Biological monitoring of antiretroviral treatment (ART) in HIV-infected pediatric population remains challenging

Methods: HIV-1 diversity in *pol* gene was assessed in HIV-1-infected children and adolescents born from HIV-1-infected mothers (median age at follow up: 13.8 years) in virological failure (VF+) despite long-term WHO-recommended regimen. The numbers of nonsynonymous substitutions per potential nonsynonymous site (dN) and of synonymous substitutions at potential synonymous sites (dS) in HIV-1 *pol* gene and the dN/dS ratios were used to estimate the selective pressure on circulating HIV-1.

Results: The immunological responses to ART basically corresponded to: i) full therapeutic failure with immunological (I^-) and virological nonresponses in one-quarter (24.6%) of study children ([I^-,VF^+] subgroup); and ii) discordant immunovirological responses with paradoxal high CD4 T cell counts (I^+) and high HIV-1-RNA in the remaining cohort patients (75.4%) ([I^+,VF^+] subgroup). The mean dS was 1.8-fold higher in [I^+,VF^+] than [I^-,VF^+] subgroups (25.9±18.4 *versus* 14.3±10.8). In the [I^+,VF^+] subgroup, the mean dS was 1.6-fold higher than the mean dN. Finally, the mean dN/dS ratio was 2.1-fold lower in [I^+,VF^+] than [I^-,VF^+] subgroups (0.6±0.3 *versus* 1.3±0.7), indicating purifying selection in the immunovirological discordant [I^+,VF^+] subgroup and positive selection in the immunovirological failure [I^-,VF^+] subgroup.

Conclusions and Recommendations: Children and adolescents in immunovirological therapeutic failure harbor positive selection of HIV-1 strains favoring diversifying in *pol*-encoded amino acids. In contrast, children with persistent discordant immunovirological responses show accumulation of mutations and purifying selection in *pol* gene sequences, indicating limited genetic evolution and likely suggesting genetic adaptation of viruses to host functional constraints.

WEPEB081

HIV Viral Load: Providing Access Is Not Enough (OPP-ERA Project)

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Background: In resource-limited settings, access to HIV viral load (VL) has increased, allowing the "third 90%" to be reported. From a clinical point of view, does access to VL really have an impact on the management of PLHIV: appointment spacing for patients (pts) with VL< 1000 cp/mL, adherence strengthening for pts with VL≥1000 cp/mL and 2nd line treatment in case of confirmed failure? We took advantage of the OPP-ERA project, which has enabled the implementation of VL at large scale in Guinea and Burundi, to study theses issues.

Methods: All samples collected from 2014 to 2019 within the OPP-ERA laboratories implemented in Burundi and in Guinea were analyzed. The management of virological failure was investigated through a sample survey of pts by reviewing medical chart during a 6 months period in 2018.

Results: A total of 30,791 pts in Burundi and 18,305 in Guinea on ART (1st line 97%) have benefited from VL test from 2014 to 2019. Overall, the proportion of pts with a VL < 1000 cp/mL was 90% in Burundi and 78% in Guinea and has remained stable during the project.

Spacing of appointment for pts with VL< 1000 cp/mL, was incorporated in national guidelines but implemented only in medical centers supported by Doctor Without Borders in Guinea.

Of the 3,752 pts in Burundi and the 4,463 and pts in Guinea with VL≥1000 cp/mL, control VL was performed for 540 pts (14.4%) in Burundi and 709 pts (15.9%) in Guinea. Among those, VL control was < 1000 cp/mL in 55% pts in Burundi and 48% pts in Guinea reflecting effective adherence strengthening.

Among pts with control VL≥1000 cp/mL, a sample survey showed that 11/29 pts (38%) in Burundi and 19/119 pts (16%) in Guinea have benefited from switch to 2nd line.

Overall, it can be estimated that among pts with a CV≥1000 cp/mL, 10,2% in Burundi and 8.5% in Guinea, have benefited from appropriate management in accordance with national guidelines (adherence intervention; control VL; 1st line continuation if VL< 1000 cp/mL; 2nd line switch if VL≥1000 cp/mL).

Conclusions and Recommendations:

Despite significant access to VL for a period of 6 years, the management of pts with VL≥1000 cp/mL remains a challenge. The cascade of virological failure reflects a very low use of this tool.

The reasons for the low clinical use of VL results should be further explored in order to develop appropriate strategies, so that efforts to deploy VL access lead to improved patient clinical management.

Key words: Virological failure cascade, Burundi, Guinea

WEPEB082

Management of HIV Virological Failure in an Associative Medical Facility in Burundi (OPP-ERA Project)

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Background: The OPP-ERA project implemented HIV viral load (VL) on open platforms in Burundi. More than 45.000 VL tests were performed from 2014 and 2019, documenting a virological success (VL< 1000 cp/mL) in 90% of patients (pts). We studied the management of pts in virological failure (VF) in an associative facility where the OPP-ERA platform was installed.

Methods: We conducted a retrospective survey of patients with VF followed in the ANSS Turiho center with at least one VL≥1000 cp/mL in the first 6 months of 2018 from the OPP-ERA laboratory database. VF was defined as at least 2 consecutive VL≥1000 cp/mL. Data were collected from medical charts. A survey of prescriber's VL knowledge was performed in 2019.

Results: VF was identified in 45 pts, 33 adults and 12 infants/adolescents. The median duration of ART was 7,6 years, 10 were on 2nd line. At the time of the survey: two pts have died, one was lost to follow-up, 3 have further VL< 1000 cp/mL without switch, one was switched to 2nd line after a single VL≥1000 cp/mL. Among the 29 remaining pts on 1st line retained in care at time of the survey: 11 (38%) have benefited from 2nd line switch, after a median of 308 days after the expected date of switch. In comparison with pts remaining in 1st line, pts who have been switched were more frequently infant or adolescent (55% vs 11%, p=0.03) and have higher VL (198.650 vs 25.885 cp/ml, p=0,04). Median number of VL test (6), turnaround time for VL results (median 12 days), notification in the medical charts of VL results (81%) and adherence interventions (68%) were similar in pts who been switched to 2nd line or remained in 1st line.

The knowledge survey included 23 participants, 74% of them had a good knowledge of VL. However the 1000 cp/mL threshold was respected by only 22% of them for a clinical case with a decrease in VL after adherence strengthening (p< 0,01).

Conclusions and Recommendations: Despite regular access to the VL, with a short turnaround for VL result, the absence of 2nd line shortage, access to adherence intervention and a good completeness of medical records, only a third of pts with VF benefited from a switch to 2nd line, at a late stage. Switch is more frequent in infants and adolescent and in case of high VL in accordance with the low compliance with the 1000 cp/mL threshold documented in the knowledge survey. Capacity building of caregivers seems necessary to improve failure management.

Keywords: Virological failure, 2nd line, Burundi

WEPEB083

Pattern of HIV Drug Resistance among Patients with Suspected Second-line Anti-retroviral Therapy (Art) Failure in the Kingdom of eSwatini

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Issues: Eswatini has the highest per capita HIV burden in the world with HIV prevalence of 27.2% among adults 15 - 49 years old. About 10% of People of Living with HIV have advanced HIV disease (AHD). Of the clients on first-line antiretroviral therapy (ART); 10% are not virally suppressed after 12 months, of these 72% need switching to second-line; failures of second-line ART are on the increase. HIV-related mortality is high and efforts to reach epidemic control are impeded by difficulties of management of AHD and emergence HIV drug resistance (HIV-DR). Management of HIV needs to incorporate proper ART regimen sequencing to improve outcomes and preserve future options. We aim to describe the patterns of HIV-DR among 2nd line ART clients with virologic failure.
Description: The National AIDS Program established an HIV-DR Clinical Expert Committee to provide ARV drug stewardship as part of the national Anti-Microbial Drug Resistance response strategy; this committee approves Genotype requests for clients failing 2nd line ART, interprets results and recommends salvage regimens. Management of Protease Inhibitors (PI) failures is a component of AHD management. HIV Genotype requests are processed in South Africa under a memorandum of understanding between Lancet Laboratories and Ministry of Health.
Lessons learned: Over an 18-month period (January 2018 - June 2019), 113 samples were sent for genotype processing, of these 97 (86%) successfully amplified and sequenced, 4 (4%) failed to amplify and 10 (9%) were not tested. Overall, 59 (61%) genotypes had no PI resistance-associated mutations (RAMs), 42 (71%) had no major NRTI RAMs or only M184V, 23 (24%) had no NRTI RAMs and 16 (16%) genotypes had no NNRTI RAMs. Of all the samples successfully amplified and genotyped, 74 (84%) had NNRTI mutations, 74 (76%) had NRTI mutations, and 38 (39%) had PI resistance. Of the 74 samples with NRTI Thymidine analogue mutations (TAMs), M184V was found 91% samples; there was at least 1 TAM in 66% of samples with T215F present in 57%. 81 samples had NNRTI resistance, 43% had K103N, 38% had E138Q and 14% had Y181C. PI resistance was found in 38 samples with 63% M46I, 58% V82A and 55% I54V; 29% had a combination of M46I, I54V and V82A RAMs.
Next steps: In maturing HIV epidemics, there is emergent HIV drug resistance, tailored HIV response will ensure allocation of resources for genotype testing and definitive expert guidance on salvage regimens for second line ART failures.

WEPEB084

Traitement Antirétroviral de Troisième Ligne au Togo: État des Lieux

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Introduction: Les échecs thérapeutiques sont diagnostiqués à un stade tardif du fait de la non disponibilité de la charge virale dans le suivi de routine.
L'objectif principal de ce travail était d'évaluer les conditions et critères de mise sous traitement antirétroviral (TARV) de 3e ligne des patients en échec de la 2e ligne du TARV.
Matériel et méthodes: Il s'est agi d'une étude de cohorte rétrospective du 1er janvier 2013 au 31 décembre 2018 puis transversale du 1er janvier au 30 juin 2019 chez les patients en 3e ligne du TARV; menée dans le service des Maladies Infectieuses et Tropicales du CHU Sylvanus Olympio ont été ont inclus.
Résultats: Soixante-seize patients ont été mis sous traitement antirétroviral de 3e durant la période d´étude. L'âge moyen des patients était de 43,53 ans [12 - 69 ans] avec une prédominance masculine (n=44) soit un sex ratio H/F de 1,375. La quasi-totalité des patients étaient infectés par le VIH1 dans 98,68% des cas.
Avant le traitement de 3e ligne, les patients avaient une durée moyenne du traitement antirétroviral de 1ere et 2e ligne 8,8 ans [1 - 21 ans].
Le taux moyen de CD4 des patients au moment de l'échec du TARV de 2e ligne était de 110,3 cellules/µl [0 - 664 cellules/µl]. La charge virale n'avait pas été réalisée chez 16 patients. La charge virale moyenne des patients l'ayant réalisé au moment de l'échec de la 2e ligne du TARV était 44 023 958,35 copies [970 - 2 400 000 000 copies].
La mauvaise observance au traitement antirétroviral était associée aux échecs thérapeutiques dans 72 cas (94,7%). Au plan clinique, divers manifestations ont été notées chez les patients au moment de l'échec thérapeutique de la 2e ligne.
Les infections opportunistes diagnostiquées étaient dominées par la tuberculose (n=8) et la candidose buccale (n=8).
Le génotypage pour orienter la prescription de la 3e ligne du TARV a été réalisé par 17 patients (22,4%). Le Darunavir et le Raltégravir étaient les deux molécules associées à toutes les combinaisons du TARV de 3e ligne dans la plupart des cas.
Neuf cas de décès ont été chez ces patients après initiation de la 3e ligne du traitement antirétroviral soit une létalité de 12%.
Conclusion: La mauvaise observance au traitement antirétroviral est majoritairement associée aux échecs thérapeutiques. La demande de la charge virale devrait être accrue auprès des praticiens et la réalisation effective du génotypage permettant de déceler les vrais échecs thérapeutiques.

WEPEB085

Acquired HIV-1 Drug Resistance among Patients Experiencing Virological Failure in Cameroon during the Year 2018

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Background: National prevalence of HIV is 2.7% in Cameroon. Scale-up of antiretroviral-therapy (ART), HIV-drug resistance (HIVDR), becomes a public health priority and antiretrovirals may become ineffective. There is a need to follow-up acquired resistance (AR) to update data on viral mutational profiles and factors favoring its emergence in patients undergoing therapeutic failure (TF) (viremia≥1000 copies/mL)
Methods: We carried out a cross-sectional and analytic study between January 2018 and January 2019 on HIV-1 infected patients (≥15 years). Participants presenting for resistance testing were recruited at the 'Chantal Biya' International Reference Centre for HIV prevention and management (CIRCB) Cameroon. Genotypic HIVDR testing was performed on protease-reverse transcriptase region and interpreted using Stanford University HIVDR database v.8.5. BioEdit v7.0.5.3 was used for alignment and MEGAv7.0.26 for phylogenetic tree. Statistical analyses were performed using epi info v7.2.2.6, major HIVDR mutations and association with clinical, immune-virological parameters evaluated; p value < 0.05 considered statistically significant
Results: 406 participants were enrolled (mean age 41±12 years, *sex-ratio* 5/9), 317 were on first line and 89 on second line. NRTI/NNRTI resistance for patients failing therapy first line was at 86.4%(274/317). For patients on second line, the rate of AR to NRTI/NNRTI/PI/r was at 37.1%(33/89). Most commonly encountered mutations first versus second line failing were M184V(93% versus 83%) for NRTI mutations, K103N(59% versus 43%) for NNRTI mutations and I54V(1% versus 22%) for PI mutations. Main viral subtype was CRF02_AG(63%), 3 detected cases of HIV-1 group O. Duration on treatment was significantly associated with emergence of resistance (p = 0.018) for first line. In first line failing patients, AZT(60%) and TDF(57.7%) remained effective within NRTI-class while ETR(45.5%) and RPV(44.4%) presented good efficacy in NNRTI-class and all PI/r possessed good efficacy. In s econd line patients, TDF(78%) maintained good efficacy in NRTI-class while DRV/r(90%) maintained efficacy in PI/r class
Conclusion and Recommendation: This study shows high levels of AR in patients undergoing TF in Cameroon, favored by long duration on therapy. CRF02_AG remains the major viral subtype. Darunavir boosted with ritonavir is a suitable alternative for subsequent third line regimens
Keywords:Virological failure, Acquired HIV drug resistance, Cameroon

WEPEB086

Evaluating Psycho-social Support in Improving Adherence among HIV Positive Adolescents Aged 10-19 Years at Gertrude's Children's Hospital, Nairobi

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Issues: Gertrude's Children's Hospital has a client base of 424 adolescents, 227 female and 197 male, all living positively. Over 80%, (340) of these were born positive. In January 2017, adherence measured 65% low. Adherence is measured by self-reports, pill count and viral load tests. At the time of the study, all adolescents were receiving ART. The psycho-social team implemented a 'one adolescent at a time' approach to curb non-adherence.

Descriptions: Adolescents were grouped in five, the groups color coded and named. Groups worked competitively towards viral suppression. Members could exchange and share. If clients attained viral suppression individually, a token was given. Any issue was reported to peer supporters. We targeted those with detectable viral loads numbering 80, (18.9%).One to one approach included counseling sessions and monitoring on 1)drug and substance use, 2)ART-adherence, 3)Mental health assessment. We gave shorter appointments. Adolescents were exposed to at least 6 sessions. Viral load tests were carried out once after three months of instituting good adherence, and continued annually. The approach took place during appointment days. Adherence data was analyzed generally and recorded at 87% at year's end, our target being 90%.

Lessons learned: Clients supported each other. Communication with staff improved. Staff could obtain information on the well-being of clients easily. Adolescents were active on social media, opening up about many issues; greatest fears shared were

1) Marriage/intimate relationships,
2) Death,
3) Stigma,
4) Disability due to HIV; all addressed during the one to one sessions.

It became clear that adherence does not mean acceptance. Adolescents still needed psycho-social support. Staff's involvement in client's lives was noted.

Next steps: The success of the intervention underscores the importance of providing safe spaces for adolescents to discuss issues outside the clinical set up and guide future support groups. The interventions brought out the unique nature that social/fun activities incorporated within treatment matters, improved adherence and bonding. One to one approach and assessment offered keener insight into client's social activities that may affect adherence, such as drinking too much. Overall, the social activities worked to improve adherence.

WEPEB087

Same Day ART Initiation; Retention into HIV Care Remains a Challenge, a TASO Mbarara Experience

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Issues: WHO recommended test and treat for all following evidence from clinical trials on the efficacy of early ART initiation. Uganda launched the policy in 2016 and efforts have been put in place to identify new positives and start them on ART. Some studies have shown that same day ART initiation increases retention into care however this seems to be different in our setting. The objective of this analysis was to determine the retention levels for patients initiated on ART using same day initiation.
Descriptions: Using the surge campaign since February 2018, we reached to targeted populations in the community by through peers, staff or VHTs. Approaches like small groups, moonlights, Bar to bar, index partner testing, VMMC platform were used. Pre and Post test counseling done by a team of staff that included counselors, laboratory technician and clinicians. Newly identified positives would immediately be initiated on ART after counseling and a next clinic appointment given. Those who would decline would be given an appointment within two weeks to come for ART initiation. Risk reduction interventions, PrEP, referral and linkage to other facilities would be offered. Follow ups would be made through phone calls or physical follow ups for missed appointments.
Lessons learned: February to September 2018, the facility initiated 615 on ART. An early monthly retention analysis shows that of the 615 enrolled, by August 2018 74% were still in care, worse trend being observed in July of 57%. Reasons for low retention 6 (1%) died, 35(5.7%) transferred out, 42(6.8%) were already in care at another facility, 12 declined to continue with ART, while 83 are lost to follow up. 437 are still in care.
Next steps: Same day ART initiation is beneficial in reaching out to targeted populations, however there is need for adequate pre-ART preparation and understanding the dynamics of the different populations.

WEPEB088

Assessing Techniques Peer Navigators Use in Re-engaging Lost to Follow-up Patients in HIV Care Programs

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Background: Retention is a challenge for many HIV care programs in sub-Saharan Africa that threaten achieving the UNAIDS goal of ending HIV by 2030. We assessed the techniques peer navigators use in re-engaging patients lost to follow up in HIV care.
Methods: This was a qualitative ancillary study of an on-going randomized control trial (ADAPT-R Study) to prevent and treat lapses of retention in HIV care. ADAPT-R study employed a sequential multiple assignment design where patients failing on initial arms of standard care, SMS reminders and transport vouchers were re-randomized to either standard of care, SMS reminder plus transport vouchers, or peer navigators. We recruited all four peer navigators managing patients in peer navigator arm for in-depth interviews to understand the different techniques used in persuading patients to re-engage in care. The interviews conducted in English were audio-recorded, transcribed and resultant transcripts coded and analyzed using constant comparative approach.
Results: Peer navigators reported to use techniques that involved creating rapport with patients and, labeling their experience and expertise to win patients back to care. The display of experience and expertise created a sense of trust and authority of the navigators in matters of patient care. Creating rapport and mutual interest between the navigators and patients resulted in the two liking each other. The navigators reported providing assistance such as rides to patients which created a sense of indebtedness to reciprocate by accepting the navigators requests. The navigators identified and provided patients with targeted support to re-engage in care and weaning them of after achieving consistency. The navigators also reduced the number of contacts with non-responsive patients that created a sense of scarcity and allowed patients time to rethink what the navigators were asking them to do. Another technique applied was using stories of other patients who had challenges in the beginning but were able to overcome and dramatically improved their health outcomes.
Conclusions: Peer navigators used persuasion techniques of liking, authority, reciprocation, scarcity, consensus, and commitment in re-engaging and retaining patients in care for improved health outcomes. For sustainability, HIV care programs may need to invest in training community health volunteers on persuasion techniques so that they can apply the skills to treat lapses in retention.

WEPEB089

Factors Associated with Adherence to Antiretroviral Treatment in Haho Health District, Togo, 2019

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Background: From 2000 and 2017, Antiretroviral Therapy (ART) contributed to reduce deaths and HIV new infections respectively by 36% and 38% worldwide. In Togo, prevalence of non-adherence to ART in Haho health district was 77% in 2018. We aimed to determine factors associated with adherence to ART.
Methods: We conducted a case-control study from January to February 2019 in HIV-positive patients followed at Notsè Hospital. Cases were patients who had taken antiretroviral drugs as prescribed during the last 30 days before the survey. Controls were those who didn't comply with antiretroviral drugs as prescribed in the same period. To assess adherence status, we obtained informed consent and used a structured questionnaire to interview patients who came at hospital to renew antiretroviral drugs. Sample included the 62 cases while 209 controls were randomly selected from non-adherence patients. Subsequently, we interviewed patients and reviewed their records to collect socio-demographic and clinical data that we recorded on a semi-structured questionnaire. We performed logistic regression with Adjusted Odd Ratio (AOR) and 95% Confidence Interval (CI) to identify associated factors.
Results: Overall mean age of participants was 43 years ±12 years in cases and 41 years ±11 years in controls. Among female mean age was 43 years ±11 years in cases and 40 years ±11 years in controls while male's was 46 years ±13 years and 42 years ±14 years respectively. HIV-1 accounted for 98% and 100% while ART with Tenofovir-Lamivudine-Efavirenz combination was 91.8% and 92.6% respectively in cases and controls. Factors associated to non-adherence in female were: patients comfort related to caregivers' behaviour (AOR=0.33, 95% CI [0.03-0.23]); pregnancy desire during the last six months (AOR=0.21, 95% CI [0.06-0.74]); antiretroviral drugs taking supervision by a relative (AOR=0.31 95% CI [0.11-0.84]), positive effect perception of ART on physical energy (AOR=0.13, 95% CI [0.04-0.38]) and the absence of projection into the future (AOR=6.97, 95% CI [2.20-22.09]). None significant factors were identified among male.
Conclusions and Recommendations: Hope, well-being, child's desire, ART supervision and caregivers' behaviour influenced adherence to ART. Psychological support for patients, especially women, and supervision of caregivers should be strengthened.
Keywords: Adherence - Antiretroviral Treatment - Haho - Togo

WEPEB091

Mobility and Clinic Switching among HIV Patients Considered Lost to Follow-up in North-Eastern South Africa and Consequences for Estimating the Second 90-90-90 Target

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Background: Accurately capturing the number of HIV patients who drop out of HIV care programmes is challenging across sub-Saharan Africa. We assessed the extent of undocumented clinic transfer among patients lost to follow-up (LTFU) in South Africa.

Methods: We traced patients categorised as LTFU (>90 days late for a scheduled clinic visit) in 8 clinics within the Agincourt Health and Demographic Surveillance System (HDSS) in rural north-eastern South Africa to ascertain their "true" outcomes. Tracing involved reviewing clinic and routine tracing records, comparison against demographic surveillance data and conducting supplementary tracing for patients for whom an outcome could not be ascertained.

A spatial analysis was conducted to assess patterns of movement between clinics. Google maps was used to ascertain decimal degree coordinates. Using ArcMap, the coordinates were imported to shape files with a WGS 1984 coordinate system.

Results: Of 1017 patients LTFU that were traced, 120 (11.8%) had died, 75 (7.4%) were alive and not on treatment, 49 (4.8%) had migrated, 315 (31.0%) had transferred to another facility, 225 (22.1%) had re-engaged in care and 111 (10.9%) were known to be alive but their treatment status could not be ascertained.

Of the 315 patients who transferred, 131 (41.6%) did so to facilities within HDSS, 89 (28.3%) to other clinics in Mpumalanga, 37 (11.8%) to Gauteng, 25 (7.9%) to another named province, and 7 (2.2%) out of the province but with no new facility specified; 23 (7.3%) had no final destination indicated. Of 131 transfers within the HDSS, 105 (80.2%) were undocumented, of 184 transfers out of the HDSS 77 (41.8%) were undocumented.

82 (29.3%) of 280 Option B+ women had transferred compared to 176 (36.1%) of 487 non-pregnant women and 57 (22.8%) of 250 men that were LTFU. Forty-six (56.1%) of Option B+ women transferred to a facility within the HDSS compared to 67 (38.1%) of non-pregnant women and 18 (31.6%) of men. 16 (19.5%) of Option B+ women transferred to a facility in the same province compared to 55 (31.3%) of non-pregnant women and 18 (31.6%) of men.

Conclusions and Recommendations: We found evidence of continued care characterised by high rates of undocumented transfer after LTFU and identified local and nationwide clinic mobility among HIV patients. A linked database will be needed to improve ascertainment of patient outcomes among more mobile patients.

WEPEB092

Models of Hope (MOH) Contribution to the Attainment of the 90-90-90 Targets

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Issues: Fully achieving the 90-90-90 targets means getting 73% of all persons living with HIV to be virally suppressed according to the 2017 AIDS update. Estimates by the Ghana AIDS Commission shows that for Persons living with HIV (PLHIV) in Ghana, 66.4% are virally suppressed hence the need for enhanced efforts to ensure that the global target of 90% is met.
Descriptions: Closing this gap requires making HIV management and care along the cascade an increased priority and taking full advantage of new technologies and innovative service delivery strategies such as the use of Models of Hope (MoH). Under the Community Systems Strengthening intervention of the Global Fund New Funding Model II, 216 MoH have been trained from seven (7) regions in Ghana with the exception of Upper East, Upper West and Volta regions. MoH have been trained and provided with skills to support activities along the three 90's.MoH undertake community education on HIV and AIDS, risk assessment and referral for testing, facilitate client for testing at the facility or community level, identify and document positive clients preference for service delivery, follow up on children of positive PLHIV who have not tested for HIV, support newly diagnosed clients for early initiation on treatment, follow up HIV adherence counselling and support, follow up on PLHIV not on treatment and lost-to-follow-up (LTFU), provide home based care to patients with advanced disease, ensure adherence to appointment, ensure adherence to appointment schedules among others.
Lessons learned: After six (6) months of implementation, MoH have reached out to 18,696 out of which 53% are newly diagnosed PLHIV with HIV education, out of the number reached, 0.6% received home-based support, 3% were defaulters and the rest received support at the health facility. One lesson learnt with the introduction of the MoH concept has been the ease with which they are able to convince newly diagnosed PLHIV to accept and adhere to medication. It has also been observed that with the engagement of MoH, defaulters more defaulter cases have been returned to treatment as compared with the situation where the nurses did the defaulter tracing themselves.
Next steps: It is recommended that the MoH concept be integrated in mainstream Ghana Health Service health care delivery structure as they are able to relate well with PLHIV at all levels of health delivery.

WEPEB093

Impact of Therapeutic Education on observance to ARV treatment for patients living with HIV followed at Agreed Treatment Center of Ngaoundere

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Background: The Observance to ARV treatment is a basic requirement for an optimal adherence, which is essential towards the achievement of viral load suppression among patients living with HIV. However, as revealed by studies, the level of education, socials and economic factors are some characteristics influencing the observance to ARV treatment. The Adamawa Region where Ngaoundere Agreed Treatment Center (ATC) is located, is one of the poorest Region of Cameroon, with low schooling rates. From 2013 to 2015, the Ngaoundere ATC has offered therapeutic education to patients living with HIV who are on ARV treatment. The purpose of the present study was to identify and evaluate the causal effect of that intervention on the attitude of the patient with the drug refills.
Methods: Due to the self-selection problems associated with non-experimental studies, we implemented Propensity Score Matching (PSM) method to measure the impact of this intervention on observance to ARV treatment. We considered the respect of appointment at pharmacy for drug refill as measure of observance, and we observed it during the whole year of 2016. By combining the level of education, socials and economic factors, demographic characteristics, and the cohort of the patient, we were able to compute propensity scores. Although the application of PSM using the whole dataset of 3 303 clients on ART helps to achieve a balance between the treatment and control groups of 442 clients each, along observable variables. We measured effect of Therapeutic Education through the relative risk reduction and the Number Needed to Threat.
Results: Therapeutic education increased observance to ARV treatment during the year 2016 by reducing the risk of non-observance to ARV treatment by 18.5%. In addition, 9 clients must receive therapeutic education to avoid the occurrence of one non-adherence.
Conclusions and Recommendations: The therapeutic education should then be strengthened and extended to other centers of treatment of people living with HIV. Also, a qualitative study should be conducted to identify local factors which influence the observance, and these factors should be considered while offering therapeutic education

THPEB030

Rétention des Personnes Vivant avec le VIH (PVVIH) sous Thérapie Antirétrovirale (TARV) dans les Cohortes de 2012 à 2016 au Burkina Faso

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Background: La gratuité du traitement antirétroviral (TARV) a facilité l'initiation chez un grand nombre de personnes infectées par le VIH. Dans la mesure où les traitements sont de plus en plus répandus, il est important de connaître le devenir des PVVIH qui ont initié le TARV au cours d'une période donnée. Nous avons évalué dans les cohortes de PVVIH de 2012 à 2016 la rétention sous TARV à 12, 24, 36 et 60 mois.
Methods: Nous avons réalisé une étude de cohortes rétrospectives, descriptive à visée analytique qui a concerné 58514 patients (enfants et adultes) sous TARV inscrits du 1er janvier 2012 au 31 décembre 2016 dans 93 (91%) centres de traitement et soins des PVVIH reparties dans les treize régions du Burkina Faso. L'extraction des données a été réalisée à l'aide d'une feuille Excel adaptée à partir de l'outil OMS utilisé pour la mesure de la rétention sous TARV à 12 mois dans le cadre de la surveillance des indicateurs d'alerte précoce (IAP). Nous avons évalué la rétention à 12, 24, 36 et 60 mois dans ces cohortes. Les analyses ont été faites à l'aide du logiciel Excel.
Results: L'âge médian (intervalle interquartile) des PVVIH ayant initié le TARV était de 42 ans (35-49) en 2012, 40 ans (34-48) en 2013, 39 ans (32-47) en 2014, 37 ans (30-44) en 2015 et 36 ans (28-44). Le sexe féminin prédominait dans toutes les cohortes respectivement 64.26%, 65.52%, 66.27%, 74.31% et 73.18%. Dans toutes les cohortes, les enfants représentaient moins de 7% et le VIH1 était retrouvé chez 95% des patients. Sur 4601 PVVIH ayant initié le TARV en 2012, la rétention était de 70,13% à 12 mois, 65,15% à 24 mois, 62,04% à 36 mois et 54,66% à 60 mois. Elle était de 68.72%, 62,85% et 58.39% respectivement à 12, 24 et 36 mois. Pour la cohorte de 2014, la rétention était de 71,05% à 12 mois, 64.46% à 24 mois et 59.32% à 36 mois. Elle était de 63,58% à 12 mois et 57.7% à 24 mois pour la cohorte de 2015. Enfin, on notait 64.77% de rétention à 12 mois pour la cohorte de 2016. Un patient sur quatre était perdu de vue dans toutes les cohortes à 12 mois.
Conclusions and Recommendations: Dans toutes les cohortes évaluées la rétention des PVVIH dans le TARV a baissé dans le temps avec un risque d'émergence de résistance du virus aux antirétroviraux. Pour réduire ce risque, une étude des déterminants de la rétention dans le TARV doit être réalisée afin de relever le niveau de rétention dans les centres de santé au Burkina Faso.
Mots Clés: Rétention, observance, PVVIH, antirétrovirale

THPEB031

Intérêt de la Prise en Charge Psychologique dans le Circuit de Soins des Patients VIH au Bénin

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Contexte: Bien que les traitements antirétroviraux aient considérablement évolué ces dernières décennies, offrant aux personnes vivant avec le VIH une amélioration majeure de l'espérance de vie, le vécu psychologique de ces personnes, dans la durée, reste toutefois problématique. Dès lors les personnes infectées se trouvent confronter à des difficultés personnelles ou liées à leur environnement de vie constituant des facteurs de troubles psychologiques qui influencent leur adhésion aux systèmes de soins. Ce travail vise à faire ressortir les différents troubles psychologiques chez les patients infectés au VIH.
Méthodes: Il s´agit d´une étude rétrospective de nature quantitative qui porte sur 557 patients infectés par le VIH/Sida et suivis sur les sites de prise en charge de l'HZ Natitingou et l'HSJD de Tanguiéta au Bénin. L'échantillon est constitué des patients référés et reçus pour un motif identifié par un acteur du site dans la période d'Avril à décembre 2018. Les données recueillies ont été traitées avec le logiciel SPSS.
Résultats: La population est à dominance féminine (66%). La moitié des patients a le problème du partage de statut VIH+ avec son partenaire. Dans le circuit de la prise en charge, (66,3%) ont été reçus en consultation exploratoire et (20%) pour mauvaise observance au traitement ARV, (3,5%) sont liés aux problèmes psychologiques avérés et (1,1%) pour des manifestations psychiatriques. Plus de patients de [0-24 ans] sont de mauvais observant. Les troubles anxieux (42,8%) et les troubles du sommeil (37,9%) sont des facteurs ayant un impact dans la mauvaise observance. Pour l'abandon aux traitements les troubles dépressifs mineurs (46,7%) et le stress (22,1%) prédominent. Pour les manifestations psychiatriques, les troubles du sommeil sont plus diagnostiqués (15,6%) suivis des troubles anxieux (14,8). Les troubles dépressifs sont diagnostiqués en majeure partie chez les patients ayant pour motif abandon du traitement et cela s'accompagnent des troubles liés aux dépendances alcooliques
Conclusion: Cette étude a montré que les patients développent des troubles psychologiques pour lesquelles le cadre de soins sans un spécial de santé mental manque de réponse adéquate à sa gestion. La consultation psychologique systématique du patient permet un dépistage précoce des troubles psychologiques et cela facilite aux patients une meilleure compréhension de leurs troubles et une meilleure adaptation à leur séropositivité au VIH.

THPEB032

Effet de la Stratégie « Tester et Traiter » sur la Rétention en Soins des Personnes Vivant avec le VIH Suivies dans les Services de Prise en Charge au Cameroun: Une Approche Comparative

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Contexte: La stratégie "tester et traiter" qui consiste en l'initiation au Traitement Antirétroviral (TAR) des personnes dépistées positives au VIH indépendamment du stade clinique et du taux de CD4 a été adoptée au Cameroun en juin 2016. Cependant, des dérives dans la mise en œuvre de cette stratégie ont été observées dans plusieurs centres de traitement du VIH. En effet, l'initiation au traitement de nombreux patients s'est faite sans l'accompagnement psychologique adéquat nécessaire à l'adhésion au dit traitement. L'objectif du présent travail est donc d'évaluer l'effet de cette stratégie sur la rétention à 12 mois chez les PvVIH pris en charge au Cameroun.
Methode: Les données de routine des patients initiés au TAR entre octobre 2015 et janvier 2017 ont été extraites des registres de prise en charge des PvVIH. Les taux de rétention à 12 mois des PvVIH sous TAR avant (octobre 2015 à juin 2016) et après (juillet 2016 à janvier 2017) l'adoption de cette stratégie ont été calculés. Ils ont été obtenus en rapportant le nombre de PvVIH encore sous traitement 12 mois après leur intiation au nombre total de personnes initiées au TAR12 mois avant pour chaque cohorte. Enfin, des tests de comparaison de ces différents taux de rétention avant et après la mise en place de cette stratégie ont été effectués.
Resultats: Sur un total de 55 373 PvVIH enregistrées, 21 580 ont été initiées avant la stratégie et 33 793 après. Dans les 2 groupes, les proportions étaient similaires. Les femmes représentaient 66% des nouvelles initiations, les enfants de 0 à 9 ans, 3%, les jeunes et adolescents de 10 à 24 ans, 11% et enfin les adultes de 86% des cas. Globalement, le taux de rétention est passé de 77,2% à 75,5% (P-valeur=0,000) entre les deux périodes .Spécifiquement, il est passé de 78,2% à 72,8% (P-valeur = 0,000) chez les femmes et de 73,2% à 69,8% (P-valeur = 0,000) chez les 20-24 ans. Certaines zones du pays ont également connu des baisses importantes. A l'Extrême-nord le taux de rétention est passé de 77,4% à 72,3% (P-valeur= 0,0012), au Littoral de 78,4% à 72,3% (P-valeur = 0,0000) et au Sud de 81,1% à 74,3% P-valeur = 0,0001).Toutefois, on a observé une hausse du taux de rétention chez les hommes, de 75,1% à 76,8%(P-valeur = 0,0007) et chez les moins de 5 ans de 67,8% à 76,0%(P-valeur = 0,0007).
Conclusion/Recommandations: L'effet de la stratégie tester et traiter est mitigé. Pour certains groupes, la rétention s'est détériorée, pour d'autres elle s'est améliorée. Il apparaît donc nécessaire que les prescripteurs soient sensibilisés sur l'importance d'une éducation thérapeutique suffisante avant toute initiations aux Antirétroviraux.

