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Welcome Letter

We are so excited to welcome you to the 20th BIPAI Network Meeting in Johannesburg. The Kingdom of Eswatini is proud to host you this year and look forward to a unique learning and discussion experience. We at Baylor-Swaziland, as the rest of the BIPAI network are passionate about children, excellence, integrity, accountability, teamwork, partnerships, adhering to high standards of ethics and are committed to care. We therefore envisage a week dedicated to discussions around pertinent issues that will improve the services we render to our population.

In addition, to make your stay enjoyable the program is full of fun-filled activities both during the meetings and in the evenings - it will surely be a “royal” experience.

We hope you will enjoy the meeting and that the agenda will provide informative sessions that will foster growth in knowledge as well as provide networking and technical exchanges.

Welcome.

Makhosazana Z Hlatshwayo
Executive Director.
Baylor Swaziland

20th BIPAI Network Meeting Agenda

Agenda

Kopanong Hotel and Conference Center Johannesburg, South Africa November 12-16, 2018
Monday, 12 November 2018
Arrival Registration Welcome Dinner and Reception
Tuesday, 13 November 2018
Opening Remarks and Country Updates DTG Panel, TB and IAS Updates Cultural Dinner
Wednesday, 14 November 2018
Treatment Failure Cases TB, Oncology and Building Network Capacity Abstracts Craft Market and Movie Night - <i>Liyana</i>
Thursday, 15 November 2018
Adolescent, Psychosocial, HTC, Ocular and Nutrition Abstracts Quality Improvement Research and Poster Sessions Craft Market and Dinner with Bholoja
Friday, 16 November 2018
Biostatistics 101 Infectious Disease Abstracts Awards Ceremony and Closing Departure

20th BIPAI Network Meeting Agenda

Monday, 12 November, 2018	
16:00-18:00	Registration
18:30	Networking
19:00	Call to Order Ms. Zandile Nhleko and Mr. Mduduzi Mbingo
19:05-19:20	Welcome to Eswatini, Network Agenda Review, Liyana Trailer and Bholoja Preview Ms. Khosie Hlatshwayo
19:20-19:30	Welcome to the 20th Network Meeting Mr. Michael Mizwa, COO, BIPAI
19:30-19:40	Celebrating 20 Years of Networking - the Eswatini Style AND Meeting Outline Ms. Zandile Nhleko
19:40-20:00	Networking
Tuesday, 13 November, 2018	
7:30	Breakfast
8:00-8:30	Official Opening and Remarks and Welcome Address Mr. Michael Mizwa, Chief Operating Officer and Senior Vice President, BIPAI <i>Moderator: Ms. Khosie Hlatshwayo, ED Baylor Swaziland</i>
	Video Remarks by Dr. Mark Kline Chairman, BIPAI
8:30-10:30	BIPAI Country Updates Executive Directors from Argentina, Angola, Botswana, Colombia, Lesotho, Romania, Swaziland, Tanzania, and Uganda <i>Moderator: Mr. Michael Mizwa</i>
10:30- 10:45	Tea Break
	<i>Moderator: Ms. Zandile Nhleko</i>
10:45- 11:45	Update: Tuberculosis - TSP Dr. Anna Mandalakas, Dr. Alex Kay, Mr. Dilsher Dhillon, Ms. Tara Devezin
11:45 – 12:00	Arts & Crafts: The Beauty of Integration into Clinical Work Wandile Mabaso
12:00 -13:00	Lunch
	<i>Moderator: Ms. Zandile Nhleko</i> Post Lunch Energizer
13:00-13:45	DTG Outcomes in Africa, A Hot Potato: The Botswana Experience Dr. Mogomotsi Matshaba
13:45 – 14:45	Implementation of Health Literacy Measures at Baylor-Romania Ms. Stefania Mihale
14:45-15:00	Tea Break
15:00-16:00	Evaluating Literature: INSTIs – Instant Update and Discussion Dr. Amy Min and Mr. William Mutabaazi
16:00- 16.45	Research Session: BIPAI Best Practices Ms. Nancy Calles
16:45-17:00	Daily Wrap-Up and Evaluations
18:30	Cultural Dinner <i>Dress code: Traditional Attire from your Country</i> <i>Venue: Braii Area</i>

20th BIPAI Network Meeting Agenda

Wednesday, 14 November 2018		
7:30	Breakfast	
8:00-8:30	News Update and Program Orientation Ms. Zandile Nhleko	
Oral Abstracts: Treatment Failure Moderator: Ms. Khosie Hlatshwayo		
8:30 – 10:30	Lessons from the front lines of pediatric third line HIV treatment in sub-Saharan Africa Eswatini: Dr. Alex Kay	
	Protease inhibitor resistance mutations in children Lesotho: Dr. Mosa Molapo-Hlasoa	
	Correlation between HAART duration and viral suppression rates Botswana: Dr. John T. Farirai	
	Viral resuppression in suspected second-line HAART failure in the era of intensive adherence counselling sessions at Baylor Malawi COE Malawi: Dr. Maya Brasher	
	Discussion and Q&A / Posters	
10:30-10:45	Tea Break	
10:45-11:15	Guest Speaker: Treatment failures - management and considerations in caring for the pediatric population Dr. Leon Levin	
11:15-12:30	Case Conference: Challenging Patient Case Discussions from Around the Network Angola, Colombia, Romania, Eswatini, Tanzania Dr. James Thomas and Dr. Leon Levin	
12:30- 13:30	Lunch	
Moderator: Dr. Alex Kay Post Lunch Energizer		
13:30-14:30	Update: Tuberculosis Dr. Anna Mandalakas and Dr. Alex Kay	
14:30- 15:45	Room 1 Oral Abstracts: Oncology <i>Moderator: Dr. Gordon Schutze</i>	Room 2 Oral Abstracts: Tuberculosis <i>Moderator: Dr. Alex Kay</i>
	Treatment Outcomes of Paediatric Non-Hodgkin Lymphoma (NHL) Following Chemotherapy Completion: A Single Centre Experience-Kamuzu Central Hospital Malawi. Ms. Watipaso Wanda	Isoniazid preventative therapy (IPT) implementation and coverage in HIV infected children under five on antiretroviral therapy (ART). Ms. Hloniphile Gama
	Screen-and-treat cervical cancer screening program outcomes. Ms. Thobile Jele;	HIV and TB perturb the immune regulatory and cytotoxic subpopulations of NKT cells. Dr. Alex Kay
	Potential for improved survival outcomes after treatment with intensified chemotherapy and ART in children with pulmonary kaposi sarcoma presenting with severe pleural effusions. Ms. Watipaso Wanda	Competence-based training of frontline health workers in pediatric TB management to increase pediatric TB case identification. Dr. Pauline Amuge

	Characteristic and outcomes of children, adolescents, and young adults with Kaposi sarcoma treated in a comprehensive care program. Dr. Edward Ngalya	
	Discussion and Q&A / Posters	Discussion and Q&A / Posters
15:45- 16:00	Tea Break	
16:00 – 17:00	Room 1 Oral Abstracts: Strengthening Network Capacity <i>Moderator: Dr. Adeodata Kekitiinwa</i>	Room 2 Oral Abstracts: Tuberculosis <i>Moderator: Ms. Tara Devezin</i>
	Design and implementation of an information system to collect and store data in the cloud based on the EPI INFO™ platform. Mr. Diego Salguero and Dr. Yurany Herrera	Improving linkages and retention for TB clients through community health workers. Dr. Pauline Amuge
	Strengthening public health supply chains in 8 districts of Rwenzori region. Mr. William Mutabaazi	Isoniazid preventative therapy and the development of TB in HIV positive children. Dr. Edward Ngalya
	Evaluating the impact of child HIV disclosure trainings to health care workers in 13 health centers in Malawi. Dr. Aya Fanny	
	Institutionalizing pharmacovigilance in a pediatric and adolescent HIV treatment centre. Mr. William Mutabaazi	Before you diagnose TB, you need to walk a mile in its shoes: performance of a novel stool-based TB diagnostic test in children diagnosed with TB in inpatient and outpatient settings. Mr. Jackson Mlelwa
	Discussion and Q&A / Posters	Discussion and Q&A / Posters
17:00-17:15	Evaluations	Evaluations
17:30-18:30	BIPAI Network Craft Market	
18:30-19:30	Dinner	
19:30	Movie & Popcorn Night - Liyana	