THPEB033

Monitoring Actif de la Rétention en Soins des Personnes Vivant avec le VIH/Sida au Cameroun: Application aux Cohortes d'Avril, Mai et Juin 2017

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Contexte: Afin de réduire les effets de l'épidémie du VIH, le Cameroun a adopté en 2017 un Plan Stratégique National de Lutte contre le VIH/Sida, dont l'un des impacts visé est la réduction de 70% de la mortalité liée au VIH en 2022. Ceci à travers un accent particulier sur la rétention en soins des PvVIH initiées au traitement antirétroviral (TAR). L'objectif de ce travail est de contribuer à la mise en place d'un système de surveillance active des PvVIH sous TAR. Quel est le niveau actuel de rétention à 12 mois ? Peut-on utiliser les données de rétention collectées en routine pour la surveillance de cet indicateur ? Quels sont les facteurs associés à l'attrition des PvVIH 12 mois après leur initiation?
Méthodologie: La faisabilité de l'utilisation des données de routine a été faite en comparant d'une part, les taux de rétention obtenus en routine et les taux de rétention obtenus lors des ateliers de validation des données (standard), en évaluant la qualité des données de routine d'autre part. Les facteurs associés à l'attrition des PvVIH à 12 mois après leur initiation ont été obtenus grâce au modèle de survie de Cox.
Résultats: 7 407 PvVIH parmi lesquelles 64% de femmes, initiées au TAR dans 69 formations sanitaires entre Avril et Juin 2017 ont été considérées. Le taux de rétention global à 12 mois a été évalué à 61%. Certains groupes ont enregistrés des performances remarquables : les femmes (65%), les enfants de 5 à 9 ans (77%), les PvVIH sous TDF/3TC/NVP (95%) et les PvVIH des régions du Sud (76%), du Sud-ouest (71%) et du centre (69%). La différence entre le taux de rétention calculé en routine et le standard était significative (58% contre 61%, P-valeur= 0.0001). La qualité des indicateurs de rétention de routine était mauvaise, avec seulement 42% d'indicateurs exacts et 43% d'indicateurs interprétables. Les principaux facteurs d'attrition étaient : « avoir entre 15 et 30 ans », prendre le protocole « TDF/3TC/EFV » et être sous traitement dans les régions de l'Adamaoua, de l'Est, du Littoral, du Nord-Ouest et du Sud-Ouest.
Conclusion/Recommandations: Accentuer le suivi des patients dans les régions de l'Adamaoua, de l'Est, du Littoral, du Nord-ouest et du Sud-ouest, mais également des jeunes de 15 à 30 ans. Renforcer les capacités des agents chargés de la collecte des données de routine, et procéder au recomptage systématique de ces derniers lors des supervisions d'assurance qualité ou lors des ateliers de validation des données.

THPEB034

Antiretroviral Treatment Non-adherence and Virological Failure in Côte d'Ivoire: A Cross-sectional Study

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Introduction: For people living with HIV (PLHIV), antiretroviral treatment (ART) adherence is essential for achieving an undetectable viral load. However, in West Africa both ART non-adherence and limited access to viral load are ongoing challenges. Thus, the aims of this study were to assess ART non-adherence and virological failure and to identify factors associated with them in adults living with HIV in Côte d´Ivoire.
Methods: Participants aged ≥ 18 years and on ART for ≥ 1 year were enrolled from six HIV clinics. Trained social workers interviewed participants using a standardized questionnaire. Non-adherence to ART in the preceding 30 days was assessed using a visual analog scale. We defined virological failure as a viral load ≥ 1000 copies/ml. We identified associated factors using multivariate Poisson regressions.
Results: Among the 1,458 participants, 445 (31%) were non-adherent to ART. Participants who were younger, had disease at an advanced WHO stage, with ≥ 5 ARV pills, living with many people, who consumed alcohol, or had received professional health advice were more likely to be non-adherent. Among the 1,447 participants who had a viral load measurement, 268 (18.5%) had virological failure. Participants who were younger, attended a hinterland HIV clinic, not working or working in informal sector, with ≥ 2 ARV pills, with a monthly income ≥ 60,000 FCFA, who were hospitalized in the year before the interview, or were non-adherent to ART had a higher risk to have virological failure.
Conclusions: In our study, the proportions of no-ART adherence and virological failure among PVVIH on ART were not optimal for at least one year and more. In the African context of limited access to ART options, innovative strategies should be implemented to improve adherence to treatment and regular monitoring of viral load.

THPEB035

Enhanced Adherence Counselling (EAC) for Improved Viral Suppression among Adolescents at Sokoine Regional Hospital, Tanzania Experience

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Issues: HIV viral suppression is the desirable goal for anti-retroviral therapy (ART) and is defined by WHO as having HIV Viral Load (HVL) of less than 1000 copies/ml. To achieve viral suppression, one must be on ART for a period not less than six months with good medication adherence. However, achieving viral suppression for children and adolescent has been a major challenge in Tanzania. In addressing this challenge, USAID Boresha Afya Southern Zone program conducted Enhanced Adherence Counselling (EAC) for adolescents not suppressed after first HVL test and assessed the outcome.

Descriptions: The program intensively advocated for HVL test to be conducted for all eligible adolescents during clinic visits and monitored HVL results from the laboratory on weekly basis to extract all those with HVL above 1000 copies/ml. The list of clients with high HVL was then shared to the respective facilities for tracking and prompt initiation of EAC. File review for adolescents receiving HIV services at Sokoine regional hospital in Lindi region was conducted for the period of October 2017 to May 2018 with outcome of interest being impact of EAC to adolescents with high HVL after the first HVL test.

Lessons learned: Out of 51 adolescent files reviewed, 50 (98%) had received the first HVL test and 23 (46%) were virally suppressed on the first HVL test. The remaining 27 adolescents with high HVL were initiated on three sessions of EAC for a period of three months. During the review, 20 (74%) adolescents had finished EAC sessions, got their second HVL test done and received their results. Fourteen (70%) adolescents were suppressed after EAC sessions increasing the overall viral suppression for adolescents at Sokoine regional hospital from 46% to 86% with a total of 37 adolescents out of 43 achieving HVL suppression.

Next steps: EAC is effective for improved HVL suppression. Adolescents struggle with adherence to medication and therefore EAC intervention should be provided to all adolescents at risk of high viremia from poor adherence to medication and not to wait for the viral load results to start addressing the problem.

THPEB036

Impact of Enhanced Adherence Counselling on Viral Suppression amongst HIV Infected Individuals on First Line Haart in General Hospital Kafancha, Kaduna State, Nigeria

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Background: Adherence to ART is an essential component of individual and programmatic treatment success. Higher levels of ARV adherence are associated with improved virological, immunological and clinical outcomes. In order to achieve an undetectable viral load and prevent the development of drug resistance, a person on ARV drugs need to take at least 95% of the prescribed doses at the right time. Adherence has been shown to be a major predictor of viral suppression of HIV replication, emergence of ART drug resistance, disease progressions, and death. Optimum adherence has ensured maximum durability of the first-line ARV regimen. Suboptimal adherence on the other hand is the major cause of therapeutic failure and is common in resource limited settings like Nigeria. The objective of the study was to evaluate the impact of enhanced adherence counselling (EAC) on viral suppression among HIV infected individuals with virological failure on first line HAART.

Methods: A longitudinal evaluation was conducted on **837** clients who had viral load (VL) test done in 2017. Results were analysed based on clients with VL $\geq$1000 copies/ml (unsuppressed), < 1000 but $\geq$20 copies/ml (suppressed) and < 20 copies/ml (undetectable). All individuals with unsuppressed VL were subjected to three consecutive months of EAC and provided with only 4 weeks of ARVs in each month. At the 4th month, all individuals that successfully completed 3 months of EAC had a repeat VL test done.

Results: Out of the 837 individuals studied, females constituted 64% (n=536). Optimal adherence rate was 73% (n=611). A total of 226 (**27**%) individuals comprising of 92 (40.7%) males and 134 (59.3) females had unsuppressed VL $\geq$1000 copies/ml. A total of 195 (86.3%) successfully completed EAC, 27(11.9%) individuals did not, 3 (1.3%) were transferred out, while 1 (0.4%) died before the completion of EAC period. All the 195 individuals had repeat viral load test. Of this, 165 (84.6 %%) achieved viral suppression (viral load < 1000 copies/ml) while 30 (15.4%) remained unsuppressed and where switched to 2nd line ART regimen.

Conclusions and Recommendations: Results show that EAC is essential to increase viral suppression rate, minimize switch from first to second line drugs and enhance efficiency of antiretroviral treatment. Care providers should ensure the provision of EAC for all virally unsuppressed individuals on first line ARVs before considering the second line option.

Keywords: EAC, HIV, Viral suppression

THPEB037

Qualité de la Prise en Charge du VIH et ses Effets sur l´Adhésion au Traitement aux Antirétroviraux à Madagascar

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Introduction: L'observance, la rétention au traitement aux antirétroviraux (TARV) et la prise en charge (PEC) de qualité sont des facteurs essentiels pour le contrôle de la charge virale auprès des personnes vivant avec le VIH (PVVIH). A Madagascar très peu de données sont disponibles pour ces paramètres. Cependant, si en Afrique subsaharienne un avancement non négligeable de la lutte s'observe au cours des dix dernières années, Madagascar enregistre une augmentation des nouvelles infections au VIH et un taux de couverture aux TARV très bas. L'étude vise à évaluer la qualité de la PEC du VIH et leurs effets sur l'observance et la rétention au TARV.

Méthodes: Nous avons réalisé une étude de cohorte auprès de 423 PVVIH adultes dans 5 villes enregistrant plus de 70% des PVVIH de Madagascar entre février 2018 et janvier 2019 avec 3 entretiens successifs des participants, tous les 2.5 à 3.5 mois.

Résultats: Le nombre de consultations médicales au cours des 3 derniers mois est faible (11.1%), comme les examens paracliniques (13.7% pour le test CD4, 9.9% pour la mesure de la charge virale et 8.1% pour les autres examens). Le score de satisfaction sur l'offre de soins a diminué au cours du temps (au début : 7.32/10 et à la fin :5.99/10, p>0.0001). La proportion de personnes observantes s'élève à 74.5% et ne varie pas dans le temps. L'arrêt du TARV plus de 21 jours est de 14.9%. Les facteurs favorisants l'observance sont l'existence de consultations au cours des 3 derniers mois (Odd ratios ajustés (ORA) : 12.4[IC95% : 2.1;241.6], p< 0.0001) et le fait de payer pour le déplacement vers le centre de santé (CS) (ORA : 2.3[1.3;4.1], p< 0.01). Les facteurs bloquants sont les effets indésirables (ORA : 0.4[0.2;0.7], p< 0.01) et l'ancienneté dans la PEC (ORA pour la durée >3 ans vs ≤1 an : 0.1[0.2;0.7], p< 0.01). Le taux d'abandon du TARV s'élève à 27.6 pour 100 personnes-années.

Conclusion et Recommandations: La qualité de la PEC à Madagascar reste très au-dessous des normes de PEC recommandées par le protocole national notamment sur les fréquences de consultations médicales et les examens paracliniques. Un lien est établi entre la qualité de la PEC et l'observance du TARV. Les facteurs de l'abandon du TARV n'ont pas été mis en évidence à cause d'une faible puissance statistique. Un renforcement de la qualité de la PEC associé à une éducation thérapeutique des PVVIH sont fortement recommandées pour prévenir le développement des souches résistantes aux ARV à Madagascar.

THPEB038

Factors Associated with Discontinuation of Antiretroviral Therapy among HIV-positive Adults in Rural Mozambique

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Background: HIV remains a major public health problem. While combination antiretroviral therapy (ART) has led to a significant reduction in HIV-related morbidity and mortality, challenges of adherence and retention in care remain. The study objective was to estimate the proportion of patients discontinuing ART (defined as failing to pick up ART for ≥60 days) and associated risk factors among HIV-positive adults who started ART in Namacurra, a rural health facility in Zambézia Province, Mozambique.
Methods: A cross-sectional study was done using data extracted from the electronic patient database (OpenMRS) from adults (≥15 years) enrolled in care between January 1, 2015 and December 31, 2016, with a follow-up period till May 8, 2018. Sample size was calculated using the formula for proportions (3% sample error, 50% discontinuation rate and 95% confidence level), with a proportional sample between men and women to avoid disproportionate inclusion. Associations with sociodemographic and clinical variables were assessed using Chi-square and Fisher's exact tests; and logistic regression modeling adjusted for significant variables. Analysis was supported by the package SPSS Version 25.
Results: From the 2,641 adults in the cohort, 766 were included in the analysis (583 (76%) female and 183 (24%) males). Median age was 28 years (IQR 22-35 years), 77% with no or primary-level education, and 90% were unemployed. The mean duration on ART was 30 months (range 0-130 months). Median last CD4 was 394 cells/mL (IQR 223-624) and 73% had WHO clinical stage I-II. Overall, 50% [95%CI: 47%-54%] of patients discontinued treatment. Factors associated with ART discontinuation included being younger (< 35 vs ≥35 years, p=0.02), unemployed (vs employed, p=0.019), having no past history of ART use (p=0.02), not having chronic diarrhea (p=0.013), not having a prolonged cough (p=0.038), having hypertension (p=0.038), last CD4 ≤200 copies\mm3 (p< 0.001). Adjusted analysis identified older age (≥35 years) as being protective (Adjusted Odds Ratio (aOR)=0.97, 95%CI: 0.94-0.99; p=0.011), and last CD4 ≤200 copies/mm3 as a risk factor (aOR=4.5, 95%CI: 2.084-9.837; p< 0.0001).
Conclusions: The rate of ART discontinuation is high, with younger patients and those with continued low immunity being at higher risk. Tailored strategies such as Clinics Friendly for Young Adults, or Community Support Groups with Focus on Young People, combined with strengthened adherence counseling need to be explored.

THPEB039

Factors Associated with Retention at One Year among People Living with HIV(PLHIV) on Treatment(Rx) in National HIV Program, Nigeria

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Background: The 2nd 90 of the UNAIDS target aims to ensure that 90% of identified PLHIV are on treatment and retained in order to ensure viral suppression and thus reduce risk of transmission. We evaluated factors associated with retention in Rx at 1-year (RiT 1-year) for the Nigeria HIV program.
Methods: Between January 2013 and December 2017 retention in treatment (RiT) was assessed using a retrospective cohort analysis. RiT 1-year was assessed by estimating the proportion of clients who were active on treatment 1 year after initiating treatment. Chi-Square test was used to assess differences between categorical variables while logistic regression was used to determine factors associated with RiT 1-year.
Results: Of the 24,327 client's folders abstracted, 76% were RiT 1-year. RiT 1-year was slightly higher among females (77%) than males (74%; p=< 0.01), it was highest among those ≥ 65 years (78%) and lowest among 15-24 years (73%; p< 0.001). Also higher among those with baseline CD4 count > 200 cells/mm3(80.7% - 82.5%) and lowest among those with CD4 count ≤200 cells/mm3(78.7%). LR showed males compared to females were less likely to be RiT 1-year ({AOR}0.89; 95% CI: 0.74 - 0.97). Those with primary (AOR:1.36; 95%CI: 1.17 - 1.57) and secondary level education (AOR: 1.35; 95% CI: 1.18 - 1.56) were more likely to be RiT 1-year compared to those without education. Those initiated at higher CD4 count levels were more likely to be RiT 1-year; CD4 count at 200 - 350 cells/mm3 (AOR:1.21; 95% CI:1.08 - 1.36), 351 - 500 cells/mm3 (AOR: 1.28; 95% CI: 1.12 - 1.46) and >500 cells/mm3 (AOR:1.15; 95%CI: 1.01 - 1.31) compared to those with < 200 cells/mm3. Clients enrolled at private (AOR:0.61; 95% CI: 0.45 - 0.83) or public health facilities (AOR: 0.85; 95% CI: 0.75 - 0.97) were less likely to be retained compared to the faith-based facilities. The probability of being on treatment was 0.83, 0.76, 0.71 and 0.67 at 3, 6, 9, and 12 months respectively.
Conclusions and Recommendations: Only about 76% of clients were RiT 1-year and this calls for evidenced based interventions to increase the proportion of clients RiT 1-year. Educational status, CD4 count at initiation and type of health facility were associated with RiT 1-year. Clients initiated on treatment at higher CD4 counts were more likely to be retained in care. This suggest that RiT 1-year under the "test and start strategy (TnS)" may be higher than the pre-TnS period and calls for an evaluation of the TnS in Nigeria.

THPEB040

Adhésion et Mortalité chez les PVVIH de 2012 à 2016 à la PMI ISSIA: Etude de Cohorte

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Contexte: Depuis 2017,la Côte d'Ivoire a adopté le "TESTER-TRAITER". Cela a amené tous les site à l'image de la PMI Issia à se conformer à cette nouvelle directive (traitement pour tous patients). Cependant nous constatons encore des décès parmi ceux-ci. Notre objectif est d'évaluer le système de suivi des patients afin d'améliorer le suivi pour l'atteinte des objectifs du millénaire.
Méthode: Dans le cadre de cette étude de cohorte, nous avons utilisé les données de la PMI Issia de 2012 à 2016 saisie dans SIGDEP (Système d'Information et de Gestion des Dossiers Electronique du Patient). Notre population était tous les patients suivis dans cette période. Par ailleurs, nous les avons saisis dans le logiciel Spss par catégorie (année, âge, sexe, continu traitement, arrêt traitement, perdu de vue, transféré, décédé). Nous avons fait des analyses bi variées et multi variées de ses données.
Résultats: Sur la période, nous avons recensé 16% d'hommes et 84% de femmes (N=258).Seul 49% des patients dont 39% de femmes et 10% d'hommes sont encore dans les soins. Par contre 51% dont 45% de femmes et 6% d'hommes sont en attrition (arrêt de traitement, perdu de vue, transféré ou décédé).
Pour le suivi longitudinal des patients, nous avions 6 hommes et 64 femmes à M0 mais a M60, nous sommes à 4 hommes et 20 femmes.
Pour les décès, nous constatons 8.4% de décès (N=21) en général avec 7% chez les femmes (N =217) et 14% chez les hommes (N=21). 57% de ces décès sont enregistrés dans le 1er semestre du traitement et 42% dans le second.
Conclusion: La prise en charge des PVVIH, requière une attention particulière chez les prestataires surtout les nouvelles inclusions seul gage d'une adhésion parfaite.
Recommandations: Partenaires techniques et financiers

- Faire des audits de décès des patients
- Attribuer des numéros uniques aux patients d'un même pays afin d'éviter les doublons et faciliter la traçabilité pour mieux dénombré les patients.
- Faire régulièrement des évaluations des pratiques
- Faire une évaluation sur tous les plans avant l'ouverture d'un centre de prise en charge car il ne sert à rien d'ouvrir un centre qui a tous ces patients en attrition

A l'endroit des services de prise en charge

- Ne pas hésiter à refaire le typage d'un ancien patient qui plonge (possibilité de viré dans un autre type de VIH)
- Se référer toujours à la pièce d'identité du patient pour son enrôlement (Eviter de renverser le nom).

Mots clés: PMI- ISSIA

THPEB041

Assessing the Impact of HIV Support Groups on Antiretroviral Therapy Adherence and Viral Suppression in the African Cohort Study

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Background: Support groups(SG) are a useful modality for optimizing HIV care.However, their impact on HIV treatment outcomes has scarcely been investigated in large population-based longitudinal studies.We assessed the impact of HIV support group attendance (SGA) on antiretroviral therapy (ART) adherence and viral suppression in a large HIV cohort in four African countries.
Methods: The ongoing African Cohort Study (AFRICOS) has enrolled HIV-infected participants at 12 clinics in Kenya, Uganda, Tanzania and Nigeria since 2013.Clinical/laboratory assessments are conducted 6 monthly, including questionnaires about healthcare engagement.Participants were classified as haven attended a SG meeting if they responded "yes" to any of the following frequencies of attendance: less than once a month, once a month, more than once a month, or several times within a month. SGA, ART adherence and viral suppression were assessed at enrollment, months 6 and 12 visits.ART adherence was based on self-report and was defined as not missing a dose of ARV medication in the last 30 days.Viral suppression was defined as HIV RNA result < 1000 copies/ml.Separate logistic regression models were used to estimate adjusted odds ratios (AORs) and 95% confidence intervals (95% CI) for the impact of SGA on ART adherence and viral suppression at months 6 and 12 visits.
Results: Out of 2,845 HIV-infected participants enrolled through 1 September 2018, 347 (12.2%) reported attending an HIV SG at the enrollment visit; while 281/2,397 (11.7%) and 264/2,165 (12.2%) reported SGA at the 6 and 12 month visits respectively.Site-based analysis showed some variability with South Rift Valley in Kenya (16.5%) having the highest rate of SGA, followed by Nigeria (14%) while Kisumu in Kenya (8%) had the least. In adjusted models, SGA was not associated with ART adherence at month 6 (AOR 0.93, 95% CI 0.64-1.36) and month 12 (AOR 0.97, 95% CI 0.66-1.44) visits.As compared to participants who did not attend an HIV SG, those who attended a SG had similar odds of viral suppression at the month 6 visit (AOR 1.07, 95% CI 0.77-1.49) and month 12 visit (AOR 1.32, 95% 0.87-2.00).
Conclusions and Recommendations:SGA was not associated with ART adherence or viral suppression in this cohort, although low uptake of SG may have limited our ability to detect a statistically significant impact.We were also unable to assess the quality of SG, frequency of meetings, or discussions in the meetings, which might influence outcomes.

THPEB042

Caractéristiques des Hospitalisations Liées au VIH dans un Centre de Prise en Charge de Niveau Tertiaire à l'Introduction de la Stratégie Test and Treat au Burkina Faso

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Introduction: La stratégie « test and treat » a été introduite dans le programme de prise en charge VIH au BF en février 2018. L´objectif de ce travail est d´étudier les caractéristiques actuelles des hospitalisations des personnes infectées par le VIH lors de l'introduction de la stratégie « test and treat » au BF.
Méthodes: Il s'agit d'une étude transversale descriptive et analytique avec collecte rétrospective des données. Les données ont été collectées dans le service de Médecine Interne du CHU de Bogodogo qui est un établissement d'hospitalisation adulte de niveau tertiaire de référence. Tous les patients infectés par le VIH hospitalisés dans la période qui s'étend du 1er février 2018 au 31 janvier 2019 ont été inclus dans l'étude.
Résultats: 114 patients infectés par le VIH ont été hospitalisés durant la période concernée par l'étude. L'âge moyen des patients était de 43,9 ans. Au moins un évènement classant stade 3 ou 4 de l'OMS était présent chez 101 patients (90,2%). Le taux moyen des CD4 des patients était 163 cellules/µl. Parmi les patients hospitalisés, 43 (37,2%) n'avaient jamais reçu de TARV alors que 71 (62,3) étaient prétraités par les ARV. Les patients non traités étaient diagnostiqués pour la plupart (92,8%) au stade 3 ou 4 de l'OMS. Les infections opportunistes digestives (57,1%), respiratoires (30,3%), du système nerveux (12,5%) étaient les plus fréquentes. Les patients prétraités avaient une durée moyenne de TARV de 35 mois [1 - 186] mois avec 60,6% traités depuis plus de 24 mois. 74,6% des patients traités étaient en situation d'échec de TARV, 12% un IRIS. Les molécules ARV utilisées étaient le tenofovir (47,5%), l'efavirenz (42,5%), le lopinavir/ritonavir (11,2%). Aucun patient hospitalisé n'était traité par du dolutegravir. Les causes d'hospitalisation étaient majoritairement les infections respiratoires, digestives. Quatorze patients (19,7%) prétraités présentaient une altération de la fonction rénale (DFG < 60ml/min). La mortalité globale des patients était de 29% (33 patients) dont 20 étaient prétraités par les ARV (60,6%).
Conclusions et Recommandations: Cette étude révèle une fréquence et une mortalité prédominante des patients hospitalisés prétraités par les ARV. Bien que les objectifs actuels soient à l'élargissement de l'accès au TARV pour l'atteinte des objectifs 2030, des stratégies visant au renforcement des mesures de rétention des patients et au maintien de l'observance du TARV doivent être une priorité.

THPEB043

Contribution of People Living with HIV and Peer Educators in Response to the Epidemic in Rwanda

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Issues: People living with HIV (PLHIV) have an important role to play in the prevention of new HIV infections and support their peers infected. Here we describe the activities of Rwanda Network of People Living with HIV and AIDS (RRP+) in the HIV program in Rwanda over a decade.
Descriptions: RRP+ was founded in March 2003 when representatives of 175 associations of People Living with HIV (PLHIV) from across the country came together and formed the national network to serve as a coordinating organ for activities supporting people infected and affected by HIV. Today, RRP+ members are over 130,000 people, representing nearly 70% of all people living with HIV in the country. Members are grouped into 900 associations spread across all districts in the country. 70% of RRP+ are women, and 30% are men. RRP+ members started to engage In the national program activities in 2008 serving as peers educators.
Lessons learned: RRP+ is effectively contributing to the HIV response through prevention interventions, Advocacy for universal access to treatment; Promotion of a supportive environment free of stigma and discrimination; and Peer education program.
The peer education program which started in 2008 enrolled 4500 peers educators (PE) working in 523 health facilities in all the 30 administrative districts. They work in close collaboration with health care providers through monthly support group meetings during which issues such as the importance of adherence to ART treatment, retention into care & treatment, positive living, and consistent use of condoms to prevent onward transmission are discussed. PE also provide assistance in retracing individuals who are no longer active in the ARV program. PE ensure continuum of care at community level and provide a linkage with health care workers. In this same survey, many PLHIV stated that they had a strong trust in PEs because they share the same HIV status and they are selected by PLHIV themselves. Consequently the national program recorded a 90% retention in care of PLHIV and close set to achieve all 95% UNAIDS global targets.
Next steps: The Peer Education program has significantly contributed to the high adherence to treatment, retention in the program, and viral load suppression for PLHIV in Rwanda. To maintain and enhance the impact of the Peer Education program, recommendations are to ensure sustainability through adequate funding, strengthen PE capacity building and improve PE activity documentation and reporting.

THPEB044

Loss-to-Follow-up Rates at 5 Years Post-ART Initiation amongst Children and Adolescents Living with HIV in Nigeria

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Background: Nigeria accounts for ~12% of global pediatric HIV burden of 1.8million. Survival and improved quality of life for children living with HIV is dependent on program retention and sustained adherence to potent antiretroviral therapy (ART). The Institute of Human Virology Nigeria (IHVN) through PEPFAR funding provides HIV prevention, care and treatment services for people of all ages. We evaluated loss-to-follow-up (LTFU) rates at 5 years post- ART initiation in a cohort of children and adolescents.
Methods: This retrospective cohort study was conducted in March 2019 among PLHIV 0 to 19 years of age initiated on ART in a 24 month period between January 2012 and December 2013. LTFU was defined as patients who did not return for treatment for a period of 3 months or more since their last documented appointment date despite phone calls.
Routine program data was collected from 12 high-burden (>2,000 PLHIV enrolled) ART IHVN-supported sites in the Federal Capital Territory, and Kano, Katsina and Nasarawa States.
Data was evaluated at 5 years post-ART initiation to determine the proportion deemed LTFU. Analysis was further disaggregated into sex and age bands. Findings were analyzed using Chi-square and logistic regression at $p< 0.05$ significance.
Results: A total of 1,284 children and adolescents were initiated on ART at the 12 treatment sites in the study period. Females constituted 62.2% (799/1,284) of new enrolments.
Overall 44.5% (572/1,284) of those newly-initiated on ART had been LTFU at 5 years after ART initiation. LTFU rate was higher among females compared to males (49.3% [394/799] vs 36.7% [178/485], $p < 0.0001$).
Higher rates of LTFU were also observed with increasing age bands. LTFU rates for 0 - 4, 5 - 9, 10 - 14 and 15 - 19 age bands were 38.2% (171/447), 39.8% (108/271), 47.3% (79/167), 53.6% (214/399) respectively. Compared to the reference 0-4 year group, the 5-9, 10-14 and 15-19 yr old groups were 1.1 ($p=0.67$), 1.5 ($p=0.04$) and 1.9 ($p< 0.0001$) times more likely to be LTFU, respectively.
Conclusions and Recommendations: At 5 years post-ART initiation, nearly half of children and adolescents initiated on ART had been LTFU. Being a female and an older age at ART initiation increases the chances of being LTFU. As interventions are scaled up towards achieving the 95-95-95 goals in 2030, ART programs must include age and sex-appropriate strategies for ensuring retention on ART for children and adolescents living with HIV.

THPEB045

Pharmacy Refill Counts and Self-reported Adherence Overestimate Adherence to Antiretroviral Treatment among People Living with HIV in Kilimanjaro, Tanzania

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Background: Adherence to antiretroviral (ARV) treatment continues to be a challenge to people living with HIV (PLHIV). Health care workers (HCW) often rely on self-report and pharmacy-refill counts but these methods have inherent limitations such as social desirability and different meaning of leftover pills. The aim is to investigate pharmacy-refill counts and self-reported adherence in relation to real time medication monitoring (RTMM) of ARVs in Kilimanjaro, Tanzania.
Methods: This is a sub-study within the REMIND-trial investigating whether adherence improves through mobile health (mHealth) methods. We calculated self-reported adherence based on missed pills in the past month, pharmacy-refill adherence and adherence based on intakes from RTMM by taking the number of days with pills taken divided by the number of days between visits. We calculated spearman correlation coefficients to investigate how the adherence measurements are related.
Results: Two-hundred-forty-nine PLHIV were recruited. Seventy-eight PLHIV had all three measures of adherence as they were in the RTMM arm. Mean pharmacy-refill adherence was 92%(SD16.3), mean self-reported adherence was 98%(SD:7.2) and mean RTMM adherence was 79% (SD32.2). Adherence levels below 95% were shown in 24 (32%) participants for pharmacy-refill adherence, in nine (12%) for self-reported adherence and 39 (50%) in RTMM adherence. Pharmacy-refill counts were weakly related to self-reported adherence (r:0.27;p=0.02) but not to RTMM adherence (r:-0.07;p=0.54). Additionally, self-reported adherence was not related to RTMM adherence (r:0.09;p=0.45).
Conclusions and Recommendations: Self-reported and pharmacy-refill adherence overestimate adherence to treatment as compared with RTMM. More robust means are needed to measure adherence by PLHIV. It is well known that PLHIV overestimate adherence. Pharmacy-refill counts are often used as additional measure to determine adherence. However, our data shows that pharmacy-refill counts overestimate adherence. This might be caused by sharing of pills, pills getting lost or not taking pills back to the clinic for a count.

THPEB046

Improving Adherence among HIV Infected Adolescents/Youth in Rwanda Using Adolescents/Youth Friendly Services: Experience of WE ACTX for Hope Clinic

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Background: AIDS is affecting more Adolescents than any other age category and adherence to ART is a global concern. It is the leading cause of death among adolescents (aged 10-19) in Africa and the second most common cause of death among adolescents globally. Of the estimated PLHIV in Rwanda, 89% know their status; of which, 92.3% receive ART, and 91% of them suppress viral load below 1000 copies/ml . With regard to Viral load suppression, adolescent are not doing well compared to other age categories because at national level only 77% of ALHIV have suppressed viral load. That`s why WE ACTX FOR HOPE HIV CLINIC designed appropriate model of care and interventions for adolescent/youth already initiated to treatment to increase the Viral Load suppression rates.
Method: In December 2016, we designed and approved an adolescent/youth friendly services model , we trained :4 ART nurses , 4 ART counsellors , 2 receptionists ,2 pharmacists and 2 biotechnologists on this model, we fixed Wednesday of every week as adolescent 'day clinic . Discussions, games , relaxation exercises like yoga and music teaching sessions are conducted in holidays and every Sunday from 10:00 AM to 2:00 PM in 2 different sites according to age range), we started using short time in receiving adolescent/youth (not more than 20 minutes) .We enrolled in adolescent/youth friendly services from December 2016 up to May 2019 414 adolesentsadolescents/youth aged from 10-24 years old and data were collected & analysed using SPSS
Finding/ results: Of 414 adolescent/youth, 52.4% were female, only 7% had both parents, 34% did not have any parents, 78% were in formal education. The average adolescent/youth age was 17.3 years old. At baseline, the mean viral load was 11796 copies/ ml with 56% who had viral load suppression (VL < 1000 copies/ml) and was 52 copies/ml with Viral load suppression of 92.5% (383/414) after 29 months of interventions. Discussions on life skills (p=.001) Sexual reproductive health (p=.001), music teaching sessions(p=.002), relaxation exercises(p=.0017), privacy area (p=.002) , specialized clinic `day (p=.001) were factors associated with success . STIs cases were 0 after 29 months of interventions.
Conclusion: Special time, adequate space and sufficient privacy and having trained staff on adolescent/youth friendly services are characteristics required to improve ART adherence and well being of adolescents living with HIV infection.

THPEB048

The Uptake and 12 Months Retention into Care After the Implementation of HIV Test and Treat Intervention in TASO Tororo Clinic, Eastern Uganda

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Background: Uganda adopted the HIV test and treat policy in 2016 and its implementation was rolled out in 2017 in a phase manner. The uptake and retention in ART care programs after the implementation of this policy has not yet been assessed. The objective of this study was to assess the uptake and 12 months retention into TASO Tororo care of HIV test and treat intervention in TASO Tororo Clinic, Eastern Uganda.
Methodology: This was a retrospective cohort study using secondary data. It applied quantitative method of data collection using data abstraction tool designed based on the HTS register, HIV care card and electronic medical records system. The study involved clients who were newly diagnosed HIV positive in TASO Tororo clinic between June 2017 and May 2018, who were then followed up for time to ART initiation and retention in TASO Tororo care. The data was analyzed using stata14.0.
Results: Of the 580 clients' diagnosed HIV positive in TASO Tororo within the study period, 56.5% (n=328) were females while 93.1% (n=540) were adults aged ≥20 years. The uptake of test and treat was at 92.4% (n=536), while 12 months retention into TASO Tororo care was at 78.7% (n=422). The socio-demographic characteristic significantly associated with failure to initiate ART within one month of HIV diagnosis was having post-primary education, AOR 3.00 (95% CI, 1.13-8.00) as compared to those who never had any formal education, while being tested positive at the outreach site was associated with lower risk of failure to initiate ART within one month of diagnosis, AOR 0.41 (95%CI, 0.19-0.92) as compared to those tested at the facility. The factors associated with retention in TASO Tororo care were a) being counselled before ART initiation, AOR 2.36 (95%CI, 1.54-3.61), b) availability of treatment supporter, AOR 1.65 (95%CI, 1.08-2.53) and having an opportunistic infection at baseline, AOR 2.92 (95%CI:1.21-7.06).
Conclusion: This study found the test and treat policy a great intervention in bringing new HIV positive clients on treatment. There is however need to design interventions to improve retention into care for clients who are initiating ART under test and treat policy.
Keywords: Uganda, Adults, HIV infection, Ambulatory care facility.

THPEB049

The Role of Support Group in Promoting Retention among People who Inject Drugs (PWID) Living with HIV (PWID-LHIV) Assessing ART Treatment in Nigeria

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Background: People Who Inject Drugs(PWID) are disproportionately affected by HIV in Nigeria. The HIV prevalence among the group according to 2014 Integrated Biological and Behavioural Surveillance Survey (IBBSS) is 3.4% while PWID reported to contribute 9% of annual HIV prevalence in Nigeria. Some identified HIV risk factors among PWID include sharing of injecting equipment, poor HIV knowledge, health seeking behavior, limited access to treatment, multiple sexual partnering, low use of condom, criminalization of drug use and stigma. The maiden PWID-LHIV support established by YoutRISE Nigeria in 2016 to provide psychosocial support, increase client literacy, improve disclosure, reduce morbidity, mortality and increase quality of life for clients. The purpose of this study is to assess the role of support group on ART treatment retention
Methods: A quantitative program data of 182 PWID (40 Male and 142 Female) age 15-35 years enrolled into treatment in YouthRISE Nigeria One-Stop-Shop (OSS) in Federal Capital (FCT),between November, 2017 and October 2018 were analyzed. Data for 6 months and 12 months Retention in Care (RIC) for 103 stable clients in support group where compared with 78 other individual clients during same period.
Results: For 6months and 12 month period, retention rate of 92.3 % and 89.7 % were recorded among clients in support group respectively and 85.3% & 82.5% for client in individual care. 2 cases of deaths and more number of Loss-To- Follow-Up recorded during same period were among clients in individual care.
Conclusions and Recommendations: RIC for clients in support group is better than those in individual care. The study reveals that among stable clients on treatment, peer-led ART distribution through support group results in higher RIC and treatment adherence. I recommend the to establish support more support groups for other key population LHIV, government to invest in support group and its evaluation for scale up.

THPEB050

Retention in PLWHIV under Treatment in Senegal: Prevalence and Factors Associated with Return to Care after a Follow-up

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Background: Leakage along the continuum of HIV-related care is steadily slowing the progress capitalized in the fight against the HIV epidemic. Identifying the factors associated with retention is essential to guide the program in a "test and treat" context for achieving the 90-90-90.
The objective of our study was to describe the profile of the patients lost to follow-up and found, to evaluate the determinants and to formulate recommendations.
Methodology: This is a descriptive cross-sectional study of all PLHIV followed at the level of the active files in the care sites of Louga, Dakar, Kaolack, Kolda and Tambacounda regions, and having started treatment in 2015 and 2016. A PLWHA was considered lost if the date of the last appointment was 90 days or more. Associated factors were determined using a standard questionnaire. Categorical variables were expressed in proportions and continuous variables in medians and extremes.
Results: A total of 408 cases lost to follow-up were recorded, of which 176 (43.7%) were found, of which 69.2% were women. The cases resided in 39.8% at more than 15 km of the management structure, with more than one hour of travel in 38.5% of the cases. These were rural residents (56.8%), women aged 20 and over (86.4%), women (62.9%), non-educated (70.5%), married (64.2%) and without income (50.0%). The address was unclear in 39.6% of cases. A total of 26 or 14.71% were followed in another management structure (autotransfer), and 37.1% were still on ARV treatment. The TDF + 3TC + EFV protocol was the most common (41.5%). The main problems highlighted are transportation, finances, absence of providers.
Conclusion: Retention is still low in active queues in general. Strategies such as active search for missing persons, support for transportation, and differentiated care should improve this indicator.

THPEB051

Impact of Direct Administered Antiretroviral Therapy (DAART) in Non-adherent HIV-infected People: Experience of WE ACTX FOR HOPE Clinic

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Background: WE ACTX FOR HOPE clinic has 2034 patients living with HIV/AIDS , 96% of them have viral load < 1000 copies/ml while 4% have viral load >1000 copies /ml. The poor adherence on ARVs is associated with increased mortality . We observed multiple barriers to adherence and several strategies were identified to address it .The direct administered antiretroviral therapy (DAART) is one of them
We assessed the impact of DAART and its associated behavior change among non-adherent people, the feasibility and acceptability of this intervention.
Method: We looked on HIV-infected patients on ART combination which can be taken once a day with poor adherence who had CD4 cells < 50 with high viral load (>10,000 copies/ml). We enrolled them one by one from January 2014 up to January 2018 . In 5 working days, DAART was given by the trained nurse at the clinic while 2 days of the weekend, it was given by the trained peer educator at patient " home and reported all issues to the trained nurse every monday morning . To assess what patients gained from this new intervention, 4 questions were addressed to the patient at the end of DAART: What was difficulties about taking ART, Did DAART program help? If yes, how did DAART helped you? Are you able to take ART now? what changed?What challenges are you facing after DAART.
CD4 cells count and Viral load every 6 months were used to assess DAART efficacy. viral load < 200 copies/ml was considered as end point of DAART. Data were collected and analyzed using SPSS
Results: Of 15 HIV- non-adherent patients , Median age was 26 years (range: 17 - 48), median CD4 of 20.1 cells/ml and median viral load of 289,368 copies/ml.
It takes the median time of 11.6 (range: 6 - 15) months to achieve the viral load of < 50 copies/ml.At the end of DAART the median of CD 4 cells was 186.7 (range: 34 - 506) cells/ml and viral load was 28.2 copies /ml. Not accepting HIV status, depression, ART side events, pills burden , stigma & discrimination ,economic difficulties (p=.001) were factors associated to poor adherence in these patients.
All 15 patients said that DAART was very helpful and they developed the habit of taking ART medications as they changed positively the way of thinking regarding ART medications (p=.0002)
Conclusion: DAART is safe, efficient, feasible and acceptable.This intervention is not for all . DAART should be used among other strategies in non-adherent HIV infected patients

THPEB052

Age, Seasonality, and CD4 Count on File Predict Early Retention in Zambia

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Background: Zambia has made great strides towards UNAIDS' 90-90-90 targets thanks in part to policies such as test and treat, which contributed to an increase in the number of patients initiated on antiretroviral therapy (ART) over the last year. To achieve the second and third '90s', however, retaining newly initiated patients on ART is key. While data describing retention since the inception of test and treat are limited, retention is generally lowest during the first 6 months following ART initiation. Thus, we aimed to identify factors associated with early retention in Zambia.
Methods: We analyzed records from Zambia's SmartCare national electronic health records system for 100,544 patients that initiated ART between October 2018 and March 2019. Extracted data included demographic information, baseline CD4 counts, and pharmacy pick-up dates for patients' first and second ART pick-ups. We defined early retention as having a second pharmacy pick-up within 30 days of the scheduled date of that pick-up. Factors associated with early retention were identified via univariate and multi-variable logistic regression.
Results: Patients from all ten of Zambia's provinces were included in analysis, 61% were female and 71% were aged 25-49 years. Overall, 54% of patients met the definition of early retention. Older age (25-49) relative to age < 15 (adjusted odd's ratio (aOR)= 1.15, 95% confidence interval (CI)= 1.08-1.21) and having a baseline CD4 on file (aOR= 2.04, 95%CI= 1.95-2.13)) were positive predictors of early retention. Month of ART initiation was also associated with early retention, with October (aOR=1.15, 95% CI=1.09-1.21), January (aOR=1.15, 95% CI=1.10-1.21), and February (aOR=1.17, 95% CI=1.11-1.23) being positive predictors relative to December. Sex and baseline CD4 count were not predictors of early retention.
Conclusions and Recommendations: Patients with CD4 counts on file (which may serve as a proxy for patients that receive services such as adherence counseling), older patients, and those initiated on ART during certain months were more likely to return for their second pharmacy pick-ups. Inadequate counseling prior to ART initiation, reduced access to HIV services during certain months, and lack of youth-friendly services may be contributing to poor early retention. Further studies to explore other factors and understand how those identified here are contributing to increased odds of early retention are warranted.

THPEB053

Getting More Inclusive: Redefinition of Categories under Differentiated Service Delivery Model to Increase the Number of Stable Patients

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Issues: Rwanda has reached the Joint United Nations Programme on HIV/AIDS (UNAIDS) target of viral suppression (91%) among people living with HIV (PLHIV) before 2020. Initially, anti-retroviral treatment (ART) initiation was based on CD4 count but as HIV management has been dynamic, guidelines are frequently updated in accordance with national and international scientific evidences to improve the quality of care of PLHIV. With Treat All strategy implemented from July 2016, the number of patients eligible for ART increased from 164,252 to 196,336 currently. This increased number of clients raised the workload on Healthcare Providers (HCP), which could also affect the quality of services provided to them.
Description: Differentiated service delivery model (DSDM) was launched in December 2016 to reduce the workload of providers as well as the frequency of unnecessary visits. Within DSDM, PLHIV were categorized into two groups: stable and unstable. Initially, DSDM defined stable patients as all patients >15 years who have been on 1st or second line ART for more than 18months with 2 recent consecutive viral load (VL)count <20 copies/ml. Those not fulfilling the criteria were classified as unstable. In order to increase the number of stable patients, the definition was revised in July 2018 to extend the viral load count criteria to < 200 copies/ml and ≥2years old clients .The schedule of clinical visit remain at 6 or 3months and pharmacy pick up at 3 months.
Lessons learned: Based on the extension of stable patients group, their proportion has increased from 47.6% in June 2018 to 67% by June 2019. All 67% of PLHIV enrolled in the program are coming quarterly to health facilities for pharmacy refill and every 6 or 3months for clinical visits. The spacing of patient visits allows providers to daily receive reasonable number of clients and find time for documentation. Although, DSDM is perceived to have reduced the burden of health systems, its coverage and quality measurement remains limited and challenging.
Conclusion and Next steps: DSDM has been a helpful strategy for both, the Health systems and the patients at the same time. It serves also as a motivation tool for patients with poor adherence for future VL suppression. However, there is a need to assess the acceptability of patients on 3months pharmacy refill, which can later inform the extension of pharmacy refill period.
Key words: HIV, DSDM, Stable, Viral Load

THPEB054

Impact of Clients' Allocation to Treatment Supporters in an Antiretroviral Treatment Center in Kaduna State, North West Nigeria

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Issues:Retention of People living with HIV (PLHIV) on the antiretroviral treatment (ART) program has been a major challenge across most facilities providing ART services in Northern Nigeria. After few months of initiation of ART, many clients dropped-out of treatment unaccounted for, mainly due to lack of adequate information, self-transfer without any referral, lost to death without reporting by family members or care givers, denial and the feeling of being healed. This has resulted in very poor retention rate of 53% on the average, across most ART centers in the state. To accelerate the achievement of the UNAIDS 3rd 90 goal of viral suppression for all PLHIV on ART, retention in care and treatment must be optimal at not less than 95%.

Descriptions:The concept of clients' allocation to treatment supporters (TS) was introduced at the ART Clinic of General Hospital Kafancha Kaduna State. All newly diagnosed PLHIV enrolled into ART between January and December 2017 were assigned to TS in the health facility. Each TS is a volunteer PLHIV with records of treatment success including a suppressed viral load. The TS provided both on-site and off-site follow up on their assigned clients. They provided peer mentoring that ensures clients attend clinic schedules and adhered to drugs intake. The TS kept records of all services provided to their assigned clients in a log book. These included attendance at clinical schedules, adherence to drug regimen and viral load uptake and results. A total of 254 newly diagnosed adult PLHIV were enrolled and allocated to TS. Females were 171(67.3%) while males were 83(32.7%). An evaluation of this concept was conducted in December 2018.

Lessons learned: Analysis of the concept showed that, out of the 254 clients, 233(91.7%) were still active on ART as at December 2018. Retention rate was highest among females (96.5%, n=165), while males was 81.9%(n=68). Other clients were also accounted for, with 13(5.1%) lost to death, 5(1.9%) transferred out and 3(1.2%) stopped treatment on own accord. Also, analysis of first viral load results showed a suppression rate of 86.3%(n=201). The intervention showed that 100%(n=254) of the clients assigned to the TS were accounted for. Defaulter rate reduced from 47% to less than 10%.

Next steps: The concept of clients' allocation to TS will enhance client retention on ART, strengthen viral suppression and ultimately HIV epidemic control. It is therefore recommended for implementation in all ART centers

THPEB055

Lessons Learned from Implementing Community Youth Clubs in Khayelitsha, South Africa

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Background: In South Africa just 40% of HIV-positive youth aged 15-24 are on anti-retroviral therapy (ART), compared with 63% of older adults. Facility-based adherence clubs have successfully retained stable youth and older adults in care. Youth, who are often healthy, can benefit from the efficiency and social support of clubs. With the scale-up of ART, community-based models of ART delivery have been implemented in an attempt to decongest facilities. Meeting outside of a facility may also appeal to youth, as facilities are not always youth-friendly. We present community youth club outcomes from a youth-friendly clinic in Khayelitsha, a high HIV prevalence area in South Africa.

Methods: Youth, (aged 18-25) who had been part of facility based youth adherence clubs for more than two years were offered to join community youth clubs as a group. Like facility youth clubs, community youth clubs met five times a year. The meetings took place in a community hall and consisted of a facilitator-led peer support group with symptom screen, interactive discussions, followed by prepacked ART pick-up and clinical visit on demand (e.g. for family planning). Clinical visits happened once a year (after blood draw done at the facility). We compare community club outcomes to outcomes of patients joining facility youth clubs, and patients initiating ART at the youth clinic from 1 January 2016-1 April 2018.

Results: From the existing facility youth clubs, five youth clubs (N=76) transferred to a community venue, with a median age of 24(IQR:23-25). In the analysis period, 152 patients joined facility-based youth clubs (median age: 21.6; IQR:20-24) and 433 initiated ART without joining a club (median age: 22.1; IQR:20-24). Community clubs had similar six-month retention in care to facility clubs (95% vs 97%), and better retention than facility patients (75%). Viral load completion was lower than facility-based options, but suppression was 100% among those who had a viral load done. Challenges included the need for a nurse to be present for family planning, potential need for doctor's referral and delayed transport of medication and folders.

Conclusions and Recommendations: Community youth clubs offer similar outcomes to facility based youth clubs and could help facilities to decant stable young patients. However, troubleshooting of logistical challenges is needed for the scale up of community youth clubs.

THPEB056

The Role of Caregivers in Improving Treatment Adherence for Adolescents Living with HIV

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Issues: The role of caregivers in supporting their children living with HIV adhere to treatment has not been clearly outlined and documented. It has been said caregivers and families should support PLHIV, the how part has not been clearly stated. When poorly adhering ALHIV were asked for reasons for not adhering to treatment, the following issues were raised by 95 adolescents (66F, 29M) ranging from 8-17 years of ages who attended a teen camp. Undisclosed HIV status to adolescents (11/95),11.5%; adolescents forget to take treatment on time (78/95), 86.6%; adolescents are not at home during treatment, busy with household chores (92/95), 96.8%; adolescent lack enough food to eat to enable taking treatment (36/95),37.8%; adolescent lack money to collect medication from nearest health facility (45/95), 45.3% and treatment fatigue (7/95), 7%.
Descriptions: Clearly caregivers have a role to play in supporting their adolescent adhere to treatment. Hence a focus group with the caregivers was conducted to sort solution to the above stated issues. The issues highlighted were age appropriate disclosure messaging to the the younger ages not disclosed to, caregivers needs support in disclosing to adolescents, this is because they also fear talking to their adolescents about HIV related issues. Caregivers should make it their full responsibility to ensure medication is taken and on time. through choosing appropriate time that works for adolescent to take their medication, caregivers should demonstrate pill swallowing and check if pills have been swallowed every time, caregiver should make medication time fun time not as a punishment, use stories, read books to encourage adolescents take their medication and caregivers should take responsibility of medication availability as well as food for adolescents through savings groups and establishment of small income generating activities.
Lessons learned: Constant engagement with caregiver and monitoring of adolescents adherence every quarter, has gathered that there is a significant improvement in adolescents adherence especially for those caregivers who have adopted the practice, from 2% in 2017 to 34% in 2018 to 73% in 2019 June.
Next steps: · Continue supporting caregivers disclose adolescent's HIV status to them when they reach a suitable age that they can understand. In addition support caregivers improve their economic status such that they are able to provide transport fee and food for the adolescents.

THPEB057

Innovative Management of Chronic Poor Adherence and ART Failure in Patients on Protease Inhibitors-based Regimen - Baylor College of Medicine Children's Clinical Centre of Excellence Eswatini

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Issues: By the end of 2017, 90% of people living with HIV (PLHIV) knew their HIV status in Eswatini, 85% were on ART and 74% had their viral load (VL) suppressed, highlighting the need to target the final 90. This is critical for children and adolescents taking a Protease Inhibitor (PI)-based regimen, who have the lowest rates of VL suppression. Some contributors to this statistic seem intractable through routine counselling methods. For this reason, an intensified model of adherence counselling, Challenge Clinic (CC), was designed at Baylor Eswatini. The intervention aims to achieve better virologic and clinical outcomes in patients on PI-based regimens, by addressing medical, psychosocial and economic barriers.
Description: In October 2018 we implemented CC at Baylor satellite COE in Manzini. CC is an intensified model of conducting individualized adherence counselling through a multidisciplinary comprehensive care clinic. CC targets patients on PI-based regimens with VLs of >1000 copies/µl. CC patients often have chronic poor adherence usually associated with medication tolerability, psychosocial and economic problems, but may also have PI resistance. To tackle the issues as a whole and avoid "dissecting" the patient by being seen separately by different care providers, the patient and their caregiver are seen monthly by the doctor and social worker together. VL is repeated every 3 months until suppression is reached, or HIV genotype is obtained. Patients are discharged when VL is undetectable (< 20).
Lessons Learnt: At the end of 8 months of implementation 36 patients were enrolled in CC, 63.9 % are male, and the mean age is 12.5 years. Average duration on a PI-based regimen was 3.4 years. 97.2% (n=35) were eligible for a repeated VL and 30.6% of them (n=11) had a suppressed VL (< 200). Among patients with genotypes, 80% demonstrated susceptibility to PIs. These interim results indicate the effectiveness of the intervention. The multidisciplinary nature of the CC gives an impression of the seriousness of the situation for the patient and caregiver and provides solutions that meet the needs of the whole patient.
Next steps: This intervention shows promising results in reducing barriers to adherence demonstrated by improved VL suppression. We will continue to track progress biannually. Inclusion of a comparison group to assess the direct effect of CC is needed.
Key words: Psycho-social barriers, detectable viral load, intensified model, multi-disciplinary

THPEB058

Impact of a Quality Improvement(QI) Intervention on the "Fast Track" Differentiated Service Delivery Model in Lusaka, Zambia

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Issues: High-volume ART clinics in Lusaka, Zambia have more than **3,000** patients currently on treatment, and see an average of **217** patients per day. Space and staffing constraints have resulted in overcrowding and long waiting times. In October 2017, the Centre for Infectious Disease Research in Zambia (CIDRZ) implemented a differentiated service delivery (DSD) model known as "Fast Track" (FT) in **18** high-volume facilities in Lusaka, Zambia with the aim of improving the patient experience by reducing facility congestion and waiting times. FT is a facility-based model where the clinician identifies stable clients based on criteria from national ART guidelines and refers the patient to the FT pharmacy where 6 months of ART are dispensed. In March 2019, we initiated QI interventions to assure quality FT implementation. Herein, we describe the impact of QI interventions on FT model outcomes.
Descriptions: As part of QI, we:
1) created dedicated pharmacy space to expedite FT services and to prioritize new patients receiving ART;
2) procured and installed patient waiting shelters;
3) recruited and trained pharmacy technologists for each FT pharmacy in standard operating procedures;
4) developed electronic registers to improve data collection and monitoring & evaluation; and
5) introduced an appointment scheduling system with specific days/times allocated for every client.
We assessed the effect of our QI intervention on our primary outcome of retention, defined as: the number of enrolled clients that actually picked up their drugs divided by the number of enrolled clients that were scheduled to pick up their drugs after three months.
Lessons learned: As at 30th August 2019, a total of 36, 726 (49%) out of 75, 271 stable clients on DSD were enrolled in FT. Out of those enrolled in FT, 66% were female. By age category, 3% were between 20-24 years, 7% 25-29 years, 13% 30-34 years, 19% 35-39 years, 20% 40-44 years, 20% 45-49 years and 19% were ≥50 years. The overall 3-month retention across facilities increased from 59% in June 2018 to 97% in August 2019. Waiting time for clients who visited the clinics on the scheduled date and time for refills reduced from an average of 3 hours to an average of 30 minutes.
Next steps: Further QI activities will be required to establish the outcomes of clients who are excluded from the DSD models due to pregnancy, unsuppressed viral load (>1,000 copies/ml) and failing to come to the clinic during the month of their scheduled visit

THPEB059

Psychosocial Pairing in Viremia Clinic for Improving HIV Viral Load Suppression among Pediatrics and Adolescents in Njombe Region, Tanzania

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Background: Poor adherence to Antiretroviral Therapy (ART) is major barrier better treatment outcome for HIV Infected pediatrics and adolescents. USAID Boresha Afya Southern Zone program which compliments the Ministry of Health Community Development Gender Elderly and Children in Tanzania to provide HIV services in five regions, introduced viremia clinics and pairing as intervention for addressing challenges attributed to poor adherence resulting to poor viral load suppression among pediatrics and adolescents (currently at 78% and 83% respectively).
Methods: 20 facilities from 3 councils with special Saturday clinic for pediatrics and adolescents were selected for review, data from October - December 2018 was compared with January -March 2019, HIV viral load suppression being the outcome of interest. During October 2018, 40 Health care providers (two from every selected facility) were mentored on provision of Enhanced adherence counselling for pediatrics and adolescents. Pairing (tie between child/adolescent with High HIV viral load with either HCP, Parent/caretaker or peer), along with Viremia clinics conducted on Saturdays empathized on proper adherence, Disclosure promotion, and discussion as these will improve adherence and increase suppression rate.
Results: There was observed increase in HIV viral load suppression among 1166 pediatrics and adolescent under the study in all the three districts. In the first district viral load suppression increased from 46% to 63% while in the second district increased from 62% to 80% and in the third district from 54% to 86%. The overall HVL suppression for all the three districts increased from 54% to 76% with 891 children becoming virally suppressed from 635 at the beginning of the study.
Conclusions and Recommendations: Psychosocial Pairing and Viremia clinic interventions for pediatrics and adolescents have a positive impact towards enhancing ART adherence and accelerating pediatric viral load suppression. More study to assess impact of pairing and viremia clinics towards improving viral suppression and wellbeing of children living with HIV.

THPEB060

Engaging and Retaining Adolescent Boys in HIV Services: DREAMS-like Approach in in Zambezia Province, Mozambique

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Issues: Strengthening Communities through Integrated Programming (SCIP) project was led by World Vision and funded by USAID to increase access to, utilization of, high quality, high impact, and evidence-based community HIV services; and improve community index case testing, adherence, retention in HIV treatment with viral suppression for people living with HIV. As access to HIV services for young males lagged behind those of adolescent girls and young women (AGYW), In 2018 World Vision introduced a "DREAMS-like" (Determined Resilient Empowered AIDS-Free Mentored Safe) component to meet the HIV needs for young males in 12 priority districts including Chinde, Morrumbala, Namacurra, Nicoadala, Quelimane, Milange, Maganja da Costa, Pebane, Alto Molocue, Mopeia, Gile and Mocubathe in Zambezia province of Mozambique.
Description: The DREAMS-Like activity exposed young males age group of 15-29 years with a similar approach of the DREAMS program for the girls. Young males had six sessions of evidence-based curriculum to increase awareness on HIV testing, address gender based violence, family issues and supported to receive services at the health facilities. They were recruited through use of Boys Roster that enumerated young boys in the districts especially the partners of the DREAMS girls, and motivated to complete the training through formation of boys clubs, sports championships, peer groups role models and establishment of saving groups.
Lessons learned: Over 12 months of implementation, 15,071 young males were enrolled in boys clubs, 13,994 (93%) completed all lessons on the curriculum, and 10,072 (72%) of the them were successfully referred to health facility for services. Of those referred, 45% was for HIV testing, 26% for voluntary medical male circumcision, 21% for family planning and 8% were screened and treated for sexually transmitted infections.
Recommendations: DREAMS-Like programs) to build skills of healthy young males to create awareness and increases access to HIV testing and services, and GBV services are necessary in fostering a friendly and safe environment for adolescent boys and girls. Young males should not be left behind on programs that promote safety and resilience of AGYW. It is critical to continue to engage young boys to successfully address gender related harmful norms and change society´s perspectives on the adolescent girls.
Key Words: DREAMS, male engagement, Boys Clubs, Mozambique, HIV

THPEB061

Armed Conflict and Access to HIV Services. A Strategy to Ensure the Retention of Patient in Care in Regions with Armed Conflict in Cameroon from 2018-2019

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Issues: Cameroon has an estimated HIV infected population of 520 000 persons. In 2016, 205504 peoples living with HIV (PLHIV) were on ART. In the same year, a political crisis started in two regions of the country that become an armed crisis in 2017. The aggravation of the conflict in 2018 led to massive displacement of the population and closing of many services. This study analyzed the impact of armed conflict on HIV services and the strategy undertaken by the ART program to ensure the retention of PLHIV on treatment.

Descriptions: Since 2016, the North-west (NW) and south-west (SW) region of Cameroon are suffering severe armed conflict which has resulted in disruption of services and displacement of persons from their communities. According to the official statistics, the number of internal and external displaced persons due to the conflict is estimated to 300000. To ensure the retention of PLHIV on treatment, the ART program developed the following strategy:

i. Multi month dispensation of ARV to patients

iii. Use of "Hit and Run" strategy of ARV dispensation that consist in opening the health facility just for few hours of service on an agreed appointment day of the week to distribute ART to patient[j1] s

iv. Use community's health workers to reach the patients with the treatment

v. Link the displaced patient to treatment center in the host region

we use the routine data reported by the ART program between 2016 and 2018, and we measure the proportion of health facility reporting ART services, the number of patients currently on treatment and the patients lost to follow up.

Lessons learned: The conflict led to a drop of the proportion of health facility reporting ART services which decreased from 93.8% (672/716) to 51.5% (369/716) in the two regions. In 2018, the number of patients on treatment decreased from 61266 in January to 53157 in December, while it increased from 196173 to 214463 in the height regions without conflict.

Next steps: The result showed that the conflict has a negative impact on ART care in the affected regions. This has an implication for national ART services. The strategies undertaken by the program has contributed to mitigate the impact of the crisis. The country urgently needs to develop a policy and guideline for humanitarian crisis to address the effect of the armed conflict.

THPEB062

Evaluation of Efavirenz in Plasma and Hair as a Marker of Adherence to ART

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Background: Adherence impacts therapeutic outcomes to antiretroviral treatment (ART) regimen. Current approaches to gauge adherence involve self-reporting and pharmacy refill protocols which are subjective and unreliable. Biomarkers in plasma and hair are gradually considered more objective in assessing adherence to ART. This study evaluated ART adherence using efavirenz (EFV) concentration in plasma and hair; and correlating the genomic changes of drug transporter and metabolizing genes and resistance markers.

Methodology: Prospective cohort of ART naive HIV individuals were recruited from northern South Africa for the study. Twenty paired hair and blood samples were collected before start of ART and six to twelve months after starting ART. EFV concentration was analyzed in both matrices by Liquid Chromatography & tandem Mass Spectrometry (LC-MS/MS). HIV-1 *Pol*, MDR1 and CYP2B6 genes were sequenced to infer other factors influencing patient pharmacokinetics and drug resistance outputs. Stanford HIV DR database and Geneious 11.1.5 software were used for drug resistant mutation analysis and SNPs detection, respectively.

Results: Four patients showed the presence of EFV prior to start ART (two in both plasma and hair and two in hair only). Post-ART, EFV levels in both hair and plasma were expected to range from 0.005-20ng/ml and 1,000-4000ng/ml, respectively. In plasma matrix, 2/20 of the patients had < 1,000ng/ml, while 3/20 had >4,000ng/ml; and the hair matrix had 8/20 of the patients having >20ng/ml of EFV. However, two patients showed less than expected levels in the plasma post-ART and are seen to have normal concentrations in the hair matrix. No major NRTI or NNRTI mutations were observed before and after ART start. From 20/20 sequences from both CYP2B6 and MDR1 genes, CYP2B6 G516T polymorphism was observed in 15% of the study population, while homozygous TT SNP of the MDR1 C3435T polymorphism was absent in the entire population. Patients with the CYP2B6 516TT genotype had the highest EFV concentrations.

Conclusion and recommendation: Using plasma and hair EFV as biomarker to test adherence to ART in HIV seropositive individuals is objective, viable but expensive. Though adherence pattern was observed in all patients post ART, scrutiny is recommended to patients prior to ART care for better treatment outcome. Presence of SNPs in patient's transporter or metabolizing gene predicted their treatment outcome.

HIV, ART, adherence, biomarkers, LC-MS

THPEB063

Impact of Adequate Education for Improving Adherence and Monitoring: Phase I and II Microbicide Trial in Rwanda

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Issues: In clinical trials, adherence to treatment is a crucial factor in the interpretation of efficacy results. To obtain good adherence from study participants, not only a good system whereby a health care provider, family member or member of the community directly observes the administration of medication on a daily basis is needed, but also continuous and regular adherence counseling and education of the study participants and their families is very important.

Descriptions: Rinda Ubuzima enrolled 35 participants in a phase I/II Dapivirine Gel study in which a Daily Monitored Adherence system (DMA) was used. Before study start and during screening a lot of effort was out into general education of the community and study specific education were provided to the potential participants and their families where needed.

At enrolment emphasis was put on the study requirements including DMA. During the study, DMA consisted of outreach workers meeting with participants on a daily basis to collect gel applicators, document gel use and time and to note any concerns (rumors, fear to use gel, etc) participants might had. DMA visits also provided a platform to reinforce counseling about adherence and to provide the correct information as soon as possible before potential rumors could extend in the communities. Conviviality meetings with participants were organized during and at the end of the study to share their experiences about participating in the study.

Lessons learned: 35 out of 37 participants completed the study (6 week follow up) successfully. No participants were lost to follow-up but two participants withdrew.

During the informal conviviality meetings, participants reported high levels of gel use adherence. Time of the gel use was respected in 99.9%, and time of collection was respected in 98 %.

Next steps: Timely, regular and continuous education of the community as a whole (including community health workers & local authorities) have greatly improved knowledge of clinical trials on Microbicides, has created very transparent and good collaborations with local authorities which created a very positive image of Rinda Ubuzima in the community. This does not only generate benefits in the short run (better adherence) but will also be beneficial in recruitment efforts for future trials.

THPEB064

Improving Retention in Care of Pregnant and Postpartum Women Enrolled in Lifelong ART in Hhohho and Shiselweni Regions, Eswatini

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Issues: For Treatment for All to have a true impact on those living with HIV, ART retention should be a careful consideration to program implementers. Through the USAID-funded AIDSFree project, EGPAF Eswatini supported 4 facilities in 2016-2017 to implement quality improvement projects (QIPs) to ensure retention in care of pregnant and postpartum women enrolled on ART. Before QIPs, 3-month retention rates among pregnant and postpartum women within the 4 health facilities were sub-optimal, ranging from 23%-89%.

Descriptions: With support from EGPAF mentors, these facilities set up multi-disciplinary QI committees, consisting of supervisors, nurses, testing counsellors, and expert clients, to review gaps and root causes using *fishbone diagrams* and *the Five Whys*. Root causes included: limited counselling to clients on taking ART by health care workers (HCWs); patients providing incorrect or changing contact information; patients failing to disclose HIV status to male partners; and inadequate space to integrate services. EGPAF clinical mentors trained HCWs to deliver key messages to women eligible for lifelong ART, and supported HCWs to visit patients missing appointments at home as well as enroll clients on lifelong ART into community peer support groups for retention support. EGPAF also helped health facilities synchronise ANC/ART refill dates. On a monthly basis, the QI committee in each health facility met to review data, track performance of QIPs, modify strategies, and document progress.

Lessons learned: The 3-month retention rate improved at all 4 facilities: Facility 1: 23.4% to 86.9% (total women initiated on ART since QIP: n=61); Facility 2: 66% to 73.3% (n=30); Facility 3: 78.2% to 91.9% (n=37); Facility 4: 89% to 100% (n=9). Retention rates at 6 months were lower compared to rates at 3 months due to clients relocating and self-transferring. Retention rates at 6 months after ART initiation were: 72.1% at Facility 1; 70% at Facility 2; 86.5% at Facility 3; and 100% at Facility 4. Phone calls and at-home follow-up improved retention among women compared to standard care (no reminders). However, home visits require transport and additional lay cadres.

Next steps: Integrating these different strategies into routine practice and scaling them up to other health facilities is the next priority. The implementation initiatives for the QIPs will be documented to develop strategies that can be shared with the Eswatini Ministry of Health´s National AIDS Program.

THPEB065

Antiretroviral Adherence among Women who Use Illicit Drugs in Dar es Salaam, Tanzania

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Background: Women who use illicit drugs (WWUD), particularly heroin, shoulder a disproportionate burden of the HIV epidemic in Tanzania, with HIV prevalence estimates reaching 66% compared to 5% in the general population. Despite this high need for HIV care and treatment, WWUD often fail to initiate antiretroviral therapy (ART) or face barriers to ART adherence. ART adherence is important for reducing HIV viral load to undetectable levels to improve prognosis and reduce HIV transmission to others. In this study, we examined factors that facilitate or impede ART initiation and adherence among WWUD.
Methods: We conducted semi-structured interviews with 30 HIV-positive WWUD in Dar es Salaam, Tanzania. Interviews followed a life history format with specific probes on drug use and HIV treatment experiences. We used NVivo for data management and first cycle coding, which resulted in a code on taking antiretroviral (ARV) medications. We adopted a grounded theory approach to analyze text coded under "taking ARVs," conducting line-by-line coding followed by focused coding. We used constant comparative methods to identify similarities and differences across respondents and key themes.
Results: Housing, HIV stigma, mobility and drug dependency emerged as key factors that contributed to respondents failing to initiate ART, discontinuing ART, or missing ARV doses. Women described the subpar and communal living conditions in drug camps and not having a place to hide their ARV pills as impediments to initiating ART and taking ARV meds as prescribed. Their desire to conceal their HIV status was influenced by a fear of social rejection due to HIV stigma. The mobility of moving from one camp to another contributed to missing ARV doses. This mobility was fueled by dependency on heroin. Heroin dependency also manifested as using money to buy drugs instead of food, which they felt was essential to taking ARV meds, forgetting to take ARV meds when "high," preferring to continue using heroin over taking ARV meds because they feared mixing heroin with ART. Key facilitators to adherence included social support and reducing heroin use.
Conclusions and recommendations: Housing, HIV stigma, mobility and drug dependency interact to hinder ART initiation, continuation, and adherence. Interventions that provide women a place to store ARV meds, reduce HIV stigma, link women to methadone maintenance treatment and promote social support, could help support HIV-positive WWUD adhere to ART.
Key words: Antiretroviral therapy; adherence; women who use illicit drugs; Tanzania

THPEB066

Long Term Adherence to Antiretroviral (ARVs) among Groups of HIV Infected Individuals in Nigeria: A Qualitative Study

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Background: Antiretrovirals (ARVs) are life long and treatment success is associated with adherence levels of above 95%. With more HIV positive patients being placed on treatment, it is important to improve retention in care and adherence. Nigeria has the second largest number (3.2 million) of HIV infected individuals worldwide and approximately one-third of this number, are on treatment. Exploring the personal challenges HIV positive adults and adolescents are facing after initiating ARVs will help to increase uptake, adherence and reduce drug resistance.
Methods: A cross sectional qualitative study was conducted among 4 groups of HIV infected individuals (HIV positive partners of sero-discordant relationships N=38, HIV positive widows N=29, HIV positive mothers N=24 and adolescents N=11). We conducted a total of eight focus group discussions. Interview topics included questions on their experiences after HIV diagnosis and challenges encountered in adhering to their ARVs. All sessions were audio recorded, transcribed and analyzed using Atlas.ti version 7.
Results: A total of 103 respondents participated in our study with a majority being HIV positive mother and widows (Female=85%; Male=15%). We identified 3 key themes and a number of sub-themes that were associated with barriers and facilitators to adherence, which were similar in all our groups. Stigma, discrimination, disclosure of HIV status, long hours at clinics, unfriendliness of health care workers, religion (fasting periods), cost of ARVs, size of pills and transportation costs were all associated with barriers to adherence. For facilitators, we identified support from close family members, benefits of being adherent, religious beliefs of cure and sense of being normal.
Conclusions and recommendations: Study respondents were aware of the benefits of being adherent to their ARVs. However, there were a number of barriers identified that can severely affect optimal adherence to ARVs and cut across all four groups. Respondents expressed fear of the cost of ARVs when sponsors withdrawn funding and support. Surprisingly, side effects to ARVs were not a key theme that emerged. These findings can help develop appropriate strategies to support adherence to ARVs, improve overall quality of life in people living with HIV and may reduce other costs such as Drug resistance testing.