20th BIPAI Network Meeting Agenda

Thursday, 15 November 2018		
7:30	Breakfast	
Moderator: Ms. Simphiwe Manhica		
8:00- 8:30	News and Updates <i>Ms. Thobile Jele</i>	
8:30-10:30	Room 1	Room 2 Workshop: Quality Improvement <i>Moderator: Dr. Heather Crouse and Dr. Binita Patel</i>
	Oral Abstracts: Adolescent Healthcare <i>Moderator: Dr. Lumumba Mwita</i>	
	Adolescent health. Dr. Teresa Steffy	
	Reasons for poor adherence among adolescents living with HIV/AIDS. Mr. Jackson A Mlelwa	
	Rates of virological failure/suppression amongst adolescents on lifelong ART. Dr. John Farirai	
	Providing prevention and treatment for young people using mobile clinics. Mr. Matebello Nkalai	
The Relationship between depressive symptoms and adherence to ART in ALHIV in Lilongwe and Zomba, Malawi. Dr. Bryan Vonasek		
Discussion and Q&A / Posters		
10:30-10:45	Tea Break	
10:45- 12:00	Room 1	Room 2
	Oral Abstracts: Psychosocial Support <i>Moderator: Ana-Maria Schweitzer</i>	Oral Abstracts: EID and PMTCT <i>Moderator: Mr. Thobile Jele</i>
	Three intensified adherence counselling sessions might not be enough in HIV care management. Dr. Winnie Akobye	"Where are the missing babies along the EID cascade? The experience of tracking "lost to follow up" infants in Kabarole and Bunyababu. Dr. Immaculate Namuleme Ddumba
	Development and implementation of an algorithm for coding and recording psychosocial interventions with PLWHA. Ms. Ana- Maria Schweitzer.	Formation of a baby club to reach viral suppression in mother-infant pairs. Ms. Makhosazana Hlatshwayo
	The effectiveness of male involvement in children's care. Mr. Motalenyane Ntuba	Impact of implementing lopinavir/ritonavir 40/10mg pellets in children. Mr. Tanki Ntsetsi
		Early results from provision of LPV/R Pellets as part of first and second-line ART regimens for young children in an urban health center in Malawi. Ms. Elizabeth Wetzel
Discussion and Q&A / Posters		Discussion and Q&A / Posters
12:00-13:00	Lunch / Poster Set-up -- Special Session: Tuberculosis Working Group on IPT Dr. Anna Mandalakas, Dr. Alex Kay, Mr. Dilsher Dhillon and Ms. Tara Devezin	

	Room 1 Oral Abstracts: HTC <i>Moderator: Dr. Lineo Thahane</i> Post Lunch Energizer	Room 2 Oral Abstracts: Ocular <i>Moderator: Dr. James Thomas</i> Post Lunch Energizer
13:00-14:15	HIV positivity yield following implementation of assisted partner notification at primary health care facilities in Fort Portal Region. Dr. Emmanuel Mugisa	Visual acuity defects screening in children attending summer camp in Añelo. Dr. Andrea Imsen
	Scale-up of a passive referral model of HIV index case testing to accelerate case identification in Mangochi, Malawi. Mr. Alex Kabwinja	
	The Surge: A targeted, multi-strategy approach to accelerate HIV case finding in Malawi. Ms. Miriam Hartig	Vernal keratoconjunctivitis in the pediatric HIV population. Ms. Zandile Nhleko
	Missed opportunities for HIV screening prior to diagnosis of pediatric patients: implications for attainment of the first and second UNAIDS 90 target. Ms. Makhosazana Hlatshwayo	
	Discussion and Q&A / Poster	Discussion and Q&A / Poster
14:15-15:30	Oral Abstracts: Nutrition Moderator: Ms. Ana Maria Galvis	
	Nutrition club improves caregivers knowledge and understanding of child nutrition. Ms. Sameyani Onsemo	
	Malnutrition treatment outcomes of patients receiving RUTF vs. peanut butter and fortified based flour. Ms. Esther Mahindula	
	Community health workers, the unsung heroes: a look at the impact of using community health workers in combating severe acute malnutrition. Ms. Sameyani Onsemo	
	Developing a malnutrition treatment program in Colombia. Ms. Ana Maria Galvis	
Discussion and Q&A / Posters		
15:30-15:45	Daily Wrap-Up and Evaluations	
15:45-16:30	Panel Discussion: International AIDS Society (IAS) Updates Dr. Adeodata Kekitiinwa and Dr. Mogomotsi Matshaba <i>Panel Moderator: Mr. Jon Crisp</i>	
16:30-17:30	Poster Session / Tea Break	
17:30-18:30	BIPAI Network Craft Market	
19:00	Dinner with Bholoja	