THPEB067

HIV Status Non-disclosure among Clients Accessing Partner Notification Services in Zambia - A Challenge to Achieving Epidemic Control

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Background: After three decades of interventions, disclosure of HIV positive status is still an issue in Zambia. Based on national data, disclosure of antenatal HIV test results among women aged 15-49 years to their spouses and partners remained suboptimal at 69% in 2016. USAID/ZPCTIIB project implemented several interventions to improve disclosure including partner notification services (PNS) and index testing. We analyzed program data to better understand characteristics of elicited clients who do not disclose.
Methods: The project implemented PNS in 40 health facilities between January 2018 and March 2018. PNS records were retrieved from 10 facilities with the highest complete PNS records across three provinces of Zambia. PNS registers were reviewed to establish the level of HIV status disclosure from index clients to their sexual partners, and data on number of sexual partners (elicitation), HIV testing and linkage to antiretroviral therapy. We classified elicited sexual partners into a disclosure and non-disclosure group based on whether their HIV status was known or unknown to the index partners. Bivariate analyses using descriptive and inferential statistics were conducted to describe clients who did not disclose as compared to those who did.
Results: Over a three months period, 768 index clients elicited 987 sexual partners (570 males; 417 females). Of the 987 elicited sexual partners, 713 (72%) were reached and offered HIV testing. Of these, 190 (27%) were already aware of their HIV positive status, but the status was unknown to their index partners (non-disclosure group). When comparing disclosure rates between genders, 113 males (22.9%) did not disclose while 77 females (18.8%) did not disclose (p=0.13). Also, among adults aged 25 years and above, 159 (20.2%) did not disclose their HIV positive status compared to 31 (26.7%) aged 16-24 years (p=0.11). Disclosure among unmarried individuals was 166 (46.9%) compared to 24 (4.4%) among those married (p< 0.0001).
Conclusions and recommendations: There was proportionally higher non-disclosure of HIV status among males, unmarried and 16-24 years and older individuals. However, non-disclosure was only statistically significantly different between marital status groups. Overall, non-disclosure remains high, and additional efforts should be taken to improve HIV positive status disclosures among unmarried individuals.

THPEB068

Forte Prévalence d´Échec Virologique chez les Enfants Infectés par le VIH-1 sous Traitement Antirétroviral de Première Ligne et Facteurs Associés en Guinée

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Background: La mise des enfants infectés sous traitement antirétroviral (TARV) permet d'obtenir une amélioration de leur état clinique. Cependant elle peut être compromise par les difficultés de compliance au TARV pouvant se solder par l'apparition d'échec thérapeutique. L'objectif de ce travail était de déterminer la prévalence de l'échec virologique chez les enfants sous traitement antirétroviral (TARV) de première ligne au service de pédiatrie et de déterminer les facteurs associés.
Methods: Nous avons réalisé une étude prospective sur une période de 12 mois (1er mars 2017-1er mars 2018) chez les enfants sous TARV depuis au moins six mois au service de pédiatrie de l'hôpital national Donka. Le seuil d'échec virologique était de $3\log_{10}$ (OMS). Ceux ayant une charge virale (CV) supérieure au seuil d'échec virologique ont fait l'objet d'un counseling et d'une reprise de la CV après 3 mois. Les données ont été analysées à l'aide du logiciel Epi-info 7.2. Une régression logistique a été utilisée pour analyser les facteurs associés à l'échec virologique.
Results: Nous avons enrôlé 176 enfants sous TARV. L'âge moyen était de 9,7 ans ±3,6, le sexe masculin était majoritaire avec un ratio de 1,12. La majorité des enfants (87,5%) était sous traitement à base de AZT+3TC+NVP et 12,5% sous TDF+3TC+EFV avec une durée médiane de suivi de 66 mois [IQR : 44-87]. Tous les enfants avaient une charge virale (CV) au début de l'étude et 44,89% avait déjà une CV supérieur à 1000 copies/mL. Après counseling et trois mois de suivi du traitement, le taux d'échec virologique était de 41,48% [IC 95% :34,11-49,13]. Les tests de résistance n'ont pas été réalisés par manque de plateforme. Les facteurs associés à la survenue de l'échec virologique étaient l'âge (P=0.01, Odds =0.2) et la CV initiale (p=0.0007, Odds=0.46).
Conclusions and Recommendations: Cette étude nous montre une forte prévalence de l'échec virologique chez les enfants sous traitement ARV. Il serait important de réaliser des tests de résistance afin de détecter des éventuelles mutations de résistance avant tout changement de régime thérapeutique.
Mots Clés: Forte prévalence, échec virologique, enfants infectés par le VIH-1, Guinée

THPEB069

Mortality and Virologic Outcomes Beyond the First Two Years of Antiretroviral Treatment Early Initiated during Infancy: Experience of the ANRS-1240 Pediacam Study (Cameroon)

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Background: In most of the studies,virologic response is assessed during the first 2 years of antiretroviral treatment initiated in HIV-infected infants. Instead, early initiation of antiretroviral therapy exposes infants to very long-lasting treatment. Moreover, maintaining viral suppression in children is difficult. We aimed to describe virologic response and mortality after two years of antiretroviral treatment initiated during the first year of life, and identify factors associated with success in a Sub-Saharan Country (Cameroon).
Methods: We included 149 children of the ANRS 12140-PEDIACAM study still alive after two years of antiretroviral treatment initiated during the first year of life. The study population was organized in two groups according to virologic status at two years of antiretroviral treatment initiation: 1) group 1: children with viral load < 400 copies/mL; 2) group 2: children with viral load ≥400 copies/mL or whose viral load was not measured. The probability of maintaining virologic success between two and five years antiretroviral treatment in group 1, or achieving virologic success at least once in group 2, was estimated using survival models. The study of factors associated with viral load < 400 copies/mL in children still alive at five years of antiretroviral treatment (versus ≥ 400 copies/mL or not measured) was performed using univariate and multivariate logistic regression.
Results: At five years of early antiretroviral treatment, viral load was suppressed in 66.4% [58.7-74.1]) of the 144 children still alive and in care, but viral load was not measured in 15.4%. Five deaths (3.3% [IC95%: 0.4-6.2]) were recorded during the study period. Among the children with viral suppression at two years of treatment initiation, the probability of maintaining viral suppression at five years of treatment was 62.0% [48.5-79.6]. The only factor associated with viral suppression at five years of treatment initiation was virologic success at two years of treatment initiation.
Conclusions and Recommendations: The probability of maintaining viral suppression between two and five years of early initiated antiretroviral treatment in HIV-infected children is unsatisfactory, stressing difficulties of parents for daily long-term adherence to treatment. This emphasizes need to make more available galenic forms of antiretrovirals adapted to children in Sub-Saharan countries.

THPEB070

Rate and Predictors of Treatment Failure among Pediatric Population Taking Antiretroviral Therapy in Ethiopia

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Background: Though the unprecedented global effort at scaling up universal access to antiretroviral therapy (ART) has decreased the progression of HIV, treatment failure (TF) among pediatric patients receiving ART against human immunodeficiency virus (HIV) is becoming a global public health concern which may impact on treatment outcome. **T**he aim of this study was to determine the rate and predictors of TF among pediatric patients taking ART in Ethiopia.
Methods: A follow-up study was conducted from March 2016 to 2017. Retrospective clinical and laboratory data were captured from patients' medical record. Socio-demographics and explanatory variables of participants were collected using pre-tested structured questionnaire and study participants were followed for three to six month after baseline viral load has been done to classify virologic failure (VF). TF was ascertained from population who virally failed with the denominator of population taking ART. Statistical significance was set at P-value less than 0.05.
Results: A total of 554 pediatrics patients taking ART from 40 selected health facilities were included in the study. Viral load suppression (VLS) (VL< 1000 copies/ml) among pediatric population taking ART in Ethiopia were found to be 344 (62.1%). From those who was not virally suppressed at baseline of the study 210 (37.9%), 99 (51.6%) were re-suppressed after three to six month of enhanced adherence and counseling, leading the overall virologic failure (VF) among pediatric population taking ART in Ethiopia to be 93 (17.3%). The mean CD4 count was improved from 490 cells/ml at ART initiation to 921 cells/ml after 80 months of ART exposure. Moreover, the clinical outcome was improved from 42% to 89% at ART initiation and after 80 month of ART experience. CD4 count, clinical stage, Hemoglobin and weight were found to be predictors of VF. Moreover; family HIV and disclosure status, duration on ART, age, being orphan, stigma and medication adherence have significant association with VF.
Conclusions: The low level of VLS and the high level of VF could explain the challenge on the national ART program among pediatric population. CD4 count, clinical stage, Hemoglobin and weight could be good predictors of TF among pediatric population. Improving disclosure status, stigma and medication adherence could improve the treatment outcome of pediatric population taking ART in Ethiopia.

THPEB071

Viral Suppression among Children and Adolescents Living with Human Immunodeficiency Virus on Antiretroviral Therapy in Southeastern Nigeria

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Background: Globally, Nigeria has the second-largest pediatric and adolescent HIV burden. The primary goal of prescribing Antiretroviral Therapy (ART) to the people living with HIV is to achieve HIV-1 RNA suppression to restore immunologic function, reduce morbidity and mortality, and to improve the overall quality of life. Viral load testing is a standard tool used in monitoring disease progression as well as for the decision to initiate or change ART. We evaluated the rates of viral load suppression among children and adolescents on ART.

Methods: The current study was a prospective, perinatally HIV infected cohort. The demographic information of children and adolescents' whose plasma samples were received from over thirty healthcare facilities across southeastern Nigeria at the Nnamdi Azikiwe University Teaching Hospital PCR Laboratory, Nnewi, were entered into the Laboratory Information Management System (LIMS), between January 2016 and January 2019. The Roche CAP/CTM real-time PCR was used to quantify HIV-1 RNA. The virologic outcomes of the clients were also entered into LIMS. We included only participants who have been initiated into ART for one year and above and those with at least two viral load results. A chi-square test was used to determine the statistical significance of the variables.

Results: Of the total 296 children and adolescents who were recruited, 58.6% were males and 41.4% females. The mean age was 8.95±2.60 and 14.73±1.96 years old for children and adolescents, respectively. Overall, our study cohort achieved a viral load suppression rate of 154 (52.2%). More children (54.7%) were virally suppressed (< 1000 copies/ml of blood) than the adolescents (51.2%). The frequency of virologic failures was greater among adolescents (48.8%) than in children (45.2%) - OR 1.149 at 95 C.I 0.694-1.901; X^2 = 0.291; P=0.589. More females were virally suppressed (55.8 %) than their male counterparts (50.0%) -(X^2=1.38'P = 0.24). The suppression rates were 40.0%, 54.6 %,52.6,51.4 among 0-5,6-10,11-15, 16-19 years old, respectively (X2- 0.0.73; P=0.87).

Conclusions and Recommendations: Our cohorts did not achieve the third '90" of the UNAIDS' viral load suppression target for 2020. We recommend special attention be put on this vulnerable population through enhanced adherence strategies, improved access to newer antiretroviral drugs in pediatric formulations.

Keywords: HIV, Viral suppression, children, adolescents, ART

THPEB072

Association of ART Regimen with Viral Suppression in HIV-positive Children in Eswatini: Baseline Data from the FAM-CARE Study

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Background: Global pediatric treatment goals are for 90% of known children living with HIV to be on antiretroviral therapy (ART), with 90% having viral suppression. Viral suppression among individuals on ART lag among children compared to adult populations. Ensuring HIV-positive children are prescribed optimal antiretroviral treatment (ART) remains an area of needed progress to ensure viral suppression reaches the 90% target.

Methods: The FAM-CARE study is evaluating the effect of a family-centered care model (provision of HIV care services to an HIV-infected child together with other family members) implemented in four health facilities in Eswatini versus standard of care (separate clinic care) in four comparison health facilities. We used baseline enrollment data for all children to evaluate overall viral suppression and factors (including age, gender, reported adherence, ART drug pick-up, age at ART start, duration of ART, and ART regimen) associated with lack of suppression. Factors associated with viral suppression and undetectability were identified using Pearson $\chi 2$ for categorical variables and Wilcoxon rank sum tests for continuous variables.

Results: 379 children (50% female) enrolled in the study, mean age 8.3 years (sd=3.7years). 99.7% were receiving ART, with 95.2% on first-line; median age at ART initiation was 2.6 years and median ART duration was 4.1 years. 44% of children were receiving nevirapine (NVP)-based ART (mean age 9.2 years), 25% efavirenz (EFV)-based ART (mean age 10.3 years), and 30% lopinavir/ritonavir (LPV/r)-based ART (mean age 5.4 years). Plasma viral load was < 1,000 copies/mL in 78% and < 400 copies/mL in 74% of children. The only factor associated with lack of viral suppression (RNA >1,000 c/mL) was ART regimen (p=0.03), with a similar but non-significant trend for detectable VL (RNA >400 c/mL) (p=0.20). The lowest rate of suppression was in children on NVP-based ART and the highest rate in those on EFV-based ART.

Conclusions and Recommendations: While Eswatini national treatment guidelines recommended EFV-based ART in children age >3 years, significant numbers of children are still on NVP-based ART, which had significantly lower viral suppression than EFV-based ART. These data speak to the importance of close monitoring and optimizing ART regimens for children to improve viral suppression rates.

THPEB073

Descriptive Analysis of Pediatric (0-14) Enrollment into HIV Care and Associated Factors in Health Facilities in Rwanda

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Background:Rwanda is on the right track to end new HIV infections among children. Mother to child transmission of HIV has decreased drastically from 10% in 2000 to current figure of 1.5%. With the ambitious aim of ending AIDS epidemic; particularly in children, HIV division carried out an survey assessment in all health facilities in Rwanda through existing mentorship program to assess the number of children (0-14) enrolled in HIV care and treatment in 2018 and observe and document the associated risk factors to HIV infection in order to guide future intervention strategies.
Methods:A retrospective analysis of HIV infected children < 15 years of age, enrolled and initiated on ART in 563 health facilities that were providing HIV services during a period from January to December 2018 was done. Data were collected using a designed excel sheet during clinical mentorship by extracting the needed information from patient files, registers and additional information by interviewing health care providers.
Results:Of 592 children reported in Health Management Information System (HMIS) enrolled in HIV care and treatment in 2018; 488 were identified for analysis. of 488 children; 170 (34.8%) were enrolled in HIV care and treatment at the age of 0-2years, 116 (23.7%) were enrolled at the age of >2-4years, 94(0.7%) at the age of >4-9 years and 108 (22%) were enrolled at the age of >9-14 years. We also observed and documented the possible risk factors of HIV infection by reviewing patient charts and also interviewing the health care providers, and 330 paediatric cases analysed; of these 149 (30.5%) children whose mothers did not attend antenatal care (ANC) and PMTCT, 54 (11%) children were infected while their mothers became positive during breastfeeding period, 46 (9.2%) children their mothers were lost to follow up during PMTCT period, 30 (6%) attended ANC late, 30 (6%) mothers were not adherent on ART during pregnancy, and 21 (4%) mothers non adherent on ART during breastfeeding period.
Conclusions and Recommendations:From our analyses, many children enrolled in HIV care were identified at age from 0 -2 years. However, some were identified at age beyond 2yrs, suggesting that there might be gaps in the PMTCT and EID programmes. The commonly observed associated factor was mothers not attending ANC and PMTCT, hence further quantitative studies should focus on the reasons behind non adherent to ANC and PMTCT programs for pregnant and breastfeeding mothers respectively.

THPEB074

Access to Antiretroviral Therapy and Response in HIV-infected Children and Adolescents in the IeDEA Paediatric West African Cohort

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Background: The attrition across the continuum of care for children and adolescents living with HIV (CALHIV) from their HIV diagnosis is unknown, particularly in West Africa. We assessed the progress to the second and third UNAIDS 90-90-90 targets in the International epidemiological Databases on AIDS (IeDEA) paediatric West African Cohort (pWADA).
Methods: The pWADA database, involves nine paediatric clinics in five countries (Benin, Côte d´Ivoire, Ghana, Mali, Togo). All CALHIV aged 0-18 years, ART-naïve at enrolment except for prevention of mother-to-child transmission prophylaxis, and diagnosed between 2004 and 2018 were included. We described the proportions of the CALHIV initiating ART, and missed opportunities (death, loss to follow-up [LTFU]: last clinical visit >12 months) and the proportion of those on ART virally suppressed (first viral load < 500cp/mL after 6-month post-ART). We present cumulative incidence and factors associated with ART initiation, with death/LTFU as competing risks.
Results: Overall, 7570 CALHIV were enrolled in pWADA; 69% were enrolled before 2013. At enrolment, 49% were female, median age was 3.5 years [interquartile range (IQR): 1.2-7.6 years], 37% were < 2 years, and 73% were eligible to initiate ART according to the WHO guidelines in effect at enrolment. During follow-up, 3% died, 3% were transferred out and 19% were LTFU before ART initiation; 3% were alive but had not initiated on ART while 72% initiated ART. The median time between baseline and ART initiation was 1.4 months (IQR: 0.3-7.2 months]. At ART initiation, median age was 5.1 years (IQR: 2-9 years) and 80% were treated with a non-nucleoside reverse transcriptase inhibitors regimen. Adjusted for center, gender, clinical/immunological ART eligibility, children aged < 2 years (Ajusted Hazard ratio [aHR]: 0.59; 95% Confidence Interval [95%CI]: 0.54-0.65) and aged 2-4 years (aHR: 0.84; 95%CI: 0.77-0.92) at baseline were significantly less likely to initiated ART compared to those aged 10-15 years, as well as CALHIV enrolled before 2016 compared to those enrolled later. Among CALHIV on ART, 65% performed at least one viral load test during follow-up. The cumulative probability of reaching viral suppression was 17%, 26%, 36% and 43% at 6, 12, 24 and 36 months, respectively.
Conclusion: Achieving the second and the third UNAIDS targets will require additional supports to initiate ART earlier, using more potent antiretroviral drugs and to strengthen treatment adherence.

THPEB075

HIV Infected Children and Adolescents Virally Stable After Long Term Anti-retroviral Treatment in City of Kigali

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Background: Long term survival for people living with HIV (PLHIV) on antiretroviral treatment (ART) in Rwanda has improved, with life expectancy estimated to be 25.6 additional years. Many studies suggest though that children and adolescents living with HIV are likely have poor long-term survival outcomes after treatment initiation compared to adults. We assessed health outcomes in a cohort children and adolescents who had been receiving ART for ten years with long term stability on ART as primary outcome of interest.
Methods: We conducted a retrospective descriptive analysis on data set of all people living with HIV routinely collected data using the Electronic Medical Record system (EMR) in 29 health facilities providing ART services in the City of Kigali. We considered a subset of patients who had been on ART for a period of 10 years, and further subdivided into those who started treatment at age of 19 or less (children and adolescents) and those who started at age more than 19 years. The major outcome of interest was long-term stability in patients who started ART as children or adolescents which was evaluated by examining the two most recent VL measurements. The patient was considered to be stable having achieved VL suppression (< 200 RNA copies /ml) on two most recent measurements.
Results: By end of June 2018, we retrospectively enrolled 9,029 HIV positive patients who had been receiving ART for at least ten years. Of these 8,230 (91%) had started ART at age above 19 years, and 799 (9%) started treatment at age 19 years or below. After follow up, 7,223 (87.7%; 95% CI 87.1-88.5) of those who started treatment at age above 19 years were still alive and in care, compared to 732 (91.6%; 95% CI 89.6-93.5) who started treatment at age of 19 and below. However, only 51% [95% CI 46.3-55.7] of patients who started ART at age of 19 and below, and were still alive and in care, were found to be stable on treatment compared 71.6% [95% CI: 70.4-72.8] in the older group. In multivariate analysis HIV positive patients who started ART as children or adolescents were more likely to be un-stable after ten years of treatment compared to adults; AoR 2.57, 95% CI (2.40 - 2.74).
Conclusion and recommendation: Our data indicate sub-optimal stability in HIV positive patients who start ART as children or adolescents. A differentiated care model for children and adolescents should be emphasized and fully implemented to ensure optimal long-term survival outcomes in this group

THPEB076

Correlates of Adherence to Antiretroviral Therapy among Orphaned and Vulnerable Children Living with HIV in Tanzania

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Background: Virologic suppression in people living with HIV (PLHIV) requires optimum adherence to antiretroviral therapy (ART). Suboptimal adherence facilitates drug resistance, morbidity and ultimately mortality. This study assesses levels and correlates of adherence to ART among orphaned and vulnerable children (OVC) living with HIV.

Methods: Data stem from the community-based, USAID-funded *Kizazi Kipya* project that aims to increase uptake of HIV/AIDS services by OVC and their caregivers. HIV positive OVC who were enrolled in the *Kizazi Kipya* project during January 2017 to September 2018 and had started ART were included. ART adherence- i.e. having taken 95% or more of the ART doses in the last month - was the outcome variable. Data was self-reported by OVC caregivers. Multivariate analysis was performed using random-effects logistic regression.

Results: Data on 13,772 OVC age 0-19 (51.7% female; average age = 10.4 years) who were living with HIV and had started ART were analyzed. Overall 91.3% of OVC were reportedly adherent to ART. In the multivariate analysis; OVC with male caregivers were twice as likely as those with female caregivers to be adherent to ART (OR=2.15; 95% CI 1.30-3.57). OVC with HIV positive caregivers were more than 4 times more likely to be adherent to ART than those with HIV negative caregivers (OR=4.57, 95% CI 2.61-8.00). OVC living in urban areas were more likely to be adherent to ART than their rural counterparts (OR=4.40, 95% 2.64 -7.34). Rates of OVC adherence to ART increased with wealth quintile. Marital status of the caregiver was also a significant predictor of OVC adherence. Neither OVC sex and age, nor caregiver age and education were significant predictors. Intraclass correlation was as high as 91.6%.

Conclusions and Recommendations: To achieve universal coverage of ART adherence in this population, interventions should adequately respond to variations in caregiver characteristics (i.e. sex, HIV status, and marital status), household characteristics (i.e. economic status, and co-residence), and geographical characteristics (i.e. urban or rural residence).

THPEB077

Uptake of Antiretroviral Therapy among 0-14 Year-old Orphaned and Vulnerable Children Living with HIV in Tanzania

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Background: The World Health Organization (WHO) recommends early use of Antiretroviral Therapy (ART) to keep people living with HIV alive, healthier and to reduce the risk of HIV transmission. By the end of 2017, only 46% of children living with HIV (CLHIV) were on ART in Tanzania. This study explores factors associated with the uptake of ART among orphaned and vulnerable children (OVC) living with HIV (OVCLHIV).

Methods: Data are from the community-based, USAID-funded *Kizazi Kipya* project that aims to increase the uptake of HIV/AIDS services by OVC and their caregivers. HIV positive OVC who were enrolled in the project between January 2017 and September 2018 were included. ART status (on ART / not on ART) was the outcome variable. Data was provided through caregiver self-reports. Multivariate analysis was performed using random-effects logistic regression.

Results: The analysis was based on 10,047 HIV positive OVC aged 0-14 (mean = 8.2) years. 51.5% of the OVC were female and the rest were male. Overall 93.5% (n = 9,394) of the OVC were on ART. In the multivariate analysis, OVC with male caregivers were over 3 times as likely as those with female caregivers to be on ART (OR=3.3, 95% CI 1.38-7.78). OVC with HIV positive caregivers were nearly 7 times more likely than those with HIV negative caregivers to be on ART (OR=6.83, 95% CI 2.69-17.30). OVC with caregivers who did not disclose their HIV status to the USAID *Kizazi Kipya* project were 82% less likely to be on ART than OVC with caregivers who disclosed their HIV status and were HIV negative (OR = 0.18, 95% CI 0.06 - 0.59). OVC living in urban areas were 4 times as likely as their rural counterparts to be on ART (OR=4.00, 95% CI 1.72-9.14). Surprisingly, OVC living in food insecure households were about 37 times as likely to be on ART as those living in food secure households (OR = 36.99, 95% CI 9.84-139.06). These observations were adjusted for OVC characteristics (sex, age, co-residence, and school enrollment), caregiver characteristics (age, education, marital status), and wealth quintile.

Conclusions and Recommendations: To improve ART coverage among OVCLHIV in Tanzania, addressing caregiver, household, and geographical barriers is required. Absence of individual OVC characteristics associated with ART use, suggested that ART use among OVCLHIV depends on the external environment.

THPEB078

Regular Weight Based Adjustment of ARV Doses and Viral Suppression in Children(0-19 Years) Living with HIV/AIDS in South West Region, Cameroon

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Background: Antiretroviral therapy (ART) success in children and adolescent living with HIV (CALHIV) is a daunting task in resource limited settings. Multiple factors contribute to poor ART outcomes including suboptimal adherence, non-disclosure, pills burden; poor follow up by caregivers, unavailability of pediatric formulations and under dosing of ARVs. A lot is being done to address these challenges but under dosing warrants special attention as parents and caregivers pick up medications for their children making anthropometric measurements for dose adjustment difficult. We assessed the effects of regular weight-based adjustment, a fixed dose combination on viral suppression for CALHIV.

Methods: Four facilities selected in Limbe, TIKo, and Kumba health districts were included in a close monitoring programme. Clinical and psychosocial support staffs involved in pediatric care were closely mentored on ARV basics, regular dose adjustment, disclosure, working with parents and caregivers to enhance adherence to ARVs and clinical/biological monitoring. After the capacity building session, ART regimens and dosages were reviewed for all children 0-19 enrolled in each facility. Children whose ARV were under dosed were adjusted based on weight. Adolescents with weights above 35kg had their regimen substituted with a fixed dose combination of Tenofovir/Lamivodine/Effavarenz to reduce pill burden and enhance adherence. These children were then monitored monthly for three to six months and their VL collected. We compared viral suppression (VL < 1000 copies/mL) in children before and during the intervention.

Results: At three months into the intervention, of 159 CALHIV who did VL, 75% (119/159) were virally suppressed. Of the 94 others who did their VL at six months into the intervention, 73% (69/94) were virally suppressed. These suppression rates were relatively much better when compared to the suppression rate of 64% observed in children in the last three months prior to the intervention. The change in suppression rates were greater in the age group 0-9 years with suppression rates of 69% (38/55) and 82% (32/39) recorded at 3rd and 6th months of the intervention.

Conclusion: Accurate ARV dosing and regular monitoring of adherence increases viral suppression in this vulnerable group. Nurse working with children be motivated and have their capacity regularly updated to ensure accuracy in dosing pediatric ARV and monitoring children adherence to ART

THPEB079

Determinants of Survival in HIV-infected Adolescents on Antiretroviral Therapy in Lawra, Ghana

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Background: Adolescents have been identified as a high-risk group for poor adherence to and defaulting from Antiretroviral Therapy (ART) care leading to poor survival rate[1]. HIV infected children and Adolescents should adhere to ART to achieve viral suppression. This study seeks to find out the survival rate and factors associated to survival among Adolescents on ART in Lawra, Ghana.
Methods: Retrospective records of Adolescents clients who were initiated on ART from 2009 to 2018 data was extracted from Lawra Hospital ART client Database of NACP, Ghana. Adolescents who started ART in Lawra Hospital were used for the study. Kaplan-Meier estimates and Cox Regression were used to analyzed Univariate and Multivariate. Factors of demographic characteristics and caregivers relations were analyzed to determine their association to mortality and lost to follow up. Data analysis was done using SPSS version 20 software.
Results: The median age of adolescents was 16 years (age range 10-19years) and 80% were female. Majority 64% were within the age group of 15-19 years. Adolescents with formal education level were 84%. About 52%of adolescents were Alive, while 28% were death and 20% were lost to follow up. Forty-sxi percent (46.2%) of adolescents were found to be staying with their parents as caregivers. The median survival time was 43 months (95% CI 2.8 - 83.1). Overall Kaplan-Meier survival function curve shows that most of the deaths and Lost to follow up occurred in the earlier months of ART initiation. A Cox Regression analysis of factors associated to death and lost to follow up shows that the following factors: gender (P =0.625), age group (P=0.423), marital status (P=0.807), education level (P=0.314) and caregiver relation (P=0.630) were statistical non-significant. Hazard Ratio of Marital status HR 1.312 (95% CI 0.149 - 11.509), Education level of Primary HR 2.192 (95% CI .208 - 23.049), Education level of Secondary/Technical HR 9.047 (95% CI 0.441 - 185.622) are more at risk of death and LTFU.
Conclusions and Recommendations: This study shown that adolescents survival is slightly high(52%). Education level is more associated with death and LTFU, facility base differentiated service delivery should be inplace for stable adolescents. Regular Adherence counselling should be offer to adolescents of age group 15-19years and their caregivers. Out of school section ART clinic should be organized for adolescents of age 15-19years to enable them not miss classes.

THPEB080

An Investigation into the Role-played by the Community Case Finders and Community Testers in Promoting Access to HIV Pediatric Services

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Background: Globally 1.8 million children under the age of 15 years are living with HIV (UNAIDS 2016). The coverage of ART is not uniform across all the Districts and Provinces in Zimbabwe with some still under 80%. SAfAIDS is implementing the FTT4000 through working with Community Case Finders (CCFs) and Community Testers (CTs) who are responsible for finding, testing and retaining HIV exposed children through home visits. The objectives of the study were to:
1. Assess the impact that is being made by the CCFs and CTs in ensuring that children receive HIV testing services.
2. To generate knowledge on how the programme model is being received by service providers (clinics).
3. To come up with recommendations on what need to be improved for the model to be more effective.
Methods: The study was carried out in Bulawayo, Kwekwe and Marondera. Data was collected through quantitative methods. Participants of the study included nurses, parents and guardians of children who benefited from the programme. Purposive sampling method was utilized to select the respondents of the study.
Results: Objective 1: All the beneficiaries of the programme indicated that they appreciated the role that is being played by the CCFs and CTs in terms of finding exposed children and providing HIV testing services to them. During the FGDs one of the participants said that: *"This testing of children in the home has never happened in this community, it is really a good initiative".* This indicates that the initiative is unique and it is being accepted within the community.
Objective 2: The nurses appreciated the working model. During an FGD one of the nurses pointed out that: *"The CCFs of the FTT4000 are very instrumental in tracing mother baby pairs who would have been lost to follow and the CTs compliments our efforts through providing HIV testing services to children within the community".*
Objective 3: The respondents indicated that there was need for the CTs to be provided with motor bikes so that they will be able to cover long distances. It was recommended that more CCFs and CTs should be recruited across all the Districts
Conclusions and Recommendations:
The programme is complimenting the MoHCC agenda of eliminating parent to child transmission of HIV. Both the beneficiaries and the clinics are appreciating the CCFs and CTs. This working model can be replicated to other Districts or Countries.

THPEB081

Where Are the Children? A Geo-spatial Look at Children Living with HIV and on Treatment in PEPFAR-supported Programs: 2017 - 2018

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Issues: Globally, 1.8 million children (0-14 years) are living with HIV (CLHIV), with 52% on antiretroviral therapy (ART). Without treatment, 50% of CLHIV will die before their second birthday and 80% before turning five years. The U.S. President's Emergency Plan for AIDS Relief (PEPFAR) is the largest supporter of CLHIV on ART globally, and monitors progress towards the UNAIDS 90-90-90 goals which assert that 90% of CLHIV know their status, and 90% of those children are on ART by 2020. Mapping allows for streamlined layering of data points and a more acute view of the pediatric HIV response. We used multiple data sources to map the 0-14 population, CLHIV burden and ART coverage geographically, to inform public health responses.

Descriptions: Using surveillance and modeled data from WorldPop, an open access spatial demographic dataset, 2018 UNAIDS Global AIDS Response Progress Reports, and 2017-2018 PEPFAR HIV Monitoring Evaluation Reporting indicators, we mapped and developed multi-variate Dorling cartograms for populations 0-14 years, CLHIV, and ART coverage as a percent to show a comprehensive view of pediatric populations by country. Mapping was done to visualize where children live, and progress towards reaching 81% of CLHIV on ART. The analysis was limited to 23 PEPFAR-supported countries in Africa and Haiti serving a majority of CLHIV.

Lessons learned: The 0-14 population was spatially dispersed with highest numbers in Nigeria, Ethiopia and Democratic Republic of Congo. However, CLHIV were spatially concentrated in Southern and Southeastern Africa, and Nigeria. The geospatial analysis reveals that Nigeria (220,000) and South Africa (280,000) had the largest burden of CLHIV; however, the 0-14 population in Nigeria (75,837,979) was five times the size of South Africa (14,947,267). Two of the twenty-three (9%) PEPFAR-supported countries, Kenya and Zimbabwe, had over 81% ART coverage, with a range of 9% to 89% in 2018. The median number of CLHIV was 40,000 (7,600 - 280,000) in PEPFAR-supported countries, and PEPFAR supported 634,659 children on ART in 2018.

Next steps: The Dorling technique reveals that CLHIV ART coverage is not based on the 0-14 population size or CLHIV burden. A strategic shift focusing on data triangulation, alternative mapping and visualization approaches is a novel way to emphasize program shortfalls. This can garner more support toward prevention, case finding, treatment initiation and retention for CLHIV to reach the 90-90-90 goals.

THPEB082

Malaria in HIV Infected Children Receiving Antiretroviral Therapy in Douala, Cameroon

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Background: HIV infection is a major public health problem, responsible for about 940 000 deaths in 2017, subSaharan Africa bearing the highest burden. It is associated with increased risk of developing other diseases including malaria. This study aims to determine malaria incidence and frequency in HIV infected children under antiretroviral treatment compared to those not infected living in same environments.

Methods: A total of 212 children (122 female and 90 males) aged 0 to 18 years were followed-up for one year. Seventy-nine where HIV negative. Among the 133 HIV positive, 39 were receiving Protease Inhibitors (PI) and 94 Non Nucleosidic Reverse Transcriptase Inhibitors (NNRTI). All of the infected children were receiving cotrimoxazole as part of their treatment and were followed up to ensure adequate drug uptake. Malaria diagnosis was performed using Giemsa-stained thick blood film for three consecutive screening periods; May to August, September to December and January to April. All positive malaria cases were treated according to the national protocol. Data were analysed through Epi-info (7.2 version) software. Chi-square test and Fischer exact tests were used to compare proportions among the various groups. Significant level was set at $p<0.05$.

Results: Malaria incidence was respectively 25.2%, 12.0 % and 7.4 % for the first, second and third rounds of screening. Seventy cases of low parasitemia and 18 cases of moderate parasitemia were registered, but no case of severe parasitemia. 124 (58.5%) children had no malaria episode; 70 (33.0%) had 1 episode, 16 (7.6%) had 2 and 2 (0.9%) had 3 episodes. Malaria incidence among HIV negative and positive children as well as between HIV positive treatment groups was not significantly different ($p>0.05$). Malaria episodes were more frequent in HIV infected children (21.4 %) than in those not infected (18.7%); however, the difference was not significant ($p=0.98$). Also, no significant difference was found concerning the frequency of malaria episodes in children receiving NNRTI compare with those receiving PI ($p=0.70$).

Conclusions and Recommendations: The study revealed no significant difference in the incidence and frequency of malaria between HIV negative children and infected children on NNRTI and PI. Good therapeutic compliance to antiretroviral treatment and cotrimoxazole may contribute to the reduction of the generally high risk of malaria infection among HIV infected children.

THPEB083

Virologic Failure and Acquired HIV-1 Drug Resistance among Adolescents on Antiretroviral Therapy in Cameroon

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Background: HIV is a leading cause of death, among adolescents, likely due to poor monitoring and high risk of therapeutic failure in resource-limited settings. We sought to determine the rates of virologic failure (VF) and HIV-1 drug resistance (HIVDR) among adolescents receiving antiretroviral therapy (ART) in two urban cities in Cameroon.

Methods: A cross-sectional study was conducted among adolescents receiving ART in 10 Health Facilities of Douala and Yaounde in Cameroon from November 2018 to May 2019. Sociodemographic characteristics, ART regimens, adherence level and viral load (VL) were obtained from medical files. Genotypic HIVDR testing was performed for those experiencing VF (VL≥1000 copies/ml) with available sample and interpreted using the Stanford HIVdb algorithm. Bivariate analyses were performed, with $p< 0.05$ considered statistically significant.

Results: Out of 1,316 adolescent files on ART, 233 (17.7%) had missing records of VL. Among those with VL results, adherence level ranged from 81.6% to 91.8% using different adherence assessment methods. Interestingly, 276/1083 (25.5%) were experiencing VF versus 807/1083 (74.5%) reported with viral suppression (VL< 1000 copies/ml). HIVDR testing was successfully done for 45/57 (79%) available samples from those experiencing VF. Of relevance, VF was associated to suboptimal adherence (OR:0.039, p=0.000), distant residence (OR :1.5, p=0.01) and category one health facility (OR:2.8, p=0.02), age at ART initiation (OR:2.5, p=0.01) and baseline CD4 % (OR:2.1, p=0.001). Overall rate of acquired HIVDR was 93.3% (42/45), with a high rate of multiclass HIVDR-mutations (80%).

Conclusions and Recommendations: In Cameroon, VF is high among adolescents receiving ART, mainly attributed to poor adherence. Acquired HIVDR is frequent adolescents experiencing VF, with consistent rate of multi-drug resistance strains, which in turn limit future therapeutic options for transition to adult care. Thus, scale up of VL monitoring, timely detection of VF and prompt switching to PI-based second-line ART would limit the accumulation of HIVDR and ensure successful viral suppression for the achievement of the 3rd objective of the Joint United Nations Program on HIV/AIDS(UNAIDS)

THPEB084

Achieving the Third 90: Keeping Adolescents Living with HIV Virally Suppressed in Rural Nigeria in Test and Treat Era Using Continuous Quality Improvement Model of Peer Counseling & Support Group

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Background: In 2016, Nigeria transitioned to "Test & Treat", a policy where all people living with HIV (PLHIV) are treated with lifelong antiretroviral therapy (ART). There are unique challenges achieving viral suppression in ALHIV mainly due to increased stigma, discrimination & lack of social support. Hypothesis tested was antiretroviral therapy adherence effect on viral load outcome. We examined viral suppression among adolescents living with HIV in rural Western Nigeria.
Methods: This study was an observational prospective cohort study of adolescents living with HIV (ALHIV) already initiated on antiretroviral therapy for at least six months, enrolled in health facilities in rural parts of Western Nigeria, during a 12-month observation period starting October 2016 till September 2017. All data were collected using Epidata & statistically analyzed using Statistical Package for the Social Sciences, with multiple comparisons done using Post Hoc Bonferonni test.
Results: A total of 126 (64 males & 62 females) subjects eligible for the study were recruited. Most of them are in the age range of 10 - 16 years, with a mean age of 13.58 ± 4.26 years. 83 (65.9%) & 71 (56.3%) of the subjects had viral suppression of < 1000 RNA copies per ml and < 50 RNA copies per ml respectively. The 43 subjects went through peer counseling by trained ALHIV and enhanced adherence counseling (EAC) for three months and viral load test repeated three further months after, which made 113 (89.7%) & 101 (80.1%) of the subjects have < 1000 RNA copies per ml and < 50 RNA copies per ml respectively during the period of observation. The ALHIVs in the process joined the institutionalized social-media driven support group & adolescent decentralized care model ensuring they achieve the third 90 at undetectable viral load level. ART adherence has significant effect on viral load outcome ($\chi^2 = 6.42$, df = 1, P = 0.001).
Conclusions and Recommendations: Antiretroviral therapy (ARV) treatment adherence counseling is key to the achieving viral suppression and determine infection prognosis, thus, developing robust continuous quality improvement (CQI) plans to address issues across the cascade ultimately helping in the monitoring of HIV/AIDS disease progression and decrease treatment failure tendencies.

THPEB085

The Impact of Special Saturday Pediatric Clinic Model towards Improving Pediatric and Adolescent HVL Suppression, Tanzania Experience

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Background: The special Saturday pediatric clinic was introduced as a Differentiated Service Delivery (DSD) model for pediatrics and adolescents under the USAID Boresha Afya Southern Zone program in Tanzania, aiming at improving the quality of pediatric HIV care. This study compared the HIV Viral Load (HVL) suppression among pediatrics and adolescents attending the special Saturday clinics against the overall program pediatric HVL suppression.

Methods: Data from 16 facilities under phase one of Saturday pediatric implementation was extracted from the CTC2 database and analyzed using excel with HVL suppression as the outcome of interest. The period for observation was quarterly from January 2018 to December 2018, six months after establishment of the special clinic model. The data was then compared against pediatric HVL suppression data from program quarterly performance of all the 350 facilities providing pediatric HIV care and treatment services. The odds ratio for HVL suppression was calculated.

Results: A total of 2140 HIV-infected children younger than 19 years of age received care in 2018 at the 16 facilities. In Jan-Mar18, HVL suppression was 65% in the special clinics and 55% for the whole program (OR=1.5, 95% CI 0.86-2.69, p=0.15). In Apr-Jun18, HVL suppression was 67% in the special clinics and 57% for the whole program (OR=1.5, 95% CI 0.86-2.72, p=0.15). In Jul-Sept18, HVL suppression was 70% in the special clinics and 56% for the whole program (OR=1.8, 95% CI 1.02-3.29, p=0.04). In Oct-Dec18, HVL suppression was 80% in the special clinics and 59% for the whole program (OR=2.8, 95% CI 1.48-5.22, p=0.002). The number of children tested for HVL was 992 (63% testing coverage), 1168 (74% testing coverage), 1981 (94% testing coverage) and 1926 (90% testing coverage) in the period of Jan-Mar18, Apr-Jun18, Jul-Sept18 and Oct-Dec18 respectively.

Conclusions and Recommendations: Children attending special Saturday pediatric clinic had improved HVL suppression compared to children from the general care and treatment clinic, with the difference observed being statistically significant during the last two quarters. Scaling up the special Saturday pediatric clinic model is important in attaining the desired pediatric HVL suppression.

THPEB086

Meaningful Engagement of Adolescents Living with HIV as Peer Mentors - A Strategy for Improving Acceptance of HIV Status and Treatment Adherence among Adolescents Living with HIV

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Issues: The number of new HIV diagnose among adolescents and youths is significantly increasing including poor medication and adherence, thereby leading to resistance and change in drug regimen (changing to 2nd line treatment regimen), lost to follow-up and lost-to-death.
Descriptions: This study was conducted via phone interview with mentors (n=10) age 19-26 years, 5 females and 5 males living with HIV. Sixty percent (60%) through their status improved acceptance of positive HIV result and re-commitment to adherence among over 21 adolescents. In one of the mentor's response, she said, "*Everybody who hears my story of what I have gone through…the next day they are a different person, they feel like, "If she has gone on with it, I think I can deal with it as well*" … *"Okay, she has told me her own story, why shouldn´t I?*"**.** Another mentor described the emotional impact of his support to a mentee, his words *"I supported one of my peers who was also diagnosed of TB of the spine, although she died but, but I saw the will to live in her- and the mentor broke into crying.* While 4% said they have successfully manage discussion on adherence among adolescents who do not know their status and address sexuality issues. Interacting with all the mentors, the key areas of impact to their peers/mentees include, reinforcing adherence to medical instructions, sharing real-life experience of what works for them, inspiring hope and role modeling positive outcomes
Lessons learned: Peer mentorship is a recommended strategy to support in the fast tracking of HIV services especially in resource constrained environment like Nigeria. Interaction with mentors showed that the clinic-based activities added to their knowledge and confidence**.** The mentors' activities promote retention in care, encourage disclosure and positive bahaviour change among AYPLHIV.
Next steps: The engagement of Adolescents and youth living with HIV as mentors have significant contribution to improving the well-being of HIV infected Adolescents and youths. It is a promising strategy to expand HIV care and improve the quality of health services for AYPHIV in Nigeria and similar settings

THPEB087

Viral Non-suppression among Adolescents Living with HIV(ALHIV) and Its Associated Factors in Rwanda: A Retrospective Observational Cohort Study

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Background: Rwanda has achieved the global the target on viral suppression among PLHIV enrolled into care (91%). However, available anecdotal information in Rwanda and the African region suggest that ALHIV are not suppressing their Viral Load(VL) compared to adults. This study aimed at investigating factors associated with viral non-suppression among ALHIV.

Methods: We analyzed in a retrospective observational cohort study using routinely collected programme data set of Electronic Medical Record (EMR). We considered ALHIV (10-19 years old) enrolled into care and retained at the time of data collection from 49 health facilities, providing Anti-Retroviral Therapy (ART) with a functional EMR. Different variables on socio-demographic and clinical & immunological data: age, sex, health facility level, treatment line and regimen, duration on ART, WHO Staging and CD4 count at initiation were collected. VL was evaluated as treatment outcome. Participants were categorized as not having achieved viral suppression if their latest VL count was ≥ 1000 Ribonucleic Acid (RNA) copies/mL.

Results: A total number of 2557 ALHIV (50.3 % of females, 49.7% males) were initiated on ART by December 2016. Of these, 92% were on first line ART regimen, 8% on second line and none on third line. The mean age of the participants was 14.9(SD=2.8, IQR=13-17). The mean duration on ART was 2.4years [SD=3.3, IQR: 0-5.3].Of total, 22.5% [95% CI 20.9-24.1] of the participants had not achieved viral suppression and no difference between males and females was noticed. After adjustment for other covariates, viral non-suppression was found to be associated with initiation on ART for 6years and above [AOR=1.5, 95% CI 1.19,1.98], receiving care at Health centre [AOR=1.4, 95% CI 1.12, 1.69]; WHO staging III&IV [AOR=1.8; 95% CI 1.35, 2.3]&[AOR=1.7 ;95% CI 1.06, 2.5] and CD4 count at ART initiation. Those with 0-200 cells/ mm3 CD4 at initiation were found to be at the highest risk of not suppressing their VL [AOR=13.8; 95% CI 9.42, 20.12]

Conclusion and Recommendations: The proportion of ALHIV with no suppression in this study was relatively high (22.5%) compared to adults and confirms that suppression among ALHIV falls short of the global target by 2020. This may be due to challenges related disclosure and adherence in this group. Qualitative investigations are needed to ascertain these findings and provide more information to guide future design of programme strategies and interventions.

THPEB088

Loss to Follow-up in an Adolescent / Young Adult HIV Care Program in an Urban Hospital

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Background: Highly active anti-retroviral therapy (HAART) success is dependent on the fact that adolescents and young adults who are taking HAART remain in care. We investigated rates of loss-to-follow-up (LTFU) from HIV care services in a resource-limited setting among adolescents and young adults during their fast year of enrollment.
Methods: Prospective observational study in HIV infected adolescents and young adults aged from 15 - 24 yrs.
Results: A total of 230 new HIV sero-positive adolescents and young adults were registered between April 2018 and April 2019. There were 4 patients (1.74%) who died and were considered to have completed follow-up, 30 patients (13%) were LTFU, with the remainder (200 patients; 87%) found to be continuing active care. Six of the participants (20%) who were LTFU had been on ART for less than 3 months while the majority of the participants, 24 (80%) had been on ART for more than 3 months. The majority of LTFU patients (97%) were on first line ART regimens - either zidovudine, lamivudine and nevirapine (AZT/3TC/NVP) or tenofovir, lamivudine and efavirenz (TDF/3TC/EFV) regimens. Only 1 patient was on second line ART - protease-inhibitor containing regimen - zidovudine, lamivudine and lopinavir/ritonavir. Only 8 participants (27%) of all the LTFU patients were either underweight or overweight. Of these 8 participants, 6 participants (75%) were overweight while 2 participants (25%) were underweight. A significant percentage of the LTFU patients were female (76.7%) as compared to males (23.3%) ($X2 = 9.0$; $p= 0.003$).
Conclusions and Recommendations: Our study was also able to demonstrate that young people on first-line therapies were significantly more likely than their counterparts on second line therapies to become LTFU. This is possibly because young people do not quite perceive the importance of ART adherence which could further compromise future treatment options.

THPEB089

L'annonce de la Maladie aux Enfants et Adolescents VVIH, un des Facteurs du Succès Virologique dans les Régions Sud du Sénégal (EnPRISE2), 2018

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Contexte et Objectif: L'annonce de la maladie aux enfants/adolescents vivant avec le VIH est un enjeu majeur pour l'observance. Elle reste peu réalisée dans les structures de soins en Afrique de l'Ouest, surtout dans les contextes décentralisés. Une étude (EnPRISE1) réalisée en 2015 sur l'ensemble du Sénégal (hors région de Dakar) a révélé que de 64% des enfants [0 - 19 ans] présentaient une CV > 1000 copies/mL. Seuls 14% des enfants de plus de 8 ans étaient informés de leur statut sérologique. En 2018, une nouvelle étude a été réalisée dans les régions Sud du pays, après diverses interventions. Elle a montré un taux d'échec thérapeutique de 69%. Nous nous sommes intéressés à l'annonce de la maladie aux enfants et à ses effets sur le plan virologique.

Méthode: Enquête épidémio-virologique réalisée entre mai et juillet 2018 auprès de 345 enfants (≈ 95% des enfants VIH+ suivis dans la région), âgés de 0 à 19 ans, dans 23 sites des 5 régions du sud du Sénégal, par des prélèvements sanguins pour mesurer la charge virale, et un recueil d'informations socio-démographiques et biomédicales.

Résultats: 116 enfants ont été vus à deux reprises en 2015 et 2018, et 229 nouveaux enfants ont été recrutés en 2018. En 2015, la proportion des enfants âgés de plus de 8 ans ayant débuté un processus d'annonce, était légèrement inférieure dans cette population par rapport au plan national 11% (10/89) versus 14%, mais elle s'améliore avec le temps (33% en 2018). Ceci s'explique par les formations menées par le programme national et différents projets auprès des professionnels de santé entre 2015 et 2018.

En 2018, on observe une plus forte proportion d'enfants en succès thérapeutique (CV < 1000 cp/ml) chez ceux qui ont bénéficié d'une annonce 39/73 (53%) versus ceux qui n'ont pas eu d'annonce 81/229 (35%) (p=0,001).

Les professionnels de santé reconnaissent l'importance de l'annonce aux adolescents mais ils restent réticents notamment par manque de formation aux techniques de l'annonce.

Conclusions: L'annonce de la maladie aux enfants/adolescents est un facteur associé à une meilleure proportion de charges virales contrôlées. Elle s'est améliorée mais reste insuffisamment pratiquée dans les régions hors de Dakar. Il est indispensable de poursuivre et intensifier les formations destinées aux professionnels de santé et aux acteurs communautaires sur l'annonce de la maladie aux enfants.

Mots Clés : Enfants, VIH, annonce, échec virologique, décentralisation

THPEB090

Partner Collaboration for Optimizing Outcomes among Children and Adolescents Living with HIV: A Case of Muzokomba Clinic Buhera District, Zimbabwe

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Issues:Compared to other age groups, children and adolescents(C&A) living with HIV have poor viral load (VL) test coverage, and lowest rates of viral suppression. Development of differentiated HIV services for C&A are key to achieving 90-90-90 targets, yet evidence-based models that meet the needs of C&A living with HIV in low resource settings are required.

Descriptions:To improve HIV care and treatment services and clinical outcomes of C&A living with HIV,OPHID(USAID supported) adult expert clients living with HIV, Africaid Community ART Treatment Supporters-CATS, and MOHCC Health Care Workers-HCWs collaborated to develop a Pediatric Adolescent Clinic Days (PACD) system at Muzokomba clinic. A deep dive was conducted to document lessons, promising practices and VL coverage and outcomes at Muzokomba clinic, specifically to document the process of PACD activities, collaborative interactions and establish impact of PACD on clinical outcomes through VL coverage and suppression rates among C&A 0-24 years currently in HIV care. The case study design utilized qualitative data collection through observation during PACD activities and key informant interviews with HCW, CRFs, CATS and caregivers. Quantitative retrospective routine data abstraction from patient ART booklets was done. Data was analysed descriptively in MS EXCEL and STATA V13

Lessons learned:We Identified for PACD success ;1) Providing age appropriate care to C&A living with HIV on planned clinic days;2) Collaboration between facility HCW, adult and adolescent expert clients to plan and implement PACDs;3) Defined processes and roles for PACD activities in given process flow from Patient registration, Group health sessions, Patient Consultations and ART refills to Social time. Among 55 young people documented as currently in care 91% (50/55) had a recent documented VL and among those with VL access 96% (48/50) had VL>1000copies/ml. There were no gender differences in proportions who had access to VL. Generally, proportion supressed were all above 90% for all the ages and the 15-19 years had the lowed VL suppression rate of 92%.

Next steps:The case study highlights Facility-Community Collaboration model for optimizing HIV care and treatment for young people. The pragmatic processes documented for PACDs have been packaged for adaptation by other health facilities to optimise impact of USAID-support in Zimbabwe to reach 95-95-95 among C&A and effective adolescent transitions in HIV care and treatment.

FRPEB032

HIV-1 Genotypic Profile of RNA versus Proviral DNA from Adolescents Failing Treatment in Cameroon

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Background: HIV is the leading cause of death among African adolescents, especially those vertically infected. This could be driven by archived drug resistance mutations (DRMs) as children grow-up, which might jeopardise subsequent antiretroviral therapy (ART). Our aim was to compare HIV-1 genotypic variations between RNA and proviral DNA of adolescents with perinatal HIV infection (APHI) failing ART in Cameroon.

Methods: A comparative study was made from January to June 2019 among 296 consenting APHI (10-19 years) on ART in five health facilities of the Centre region of Cameroon. The WHO-clinical stage, CD4-count and plasma viral load (PVL) were measured. For those failing ART (PVL≥1000 copies), RNA (plasma) and proviral DNA (buffy-coat) were sequenced in the *pol* gene at the Chantal BIYA International Reference Centre (CIRCB), Yaoundé-Cameroon. HIV-1 subtypes and DRMs from RNA vs proviral DNA were compared using Stanford HIVdbv8.7 and MEGAv.10.

Results: Of the 30% (89/296) failing ART, 48 had both RNA and DNA sequences generated: mean age was 16±3 years; *F/M sex ratio* was 9/7; median PVL was 169895[IQR: 38796-325011] copies/ml; median CD4 was 181[IQR: 68-330] cells/mm^3; and 46% were at WHO clinical stages-3/4. Subtype concordance was 100% between RNA and DNA viral strains, with CRF02_AG predominant (65%) and two potential new recombinants found (F2/A1; F1/G). Proportion of adolescents with DRMs was significantly higher in plasma vs proviral DNA (92% vs 83%; p=0.0001). Prevalent DRM by drug-class (RNA vs DNA respectively) was M184V/I (75% vs 56%) for nucleoside reverse transcriptase inhibitors (NRTI); K103N (62% vs 52%) for non-NRTI; V82A (4% vs 4%) for protease inhibitors. Interestingly, 37% (18/48) had concordant DRMs profile in RNA vs DNA, while 25% (12/48) had DRMs found only in proviral DNA. Of note, presence of archived DRMs was associated with advanced clinical stages-3/4 (OR: 10.0; p=0.006) and seemingly with CD4< 100 cells/mm^3 (OR: 3.5; p=0.07).

Conclusions and Recommendations: Though plasma RNA is more sensitive for detecting HIV-1 DRMs, about a quarter of APHI failing ART in this African setting might have archived DRMs in viral reservoirs, indicating occult clinical resistance. Thus, for adolescents with advanced clinical stages and/or severe immunodeficiency, proviral DNA profiling (alongside RNA genotyping) would provide additional DRMs to ensure the long-term success of ART.

Keywords: HIV drug resistance, DNA, RNA, adolescent, Cameroon

FRPEB033

Adherence Patterns to HIV Treatment and Determinants of Adherence to Treatment among Adolescents at the Mater Misericordiae HIV Clinic

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Introduction: The Mater HIV clinic has 3,653 adult patients on active follow up and137 of adolescents and young adults. Non suppression among adolescents and young people living with HIV in Kenya remains a challenge. With a prevalence of 2.1% and increased risk of acquiring new infections, this age group therefore remains of public health interest. The study aimed to determine the level and determinants of adherence to treatment among adolescents and youth attending the Mater Hospital HIV Clinic
Methodology: This was a cross sectional study where a total of 106 adolescents on follow up at the Mater Hospital HIV clinic were interviewed and data about their adherence to ART documented. Adherence to treatment was determined using the Ministry of Health´s Morisky Medication Adherence Assessment scale, MMAAS- 4 and MMAA- 8 tools. The Patient Health Quiestionnaire-9 PHQ-9 was used to screen for presence of any underlying Depressive Disorder. Ethical approval was obtained from Mater Misericordiae Hospital Standards and Ethics Committee and consent obtained from all participating adolescents or guardians before undertaking the study.
Results: The mean age was 17.8 years. A majority (37.8%) were in secondary school while 98% were living with their caregivers of whom 66% were their biological parents. Thirteen percent of the study participants did not achieve virologic suppression. Of the 106, 75.5% were taking their drugs unsupervised; among the ones supervised, 50% was by parents and 38% were by their guardian. About 87% used an alarm as a reminder to take medication. Using MMAAS-4, and MMAAS-8, 67.3% and 60.4% had optimal adherence respectively ($p, < 0.001$). Those aged between 15 to 19 years were less adherent to clinic appointments (p,0.033) while those who perceived that attending clinic had benefits were more adherent to the clinic appointments (p,0.014). Out of those with sub-optimal adherence, barriers included lack of support and long distance to the facility.
Discussion and conclusion: More than 1/3 of adolescents have poor adherence to ART therapy with 15% of these having not disclosed their HIV status. Younger adolescents had better adherence compared to those in the 15-19 years age group. Socio economic factors impact on ART adherence in adolescents and young adults hence the need to continuously address them. Further studies need to be done, to be done to draw associations between factors leading to no adherent to ART and viral suppression

FRPEB034

In Rural Cameroon, Half of Adolescents Are Experiencing Virological Failure with HIV Drug Resistance

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Background: HIV/AIDS is the major cause of death among adolescents in sub-Saharan Africa, with fewer evidence-based decision-making specific to the rural context. Our study objective was to evaluate the immuno-virological response, HIV drug resistance (HIVDR) and genetic profiling among adolescents with perinatal HIV infection (APHI) in rural settings of Cameroon.

Methods: An analytical and cross-sectional study was conducted from December 2018 to May 2019 in the Mfou and Mbalmayo District hospitals. Self-reported adherence, CD4 cell count and plasma viral load (PVL) were measured. Immunological failure (IF) was defined < 250 CD4 cells/mm^3; virological success (VS) as PVL< 40 copies/ml and virological failure (VF) as PVL≥1000 copies/ml. In case of VF, HIV-1 genotypic resistance tests (GRT) were performed and drug resistance mutations (DRMs) interpreted using Stanford HIVdb.v8.8; Subtyping was done using MEGA v10 for molecular phylogeny. Determinants of HIVDR were assessed and EWIs were monitored on-site. Data were analyzed using Epi info v7.2.2.16 with p< 0.05 considered statistically significant.

Results: Following an exhaustive sampling, 74 APHI were enrolled: sex ratio 1:1, median age [interquartile (IQR)] was 14 [12-17] years, median [IQR] duration on ART was 5 [3-9] years, 82% (61) were on first-line regimens and 64.86% (48) were adherent to ART. Following ART response, 26.87% (18/67) had IF (CD4< 250 cells/mm^3) and 52.7% (39/74) were on VF. Interestingly, 25.68% (19/74) had VS, indicating an undetectable viral replication. WHO clinical stage 3/4 was the only factor independently associated to IF (OR: 0.10, p=0.0009) and VF (OR: 0.099, p=0.043). Of those experiencing VF, 31 sequences were obtained from GRT and the prevalence of HIVDR was 90.32% (28/31). Major HIV-1 DRMs were M184V (74.19%), K103N (58.06%) and Y188L (19.35%). All clades belonged to HIV-1 group M (67.74% recombinants versus 32.26% pure subtypes), with CRF02_AG (54.84%) being the most prevalent. EWIs of HIVDR were delayed drug pickup (60%/30.6%), pharmacy stockouts (75%/50%), and poor VL suppression (36.4%/38.5%) in Mfou and Mbalmayo respectively.

Conclusions and Recommendations: In rural settings of Cameroon, about half of APHI experience VF, due to limited access to VL monitoring. This leads to HIVDR accumulation, favored by pharmacy stock outs and poor adherence. Thus, increasing access to VL and drug availability would limit treatment failure and help transitioning to adult care.

FRPEB035

Virological Failure and HIV Drug Resistance Limit Adolescents' Transition to Adult Care in Cameroon

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Background: In Sub-Saharan Africa, HIV-infected adolescents continue to suffer increased mortality, especially adolescents with perinatal HIV infection (APHI). Thus, we aimed to assess response to antiretroviral therapy (ART), acquired HIV drug resistance (HIVDR) and its associated factors among APHI.

Methods: A cross-sectional and analytical study was conducted among consenting APHI in two urban paediatric centres and the 'Chantal Biya' International Reference Centre for HIV prevention and management (CIRCB), Yaounde, Cameroon. Self-reported adherence-level, WHO clinical staging, CD4-count and plasma viral load (PVL) were assessed. For cases of virological failure (VF:PVL≥1000copies/ml), genotypic HIVDR testing was performed and drug resistance mutations (DRMs) interpreted with Stanford HIVdbv8.8. HIVDR early warning indicators (EWIs) were evaluated. Data were analysed with EpiInfo v7.2.2.6; $p< 0.05$ was considered statistically significant.

Results: Out of 196 APHI, 56.1%(110) were female, median age was 16[IQR: 14-18] years, 61.7%(121) were on non-nucleoside reverse transcriptase inhibitors (NNRTI)-based regimens and 30.1%(59) were poorly adherent. Clinical failure rate (WHO-stage III/IV) was 9.2%. Median CD_4 was 541[330.5-772]cells/mm^3; immunological failure rate (CD_4< 250cells/mm^3) was 15.8% and associated with late adolescence (OR=1.24 [1.03-1.50], p=0.02), female (p=0.04) and poor adherence (p=0.04). VF rate was 34.2% (67/196), associated with poor adherence (p=0.02) and being on NNRTI-based ART (p=0.02). HIVDR rate was 89.8%, higher with first-line ART (88.6%), p=0.02. By drug-class, 85.7% had NNRTI-DRMs, 71.4% NRTI-DRMs and 6.1% PI/r-DRMs; with 81.6% multi-class resistance. Using 70% acceptable efficacy threshold, most potent drugs were tenofovir (79.5%) for NRTI and all PI/r. 11 diverse viral subtypes were found (75.5% recombinants/24.5% pure subtypes). Following EWI, driving factors of HIVDR were delayed drug pick-up (81.7%), drug stock outs (75%) and poor viral suppression (71.1%).

Conclusions and Recommendations: Among Cameroonian APHI, immunological failure is consistent with poor adherence, late age and female adolescence. Interestingly, VF and HIVDR are high, driven by poor adherence and being on first-line ART. TDF and PI/r appear highly active for managing ART failure. Thus, a successful transition of APHI to adult care requires improving drug supply and adherence to ART, targeting mainly female and late age APHI receiving first-line ART.

FRPEB036

Devenir des Adolescents Infectés par le VIH sous Traitement Antirétroviral Transférés des Services de Pédiatrie vers les Services de Prise en Charge Adultes à Ouagadougou, Burkina Faso

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Contexte: En 2016 selon l'UNICEF, plus de deux millions d´adolescents vivaient avec le VIH dans le monde dont 82% en Afrique subsaharienne. Pour ceux qui étaient suivis dans les services pédiatriques, le défi est la transition vers les services de prise en charge adulte. Le but de cette étude était de décrire l'évolution des adolescents infectés par le VIH et sous traitement antirétroviral suivis en pédiatrie et transférés dans les services adultes.
Méthodes: Une étude rétrospective a été menée du 1er janvier 2008 au 31 décembre 2017 dans trois hôpitaux de Ouagadougou : CHU Yalgado Ouédraogo, hôpital St Camille et hôpital de district de Boulmiougou.
Résultats: Soixante cinq patients ont été inclus. Le sex-ratio était de 1,24. L'âge moyen du début du traitement antirétroviral était de 8 ans [1-14 ans], celui d'annonce du statut était de 16 ans [13-20 ans] et celui du transfert était de 17 ans (67 % des patients transférés entre 15 et 19 ans). La durée médiane du suivi dans les services pédiatriques était de 9 ans [1-18 ans] et celle du suivi dans les services adultes était de 2 ans [1-9 ans]. Au moment du transfert, 90% avaient un bon état nutritionnel et 43% un taux de CD4 supérieur à 500 cellules / mm3. Sur les 37 patients qui avaient une charge virale disponible au moment du transfert, 15 soit 41% avait une charge virale indétectable. Parmi ces 15 patients, 11 sont restés indétectables à la dernière visite dans le service adulte. Sur les 22 patients qui avaient une CV détectable avant le transfert, 19 sont restés détectables à la dernière visite dans le service adulte. En analyse univariée, l'âge supérieur à 17 ans (OR = 3.19, IC95% = [1,01 - 10.49], p = 0,05) était associé à une fréquence significativement plus élevée d'échec thérapeutique. Par ailleurs, trois (4,7%) adolescents étaient décédés et deux (3%) étaient perdus de vus dans les services adultes.
Conclusion: Il y a nécessité de renforcer les actions en faveur de l'adolescent infectés par le VIH (formation des agents, groupes de soutien pour adolescents, visites à domicile) au cours de la transition vers les services adultes à Ouagadougou.
Mots clés : adolescents, VIH, transition, Ouagadougou

FRPEB037

"It Is Not Easy to Tell the Doctor that You Missed the Drugs": A Qualitative Study of HIV-positive Adolescents' Perspectives on Viral Load Monitoring and Achieving Suppression in Kisumu, Kenya

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Background: HIV is a major driver of adolescent mortality in sub-Saharan Africa. Achieving viral suppression translates to healthy outcomes, yet adolescents living with HIV (ALHIV) persistently fall short on global viral suppression. Structured viral load counseling and education may improve viral suppression; yet little is known about adolescents' routine viral load (VL) monitoring experiences. This study explored ALHIV perspectives on VL testing and suppression to support improved ALHIV health outcomes.
Methods: Eight focus group discussions (FGDs) were purposively sampled to recruit 74 ALHIV (9-19 yrs) on ART (≥ 6 months), at 8 high-volume facilities January-February 2017. FGDs, facilitated in the local language using semi-structured guides, explored VL testing and counseling knowledge & experiences. Audio recordings were translated and transcribed into English. A coding framework was collaboratively developed based on literature, the discussion guide was derived by grounded-theory
Results: Of 74 FGD participants, 41(55%) were female, median age 13yrs (range: 9-19yrs), and 33 (45%) were male, median age 15yrs (range:11-19yrs). ALHIV demonstrated a strong understanding of VL monitoring purpose, variable understanding of VL timing, and desired more VL information. Some felt "ambushed" and "punished" by providers, reporting unexpected requests to go to the lab or being denied VL testing if a appointment was missed/poor adherence was perceived. "*Your viral load may not be done because you don´t follow instructions on medication*." ALHIV reported viral suppression challenges including pill burden, forgetfulness and inability to manage ART with school schedules. Stigma and discrimination in school in response to HIV status disclosure, resulting in missed medication, was also expressed. *"… when the teacher you entrusted with your status mocks you in front of other teachers. This makes me fail to go for medication in his custody.*" ALHIV reported being unable to openly discuss challenges with providers, desired more support groups, weekend hours, non-threatening & non-judgmental care, and more clarity on VL testing schedules.
Conclusions: ALHIV show understanding and interest in routine VL monitoring yet express challenges to achieving VL suppression. Additional efforts are needed to ensure providers work with schools and ALHIV to build trust, be sensitive to disclosure concerns, and support ALHIV in non-judgmental manner to achieve and maintain VL suppression.

FRPEB038

Elimination of Mother to Child Transmission in the Southern African Development Community (SADC): A Reality or Rhetoric?

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Background: Pregnancy and breastfeeding period exposes women to a three-fold risk of HIV infection. The aim of the analysis was to assess and compare progress towards elimination of mother to child HIV transmission (EMTCT) and ART initiation amongst children in the 16 Southern African Development Community (SADC) member states.
Methods: Data extracted in May 2019 from the UNICEF UNAIDS regional Country sheet 2017.Indicators analysed were:
1) Prevention of mother to child transmission (PMTCT) coverage,
2) Virologic test at two month after birth for early infant diagnosis (EID),
3) Number of new HIV infections under 4years,
4) AIDS related deaths among 0-9 year old children and
5) Children aged 0 to 14 receiving ART.
Results: No data reported for Comoros, DR Congo, Seychelles and Mauritius for 2017 limiting comparisons among countries. Eight countries (Botswana, Eswatini, Lesotho, Malawi, Namibia, South Africa Zambia and Zimbabwe) had PMTCT coverage at 90% and above, exceeding the world's average of 80%. Two countries reported EID at 95% and above (Namibia and South Africa), with only 3 countries (UR Tanzania, DR Congo and Angola) achievement less than 41% world average estimate. South Africa, Mozambique and Tanzania had the highest number of new infections among children under 4 years. Botswana, Madagascar and Namibia had the lowest numbers of HIV infection, with range between [< 500-610]. Two member states (Mozambique and South Africa) has the highest number of AIDS-related deaths among children under 9 years of age at 6 300 and 8 400 respectively. Only Zimbabwe is on track (89%) to achieve the 2nd 90 for children less than 14 years of age. Botswana [68%], DR Congo (75%] and Namibia [76%]) have progressed beyond two -thirds towards 2nd 90, while 3 member states (Angola [14%], DR Congo [34%] and Madagascar [4%] have achieved below 35% progress towards 2nd 90. Slow progress made towards achieving 1st and 3rd 90 across all member states that had submitted data, although Botswana, South Africa and Namibia show a steady increase and upward trajectory.
Conclusions and Recommendations: Variation in progress between member states highlights major gaps affecting achievement of targets by 2020. Aggressive and intensified innovative solutions are required to turn the tide noting that the children are the future leaders and poor health status will affect future development and economy of the SADC region.

FRPEB039

Effectiveness of Antiretroviral Drugs in Prevention of Mother to Child Transmission of HIV in the Federal Capital Territory Nigeria

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Background: Antiretroviral drugs are globally recommended for the prevention of mother to child transmission of HIV among pregnant women. Evaluating the effectiveness of antiretroviral regimen among this cohort is pertinent in improving prevention of Mother to Child Transmission of HIV as Nigeria accounts for the burden of Mother to child transmission of HIV. This was a clinical review of the effectiveness of antiretroviral drugs in prevention of Mother to Child Transmission of HIV (PMTCT) in two hospitals in Gwagwalada Area Council Federal Capital Territory Abuja.
Methods: This was a two years retrospective study of clinical records of all pregnant women with HIV/AIDS infection that was on antiretroviral drugs and attending antenatal care services in township clinic and specialist hospital from January 2015-January 2017. The records of 231 pregnant women on antiretroviral drugs were reviewed during the period. A designed proforma was used in collecting the data such as demographic characteristics of the mother, status of CD4 count values of mother, Early Infant Diagnosis (EID) test at 6 weeks and 18 months. The collected data was analysed using SPSS Version 17. Descriptive statistics and Chi-Square test were used for analysis at level of significance $P< 0.05$.
Results: The mean age of the mothers were 29.05±5.77 years while 126(54.60%) of the infants were females. The signs and symptoms presented by the mothers were fever 104(40.0%), diarrhoea 32(12.30%) and weakness 22(8.50%). Almost half of the mothers 114(49.40%) have CD4 count of between 300-499 cells/µl with a mean CD4 count of 457.84±167.03 cells/µl. EID test at 6 weeks after birth showed 0% HIV positivity while EID test at 18 months showed 1(0.40%) HIV positivity. Signs and Symptoms presented by the one infected infant was diarrhea, rashes, low birth weight and stunted growth. Sex of the infants has a significant association with EID test at 18 months.
Conclusions and Recommendations: The study showed a 99.60% effectiveness of the antiretroviral treatment in PMTCT in both facilities. Although the study showed the current success rate of the PMTCT program, more effort is needed across health care facilities to prevent MTCT and to achieve the sustainable goal three in ending HIV/AIDS epidemic.
Keywords: PMTCT, HIV/AIDS, Antiretroviral drugs, EID, Pregnant women

FRPEB040

Quality of Care Performance among Antenatal Patients in a Tertiary Hospital in Ebonyi State, Nigeria: Implications for Continuous Quality Improvement

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Background: Continuous Quality Improvement (CQI) is a process where the CQI team systematically collect data from patients charts to inform decisions that will improve delivery of services. Prevention of Mother To Child Transmission of HIV/AIDS (PMTCT) is essential to ensure an Acquired Immunodeficiency Syndrome (AIDS) free nation. The objectives of this study was to assess the proportion of pregnant mothers who delivered at the health facility, had Antiretroviral Prophylaxis for exposed Infants and Early Infant Diagnosis sample collected for Deoxyribonuceic Acid Polymerase Chain Reaction (DNA PCR) in a tertiary institution.
Methods: This retrospective secondary data based study was a clinical audit carried out with clinical charts of pregnant People Living with HIV (PLHIV) in a tertiary institution in Ebonyi State, South East, Nigeria with inclusion criteria of clients who booked in the antenatal clinic within the last 6 months (July to December 2017) before review period. Sample size was determined using the Nigeria HIVQUAL sample size guide and 20 clinical charts were selected using systematic random sampling technique. Clinical audit was assessed using the Nigeria HIVQUAL performance indicators. Means, proportions and frequencies were calculated and difference between two proportions was significant at $P < 0.05$.
Results: Twenty charts belonging to 20 women were analysed. Their mean age and standard deviation was 37±6.3. The chart abstraction showed that those who booked and later delivered in the same facility were 13(65%), those who booked and whose babies received single dose Nevirapine after birth were 15(75%), while babies who had dry blood samples collected for DNA PCR at 6 - 8 weeks were just 4(20%) and none (0%) of the babies received their DNA PCR test result at 12 weeks.
Conclusions and Recommendations: Retention in care during antenatal care was marginally above average while follow up of exposed babies to determine HIV status after 12 weeks was abysmally poor signifying the need to strengthen continuous quality improvement activities among antenatal mothers.