20th BIPAI Network Meeting Agenda

Friday, 16 November 2018	
7:30	Breakfast
Moderator: Dr. Gordon Schutze	
8:00-8:30	Announcements and News Updates <i>Ms. Zandile Nhleko</i>
8:30-9:30	Biostatistics 101 Mr. Dilsher Dhillon
9:30- 10:30	Oral Abstracts: Infectious Disease
	Closing the gap in cryptococccal screening among HIV infected patients; an experience of strengthening the capacity of health workers to identify and screen patients for cryptococccal meningitis. Dr. Immaculate Namuleme Ddumba
	Prevalence of chlamydia trachomatis and Neisseria gonorrhoeae in HIV positive adolescents. Ms. Caitlyn Jasumback
	"Take the Buruli by the horns." Effective Diagnosis and Management of Buruli ulcer in an HIV positive adolescent. Ms. Veronica Mng'ong'o
Discussion and Q&A / Poster	
10:30-10:45	Tea Break
10:45-12:00	Awards Ceremony and Closing Remarks 20 th Network Meeting Planning Committee
12:00	Lunch



ABSTRACTS

1. LESSONS FROM THE FRONT LINES OF PEDIATRIC THIRD LINE HIV TREATMENT IN SUB-SAHARAN AFRICA/SWAZILAND

Sarah H. Perry, Alexander Kay, Miriam Abadie, Makhosazana Hlatshwayo, Nobuhle Mtetwa and Magnus Beneus.

1 Baylor International Pediatric AIDS Initiative, Eswatini; Baylor College of Medicine

2 Baylor College of Medicine Global TB Program

3 Baylor College of Medicine-Bristol Meyers Squibb Children's Center of Excellence, Swaziland

4 Swaziland National Aids Program, Ministry of Health

Background: HIV resistance mutations have created the need for second-line programs throughout sub-Saharan Africa, and in recent years, the need for a third line program has become pressing. This study shares the early results from the pediatric program in Eswatini.

Methods: Since November 2014, the pediatric third line program in Swaziland has required referral of at-risk pediatric patients to one of three Baylor Clinics in the country. This study is a retrospective chart review using the Baylor Swaziland electronic medical records and genotype results stored in the internal third line registers. Descriptive analysis was performed in addition to bivariate logistic regression to identify risk factors for PI resistance.

Results: Forty-one samples were sent for genotyping through the Eswatini pediatric 3rd line program, 63% were male and there was a bimodal age distribution with 24% < 5 years and 65% between 10-19 years. Of these, only 12/41 (29%) contained meaningful protease inhibitor (PI) resistance mutations.

There was no significant difference by bivariate logistic regression between those that had these mutations and those that did not with respect to age, gender, time on a PI, VL value, time with detectable VL or past TB treatment on a PI. All 12 of the patients were resistant to LPV/r and ATV/r. One patient passed away before genotype results were returned. The remaining 11 patients are on individualized regimens based on their genotypic profile. All contain at least darunavir or an integrase inhibitor plus an optimized NRTI backbone. After an average of 20 months on 3rd line, average CD4 count is 872 (148% increase). Six are currently virologically undetectable (VL < 400), two remain with detectable VLs (5422 log 3.73 and 4759 log 3.68) and 3 have no VL result yet.

Conclusions: There is a need for systemic access to genotyping in order to create robust treatment options for children failing second line in sub-Saharan Africa. Systematic action must be taken to identify and support children most likely to fail in these settings; children < 5 years and adolescents.