FRPEB041

Early Retention among Pregnant Women on 'Option B+' in Urban and Rural Zimbabwe

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Background: In 2013, the World Health Organisation (WHO) recommended Option B+ as a strategy to prevent mother to child transmission (PMTCT) of HIV. In option B+, lifelong antiretroviral therapy (ART) is offered to all HIV positive pregnant and breastfeeding women to reduce MTCT rate to less than or equal to 5%. Its success depends on retaining women on ART during pregnancy, delivery and breast-feeding period. There is limited data on early retention on ART among pregnant women in Zimbabwe. We therefore assessed early retention among women on Option B+ from antenatal care (ANC) until six months post ANC booking and at delivery in Bulawayo city and Mazowe rural district of Zimbabwe.
Methods: We collected data for pregnant women booking for ANC between January and March 2018, comparing early retention among ART naïve women and those already on ART. The two cohorts were followed up for 6 months post ANC booking, and this was done in two districts. Data was collected from routine tools used at facility level which include ANC, delivery and ART registers.
The Kaplan- Meier survival analysis was used to estimate retention probabilities at 1, 3 and 6 months post-delivery and for retention at delivery proportions were used. Poisson regression was used to investigate factors associated with non-retention at 6 months post ANC booking.
Results: A total of 388 women were included in the study with median age of 29 years (IQR: 25-34). Two thirds booked in their second trimester. Retention at three- and six-months post ANC booking was 84% (95% CI, 80-88) and 73% (95% CI, 69-78) respectively. At delivery 81% (95% CI, 76-84) were retained in care, 18% lost to follow up and 1% transferred out. In this study we did not find marital status, gestation age, facility location, ART status at ANC booking, to be associated with loss to follow-up.
Conclusions and Recommendations: In this study, we found low retention at 3, 6 months and delivery, a threat to MTCT of HIV elimination agenda in Zimbabwe. Our findings emphasize the need for enhanced interventions to improve early retention such as post-test counselling, patient tracing and visit reminders.

FRPEB042

HIV Viral Load and Genotypic Resistance among Pregnant Women Self-reported to Be ART-Naïve at Enrollment into a Randomized Clinical Trial in Central Uganda

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Background: Adherence to lifelong antiretroviral therapy (ART) remains a challenge among HIV-infected pregnant and breastfeeding women initiating Option B+ globally. The goal of this study was to support HIV-infected pregnant women initiated on Option B+ to adhere to lifelong ART through a peer support intervention called "Friends for Life Circles" (FLC). We analyzed baseline viral load and pretreatment HIV drug resistance (HIVDR).

Methods: HIV-infected pregnant women attending antenatal care at Mulago and Mityana hospitals and health centers were initiated on ART according to Ministry of Health guidelines (Option B+). Eligible women who consented for the study were enrolled into a randomized control trial comparing standard of care and an enhanced peer group support (FLC intervention). Viral load measurements were conducted at baseline using real time RNA PCR-CTM and COBAS Ampliprep/COBAS Taqman. Genotypic HIV testing was conducted to detect resistance mutations using a 3730 x L ABI Genetic Analyzer on blood drawn at baseline for the first 136 participants with viral load (VL) >1000 copies/ml.

Results: Between May 2016 and September 2017, 540 HIV positive pregnant women initiated on Option B+ were enrolled in the study; 401 (74.3%) from Mulago and 139 (25.7%) from Mityana Hospitals. Enrolled participants had median age of 25 years (IQR 22-27), parity of 3 (IQR 2-4); of the 532 whose VL were analyzed, 19 (3.6%) had undetectable VL, 94 (16.7%) had 20-399, 42 (7.9%) had 400-999 copies/ml and 377 (70.9%) had >1,000 copies/ml. 35/136 had mutations with NNRTI and NRTI resistance in 22.1% (30/136) and 3.7(5/136) respectively. The most common mutations were K103KN (5), K103N (5), V179T (4) and E138A (4). Age, marital status, education level (p-value 0.86), disclosure to partner (p-value 0.97) and household income (p-value 0.96) were not associated with VL or resistance mutations.

Conclusions and Recommendations: A significant number of pregnant women had VL< 400 copies/ml prior to ART initiation. This could indicate host natural immune control of the virus or under self-reporting of prior ART use. NNRTI resistance was the major mutation identified before ART initiation; which could impact effectiveness of EFV based ART for prevention of mother to child HIV transmission. Baseline drug resistance can inform regiment selection at subsequent visit.

FRPEB043

One-year Retention and Viral Suppression Estimates among Women Reengaging in HIV Care Following Community Outreach in Uganda

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Background: Antiretroviral therapy (ART) for pregnant women (Option B+) living with HIV (WLHIV) has reduced Mother to Child Transmission (MTCT). The success of Option B+ has been hampered by care disengagement of mother-baby pairs. Community tracing of WLHIV has contributed to reengagement in care but data on long-term outcomes after reengagement are scarce. We estimated one-year retention and viral suppression in WLHIV reengaging in care.
Methods: The study was carried out at six Kampala City Council Authority (KCCA) health facilities in Uganda. WLHIV initiating ART during pregnancy who had not returned for > 90 days for their 6-12 week postpartum visit were traced in the community and encouraged to reengage in care at the clinic of ART initiation, or another facility. Women were defined as lost to follow-up (LTFU) after re-engagement if they were not seen for 90 days after their last clinic visit. We used Kaplan Meier methods to estimate retention in care during the first year of reengagement. Women who were in care at the end of the study period or had transferred to another clinic were censored. We also assessed HIV viral suppression.
Results: Between July 2017 and July 2018, among 373 WLHIV disengaged from care, 359 were outreached, 160 were found and were enrolled in the study. Median age of enrolled women was 25 years (interquartile range:22-28), median CD4 count at ART start was 501 cells/µL (324-636) and 95% initiated ART in trimesters II/III. One month after community outreach, 102 (63.8%) were reengaged in care. Of these, 33 (32.4%) reengaged at a different facility, and 69 (67.6%) had returned to their original facility. At outreach, 9 (13.0%) had low viremia (< 1000 copies/mL). One year after reengagement at the KCCA clinics, 16 (23.2%) were still in care, 31 (44.9%) were LTFU while 22 (31.9%) had transferred out. Kaplan-Meier estimates of retention in care at 3, 6 and 12 months from reengagement were 86.0% (95% confidence interval 72.9%-93.1%), 80.0% (66.0%-88.7%) and 39.9% (24.7%-54.7%). Of the 24 (34.8%) women had at least one viral load assessment in the year after reengagement and 21 (87.5%) were virally suppressed.
Conclusions and Recommendations: We observed high viremia in post-partum WLHIV who disengaged from care, which was largely reversed upon reengagement in care. However, retention in care was low. There is need for targeted strategies to retain in care WLHIV in order to achieve UN treatment goals to eliminate MTCT.

FRPEB044

Dialogues of the Dolutegravir Stakeholder Meeting of Communities of African Women Living with HIV

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Issues: In July 2018, WHO released new guidelines with a recommendation to include dolutegravir (DTG), as part of the regimen for first-line ART and an alternative for second-line ART, a move towards the use of new optimal ART regimens. DTG has been shown to be more efficacious, due to its improved side effect profile and higher genetic barrier to resistance, making it better at achieving viral suppression. Safety and efficacy concerns, however, were raised on potential risk of NTDs and DTG use in certain sub-populations of PLHIV, mainly pregnant women and women of childbearing age following an observational study in Botswana. In light of these developments AfroCAB, the network for HIV treatment advocates across Africa, sought insights from communities of WLHIV on their preferences for ART provision.
Descriptions: Thirty-nine women living with HIV representing 18 countries, in Africa met in Kigali, July 2018 to discuss the potential neural tube defect (NTD) safety signal in women taking dolutegravir (DTG) at conception and developed a joint position on behalf of women for access to optimal HIV treatment and prevention. We targeted women of reproductive age. Experts from WHO,CHAI and WITS RHI were invited to discuss the NTDS and its implications including contraception.
Lessons learned: We deliberated on the potential safety signal data from the Botswana Tsepamo study and determined unanimously based on the data currently available that DTG's benefits - reduced side effects, improved efficacy, and a high barrier to resistance - outweigh its potential risks. Meeting participants repeatedly expressed the severity of everyday challenges that they encounter using other ARV´s, including fatigue, forgetfulness, depression, and even suicidality. As a result of these struggles, we concluded that blanket exclusions that deny women equitable access to this optimal HIV treatment are not warranted or justified.
Next steps: We strongly urged key stakeholders ;especially national programmes and global partners; to respect the voices of those affected by HIV. The actual women living with HIV must be consulted in the guidance offered by global and national bodies, especially in light of the potential early NTD signal with DTG. We called for TLD to be made available urgently across Africa, with everyone having access, with informed choice, regardless of gender or reproductive capability, and with integration of sexual and reproductive health services.

FRPEB045

Addressing Challenges of Aging with HIV in a Resource Limited Urban Setting - A Case of AIDS Information Centre (AIC) Uganda

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Issues: UNAIDS 2018 estimated 37.9 million people were living with HIV (PLHIV) with an estimated 3.6 million ≥ 50 years (UNAIDS 2013). The majority of these (2.9 million) are in low and middle-income countries where the percentage of PLHIV ≥ 50 years is above 10%. In high-income countries almost one-third of PLHIV are ≥ 50 years.

Elderly PLHIV face a number of health challenges although there have been limited interventions to address them. In sub-Saharan Africa they have particularly been neglected despite their distinctive healthcare and socio-economic needs. In Uganda this group has not been a priority in health care services unlike children and pregnant women. A study by Medical Research Council (May 2011) documented elderly PLHIV suffered mainly concurrent diseases, poor healthcare, isolation, neglect and lack of support.

Description: In June 2019, of 1025 ART patients at AIC Kampala 118 (11.5%) were ≥ 50 years (69 males, 49 females) among whom were widows and refugees. These elderly clients were scheduled and seen alongside other clients. Through counselling, medical consultations and Family Support Group sessions (FSG), various health and social issues were identified in this group requiring urgent intervention for special care and treatment. A FSG for clients ≥ 50 years was formed with the main objective of improving the quality of care and life of these clients.

Lessons learnt:

· A number of elderly PLHIV were no longer in gainful employment and depended on support from their children. As a result they experienced challenges in transport costs, nutrition and are burdened with dependents (mainly orphans) to look after.

· At the clinic they reported lack of access to same-day specialized care for other chronic conditions particularly treatment for age related and other co-morbidities like hypertension.

· Within the community they experience stigma related to both age and HIV infection and others GBV from their partners.

As a result of these, they were prone to non-adherence and resultant viral non-suppression.

Next steps:

· To initiate a user-friendly same-day special clinic for clients ≥ 50 years to promote better health through the provision of care tailored to their unique needs. This care will include review by specialist health care workers, screening and treatment of co-morbidities.

· Strengthen the ≥ 50 years FSG to counter the social- economic barriers to HIV care and treatment.

FRPEB046

Clinical Outcomes of Zidovuine-Lamivudine-Nevirapine Regimen (AZT-3TC-NVP) versus Tenofavir-Lamivudine-Efavirenz (TDF-3TC-EFV) Regimen among HIV/AIDS Patients: A Retrospective Cohort Study

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Background: Though, clinical outcomes of HIV patients on antiretroviral therapy (ART) has improved, the level of adverse reactions (ADRs) is still significant leading to increased level noncompliance. This study explores the clinical outcomes of the two most widely used ART regimen in Nigeria.
Methods: A retrospective cohort study was conducted at Maryam Abacha General Hospital, Kano, Nigeria. Data extraction was carried out on clinical documentation of 719 adult patients seen between August 2013 and December 2018. Measurable changes of function resulting from initiating both regimens were compared. Maintenance rate of the ART regimen based on the treatment duration was analyzed using survival analysis and log rank test. All reported ADRs and presentations were analyzed by multiple response data analysis.
Results: Of the 719 patients studied in the age range 18 - 75 years (median 33), Females constitute 66.2%. Most patients (52.8%) were maintained on TDF-3TC-EFV regimen. While AZT-3TC-NVP regimen was given to (47.2%) of patients, among which (8%) were switched to TDF-3TC-EFV due to ADRs. Patients (91.2%) on AZT-3TC-NVP regimen experienced at least one ADR while 35.8% experienced at least one severe ADR within the first 3 months of ART. AZT-3TC-NVP regimen is mostly associated with severe cases of anemia (21%), rash (18%), and myopathy (18%). Fifty eight (15.1%) died, while 45(13.3%) experienced AIDS-defining events. With TDF-3TC-EFV regimen, 75.1% of patients experienced atleast one ADR while 19.1% experienced at least one severe ADR within first 3 months of ART. TDF-3TC-EFV regimen is mostly associated with Neuropsychiatric symptoms (87%), rash (19.1%) and myopathy (4.5%). Thirty (7.8%) died and 40(10.5%) experienced AIDS-defining events.
Conclusions and Recommendations: TDF-3TC-EFV regimen have shown more safety and efficacy compared to AZT3TC-NVP regimen. Measures need to be implemented in choosing ART combinations with lesser and more tolerable ADRs in order to improve adherence and treatment outcomes.

FRPEB047

Gynaecomastia Induced by Efavirenz in Men HIV+ Patients on Art: Prospective Descriptive Study: WE ACTX FOR HOPE CLINIC

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Background: WE ACTX FOR HOPE clinic has 2034 patients living with HIV/AIDS enrolled in HIV program. Among 727 (36%) males, 323 patients were on ART with EFAVIREZ based regimen. Gynaecomastia has been described in HIV-infected men undergoing highly active antiretroviral therapy (HAART) as uncommon side event. We assessed how gynecomastia is becoming more frequent in men who are on HAART containing efavirenz in HIV program
Method: We conducted a prospective descriptive study of 323 HIV positive men newly put on HAART containing efavirenz for the period 36 months (from January 2016 up to January 2019). Patients bearing known causes of gynaecomastia were excluded. We analysed clinical characteristics, the use and duration of the antiretroviral therapy. Hormone tests (plasma total testosterone) were performed in patients with gynecomastia in order to exclude hormone abnormalities. Data were collected and analysed Using SPSS, we performed descriptive statistics to determine the mean.
Results: At the end of 36 months, 25 (7.4 %) HIV-infected men on HAART containing efavirenz presented gynaecomastia of unexplained cause. Gynecomastia occurred in mean time of 3 months (range: 2-10 months). The mean age of its occurrence is 27 years old (range: 21-43 years old)
In 24 (96%) of these patients, gynaecomastia was completely resolved after a median time of 6 months (range: 3 - 17 months) after stopping efavirenz.
The percentage of individuals who were receiving Tenofovir fumarate/lamivudine /efavirenz during the study was 80% (95 CI) (N=20) among patients with gynaecomastia.
Plasma testosterone levels were in normal range in all these patients with gynaecomastia
Conclusion: Gynaecomastia is increasing in HIV-infected men on HAART containing efavirenz especially in patients on tenofovir fumarate/lamivudine/efavirenz and it is usually transient. All providers in HIV program must do complete physical examination at every contact in order to diagnose it early. It is also important to discover the underlying causes (hormonal,hematological , immunological) which are contributing to the emergence of this side event.

FRPEB048

Evaluation de la Qualité de Vie des Adultes Infectés par le VIH et Suivis sur le Site de Prise en Charge du CHUD Borgou, Nord - Est du Bénin en 2018

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Introduction et objectifs: Les antirétroviraux ont amélioré l'espérance de vie des PVVIH. L'évaluation de la qualité de vie et son amélioration constituent désormais un axe important de la prise en charge. Cette étude a évalué la qualité de vie des PVVIH adultes suivis au CHUD Borgou et déterminé les facteurs associés.
Méthodes: Enquête transversale comparative conduite d´août à octobre 2018. Les PVVIH âgées de 15 ans et plus ont été recrutées grâce à un échantillonnage systématique à pas égal à 2 sur la base de l'ordre d'arrivée des patients sur le site. Le groupe témoin était composé de personnes en bonne santé apparente, se déclarant séronégatives au VIH, recrutées en communauté dans 10 quartiers tirés au sort sur les 58 que compte la ville de Parakou. Une rotation de stylo permet de choisir la direction à suivre et les ménages sont sélectionnés avec un pas égal à 4. A chaque PVVIH est associée deux enquêtés VIH négatif appariés sur l'âge, le sexe et le revenu moyen mensuel. Le score générique composé de 36 questions « SF-36 » a été utilisé pour évaluer la qualité de vie des enquêtés. Ces questions sont regroupées en trois catégories explorant respectivement les composantes physique, mentale et l'évolution de la santé perçue par le patient. Tous les enquêtés ont donné leur consentement oral. L'avis favorable du comité d'éthique pour la recherche biomédicale de l'Université de Parakou a été obtenu. Les données étaient saisies et analysées à l'aide du logiciel Epi-Info 7.2.2. Le modèle de régression linéaire général a permis d'identifier les facteurs indépendants associés à la qualité de vie.
Résultats: Il y avait 222 PVVIH et 444 sujets VIH négatif. Le score moyen de qualité de vie des PVVIH était supérieur à celui des sujets VIH négatif dans toutes les dimensions: santé physique (56,04 vs 50,52 ; $p < 0,000$), santé mentale (40,15 vs 35,16 ; $p < 0,000$) santé perçue (67,00 vs 59,40 ; $p < 0,000$). Les PVVIH ont un faible score de vitalité(53,67 vs 54,85 ; $p = 0,215$). Les facteurs indépendants associés à la qualité de vie étaient: âge < 40 ans (p=0,001), sexe masculin (p=0,046), statut partagé avec le conjoint (p=0,045), soutien psychologique (p=0,026), dépistage lointain (p=0,041), dernier CD4 > 500 (p=0,025).
Conclusions et Recommandations: Plusieurs facteurs concourent à une meilleure qualité de vie des PVVIH par rapport à la communauté. L'impact de la gratuité de la prise en charge au Bénin sur la qualité de vie des PVVIH mérite d'être évalué.

FRPEB049

Incidence and Factors Associated with Early Neuropshychiatric Symptoms in HIV Infected Nigerians Switched from Nevirapine or Efavirenz- to Dolutegravir-based Antiretroviral Therapy

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Background: In December 2018, Nigeria adopted dolutgravir-based (DTG) regimen as the preferred first line antiretroviral therapy. Since then, there has been massive scale up of DTG use in the country. However, little is known about the short term profile of neuropsychiatric symptoms (NPS) in patients transitioned to DTG-based regimen. We determined the incidence and factors associated with early NPS among HIV+ Nigerians that were switched from Nevirapine or Efavirenz-containing regimen to DTG.

Methods: In a prospective cohort study, treatment-experienced HIV+ patients, aged ≥18yrs, switched from nevirapine or efavirenz to DTG-containing regimen between December 2018 to May 2019 were screened for NPS. Neuropsychiatric symptoms was assessed at the point of drug switch and two months after exposure to DTG by means of a questionnaire adapted from literature. The onset of NPS, defined as presence of ≥1 of Dizziness, Insomnia, Headache, depression or anxiety was documented. Cox regression model was fitted to estimate the adjusted hazard of early NPS.

Results: Of the 345 patients recruited for the study, 322 (93.3%) were assessed for NPS at two months. The median (IQR) age of participants was 51(46, 56) years and majority were males (229/322; 66.4%). In all, 299/345 (86.7%) and 46/345 (13.4%) participants were switched from efavirenz- and nevirapine-based regimen respectively. Median (IQR) duration before transition to DTG was 70 (60, 123) and 125 (83, 144) months for participants switched from efavirenz- and nevirapine-regimen respectively. Overall, 148 (42.9%) developed NPS; incidence rate of 11.63 per 1000 person-days. The incidence of NPS among participants switched from efavirenz was 12.7 per 1000 person-days compared to 6.12 per 1000 person days for those switched from Nevirapine. Eight (2.3%) participants discontinued DTG due to insomnia. After adjustment for confounders, NPS was not predicted by age [(aHR) 1.0; 95% Confidence Interval (CI) 0.93-1.09]; baseline weight (aHR: 1.0; 95% CI: 0.94-1.05); previous exposure to Efavirenz (aHR: 0.6; 95% CI: 0.27-1.54); and males (aHR: 0.3; 95% CI: 0.04-2.47).

Conclusions and Recommendations: Among patients switched from efavirenz- or nevirapine-based to DTG-containing regimen, our study observed a high incidence of early NPS which resulted in minimal treatment discontinuation. Transitioning of stable HIV+ patients from non-DTG to DTG containing regimen should be done cautiously to mitigate any negative outcome.

FRPEB050

Problématique de la Prise en Charge de l'Infection à VIH-2 au Sénégal: Echec Virologique à M12 et M24 et Limites des Options Thérapeutiques de Seconde Ligne

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Background: Le VIH-2 est naturellement résistant aux inhibiteurs non nucléosidiques de la transcriptase inverse .Ce qui rend difficile sa prise en charge dans un contexte de pays à ressources limitées, surtout en cas d'échec du traitement de première ligne.
Objectifs: Evaluer la prévalence des échecs thérapeutiques de première ligne chez le patient infecté par le VIH-2 et argumenter les options de deuxième ligne
Méthodologie: C'est une étude descriptive longitudinale et prospective menée durant la période d' octobre 2005 à Juillet 2017. Etait inclus tout patient infecté par le VIH-2, âgé de 18 ans ou plus, sous traitement antirétroviral de première ligne, et consentant à participer à l'étude. L'échec virologique a été défini comme toute charge virale supérieure a 50 copies/ml de sang.
Résultats: Au total 110 patients ont été colligés, d'âge médian de 46 ans, avec un ratio F/H de 2,54. A l'inclusion, 76% des patients étaient symptomatiques, classés au stade 3 ou 4 de l'OMS, avec un IMC médian de 20,20 kg/m^2 Le schéma antirétroviral associait 2INRT à 1IP dans 94% des cas. L'immunodépression était globalement sévère avec un taux de LT CD4+ inferieur à 200 cellules /mm^3 dans la moitié des cas. Sur les 110 patients, 58 (52%) ont débuté un traitement à base d'indinavir non booste, seul IP disponible aux débuts de l'ISAARV, avant d'être mis sous lopinavir/ritonavir. Au total 94 puis 76 patients ont respectivement complété leur bilan de M12 et M24 . Parmi eux , 100 patients ont eu à bénéficier d´une charge virale avec 39 patients en échec virologique soit une prévalence totale de 39% estimée à 33% à M12 et 11 % à M24. Des résistances génotypiques aux INRT ont été notées dans 45%, aux IP dans 40% et des multi résistances aux INRT et IP dans 30% des cas. La létalité était de 3% à M12 et 8% à M24. L'inaccessibilité du Darunavir boosté et des inhibiteurs de l'intégrase n'offrait aucune option de deuxième ligne aux patients en échec, qui ont été laisses sous le traitement initial.
Conclusion: Une bonne prise en charge des patients infectés par le VIH-2 en échec de première ligne passe impérativement par un accès plus étendu aux inhibiteurs d´Intégrase et aux nouveaux IP

FRPEB051

Renforcer l'Offre de Dépistage et de Services de Prise en Charge du VIH chez les Travailleuses de Sexe Exerçant Autour des Casernes Militaires à Abidjan. Cas du Projet DOD

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Questions: Pour atteindre et maintenir le contrôle de l'épidémie du VIH en Côte d´Ivoire, Population Services International (PSI),à travers son programme DOD, a élargi ses interventions de lutte contre le VIH/sida en faveur des travailleuses de sexe (TS) exerçant aux alentours des casernes militaires et de gendarmerie dans 8 communes d'Abidjan. Pour ce faire, l'ONG Ruban Rouge (RR) fut recrutée pour développer l'offre de dépistage du VIH sur les sites de prostitution et de référence vers les centres de santé (CS) pour la prise en charge (PEC) du VIH/sida, de février 2017 à août 2018.
Description: § Pour la mise en œuvre des activités du projet en direction des TS, les capacités de 10 éducatrices de pair ont été renforcées pour l'offre de qualité du dépistage VIH et de référence active des TS dans les CS.
§ Des leaders des sites de prostitution et des TS ont été mobilisés pour obtenir leur adhésion et leur implication au projet.
§ RR a produit une cartographie des sites TS aux alentours des casernes militaires et actualisé les CS de la zone d'intervention du projet.
§ Toute sortie de dépistage VIH sur sites TS est validée au préalable par les leaders desdits sites et/ou les TS elles-mêmes pour s'assurer de leur disponibilité.
§ Seules les TS qui se font dépister et acceptent leurs résultats, bénéficient de préservatifs et de gels lubrifiants.
§ Toute TS positif au VIH ayant refusé la référence vers un CS fait l'objet de suivi jusqu'à son éventuel enrôlement dans la PEC.
§ Les TS dépistées positif au VIH sont référées vers les CS de leur choix pour le traitement ARV et bénéficient d'un accompagnement psychosocial.
§ L'équipe de coordination fait le contrôle des dossiers des TS enrôlés dans les CS selon un système de référence et contre référence mis en place.
Leçons Apprises: § 81% des TS dépistées positif au VIH ont été enrôlées dans 4 CS militaires (9TS), 2 CS publics (14TS) et 3 CS communautaires (58TS).
§ Les CS militaires viennent renforcer l'offre de service de PEC du VIH chez les TS grâce aux conseiller(e)s communautaires qui y travaillent.
§ Des insuffisances ont été constatées dans l´offre de la PEC des TS.
Prochaines Étapes: Pour optimiser le maintien des TS dans la PEC du VIH/sida tel que soit le type de CS, il faut améliorer et renforcer l'offre de soins et soutien en termes de rappel des rendez-vous de suivi, d'appui aux frais de médicaments IO et d'examens médicaux, de réduire le temps d´attente des TS pour qui le temps est de l´argent.

FRPEB052

Viral Suppression Is a Key Strategy in Prevention of HIV Transmission among Female Sex Workers in Nairobi

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Background: Sex workers outreach program of Kenya SWOP Kenya is based in Nairobi and offers HIV treatment and prevention services to approximate 16000 female sex workers(FSW). 49% of the sex workers are HIV positive and actively enrolled into HIV care and treatment out of these 40% are vi-rally suppressed while 9% are un suppressed.
Methods: A Qualitative cross-sectional study was carried out among the actively enrolled HIV positive clients who are vi-rally suppressed. in the study the clients came with their sexual partners after every three month for a period of six month for HIV counseling and testing out of those tested 98% tested negative while only 2% tested positive.
Results: The study found that HIV positive female sex workers who are vi-rally suppressed were 98% less likely to transmit HIV to their sex partners.
Conclusions and Recommendations: The study concluded that viral suppression In HIV positive female sex workers in Nairobi is key in prevention of HIV transmission hence more technical support is needed to ensure that all the female sex workers achieve linear detection limit.

FRPEB053

HIV Adherence Clubs Improving Retention and Viral Suppression among MSM in Uganda

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The Uganda Population-based HIV Impact Assessment survey of 2016-2017, estimated 1.3 million people living with HIV,72.5% of adults 15-64 knew their status; of those who knew their status, 90.4 % were already receiving life-saving ART and 83.7% of those on treatment were viral suppressed. Currently, there are 980,000 PLHIV on ART. However, there are challenges. Approximately 320,000 PLHIV in Uganda remain undiagnosed and 16% of those that are on treatment do not have viral suppression. According to the National HIV and AIDS Strategic Plan (NSP 2015/2016-2019-2020), Key populations, including sex workers, and men who have sex with men (MSM), are disproportionately infected with and affected by HIV and AIDS with an estimated HIV prevalence of 35-37% among Sex workers while 13.7% among MSM.From 2018-2019 June, 2240 MSM were reached with HIV testing services,110 MSM tested positive,107 got enrolled on ART. To ensure adherence on ART among MSM, 12 MSM based HIV adherence clubs were formed in the districts of Mukono, Kampala, Ntungamo, Wakiso, Jinja and Mbarara with a minimum of 6 members per group. All the 72 MSMs enrolled in the different adherence clubs reported viral suppression.Within the clubs,patients receive their treatment on time and are constantly reminded to take their drugs through their support buddies and the joint whatsApp group.They are also able to discuss their challenges and successes in a safe space, free of stigma, discrimination and judgement.Adherence clubs for MSMs living with HIV have built MSM's confidence and improved their ability to get retained into care.

FRPEB054

A Mechanistic Modelling of Infant Exposure to HIV Reverse Transcriptase Inhibitor Efavirenz from Breast Milk

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Background: The epidemic of the Human Immunodeficiency virus (HIV) has been major concern to the world, and over the years, many anti-retroviral drugs classes have been developed to suppress the activities of virus via specific enzyme inhibition and also reducing the occurrence of resistance, one of which include Efavirenz, a Non-Nucleoside Reverse Transcriptase Inhibitor. A major concern in this therapy is the exposure of infants to these drugs through breastfeeding, with respect to itspharmacokinectics.Efavirenz is normally administered at a dose of 600mg daily, but a reduced dose of 400mg has been suggested of recent, which is being evaluated in this study.
Methods: Physiologically Based Pharmacokinetic Studies (PBPK), was used for the evaluation, which involves models designed with organs made up of sets of differential equations. Simulations were ran with the models to obtain values, using the Microsoft Excel and Pk solver, while figures were obtained using Graphpad. The values and figures were compared using published data.
Results: The predicted exposure indices in median (range) for the various infants months for 0-1 month, 1-3 months, 3-6 months, 6-12 months at 400mgare as follows : 8.55% (2.96-22.31), 6.06%(1.60-26.70), 5.17% (1.74-15.60), 4.38%(1.50-12.62) and at 600mg: 7.94% (2.96-19.04), 5.50% (1.44-24.94), 4.74% (1.58-14.55), 3.93% (1.34-11.77) respectively. The values were all less than the published value of 10% stipulated for maternal drugs.
Conclusions and Recommendations: Therefore the reduced dose of 400mg Efavirenz is safe for maternal use during breastfeeding.

FRPEB055

Implementation of Continuous Quality Initiative (CQI) Using Granular Site Management (GSM) for Improving Key Indicators in HIV Program Treatment Cascade in Western Nigeria

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Background: Continuous Quality Improvement (CQI) is a quality management process that encourages all health care team members to continuously ask critical questions especially using CQI initiative that employs a Plan-Do-Study-Act (PDSA) cycle to test a proposed change or initiative. Granular Site Management (GSM) was established to enhance identification of innovations or best practices and scale across facilities and ensuring resources application efficiency. The aim of the study was thus to improve key indicators in HIV program treatment cascade in Western Nigeria.
Methods: The CQI implementation was in four selected (secondary & tertiary) facilities where a cumulative 6000 patients living with HIV (PLHIV) in care. The major drivers of poor performance on key program indicators were identified with underlying causes, in-depth analysis & review of performance done then using CQI approach to implement change strategies for improvement, monitor and periodically evaluate change ideas for improved outcomes.
Results: A total of four facilities were included in this study. Escort service was implemented for all newly identified HIV positive patients which made linkage to care improve from 50% to 95% within a space of six months. Task shifting & sharing, improved health education for clients, introduction of biometrics capturing for all clients and creation of additional hub for sample logging to viral load reference laboratory all helped to improve viral load uptake & suppression from < 30% & < 80% to 79% & > 80% respectively. Other CQI initiatives also greatly improved the positivity yield, total number of positives placed on treatment and retention in care.
Conclusions and Recommendations: This CQI initiative using GSM approach has been used to achieve peer learning and cross fertilization of change ideas among facilities thus encouraging them to innovate and have a problem solving approach to achieve programmatic best practices thus ensuring program & resources application efficiency.

FRPEB056

Engagement of HIV Positive and Negative Assisted Care Partners and their Influence on Client Retention on Antiretroviral Therapy (ART) among Key Populations. Experience from Lagos State, Nigeria

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Issues: The key population including Men who have sex with men (MSM),female sex workers(FSW),and people who inject drugs(PWIDs) continue to contribute significantly to the prevalence of HIV in Nigeria;HIV prevalence remain very high at 14.4% FSW, 23% MSM and 3.4% PWIDs(UNAIDS Fact Sheet 2018).It is mostly known that linking positive key populations(KPs) to care and retaining them on treatments remains a challenge. Reasons for this varied from real and perceived stigma and discrimination directed at KPs,treatment services that did not meet their specific needs,cost , travel time to health facilities among others.This paper compared the outcome of using HIV positive and negative assisted partners and its influence on retention of clients on Antiretroviral Therapy (ART) in some selected facilities.
Descriptions: Society for Family Health conducted HIV testing services among KPs to minimize barriers as regards access to HIV testing and treatment services.A total of 582 positive clients were enrolled to access treatment, care and support services at health facilities with the support of the trained assisted care partners between 3rd quarter 2018 and end of 2ndquarter 2019.The assisted care partners follow-up on the clients via phone calls, home visitation and assisted periodic visits for drug pick up and routine checkup. Routine data on linkage and treatment showed that 110 out of the 582 positive clients were enrolled on ART services through the support of HIV negative assisted care partners,while 472 out of 582 positive clients were enrolled through the support of HIV positive assisted care partners.At the end of the 2nd quarter 2019, 65(59%) of the 110 positive clients with HIV negative assisted care partners had been retained and 458(97%) clients with HIV positive assisted care partners had been retained on treatment
Lessons learned: The use of HIV positive assisted care partner enhanced retention of KPs on ART treatment and they are able to sustain a larger pool of clients compared to the HIV negative assisted care partners.It could also be assumed that HIV positive clients are likely to prefer HIV positive assisted care partners because they may address their emotional and psychological needs better that HIV negative assisted care partners hence the retention gap.
Next steps: It is imperative to strengthen awareness creation among the key populations on the importance of retention in care for positive clients through the support of HIV positive care partners.

FRPEB057

Enhancing Effective Adherence for LGBT: Using the Nigerian Force as a Catalyst for Change in Communities

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Issues: Around the world, Lesbians, MSM, Sex Workers, IDU and PLHIV face discrimination in almost all aspects of their lives. They are denied access to employment, health care and Association. They are targeted for attacks solely because of their gender expression/perceived sexual orientation. Perhaps most painful of all, and unlikely most other minority groups may face violence and rejection from their own families and religious communities. Since Same Sex Marriage Prohibition bill was signed into law in Nigeria by former President Good luck Jonathan, lives have become unbearable for LGBT community, as a result of the prohibition bill nobody can go against the law, this has led to the violation of human rights. Evidence of stigma/discrimination was found consistently across several communities in FCT and Nasarawa state in Nigeria, which would imply that a pervasive social norm of attitudinal acceptance and behavioral practice exist. Due to the fear of stigma and arrest by the police, LGBT people cannot express themselves fully to the police and the story of their **"health"**. Freedom of association is lost for LGBT people in Nigeria and life without freedom is meaningless.
Descriptions: International Community of Women Living with HIV/ AIDs in West Africa in collaboration with International HIV/AIDS Alliance conducted Advocacy and sensitization to relevant stakeholders and the Nigeria police on the right of key vulnerable population in relation with right to health in FCT and Nasarawa state. The aim of advocacy was to seek possible area of collaboration and partnerships which will enable LGBT and other inmates in detention have full access to their medication especially those on ARV.
Lessons learned: Through sensitization and collaboration with relevant stakeholders, Nigerian Police and government arbitrary arrest of LGBT people by the Police has reduced and these has enabled the LGBT in detention to access medication, especially Antiretroviral drugs which requires 100% adherence.
Next steps: ICW should be empowered to provide continued sensitization, education and collaboration with the government on right to health for LGBT as it relates to human rights and 100% adherence to ARV

FRPEB058

Social Desirability Bias in Reporting HIV Serologic and Treatment Status among Sex Workers in Benin

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Background: Early antiretroviral (ARV) treatment initiation is crucial to achieve HIV viral suppression and reduce transmission. The UNAIDS 90-90-90 targets are based on the principles of this ART initiation. To measure the levels of these UNAIDS targets in Benin, we integrated the biological assessment of its components in the national integrated biological and behavioral survey (IBBS) carried out among female sex workers (FSWs) in 2017. To measure the possible social disability bias, we compared the biological results to the corresponding interview data.

Methods: Through face-to-face interviews, data were collected on previous HIV testing, test results and possible ARV treatment as appropriate. Then, FSWs were tested in the field for HIV, using rapid tests with confirmatory assays according to Benin guidelines. Among HIV-positive women, dried blood spots (DBS) were collected for quantification of viral load and intracellular tenofovir-diphosphate (TDF) and lamivudine-triphosphate (3TC) concentrations after informed consent. We estimated potential biases for the interview by comparing self-reported and biological data.

Results: There were 84 HIV positive FSWs in the 2017 IBBS in Benin, of whom 72 accepted the additional tests. Mean age was 34.4±8.5 years. Among HIV-infected FSWs who reported having never tested for HIV before the survey, 14.3% (2/14) had detectable TDF or 3TC and undetectable viral load. Among women who did not admit being HIV-positive during the interview, 30.8% (12/19) had detectable TDF or 3TC. Among those who did not admit ever taking ARVs, 31.2% (15/48) had detectable TDF or 3TC. Among those who admitted having had their last HIV test in the previous 3 months, 45% (9/20) had an undetectable viral load.

Conclusions and Recommendations: Our results suggest that, in face-to-face interviews, FSWs misreported their own information on HIV infection and its treatment. Self-reported data should be interpreted cautiously in IBBS targeting this key population. Where possible, information on HIV status and treatment should be assessed using both self-report and biological methods. For an efficient surveillance of the HIV epidemic and proper assessment of the HIV treatment cascade, alternative methods that increase confidentiality and anonymity (like pooling booth surveys and computer-assisted self-administered questionnaires) may favor the elicitation of more reliable information on issues prone to social desirability bias.

FRPEB059

International Health Care Center a Friendly Health Care Provider for MSM and All

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Issues: Men who have sex with men (MSM) are strongly affected by the HIV epidemic in Ghana and are often stigmatized because their sexuality is unacceptable in this society. Many MSM want to access health services at a facility that welcomes and accepts them irrespective of their sexuality and HIV status. The aim of this abstract is to describe the integrated MSM-friendly HIV service provision of the International Health Care Center (IHCC).
Descriptions: IHCC, a community-based clinic located in Accra, is one of the few private health facilities dedicated to providing the full spectrum of HIV care - from HIV testing to ART services (including the provision of laboratory tests). All IHCC clients, irrespective of gender, age or sexuality, follow the same client flow where clinic staff treat all clients equally. Known to be an MSM-friendly health facility, most MSM prefer to seek services at IHCC because of the quality of care and respect they receive. IHCC provides ART services as part of integrated general medical care services and this helps to reduce clients' anticipation and anxiety of being stigmatized when accessing ART services as is the case at other facilities providing ART. To accommodate client's busy schedules, the facility offers ART services 6 days a week to increase number of clients having access to treatment. In addition to facility level services, IHCC provides:

- mobile clinic services for clients who require further confidentiality and do not want to be seen at the clinic; and
- community-based delivery of ARVs to stable clients who cannot attend the facility

Over the years, an increased number of MSM clientele have come to IHCC. In 2015, out of a total of 181 new PLHIV enrolled into care, 16 were known MSM (8,8%). In 2016, a total of 30 MSM clients registered into care out of a total of 187 newly registered PLHIV clients (16%) whilst in 2017 out of total of 235 new clients 90 (38.3%) were MSM and in 2018, of the total 253 new PLHIV clients, 125 were known MSM clients (49%).
Lessons learned: Two key elements stand out in the provision of MSM-friendly health care:

- Integration of health services is key in the provision of successful HIV care
- Differentiated service delivery is key in defaulter prevention and client satisfaction

Next steps: IHCC plan to replicate the IHCC model in other regions of the country to enhance accessibility to MSM-friendly HIV care.

FRPEB060

Reducing New Infection of HIV among Key Population in Rwanda

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Issues: The prevalence is estimated at 45.8% for FSW according to BSS 2015 wich is 15 times of the General Population. The first behavior and Biological Surveillance survey among Men having sex with Men (MSM) conducted in 2015 has shown a prevalence of 4%. This group of population is unemployed with low income.In order to provide for themselves and family, they have multiple sexual partners makes them vulnerable to HIV,Violence and abuse from clients.

Descriptions: The reduction of HIV by providing HIV prevention interventions to Key Population mainly FSW and MSM and to contribute to the increase of health services package: HTC, Linkadges to care and treatment for HIV+, STI's Screening and treatment, Condoms and Lubricants distribution and Family Planning. Its purpose is also to contribute to the economic resilience of project by initiating them to the creation of income generating small activities.

This program is being implemented in Southern ,Western and Kigali City.We have managed to reach and link them to Different Health centers 2743 FSWs & 656 MSM beneficiaries since 2016 up to now under Support of USAID-FHI360 and MoH-RBC/SPIU Global Fund .

Lessons learned: Key Population prefer their data to be confidential because many of them do not feel comfortable having blood drawn and answering sensitive questions in public.It has to be confidential otherwise we will be missing large number of them.

To reach them is by Moonlight activities at their Hotspot where they are comfortable and able to express their fillings. One thing for sure we have learned from them is that they need funds to strengthen them economically by providing them training on GSLAs ,to generate business ideas in order to start their own business. Hence, this will reduce the number of sex partners, they always entertain and decrease risk of HIV infection,which will help our country to reach our target of O new infection by 2030.

Next steps: IMRO engage in providing package of services for HIV prevention mostly by helping them to create groups of GSLAs as the first step that our beneficiaries always take in order to be financially independent,The Quarterly Coordination meeting with Local Authorities and linkage of Key Population with Health facilities by using UIC will be strengthen within the program so that it can reduce Stigma and Discrimination Surrounding them, IMRO thanks our Partners MoH-RBC/SPIU Global Fund,USAID-FHI360 and AmplifyChange and Health Facilities in areas interventions.

FRPEB061

Factors Associated with Internalized HIV-related Stigma among Adults from Fishing Communities around Lake George in Kasese District: A Quantitative Analysis

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Background: Internalized HIV-related stigma (IHRS) is a key obstacle to the HIV care cascade, 90-90-90 UNAIDS goals and the third goal of sustainable development goal three. Factors associated with IHRS among fishing communities have not been reported therefore this study aimed to assess the factors associated with HIV-related stigma among adults from fishing communities around lake George in Kasese district.
Methods: A cross sectional study conducted in March 2019 from Katunguru, Hamukungu, Kasenyi and Kahendero fishing communities, Kasese district. Interviewer administered questionnaires and data abstraction forms were used to collect data from 148 HIV positive adults enrolled consecutively. HIV-related stigma was assessed using the 6-item internalized AIDS related stigma scale (IARSS). Data were analysed using SPSS version 23. Multivariate binary logistic regression with statistical significance set at 95% confidence interval and p value < 0.05 was conducted to assess factors associated with IHRS.
Results: Fifty-four (36.5%) men and 94 (63.5%) women participated in the study. More than eight in 10 participants endorsed at least 1 of the six IARSS items {45 men (83.3%), 76 women (80.9%)}. Mean monthly income (aOR= 4.4858, 95% CI: 1.264-18.671), self-rated health status (aOR =7.256, 95% CI: 1.107- 47.536) and disclosure to a casual sexual partner (aOR=0.157, 95% CI: 0.039- 0.627) were associated with IHRS.
Conclusions and Recommendations: There were high levels of IHRS among the study participants which was associated with less average monthly income, poor self-rated health status and non-disclosure to a casual sexual partner. Stigma reduction interventions should be specifically tailored for fishing communities.
Keywords: Fishing communities, HIV-related stigma, factors, lake George

FRPEB062

Achieving 3rd 90 through Integrations of Treatment as Prevention and ART Adherence Counselling among KPs in Nairobi Kenya

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Background: UNAIDS target of 90:90:90 goal is aimed at addressing HIV/AIDS scourge globally. FSW and MSM have higher rates of HIV prevalence, 29.3% and 18.2% respectively (IBBS 2016) compared to the general population at 5.6% (KAIS 2016). The Sex Workers Outreach Program's (SWOP) mission is to achieve 95% Viral Load Suppression among the KPs, a marker of success of HIV prevention programming within Nairobi County. This study highlighted how integration of Treatment as Prevention and ART adherence counseling services at SWOP Clinic in Nairobi Kenya has helped increase number of virally suppressed sex workers and as a result the program achieved the third 90 goal as of the end of December 2018
Methods: This was a retrospective cohort study that looked into the number of active sex workers who have been on ART for over 12 months. We then looked at number of the active clients who have undergone adherence counseling sessions, viral load bleeding done and have valid viral load results. These numbers were then generated over a series of time from MOH register and Electronic Medical Record system and thereafter analyzed. Numbers obtained to inform this analysis was from September 2017 to September 2018
Results: After undergoing comprehensive adherence counseling package sessions for 3 months, 2001 active sex workers on ART were eligible for viral load in September 2018. They were all bled and from the results obtained, 1821 of the 2002 were virally suppressed. This accounts 91% of virally suppressed sex workers. In September 2018, 1989 were eligible for viral load retest. Results obtained showed, 1929 of the 1989 of the same cohort were virally suppressed. This is 97% viral suppression and is way above the 90.90.90 strategy.
Conclusion: Having comprehensive adherence counseling package sessions to patients on ART including adherence messaging is key to increasing viral suppression among sex workers

FRPEB063

Predictors and Prevalence of Adherence to Highly Active Antiretroviral Therapy (HAART) among Most at Risk Populations (MARPS) in Port Harcourt, Nigeria

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Background: The alarming HIV prevalence among most at risks populations (MARPS) and scarcity of data or research assessing HAART adherence among these key populations remains a major public health concern in Nigeria. This study was therefore carried out to identify and explore perceived predictors of HAART adherence among HIV positive MARPs receiving treatment from ARV clinics in Port Harcourt, Rivers State, Nigeria
Methods: The study was a descriptive cross-sectional design involving both qualitative and quantitative methods; Quantitative data was obtained with the use of an interviewer-administered semi-structured questionnaire adopted from the AIDS Clinical Trials Group (ACTG) self-reported adherence questionnaire. In addition, three (3) purposively selected focus group discussions (FGDs) were held to further explore perceived barriers and enhancer of adherence to HAART among the targeted categories of MARPS (FSW, PWID, MSM). Quantitative data was analysed with SPSS, while the FGDs were analyzed in accordance with the standard procedure for analyzing thematic contents.
Results: The overall self-reported HAART adherence among MARPS in this study was 68.7 %, with Men who have sex with men (MSM), Persons who inject drugs (PWID) & Female Sex Workers (FSW) reporting 77.6 %, 69.3 % and 60.8 % adherence level respectively. The mean age of respondents was 29.4 ± 6.7. There was relevant significance between HAART adherence among MARPs and their educational level (P=0.028), perceived family support (0.021), Alcohol use (P= < 0.001) and regular clinic attendance (P= < 0.001). The major self-reported reasons cited for missing medications among MARPS were forgetting, pill burden and fear of disclosure. Reasons cited for retention in HIV care include availability of drugs, counselling support, availability of case managers, proximity to health facility and confidentiality. Deterrents of adherence identified by the FGDs were transportation cost, pill burden, side effects and poor attitude of health care providers
Conclusions and recommendations: The level of HAART adherence reported in this study was lower when compared with the recommended 95% adherence level required for treatment success. Appropriate adherence counselling, MARPS centered service delivery and utilization of reminder systems can be employed by healthcare service providers to help reinforce adherence behaviors and HAART adherence among HIV positive MARPS.

FRPEB064

Impact de la Prise en Charge des Nouveaux Cas P+ TS et CTS Issus des Campagnes de Dépistage Volontaires (CDV) pour l´Atteinte des Objectifs 90.90.90 dans Yaoundé 4 par L'OBC EVICAM

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Introduction: Dans sa démarche pour la lutte contre le VIH/SIDA, l'OMS a mis sur pieds de nouvelles orientations dans le cadre des objectifs 90.90.90, dont le troisième est axé sur une charge virale indétectable chez les nouveaux cas P+. A cet effet, l´association EVICAM financée par le PFM, a organisé des CDV à l'endroit des PS et CPS issus des quartiers Ekounou, Mvog-Bi, Mvog Atangana Mballa et Emombo 2eme dans le district de santé de Nkoldongo; dans le but de desceller les nouveaux cas P+ pour leurs prise en charge.
Méthode: L'étude était réalisée du 21 Mai au 10 Octobre 2018. L'évaluation de l'atteinte du troisième 90 a été faite à travers les outils de collecte des données par l'ouverture des dossiers des patients ; les fiches de l'éducation thérapeutique ; et les fiches de charge virale réalisées par la FOSA de Nkomo lors des campagnes de charge virale; qui approuvent qu'ils sont indétectables. Chacun des 02 APS d'EVICAM devraient suivre 11 nouveaux cas P+ pendant 06 mois.
Résultats: Au cours de la période d´étude, nous avions pu réaliser 4 CDV, et :
- 264 CPS et 2187 CPS ont bénéficié du conseil et du Dépistage Volontaire du VIH ;
- 12 nouveaux cas P+ des PS et 10 nouveaux cas P+ des CPS au VIH/SIDA ont bénéficié du conseil et de la référence vers les CTA/UPEC. Leurs premières prises de traitement ont été assurées par les APS d'EVICAM. Ils ont intégré les groupes de paroles et bénéficié de l'éducation thérapeutique pour une bonne observance ;
- Au bout de 06 mois, les résultats récoltés auprès des APS rapportent que les 22 nouveaux cas ont une charge virale indétectable.
Conclusion: La prise en charge des nouveaux cas P+ a permis à EVICAM d'atteindre le troisième 90 des objectifs 90.90.90 ; car nous avons obtenu un taux de 100% de patients TS et CTS jugés indétectables via l'examen de charge virale au bout de 6 mois.
Mots Clés: Prise en charge; TS; CTS; CDV

FRPEB065

Mutations de Résistance Associées aux Antirétroviraux chez les Patients Nouvellement Diagnostiqués pour le VIH-1 au Bénin

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Introduction: La transmission des virus VIH-1 d'ores et déjà résistants à des patients nouvellement infectées compromet l'efficacité de la ligne thérapeutique surtout dans le contexte du troisième 90 de l'objectif 3X90 de l'ONUSIDA.
L'objectif était de documenter les profils des mutations de résistance chez ces patients naïfs de traitement antirétroviral en vue de l'adoption des nouvelles recommandations de l'OMS sur le Dolutégravir.
Méthodologie: Etude prospective a porté sur 355 sujets. La charge virale a été quantifiée à partir des plasmas sur l'équipement Roche COBAS® AmpliPrep/COBAS ® TaqMan® 96. Sur les ARN viraux extraits avec le kit Qiagen, une PCR nichée sur (PR + 240 AA de la TI) a été réalisée. Les amplifiats ont été purifiés avec le kit Qiagen puis séquencés sur le « Genetic Analyser 3500 Applied Biosystem ». Les séquences ont été éditées sur (https://pssm.cfenet.ubc.ca/account/login) puis soumises au site (https://hivdb.stanford.edu/cpr/) pour générer les mutations de type SDRM. L'arbre phylogénétique a été réalisé sur Seaview v4.4.1 pour l'assignement des différents sous-types et CRFs après alignement des séquences nucléotidiques contre des séquences de référence circulant en Afrique de l'Ouest. Les virus recombinants ont été caractérisés par Simplot 2.6 et bootscanning.
Résultats: La moyenne de charge virale était de 5,32 log [IC : 2,82 à 7 log]. Deux cent quarante-huit séquences avaient été analysées et 27 portaient au moins une mutation de résistance (10,89% ; 27/248). Au total 42 mutations de résistance ont été identifiées. Les INNTI représentaient 10% (24/248) et se répartissaient comme suit: K103N (14/42), G190A (3/42), Y181C (2/42), les V106A, Y188KL, P225H, Y188L, V106M représentaient chacun (1/42). Les INTI représentaient 6% (16/248) et se composaient de : M184V (8/42) et les D67N, M41L, T215S, K65R, M184I, D67G, K70R, K219Q qui représentaient chacun (1/42). Les IP (I84V et L90M) représentaient chacun 1% (2/248).
Les souches prédominantes étaient CRF02_AG, CRF06_cpx et CRF43_02G (71,8%, 6,8% et 1,2%) respectivement. Une seule séquence portait le CRF01_AE. Les souches pures G, A3 et F1 représentaient respectivement (4,8%, 3,6% et 0,4%). Les formes recombinantes uniques représentaient 9,3% (23/248).
Conclusion: L'efficacité des INNTI sera compromise chez les nouveaux patients infectés par le VIH-1 au Bénin, d'où l'impératif adoption des dernières recommandations de l'OMS sur le remplacement de l'Efavirenz par le dolutégravir.

FRPEB066

A Retrospective Study of HIV Care and Treatment Outcome Variables in the Context of UNAIDS 90:90:90 in Malindi Hospital, Kilifi County in Kenya

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Background: Kilifi County has estimated population of 1.4million (48%-males) with HIV prevalence less than the national prevalence at 4.5% (Kenya-HIV-Estimates-2015). The county contributed 3% and 2% of total new HIV infections in Kenya among children and adults respectively. Kilifi County is determined to adhere to UNAIDS and Ministry of Health guidelines of 90:90:90.
Methods: A retrospective review of active HIV-positive clients' records as of December 2018. Patients' care and treatment parameters and bio-data variables were analyzed and disaggregated by age and gender.
Results: Data for 2492 HIV+ adults (31.1%males) and 173 pediatrics (0-14yrs) were reviewed. 61.2% of males and 60.9% females were aged 35-54yrs. 89.4% of the males and 90.2% females had been on Antiretroviral Therapy for ≥1 year, compared to 88.4% for pediatrics. 64.9% of adult males and 69.0% females, and 67.1% of pediatrics had their viral load (VL) tests done in the preceding 6months; results for Undetectable VL (< Lower-Detection Limit, LDL), Low-Level Viremia (LLV) were 84.7%, 11.0%, 4.4% respectively for males; 81.3%, 14.9%, 4.0% for females and 53.4%, 33.6%, 12.9% for pediatrics respectively. Overall viral suppression (VL< 1000 Copies/ml) rate was 96.0% and 87.1% for adults and pediatrics respectively. In adults, 43.8% and 27.1% of the unsuppressed were on TDF/3TC/EFV and AZT/3TC/NVP respectively, whereas 61.5%, 15.4% and 15.4% of unsuppressed pediatrics were on AZT/3TC/NVP, ABC/3TC+EFV and ABC/3TC+LPV/r respectively, with adherence assessment conducted and >99% of patients rated "Good". 57.8% of adults had normal body mass index compared to 7.0% among pediatrics (underweight=90.2%). Co-morbidity profile showed Tuberculosis as the commonest opportunistic infection (OI), with 20.4% males, 17.0% females and 13.9% pediatrics having had TB. Isoniazid Preventive Therapy (IPT) coverage among eligible adults and pediatrics was 13.6% and 2.9% respectively.
Conclusions and Recommendations: Effective HIV care and treatment involves multidisciplinary approach, and highly influenced by variables such as age, gender and socio-economic factors which impact overall outcomes. Females and pediatrics have greater vulnerability and HIV burden. Most unsuppressed patients have LLV necessitating intensive adherence counselling, support, monitoring and treatment optimization. Nutritional support and IPT coverage scale-up is essential for optimal HIV care especially in pediatrics.

FRPEB067

PrEP Implementation Strategy among People who Inject Drugs in Uganda

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Issue: HIV prevalence doubles among People Who Inject Drugs (PWID) in Uganda standing at 16.6% (MUSPH. Crane Survey report: population size estimation of key population in Uganda. (un-published data Kampala; PLACE 2018)). PrEP use by HIV negative people has shown efficacy for preventing HIV acquisition. Despite its potential, concerns voiced by PWID about the potential impacts of PrEP reflect a fault line in HIV prevention. Some disagree that the medicines used in HIV treatment also prevent its acquisition and are taken daily which makes them feel like they already have the virus while the rest think that health workers are not sure about the efficacy of PrEP as they routinely retest for HIV on the follow up visits. There is need to engage with these views and ensure their integration into PrEP programming.
Description of the Intervention: Through the Social Network strategy (SNS), an index client seeking services at the Drop in Centre is informed about PrEP use and then requested to elicit social contacts that might benefit from PrEP hence increased awareness and bridging the knowledge gap concerning PrEP effectiveness. UHRN has also organized sensitization meetings with PWID where they express their concerns on PrEP and misconceptions are corrected by the clinician.
Results: The approach has resulted into increased awareness on PrEP use in relation to HIV prevention. It has also bred a new strategy of mobilization of peer to peer where an informed individual acts as a knowledge source to fellow PWID in the hot spots. **Conclusions:** The SNS and peer to peer strategies have proved to be very effective in demand creation for PrEP and have led to increased awareness on PrEP use hence leading to reduction on the HIV epidemic amongst PWID at substantial risk.
Keywords: UHRN, IDU, PWID, PrEP, DiC, SNS

FRPEB068

Association and Risk Factors Related to Mother-to-Child Transmission of HIV-1, Spontaneous Abortion and Infants Mortality in HIV-1-Infected Women in Burkina Faso

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Background: In sub-Saharan Africa, mother-to-child transmission of HIV-1 (MTCT), abortion and mortality in new borned are always real among HIV-1-infected women despite all the efforts to fight HIV and AIDS. The causes of this situation can be due to virus and/or the desire for child among women. Our hypothesis is that low CD4 and high viral load can be associated with MTCT, abortion and mortality in infants borned from HIV-1-infected women.This study aimed to determine the associated and risk factors related to MTCT, spontaneous abortion and mortality in infants among HIV-1-infected women.

Methods: It is a prospective study conducted from May 2014 to September 2017 and included 423 HIV-1-infected women followed-up as part of prevention of MTCT at Saint Camille Hospital of Ouagadougou, Burkina Faso, West Africa. Data such as age, number of pregnancies, number of infants deceased, number of abortions, number of HIV-1 positive infants were collected through a questionnaire. Also, CD4 and viral load of HIV-1 were determined using respectively BD FACSCount and Abbott m2000rt instruments. Bivariate analysis and multinominal logistic regression using SPSS version 21.0 were done for associations and the difference was considered statistically significance for $p< 0.05$.

Results: The mean age of women was 38.75±7.98 years. The rate of MTCT, abortion and deceased infants were 16.31%, 30.49% and 4.75% respectively. The number of pregnancies was associated with deceased infants (p=0.002). Women who had three pregnancies had more deceased infants (28.6%). Also, the marital status was associated with HIV-1-infected infants (p=0.042) and with spontaneous abortion (p=0.033). Multinomial logistic regression analysis showed that HIV-1-infected women with low CD4 (< 350 cells/µL) had two risks to have spontaneous abortion [OR (IC 95%): 2.50 (1.085- 5.760); p=0.03]. Furthermore, those with viral load more than 1,000 copies/mL had two risks to have spontaneous abortion [OR (IC 95%): 2.16 (1.043- 4.505); p=0.04]. None risk factor has been associated with MTCT and deceased infants.

Conclusions and Recommendations: the results of this study showed the need to improve the treatment of HIV-1-infected women in order to restore the CD4 and low the viral load. Also, it is necessary to strengthen the efforts to reduce significantly MTCT during delivering and spontaneous abortion due to HIV-1 infection.

FRPEB069

Biological Assessment of the Last 2 Components of UNAIDS 90-90-90 Targets in Key Populations, Benin

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Background: National data on the HIV treatment cascade rarely provide specific data on antiretroviral (ARV) treatment and viral load (VL) suppression among HIV-infected members of key populations who are not always easily identified as such in ARV treatment centers. We estimated the proportions of detectable ARV blood levels and suppressed VL among HIV-infected men who have sex with men (MSM) and female sex workers (FSWs) participating in nationally representative surveys in Benin in 2017.
Methods: After informed consent, additional dried blood spots (DBS) samples were collected from HIV-infected subjects identified through integrated biological and behavioral surveys among FSWs (recruited through cluster sampling of sex work sites) and MSM (respondent driven sampling). DBS samples were tested for intracellular tenofovir-diphosphate and lamivudine-triphosphate concentrations (TLC), using liquid chromatography/tandem mass spectrometry. Lamivudine and/or tenofovir are part of all first-line and almost all second-line ARV regimens in Benin. VL was measured with the Abbott m2000 system, with a limit of quantification of 839 copies/mL on DBS. We estimated the proportion of participants with any presence of either drug in their DBS samples and the proportion with suppressed VL. Pearson Chi-square was used to compare proportions.
Results: There were 111 HIV-positive subjects, of whom 99 accepted to participate (72 FSWs and 27 MSM) in the study (97 with TLC results, 93 with VL results and 91 with both). Mean age was 34.4±8.5 and 23.6±4.2 years in FSWs and MSM, respectively. Overall, 33.0% (32/97) had detectable TLC, with a slightly higher proportion among participants in Cotonou than in those in the rest of the country (40.8% vs. 25.0%, p=0.09), and similar proportions in FSWs and MSM (32.4% vs. 34.6%, p=0.84). VL was suppressed in 34.4% of the subjects (32/93). The proportions of participants with detectable TLC who had suppressed VL was 73.3% (22/30), much higher in FSWs than in MSM (86.4% vs. 37.5%, p=0.02). Suppressed VL was also found in 16.4% (10/61) of participants with undetectable TLC.
Conclusions and Recommendations: This study suggests that the UNAIDS objectives are far from being achieved among key populations in Benin, except for suppressed VL among FSWs already on ARVs. Programs need to target barriers that limit HIV testing coverage and access to care for key populations and will necessitate enhanced community-based strategies.

FRPEB070

Improve Access to Prevention: Lessons Learnt from a Sex Worker Peer-led PEP Intervention in Malawi

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Issues: Female sex workers (FSWs) are at high risk of HIV infection. Post-exposure prophylaxes (PEP) can reduce the risk of HIV acquisition, yet is often inaccessible to and underutilized by FSWs. HIV PEP bi-therapy (TDF-3TC) for sexual exposure is included in the Malawian national guidelines.
Descriptions: Since 2014, MSF has implemented a comprehensive peer delivered package of care for FSWs in 4 districts of Malawi (Neno, Nsanje, Mwanza and Dedza). In 2017 peer educators began PEP in the community with initial 3 dose delivery, navigation to HIV testing services (HTS) and PEP continuation at a one-stop clinic, and 3-monthly HIV testing follow-up.
Lessons learned: Between March 2018 and April 2019, 47 PEP treatments were initiated by peers at community level of which 45 reached the 3 month assessment by the data of this analysis. All 47 PEP initiated in the community had a negative baseline HIV test confirmed at the facility. Two beneficiaries received two courses of PEP spaced out 6 months period. Median age of the beneficiaries receiving community PEP was 24 years, and 10% were less than 19 years old.
27 out of 47 (57.5%) PEP uptakes were followed up for at least 3 months after PEP completion. Among 15 beneficiaries, without 3 month follow-up completion, 11 (73.3%) had left the site and 4 had discontinued the course (26.7%).
Of the 27 who completed the follow-up, 1 (3.7%) had seroconverted, with a positive test on the last day of the PEP course despite good adherence. It is likely that this case was in the window period at baseline and had been infected previously despite presenting within 72 hours of the recognized high-risk encounter. The experience shows that PEP can be provided at community level by FSW peers with relatively good outcomes, improving access, PEP and PREP knowledge and uptake among FSWs population.
Next steps: Because of the high incidence of HIV among FSWs, effective prevention should be a priority and community based PEP initiation increases access and uptake. As high-risk exposure is often continuous, this should be an entry door for PrEP. Models exploring trained peer-based approaches integrating community PEP and PrEP provision with community HIV testing, including oral self-testing via FSWs peer educators should be further developed.
Because of the high risk of being in window period at PEP/PREP initiation, retesting at 1 in addition to 3 months should be considered, along with rapid adoption of a DTG based PEP regimen.

FRPEB071

Addressing the Initial Reluctance to Introduction of TLD as First Line HIV Treatment Drug Using Data Feedback - Experience from Rural Health Facilities in South-East Nigeria

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Background: Nigeria, with a high HIV prevalence has been providing free life-saving anti-retroviral drugs for HIV positive patients. Over 80% of persons living with HIV in Nigeria were placed on either Efavirenz or Zidovudine-based fixed dose combinations. Nigeria introduced Dolutegravir (DTG) in October, 2016. DTG made available in-country for treatment in February 2018, was expected to be well accepted because of its clinical benefits. This research analyses the use of data-feedback in improving DTG-based regimen uptake.

Methods: Centre for Health Education Economic Rehabilitation and Social Security (CHEERS) has been providing HIV treatment at 14 rural HIV Clinics in Ebonyi and Anambra States, South-East Nigeria since March, 2017. CHEERS introduced DTG-based regimen at these clinics in June 2018. Data review of clients on treatment in September 2018 showed low uptake of this regimen at these Clinics. This observation was discussed at patient care management team and facility-based support group meetings. Care-providers were encouraged to initiate new clients and transition eligible older clients to the DTG-based regimen. The benefits of the DTG-based regimen over the current treatment regimen were discussed and strategies to increase uptake were instituted. The interventions were monitored over 3 months. A retrospective review of the DTG-based regimen uptake was done in January 2019 (3 months post intervention). Uptake data obtained from HIV Pharmacy Daily worksheet was analyzed using Microsoft excel and SPSS 2018 packages. Data was disaggregated based on age and sex.

Results: Pre-intervention (June-August 2018), 25 (7F:18M) out of the 271 (9.2%) newly identified HIV positive clients eligible for DTG-based treatment were placed on the drug. Post-intervention (September-December 2018), 166 (F49: M117) out of the 311 (53.3%) newly identified HIV positive clients eligible for DTG-Based treatment were placed on the drug. 78(M41:F37) and 11 (M7:F4) of the clients were transitioned from Efavirenz- and Zidovudine-based combination

Conclusions: The data showed that providing feed-back increased uptake of DTG-based regimen at the health facilities. DTG-based transition services should target more females. Patient education is required to support clients on Zidovudine-based regimen to transition to DTG-based regimen; as they were observed to be reluctant in accepting the transition.

FRPEB072

Optimizing Uptake of PMTCT Services: A Report of How Free Multivitamin Supplementation Improved ANC Attendance and HIV Testing among Pregnant Women in Benue State, Nigeria

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Background: Retention in care is key to reduction of morbidity and mortality among People Living with the Human Immunodeficiency Virus (HIV) who are enrolled in care programs. Proportion of clients retained in care is a measure of the quality of care and support services rendered in the program. In low and middle-income countries (LMIC) like Nigeria, poor retention in care militates against the goal of Prevention of Mother to Children Transmission of HIV (PMTCT). To optimize performance in ANC attendance and the uptake of HIV testing among pregnant women in Global Fund (GF) supported facilities, new strategies and innovation were developed.In September 2018, Family Health International (FHI360), introduced free micronutrient supplement and deworming tablets for pregnant women and Under-5 children as an addition to the care and support services provided in the project. These supplements were used as incentives to ANC attendance. We reviewed the outcome of this strategy in Benue, a state supported by the Institute of Human Virology of Nigeria (IHVN). Within one quarter (October to December 2018) compared to the previous three quarters January to September 2018.
Methods: Benue State received Vitamin A, Albendazole 400mg and Multivitamins for pregnant women.Health Facilities that are easily accessible received supplies of these commodities in the first week of October 2018. Distribution to all the 57 facilities was completed by the end of October 2018. The supplement was given to both HIV positive and negative pregnant women.
Results: Significant increase in ANC attendance and PMTCT uptake across all facilities. There was a 19% increase in ANC attendance. Between Jan to Sept 2018, total attendance was 714. The ANC increased to 917 between Oct-Dec 2018. ANC PMTCT HTS optimization was 100%. Improved adherence to clinic appointment as these pregnant women used multivitamins pill counts to monitor their clinic dates. Capacity of the mentor mothers built for dispensation of the commodities and its use to retain clients. Distribution of the commodities by the SR improved their working relationship with facility staffs.
Conclusions and Recommendations: Provision of free multivitamins can improve uptake of PMTCT services, retention in care and ultimately the quality of care and support services in HIV programs in LMIC. It is recommended that HIV programs should partner with other similar organizations to enrich their programs.

FRPEB073

High Burden of Over-Nutrition among HIV Patients in an Urban HIV Clinic in Uganda: A Retrospective Study

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Background: Over-nutrition (overweight and obesity) a known cardio-metabolic risk for non-communicable diseases (NCDs) has been noted to be on the rise among people living with HIV (PLHIV). However, there is still limited documentation on its prevalence in sub-Saharan Africa. We sought to determine the prevalence and factors associated with over-nutrition among PLHIV in an urban HIV clinic in Kampala, Uganda.
Methods: An electronic database review of all patients that attended the Adult Infectious Diseases Institute clinic from November 2018 - April 2019 was conducted. Demographic, body mass index (BMI) [kg/m^2] and clinical variables were extracted. Based on BMI, nutritional status was classified as undernutrition ($< 18.5kg/m^2$), normal ($\geq 18.5 < 25kg/m^2$), overweight ($\geq 25 < 30kg/m^2$) and obesity ($\geq 30kg/m^2$)]. Descriptive analyses were performed and generalised linear models were used to estimate factors associated with over-nutrition.
Results: Overall, 7,818 patients were included in the analysis, 64% were female, median age 44 years (IQR=36-51) and median BMI 24.2(IQR=21.2-28.1). The prevalence of over-nutrition was 46% (females-55%, males- 30%), obesity 18.2% (females-24.6%, males-7.1%) and undernutrition was 6.2% (females-4.5%, males- 9.3%). Risk factors for over nutrition included: Female sex (aIRR=1.78, CI:1.69-1.87), age categories 25-59 years (aIRR=1.91, CI: 1.63 - 2.24) and ≥ 60 years (aIRR=1.77, CI:1.49-2.12); duration on antiretroviral therapy (ART) for 6-10 years (aIRR=1.13, CI:1.08-1.18), CD4 count ≥500 (aIRR=1.25, CI:1.21-1.30) and having at least one NCD (aIRR=1.12, CI:1.07-1.18). There was a trend towards association between over-nutrition and being on a protease inhibitor (PI) based regimen (aIRR=1.00, CI: 0.96-1.05) as well as viral suppression status (aIRR=1.02, CI:0.97-1.07) although this was not statistically significant.
Conclusions and Recommendations: Our results show a higher burden of over-nutrition than undernutrition among PLHIV. We speculate this to be a result of the beneficial effect of ART and changing lifestyle habits which include increased intake of high-caloric diets and reduced physical activity. Nutrition and weight management programs particularly targeting high risk groups like females and persons with NCDs should be integrated into HIV care.

FRPEB074

The Impact of Nutritional Intervention on HIV & TB Treatment Outcomes in the Kingdom of Eswatini

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Background: Eswatini has the highest prevalence of HIV among adults aged 15 to 49 in the world (27%). However, the country has made great efforts in fighting the epidemic. The Ministry of Health was implementing the food by prescription (FBP) approach designed to strengthen nutrition services across the continuum of health care by providing ART and TB clients aged 15 years and above with nutrition assessment, counselling and provision of corn-soya blend to malnourished adults. FBP was implemented in 12 major hospital and health centres reaching 4,000 malnourished beneficiaries annually. This study aimed to examine the effect of nutrition support on treatment outcomes of malnourished adults living with HIV and/or TB.
Methods: The study adopted a quasi-experimental effectiveness design. Participants comprised of malnourished adults on ART and/or TB treatment, eligible for FBP *between January 2016 and December 2017*. Data was retrospectively extracted from client records in 12 health facilities that provided FBP services (Intervention arm) and 12 that did not (Comparison arm). Viral load and CD4 count were measured twice during the focus period.
Results: Two hundred and fifty-eight client records in the intervention health facilities and 43 in the comparison were used for the analysis. Majority of the study participants were female (56.1%).
Nutritional outcomes: The FBP approach seemed to achieve its objective as evident by significantly higher weight gain and faster recovery from malnutrition for clients in the intervention arm.
HIV and TB treatment outcomes:
· The intervention arm demonstrated greater improvements in CD4 counts with a median count of 452 cells/mm^3 compared to 447 cells/mm^3 in the comparison arm.
· Percentage of clients with viral suppression was comparable between the intervention (81.3%) and (82.4%) comparison arms.
· Mean viral load difference between the two time points was significantly lower in the intervention arm.
· 83% of clients in the intervention arm were successfully treated for TB compared to 25% in the comparison arm. The low treatment success rate in the comparison group might be attributed to the small number of patients registered.
· 64% of clients in the intervention arm had increased CD4 count compared to 58% in the comparison.
Conclusion: Amidst other factors influencing HIV and TB outcomes, the results point to nutrition having a contributory effect on the outcomes as well.

FRPEB075

Soins Palliatifs Communautaires et Réadaptation pour la Prise en Charge des Déficiences chez les PVVIH

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Description: L'échec thérapeutique chez les Personnes Vivant avec le VIH (PVVIH) perdues de vue pour le suivi du traitement antirétroviral, occasionne de nombreuses infections opportunistes génératrices de déficiences et d'incapacités.
Le projet INCLUSIPH mis en œuvre par Humanité & Inclusion (HI) au Sénégal et en Guinée Bissau en partenariat avec Santé Service Développement (SSD) et CIDA/Alternag, a recensé **110 PVVIH,** dont **74,5%** de femmes, présentant des déficiences physiques **63%**, mentales **7%** et sensorielles **30%** acquises au cours de l'infection au VIH.Face à cette situation, une approche a été développée couplant les soins de réadaptation aux soins palliatifs par :

- Le renforcement de capacité de 68 prestataires (médecins, infirmiers, assistants sociaux) en soins palliatifs communautaires et réadaptation spécifique aux PVVIH.
- Le suivi formatif par un spécialiste en réadaptation de 68 prestataires et de **43** patients à domicile, dont **69,7%** de femmes, présentant des incapacités.
- La mise en place d'un système de référencement des patients présentant des déficiences vers les Centres Hospitaliers Régionaux pour prise en charge.
- La formation de 60 acteurs communautaires en soins palliatifs en vue du continuum de ces soins à domicile.
- L'appareillage de **43** patients, dont **69,7%** de femmes, pour restaurer la capacité à utiliser leurs membres atteints.(vi) L'adaptation du cadre de vie de **12** patients, dont **75%** femmes, pour renforcer leur autonomie dans la réalisation de leurs habitudes de vie.
- L'offre de soins palliatifs et de réadaptation à **993** PVVIH développant des déficiences.

Leçons apprises:

- Le renforcement de capacité de 68 prestataires de soins en soins palliatifs et réadaptation des PVVIH a renforcé les compétences des équipes de prise en charge VIH/SIDA dans la détection précoce et prise en charge des déficiences.
- L'appareillage et l'adaptation à domicile des **55** patients améliorent substantiellement leur autonomisation et leur qualité de vie.

Prochaines étapes: Plaidoyer pour:

- L'intégration des soins palliatifs et de la réadaptation dans le paquet standard de prise en charge du VIH/SIDA.
- L'instauration d'un système de screening de la déficience chez les PVVIH, à l'image de la Tuberculose, dans les sites de prise en charge VIH.

Mots clés: Soins palliatifs communautaires; Réadaptation; Screening des déficiences; Adaptation

FRPEB076

Contribution des Praticiens de la Medecine Traditionnelle et Leaders Religieux dans la Lutte Contre la Tuberculose et le Sida dans le Centre et le Nord de la Cote d'Ivoire de Janvier 2018 à Juin 2019

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Contexte: En Côte d'Ivoire, la prévalence du VIH/sida est de 3,4% (EDS 2012) et pour la Tuberculose (TB) l'incidence est de 153 pour 100 000 Hbts. La Côte d'Ivoire bénéficie des subventions du Fonds Mondial depuis 2009, avec Alliance CI comme Principal Récipiendaire Communautaire pour exécuter de 2018 à 2020 les projets du Nouveau Modèle de Financement pour le VIH/SIDA et la Tuberculose. C'est dans ce cadre que le Centre SAS intervient dans six régions sanitaires du Centre et du Nord de la Cote d'Ivoire soit 30% des régions du pays. Afin d'atteindre les objectifs de ces projets, l'une des stratégies était d'impliquer les praticiens de la médecine traditionnelle et leaders religieux communautaires dans le processus de notification des cas de Tb, le dépistage précoce des cas de VIH et le maintien dans les soins ARV et TB des patients
Interventions: Faire une cartographie des praticiens de la médecine traditionnelle et leaders religieux dans les zones d'intervention des projets
Organiser des réunions d'explication des objectifs, et activités des projets en rapport avec les trois 90 du VIH/SIDA et de la Tuberculose
Réaliser des plaidoyers pour la référence et la contre référence des cas de perdus de vue ou de dépistés positifs dans le déni
Sensibilisations et référence de cas par les leaders religieux (pasteurs-prêtres-imams) au cours de leurs sermons et prêches
Sensibilisations et référence de cas pour la réalisation de test de dépistage du VIH et l'examen de crachat par les praticiens de la médecine traditionnelle au cours de leurs consultations
Resultats: De Janvier 2018 à Juin 2019 :
96 réunions ont été organisées
1414 cas suspects TB référés
663 cas Suspects TB dépistés positifs
169 cas référés pour le test de dépistage du VIH
160 cas référés pour le test de dépistage du VIH/SIDA dépistés positifs
119 Perdus de Vue sous traitement Antiretroviral et 07 Perdus de Vue sous traitement de Tuberculose ont été retrouvés par les responsables de camps de prière et praticiens de la médecine traditionnelle et réintégrés dans les soins
Conclusion: Le système de référence et de contre référence mis en place entre les praticiens de la médecine traditionnelle, des leaders religieux, des responsables des camps de prières, les ONG, les prestataires de santé de l'état contribue à ce que les patients soient référés tôt pour le dépistage, la rétention dans les soins et ainsi aboutir au 3e 90 pour le VIH et la guérison pour la Tuberculose.

FRPEB077

Advanced HIV Disease, Viral Suppression and Missed Opportunities: Findings from the Zimbabwe Population-based HIV Impact Assessment (ZIMPHIA), 2015-2016

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Background: The HIV epidemic in Zimbabwe has changed dramatically with the implementation of Option B+ and Treat All. Nationwide antiretroviral therapy (ART) coverage and viral suppression rates are approximately 84% and 83%, respectively. Nevertheless, there are regional reports of persons living with HIV (PLHIV) who continue to suffer from advanced disease (AD), defined as CD4< 200cells/µL. Programming priorities have de-emphasized support for CD4 monitoring, making it difficult to identify the AD population. We present an analysis of cross-sectional, national ZIMPHIA data, highlighting PLHIV with AD and viral load suppression (VLS).
Methods: ZIMPHIA collected blood specimens for HIV testing from 22,501 consenting adults (ages 15 years and older); 3,466 PLHIV had CD4 and VL results. Household HIV testing used the national serial algorithm, and those testing positive then received point-of-care CD4 enumeration with subsequent VL testing. We used logistic regression analysis to explore factors associated with concurrent AD and VLS (< 1000 copies/mL). All analyses were weighted to account for complex survey design.
Results: Of the 3,466 PLHIV in the survey with CD4 and VL results, 17% were found to have AD. Age distribution, residence, wealth and education were similar between those with and without AD. Nearly one-third (30%) of all AD patients had VLS, representing approximately 62,000 individuals. Concurrent AD and VLS was associated with male gender (aOR 2.45 95% CI 1.61-3.72), older age (35-49 years [aOR 2.46 95%CI 1.03-5.91] and 50+ years [aOR 4.82 95% CI 2.02-11.46] vs 15-24 years), and ART duration (< 6 months vs more than 2 years, aOR 0.46 95% CI 0.29-0.76; 6-24 months vs more than 2 years, aOR 2.07 95% CI 1.35-3.17). The relationship between gender and AD is driven by age with men aged 25-34, (aOR 3.38 95% CI 1.35-8.41), men aged 35-49 years (aOR 5.13 95% CI 2.16-12.18), and men aged 50+ (aOR 12.56 95% CI 4.82-32.71) all being significantly associated with AD versus men age 15-24.
Conclusions: The percentage of PLHIV with AD and VLS illustrates the conundrum of decreased support for CD4 monitoring, as these patients may not receive appropriate clinical services for advanced HIV disease. In high-prevalence settings such as Zimbabwe, CD4 monitoring support warrants further consideration to differentiate care appropriately for the most vulnerable PLHIV. Males may need to be prioritized, given their over-representation in this sub-population.

FRPEB078

Awareness, Implementation and Challenges to Implementation of National Human Immunodeficiency Virus (HIV) Guideline in a Tertiary Hospital in South-East Nigeria

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Background: Use of evidence-based practice guidelines have been shown to improve health-care processes and to have positive effect on patient outcomes. This study aims to determine the awareness, implementation and challenges to implementation of the national HIV guideline.

Methods: The study was a cross sectional study design that employed mixed method approach to collect information from health workers working in the HIV clinic of Federal Teaching Hospital, Abakaliki from February to August 2017. Using a pre-tested structured self administered questionnaire, all eligible health workers (33) who gave consent were interviewed on their awareness of the HIV guideline while key informant interview was administered to 4 key informants using interview guide that had 5 thematic areas. The key informants were three clinic managers and one resident doctor to ascertain the extent of practice of the guideline and the factors affecting the implementation of the guideline.Quantitative data was analysed using IBM-SPSS version 20 and proportions were calculated, while thematic analysis of qualitative data was carried out manually.

Results: Result of quantitative data showed that 54.5% of the respondents were males and 76% were medical doctors. Majority of the respondents had access to (84.9%) and had read (75.8%) the guideline. Almost all the respondents (93.9%) were aware of the guideline. The 4 key informants interviews (KII) revealed that, the *´guideline is being implemented to a large extent´* however, The 4 KII respondents stated some challenges to implementation which include: breakdown of CD4 machines, viral load not routinely assessed, unavailability of printed copies of the guideline in the clinic for reference purposes, frequent rotation of health workers, clients not having money to pay for other lab investigations, too many information given at same time, quarterly training having challenges due to strike and change of implementing partners.

Conclusions and Recommendations: Although the guideline is being implemented, some barriers were identified and it is recommended that the guideline be made easily available and efforts should be made by the management to ensure that laboratory investigations are assessed easily.

FRPEB079

Impact of the Implementation of Simplified Empirical Guidelines on the Clinical Management of Patients with Advanced HIV Infection at Kabinda Hospital Center in Kinshasa, DRC

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Background: Increased access to ARV treatment has led to a decrease in HIV related mortality. In Sub-Saharan Africa, HIV continues to be the main determinant morbidity with high mortality rates. Clinical management of advanced HIV patients is thus complex and requires strict adherence to updated, empirical and simplified guidelines. The current study investigated the impact of the implementation of an empirical and simplified clinical guideline on the management of advanced HIV in Kinshasa, DRC

Methods: A retrospective analysis of routine clinical data of advanced HIV patients was conducted for the periods; February 2016 to March 2017, before implementation of new guidelines, and November 2017 to July 2018, after the implementation of new guidelines. Eligible patients were patients with CD4 < 200 and presenting with at least 1 of 4 opportunistic infections. Patient files were reviewed by a medical doctor and a subset of those files were also reviewed by a committee of 3 other doctors for congruence. Statistical significance was set at 0.05%

Results: 207 and 231 patients were eligible for inclusion before and after the implementation of new guidelines respectively. Sex and age distributions were similar for both periods, and mean CD4 were 58.3 & 68.5cells/mm3, before and after the new guidelines, respectively. 43.5% of patients had at least 1 missed/incorrect diagnosis before the new guidelines compared to 27.2% after new guidelines, $p< 0.05$. Clinical diagnosis for TB and toxoplasmosis were also much improved after the new guidelines. Among dead TB patients at discharge, only 4% of patients had a missed/incorrect diagnosis after the implementation of new guidelines compared to 38.5% of patients before new guidelines, $p< 0.05$. In addition, only 109/207 patients had CD4 results before the new guidelines compared to 228/231 after new guidelines. Clinical evolution of patients (dead or alive at discharge) before and after the implementation of new protocol were significantly different using a regression model that included patients CD4 count and 11 danger signs as covariates, $p< 0.05$

Conclusions and Recommendations: Simplification and implementation of an empirically based HIV clinical guidelines potentially helped reduce incorrect diagnosis, and improve clinical outcomes of patients with advanced HIV. In addition, regulating authorities should consider developing simplified versions of guidelines that could be easily followed and adapted to various contexts.

FRPEB080

The Challenges of Implementation of WHO Recommendations Related of DTG Alert for Childbearing Potential Women Enrolled in ANRS12313 NAMSAL Trial Conducted in Cameroun: The ANRS's Experience

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Background: On 18 May 2018, a safety signal was published by the European Agency, WHO and the French authority related to a neural tube defect abnormality of children born to mothers living with HIV and treated with dolutegravir (DTG) based regimen during pregnancy. ANRS as sponsor has implemented recommendations regarding this alert. The aim of this abstract is to give a consistent feedback on the impact of implementation of WHO recommendations in a trial conducted in Cameroon

Methods: The trial was a multicenter, randomized, open-label, phase III study to evaluate DTG versus efavirenz 400mg (EFV), associated with tenofovir and emtricitabine or lamivudine for initial management of HIV-infected adults. Analyses were planned on W48 with an extension to W96. Initially, protocol included as non-inclusion criteria: pregnant/breastfeeding women and women of childbearing age refusing effective contraception. A urine pregnancy test at each visit was performed and the switch from DTG to EFV 600mg in case of pregnancy was required. At the time of DTG alert, inclusions were completed; participants were still being followed and have reached for the vast majority the W48 endpoints. Sponsor, coordinating investigators and scientific committee decided to modify the protocol and the patient information sheet. Potential risk and benefits were explained to women of childbearing age. Two options were offered to women treated with DTG arm: continuation of DTG based regimen with an effective contraception or switch to EFV 600mg treatment. A gynecologist consultation was offered to discuss different possibilities of contraceptive methods and the patients' choices were collected into clinical database

Results: At the time of DTG alert, 33% (132/404) of female of childbearing age were treated with DTG. More than a third of women, initially treated with a combination of DTG, choose to switch to EFV 600mg. However, after being switched to EFV arm, due to EFV (600mg)-induced adverse reactions, some women have decided to return to their initial therapy based on DTG. Finally, the switch has no impacted the W48 endpoints

Conclusion and Recommendations: Implementing DTG-related alert in NAMSAL trial could have impacted balance of study arms; it appears the W48 endpoints are not impacted. Further investigation is in progress to evaluate impact on W96. Therefore, women-centered approaches associated with local sexual and reproductive health are essential to manage this type of alert

FRPEB081

Community Dialogues Assessment with Women Living with HIV on the Use of Dolutegravir-based Regimen for Antiretroviral Therapy in Zimbabwe

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Issues: In 2018, WHO released guidance on the use of new ART regimens, with a recommendation to include dolutegravir (DTG), as part of the regimen for preferred first-line ART. DTG has been shown to be more efficacious due to its improved side effect profile and higher genetic barrier to resistance, making it better at achieving viral suppression. Safety concerns, however, have been raised on potential risk of NTDs and DTG use in certain sub-populations of PLHIV, mainly pregnant women and women of childbearing age following an observational study in Botswana. In light of these developments and country context, MOHCC engaged AfroCAB, a network for HIV treatment advocates across Africa, to support adaptation of interim guidance by providing insights from communities of WLHIV on their preferences for ART provision.
Descriptions: In October 2018, we conducted 14 community dialogues with WLHIV to gather evidence on the acceptability and key concerns for the pending introduction of DTG. Purposive sampling was employed to identify participants. Quantitative and qualitative data were collected using self-administered questionnaires and a standardised interview guide for group discussions, analysed using Microsoft Excel while qualitative data applied content analysis methods.
Lessons learned: A total of 270 participants participated in the consultations, with 39% of the women below 24 years of age. Of these, 44% were young mothers and 9% were sex workers. Approximately 84.8% of the participants were on ART at the time of the consultation. 69% of the participants had at least one child, and 62% were already pregnant or planning to get pregnant in the near future. Most WLHIV consulted were willing to take DTG as part of their ART regimen, with the majority of them citing minimal side effects as a strong factor to their willingness. Some of the reasons that emerged from the participants who were not willing to be placed on DTG were that: They wanted more information regarding risks such as NTDs before making a decision and some had had no negative experience with their current regimen (TLE). A few women preferred to delay the use of DTG until they had no intentions to bear children.
Next steps: Participants emphasised on informed choice of medicines they receive. MOHCC was encouraged to integrate SRH and ART services and to ensure adequate stocks of TLD and FP commodities at all facilities . There was a call to improve treatment literacy among all WLHIV on ARVS and FP.

FRPEB082

Gaps between Policy and Practice; Evaluating Implementation of Nigeria's 2016 HIV Guidelines amongst Children and Adolescents

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Background: Nigeria has an estimated 220,000 children 0 -14 years and 230,000 adolescents 10 - 19years living with HIV, the 2nd largest global burden for both populations. The current National Guidelines for HIV Prevention, Care and Treatment were released in December 2016. The guidelines recommend ABC (or AZT) + 3TC + LPV/r as preferred first-line ART regimen for children < 3 years old, ABC/3TC/EFV for those aged 3 to < 10 years, and TDF + 3TC (or FTC) + EFV for adolescents aged 10 - 19 years. The Institute of Human Virology Nigeria (IHVN) provides PEPFAR-funded HIV care and treatment services in 4 states. We evaluated for uptake of preferred first-line regimen recommendations for children and adolescents in IHVN's program.

Methods: This cross-sectional study was conducted in February 2019. Patient-level data was analyzed from 15 of 125 treatment sites. These 15 large sites alone accounted for >50% of IHVN's ~7,000 pediatric and adolescent enrollments. Data was evaluated by age bands relevant to guideline-recommended regimens. Findings were summarized using descriptive statistics.

Results: A total of 3,298 children and adolescents were receiving ART at the 15 facilities. Proportion of those < 3, 3 to < 10 and 10 - 19 years old was 4.8% (160), 32.8% (1,081) and 62.4% (2,057) respectively. The majority of our cohort (92.6%, 3,054) were on first-line regimens.

Only 24.8% (35/141) of children < 3 years received the recommended ABC (or AZT) + 3TC+LPV/r. For those 3 to < 10 years, only 3.7% (38/1,032) received ABC+ 3TC +EFV while 15.7% (295/1,881) of 10-19 year olds received the recommended TDF+ 3TC or FTC + EFV.

AZT+3TC+NVP was the most prescribed regimen among children/adolescents not on preferred regimens; 68.8% (97), 80.6% (832) and 69.2% (1,302) of those < 3, 3 to < 10 and 10-19 year olds respectively received this regimen.

Conclusions and Recommendations: More than 2 years after the release of the National HIV treatment guidelines, uptake of recommended first-line ART regimens was sub-optimal across all age bands. Policy implementation has to be matched with stakeholder commitment to achieve fidelity in practice. Additionally, drug procurement and supply chain management systems must meet demands of regimen transition, as unavailability of required formulations and/or in adequate quantities may pose the greatest barriers to uptake. Lastly, there should be systematic monitoring and evaluation of the implementation process.

FRPEB083

Expérience de l'Utilisation du Dolutégravir dans le Service de Référence dans la Prise en Charge des Adultes Infectés par le VIH à Abidjan, Côte d'Ivoire

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Background: Estimer l'efficacité et la tolérance du Dolutégravir chez les patients infectés par le VIH.
Methods: Il s'agissait d'une étude d'observation, rétrospective qui a concerné les patients infectés par les VIH-1 suivis au SMIT à Abidjan d'octobre 2017 à mars 2018**.** Les données socio-démographiques, cliniques, immuno-virologiques et thérapeutiques recueillies ont été analysées l'aide du logiciel Epi Info version 7.
Results: 119 patients ont été enrôlés durant notre période d'étude, parmi lesquels 18(15,1%) étaient naïfs et 101 (84,9%) prétraités par les ARVs. Notre population était majoritairement composée de femmes dans 68,1% parmi lesquelles on retrouvait 47,0% en âge de procréer. L'âge médian était de 45 ans [38-52 ans]. La tranche d'âge dominante était celle de 18-45 ans dont 47,0% de femmes versus 7,6%. Les patients étaient symptomatiques au stade B et C de la classification CDC respectivement dans 24,4% et 29,4%. La médiane du taux des CD4 à l'enrôlement était de 116,5 cellules/mm^3 [EIQ =42-279,5], la CV médiane était de 196,5 copies/mL [EIQ=1-27000]. Sur les 101 patients prétraités de l'étude, 29 (24,4%) étaient en succès virologique et 72 (60,5%) en échec virologique. Au bilan de suivi, le taux médian de CD4 à M6 et M12 était respectivement de 116,5 [42-279,5] cellules/mm^3, 196,5 [1-27000] cellules/mm^3. La charge virale médiane à M6 et M12 était respectivement de 24 [EIQ=1-539,5] copies/mL et 1 [EIQ=1-192] copies/mL. Le traitement à base de Dolutégravir a été généralement bien toléré chez les naïfs comme chez les prétraités. Le pourcentage de patients ayant une charge virale < 20 copies/mL (indétectable) passe respectivement de 46,4% (M6) à 51,9% (M12).
Conclusions and recommendations: Le Dolutégravir apparait comme une molécule efficace et bien tolérée aussi bien que chez les naïfs et les prétraités par les antirétroviraux.

FRPEB084

Monitoring and Reporting Counseling and Psychosocial Support for PLHIV as Part of Comprehensive HIV Care: Experiences of Integration into the National HMIS for Uganda

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Issues: Counseling and psychosocial care and support (PSS) for people living with HIV is inadequately and documented and monitored. The Uganda 2018 consolidated guidelines for preventing and treating HIV in Uganda integrated as part of comprehensive HIV care and treatment. However, national health information tools and systems do not track PSS. In addition, there were no standard operating procedures to guide quality delivery of PSS. Yet good adherence, retention and viral suppression with 'test and start' is associated with quality counseling and psychosocial support.

Descriptions: In 2016, the AIDS Control Program (ACP), Ministry of Health embarked on a process to streamline programming, monitoring and evaluation of PSS. Consultative meetings with key stakeholders comprising of MOH technical officers, PSS experts, academia, implementing partners, Sub-national partners (districts), other line ministries and civil society organizations (CSOs) were conducted. These led to development of PSS implementation guidelines, training curricula, standard operating procedures (SOPs); revised HMIS tools and developed quality and output indicators.

Lessons learned: Meaningful engagement of internal and external stakeholders is the game changer in successful integration of PSS data elements in the national HMIS. Prevailing national program gaps determine the data elements to be considered at various levels of reporting. Notwithstanding, availability of a central level technical officer ensures a coordinated process.

Next steps: Dissemination of PSS guidelines, SOPs and revised HMIS tools; technical competencies building of health care providers in Counseling and PSS at regional, district and health facility levels, mentorship of health care providers through continuous quality improvement and monitoring implementation.

FRPEB085

Passage à l'Echelle de la Charge Virale par l'Utilisation de Plateformes Polyvalentes Ouvertes en Guinée: Expérience de l'Hôpital de Jour de Donka (Projet OPP-ERA)

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Background: Les plateformes polyvalentes ouvertes (PPO) constituent une alternative dans le passage à l'échelle de la charge virale pour le suivi des patients sous ARV dans un contexte de pays à ressources limités. L'objectif de ce travail était de faire le bilan de cinq années d'activités de charge virales réalisées sur PPO dans le cadre du Projet OPP-ERA.
Methods: Les charges virales ont été réalisées sur du plasma à partir des échantillons de sang total chez les patients VIH-1 et VIH-1-2. Les tests ont été réalisés sur PPO dans le cadre du projet OPP-ERA. Les échantillons de sang total ont été prélevés, le plasma a été recueillis et conservé à -20°C. Les extractions ont été faites sur l'extracteur Nordiag (Diasorin, France) à l'aide du protocole Arrow viral NA. Les extraits ont été amplifiés par la technique Generic HIV charge virale (Biocentric France) avec le thermocycleur Lyghtcycler 96 (Roche technologie). Le seuil de quantification était de 390 copies/mL. Le seuil fixé pour l'échec virologique était de $3\log_{10}$ soit 1000 copies/mL (OMS).
Results: Sur une période de cinq ans (Juin 2014-Juin 2019), nous avons reçu et analysé 11313 demandes de charge virale. Parmi les demande le nombre d'enfants âgé de moins de 15 ans était de 246 (2,17%). L'âge médian des patients était de 40 ans [IQR : 32-50], le principale motif de demande du test était dans le cadre du suivi (50%), la proportion de patients en succès virologique était de 75,61 % [IC95 : 22,39-23,96], la proportion de patient en échec était de 23,17% [IC95 : 75,61-76,40].
Conclusions: Le passage à l'échelle de la charge virale a été facilité par les OPP.
Mots clés: Charge virale, Passage à l'échelle, plateforme polyvalente ouverte, Projet OPP-ERA, Guinée.

FRPEB086

Are Service Providers Meeting their Target in HIV Care: An Evaluation of Health Facilities in Ghana

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Background: Globally indicators and targets are set for HIV-related services. These targets serve as benchmarks for evaluating the performance of individuals and the health sector. The sustainable development goals have set targets employing countries to work towards reducing the burden of HIV through the 90-90-90 declaration which Ghana is signatory to. In line with global agenda, targets are set for various components of HIV-related service delivery. This study aimed to document the extent to which targets are being achieve along the HIV continuum of care and to identify barriers for redress.
Methods: A descriptive, cross sectional study was conducted in four regions in Ghana; Northern, Ashanti, Eastern and Greater Accra. A sample size of 400 was determined and distributed proportional to size of health workers engaged in HIV-related services in 40 health facilities. The questionnaire covered ten (10) thematic areas in HIV service delivery. Data was collected using a structured questionnaire. The data was then entered into Epi Info and exported into stata version 14 for analysis. The WHO mean score was used to determine if facilities were meeting targets using a scale of 1 to 5.
Results: The overall score attained for the ten(10) thematic areas was 72.4%. HIV testing, and counseling was 4.1 (80.9%), HIV treatment initiation 3.9 (78.7%), HIV treatment continuation 3.6 (71.0%), HIV client monitoring 3.1 (61.6%), HIV laboratory monitoring test 3.6 (71.6%), public education and stigma reduction 3.4 (67.6%), screening of TB and HIV 3.8 (76.1%) and Community mobilization and sensitization 3.0 (60%). Of the facilities analysed, only thirty five percent had met their target. Inadequate logistic, 102 (28.8%) and lack of training of health workers, 55 (15.5%) were identified as barriers to achieving service delivery targets.
Conclusions and Recommendations: Health facilities are generally not meeting their targets in all areas of HIV-related service delivery. Strengthening the capacity of health workers and improving the supply of logistic can help increase the attainment of service targets.
Keywords: Service providers, Targets, HIV, Health facilities, Ghana

FRPEB087

Searching for People with Bacteriologically-confirmed Pulmonary Tuberculosis: Loss to Follow-up, Death and Delay before Treatment Initiation in Bulawayo, Zimbabwe (2012-2016)

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Background: Tuberculosis (TB) is the single most important cause of death from an infectious disease in Zimbabwe, whose eradication is dependent on the identification of all infected patients and their subsequent commencement on treatment. Diagnosed patients who do not initiate treatment facilitate onward transmission of the infection. This study quantified and assessed risk factors for loss to follow up (LTFU) and delays before treatment initiation among bacteriologically confirmed pulmonary TB patients.
Methods: A cohort study was conducted using routinely collected programme data from Bulawayo city, Zimbabwe. Diagnosed patients were identified from the laboratory register for 2012-2016, tracked for treatment initiation in the City's TB registers and missing entries ascertained their outcomes in presumptive TB registers at respective clinics. We defined pre-treatment LTFU as diagnosed patients who did not initiate treatment within 90 days and pre-treatment deaths. Multivariable analysis was used to identify risk factors for pre-treatment LTFU and delays.
Results: Out of 2,443 identified records, one in five patients (20.8%,n=508) were lost to follow-up, including pre-treatment deaths (10.3%). Above 65 year olds (a RR=2.71,95%CI;2.12,3.47), male gender (aRR=1.21,95%CI;1.04,1.41), HIV positivity (aRR=1.26,95%CI;1.02,1.56) or Unknown HIV status (aRR=4.78,95%CI; 3.80,6.00) were independent risk factors for pre-treatment LTFU. Delay between testing and dispatch of results by $\geq$ 3 days (aRR=1.42, 95%CI;1.09,1.85), was an independent risk factors for pre-treatnment death in addition to the above. Among registered patients, (n=1,935), the mean (SD) delay from diagnosis to treatment initiation was 29.1 (21.6) days. Independent risk factors for treatment delay were new TB type (β=13.5,95%CI;11.5,15.4) and the delay decreased between 2013 (β=-8.8,95%CI;-11.5,-6.1) and 2016 (β=-18.6, 95%CI;-21.7,-15.6).
Conclusions and Recommendations: High loss to follow-up, deaths and delay of TB treatment initiation observed in this study is cause for concern. Enhancing active case finding, patient tracking from diagnosis to treatment initiation and point of care diagnosis were mitigatory strategies identified for risk factors for pre-treatment LTFU/death and delay.

FRPEB088

Contrôle Qualité de Laboratoire dans un Centre de Santé Sexuelle Géré par une OBC: Le Cas d'Alternatives Cameroun

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Questions: En avril 2016, une équipe de PEPFAR est arrivée au sein du Centre Access d'Alternatives Cameroun, OBC œuvrant pour l'accès à la santé des LGBT au Cameroun, pour l'évaluation de la qualité de nos services. L'évaluation a révélé qu'aucun contrôle qualité dans notre laboratoire n'était effectué au Centre médical Access d'Alternatives Cameroun. Cette situation a motivé les auditeurs de contacter CDC (Center for Disease Control) pour nous accompagner dans le processus de contrôle qualité en laboratoire, par l'entremise de GHSS (Global Health Solution Systems) basé au Cameroun.
Description: Pour fournir une ligne de départ, nous avons été évalués score de 35/88. Par la suite, sept membres de notre du personnel ont eu une formation en assurance et qualité, et 1 personne en biosécurité. Cette dernière a été nommée Déléguée à la biosécurité, et aurait pour rôle pour mieux prévenir les accidents/incidents liés au laboratoire et assurer la sécurité des personnes présentes au Centre Access. A cette ache, nous avons intégré l'ensemble des processus de contrôle qualité en laboratoire. Après les différentes formations, nous avons implémenté des documents pour le suivi et le respect des normes : une fiche d'inspection quotidienne qui permet d'évaluer au jour les manquements du laboratoire en termes de normes, nous avons également mis des procédures en place pour le test VIH DETERMINE, ORAQUICK, HEPATITE B, SYPHILIS, traitement des déchets.
Leçons apprises: Tous les contrôles trimestriels externes sur la qualité des tests de VIH. Sur l'échelle de performance en qualité laboratoire qui distingue 4 niveaux (de 1 à 4), nous sommes partis du niveau 1 au niveau 3. Bien que la déléguée a la biosécurité soit à la base une Assistante Sociale, et que très peu de techniciens médicaux figurent dans notre personnel, il a été possible, avec les formations et une bonne organisation, de nous rapprocher des exigences de qualité dans les services de laboratoire, souvent mieux que dans des hôpitaux. Nous avons actuellement un laborantin qui est désormais formateur dans le contrôle de qualité de laboratoire.
Prochaines étapes: Les progrès obtenus nous mettent en meilleure position pour viser la certification de notre laboratoire. Pareillement, nous pouvons envisager sereinement l'extension des offres de notre laboratoire, étant donné la garantie de qualité que nous avons acquise.

FRPEB089

Apport du Western Blot HIV et du Geenius Confirmatory HIV dans la Gestion des Cas de Discordance lors du Dépistage Sérologique du VIH au Mali

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Background: Le dépistage sérologique constitue à présent un véritable challenge pour l'atteinte des objectifs 90:90:90. Les pays utilisent un algorithme national de dépistage sujet souvent à des difficultés ou à des cas de discordance entre les tests effectués. Au Mali, l'algorithme national utilisé est Alère Determine combo HIV, SD Bioline HIV, First Response HIV. Le but de ce travail est de montrer l'apport de deux tests (Western Blot HIV 2.2. et Geenius confirmatory) dans la confirmation des cas de discordance observées.

Methods: Il s'agit d'une étude transversale réalisée de mars 2018 à mars 2019 chez les cas de discordance rapportée entre les deux premiers tests de l'algorithme de dépistage sérologique au Mali. Les échantillons de sérum ou de plasma des cas de discordance observée ont été acheminés au laboratoire de référence du VIH pour la confirmation. Deux tests ont été utilisés pour la recherche de bandes spécifiques. Il s'agit du Western Blot HIV 2.2 (MP Diagnostics) et le Geenius confirmatory (BioRad). Était considéré comme VIH-1 positif l'apparition d'au moins deux bandes dont une ENV et une GAG ou POL. Était considéré comme HIV-2 positif, l'apparition de la bande VIH-2 du Western blot ou l'apparition des deux bandes gp140 et gp36 de Geenius confirmatory.

Results: Nous avons collecté 79 cas de discordance chez des sujet avec une médiane d'âge de 35 ans et une fréquence de 53,8% de sexe masculin. Les tests ont révélés la présence de 24 cas d'antigène p24 (30,4%), 10 cas de p31 (12,7%), 8 cas de gp41 (10,1) et 19 cas de gp160 (24,1%). Sur l'ensemble des cas de p24 positifs, 6 étaient indéterminés dont 5 avec l'antigène p24 seul et un avec l'antigène p24 associé à l'antigène p55. 20 cas ont été considérés comme positifs (25,3%) parmi lesquels 18 étaient des VIH-1 et 2 des VIH-2 mais sans cas de co-infection.

Conclusions and Recommendations: Les résultats montrent qu'environ un quart des cas de discordance étaient des positifs et affichent l'intérêt d'utiliser d'autres techniques pour la recherche de bandes spécifiques. Le contrôle de qualité devrait être renforcé. Cependant, malgré le faible effectif dans notre travail, une révision de l'algorithme de dépistage est envisageable.

FRPEB090

Gestion Électronique des Demandes et des Résultats de la Charge Virale à l'Unité de Prise en Charge des PVVIH du Centre Hospitalier Régional d'Agboville en Côte d'Ivoire

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Questions: L'un des piliers majeurs du contrôle de l'épidémie à VIH est l'atteinte du troisième 90 qui est que 90% des personnes vivant avec le VIH (PVVIH) sous traitement ARV doivent avoir une charge virale (CV) durablement supprimée. Pour relever ce challenge, la réalisation de la charge virale a débuté au Centre Hospitalier Regional (CHR) d'Agboville en 2016 avec une série de rattrapages des patients ayant au moins 6 mois de traitement. Aussi le traitement manuel de toutes les demandes devenait-il de plus en plus difficile vue l'urgence et le nombre croissant des demandes, si bien que le site ne pouvait déterminer avec exactitude, les patients ayant effectivement réalisé la charge virale, le nombre de résultats obtenus, et surtout les résultats non parvenus afin d'en faire la réclamation auprès du laboratoire de référence. C'est ainsi que l'unité de prise en charge des PVVIH du CHR d'Agboville a développé un outil de gestion électronique des demandes de charge virale.
Description: La méthodologie a consisté d'abord en une analyse situationnelle, puis à la formation du personnel de l'unité sur la demande et l'interprétation des résultats de CV, la redéfinition du circuit du patient avec définition du rôle de chaque prestataire. Enfin, le site a développé une application web distribuée pour la gestion de cette activité. Cet outil permet de gérer les patients, les demandes et les résultats de charge virale, les rapports d'activités et les dates de rendez-vous, et de générer la liste des résultats de CV et des patients ayant manqué leur RDV, servant ainsi de base pour l'analyse et la prise de décision.
Leçons apprises: Au cours des 12 mois précédent la mise en place de l'outil (1er septembre 2016 au 31 aout 2017), 625 demandes de CV ont été faites et 286 résultats (46%) ont été reçus. Durant les 12 mois qui ont suivis la mise en place de l'outil (1er septembre 2017 au 31 aout 2018), 1425 demandes de CV ont été faites et 1384 résultats (97%) ont été reçus. Depuis sa mise en place jusqu'au 30 juin 2019, 3241 demandes de CV ont été faites et 2932 résultats (90%) ont été reçus, dont 152 (5%) enfants de moins de 15 ans, 792 (27%) hommes et 1988 (68%) femmes.
Prochaines étapes: La mise en place de cet outil électronique a permis d'améliorer considérablement la couverture de la CV au CHR d'Agboville avec une multiplication par cinq du nombre de résultats de CV. Vu son efficacité, il serait judicieux de l'étendre aux autres sites du district d'Agboville.