2. PROTEASE INHIBITOR RESISTANCE MUTATIONS IN CHILDREN

Authors: Mosa Molapo Hlasoa*, Ntaoleng Mohlabane, Jill Sanders

➤ Baylor College of Medicine Children's Foundation – Lesotho (BCMCFL)

Background

Infants seen at BCMCFL with HIV have received first-line treatment with protease inhibitor (PI) since 2007, first only for those with NNRTI exposure during PMTCT but for all infected infants since 2013. Most patients have done well on their first line; however, the poor palatability and challenges of administration of lopinavir/ritonavir syrup have made them susceptible to development of drug resistance and resulting treatment failure. Options for second-line therapies in cases of resistance are limited, especially for those with concurrent NNRTI resistance.

Lesotho does not have a HIV drug resistance database, and HIV resistance tests are not included in the package of laboratory tests currently available through the Ministry of Health, despite recommendations for testing outlined in the National ART Guidelines. Through external funding, BCMCFL has procured HIV genotypic resistance tests for eligible patients with virologic failure to PI-based regimens, according to National ART Guidelines.

Methodology

HIV genotypic resistance tests obtained between January 2015 and April 2018 were reviewed. Children 0-19 years with PI mutations were included in the analysis.

Results

Results of fourteen patients aged between 3 and 19 years show PI mutations. Mutations conveying high levels of resistance to lopinavir and atazanavir were seen in eleven patients and included:

10I/F, K20T, L24I, L33F, K43T, M46I, I47V, G48A/S, I54V, L71V, T74P, L76V, V82A, and N83D.

Seven of the eleven patients with high-level lopinavir resistance also had combination mutations conferring low-level resistance to darunavir.

Conclusions

Eleven children are now on darunavir-based third line regimens. Three children with a single PI mutation remain on lopinavir-based regimen. Increased efforts are needed to support patients, including young children, on PI-based regimens to adhere to treatment and avoid development of resistance mutations. Improved formulations of PIs may have a profound impact. For those with virologic treatment failure, timely notification is crucial to avoid ongoing administration of a failing regimen and subsequent development of additional mutations, as seen in those children who already have darunavir resistance. Addition of novel medications and classes will facilitate treatment for those whose options are currently limited, and Lesotho is expected to introduce dolutegravir as a treatment option within the next six months.

H-34569

3. CORRELATION BETWEEN HAART DURATION AND VIRAL SUPPRESSION RATES AT AN HIV CLINIC IN BOTSWANA

Bathusi M. Mathuba, Nodumo Chidah, Lesego Ketumile, Mogomotsi Matshaba.

- Botswana-Baylor Children's Clinical Centre of Excellence, Gaborone, Botswana (BBCCCoE)
- Baylor College of Medicine, Houston, USA

Introduction

The goal of Highly Active Anti-Retroviral Therapy (HAART) is to have virological suppression, which is the key factor in the management of HIV infected patients. Good adherence to medication is thus very crucial in the success of HAART. However, nearly half of patients on chronic medication do not take their medication as they should. With HIV being a chronic illness, it was hypothesised that the duration of patients on HAART would most likely correlate with their propensity to have poor adherence and thus decrease the likelihood of viral suppression. The Botswana Baylor Children's Clinical Centre of Excellence (BBCCCoE) which started operation in 2002 (16 years ago) is one of the leading and longest serving paediatric and adolescent clinics, was used to evaluate the Hypothesis.

Methods

A review of the Electronic Medical Records (EMR) of patients enrolled for treatment at BBCCCoE was done to determine their suppression rates as well as their duration on HAART. Viral suppression was considered <math>< 400</math> viral copies/ml based on the latest Viral load (within 12 months) while duration was based on the date of HAART initiation as noted in the EMR to 30/04/2018 with no consideration of defaulting in between. Patients on HAART for less than 1 year, pending results and those with unknown duration were excluded from the review.

Results

Of the 2323 (F:M= 1208:1115) patients who meet the criteria, the average duration on HAART was 10.4 years, while 61% of patients were on HAART for more than 10 years (mode: 13 years). The suppression rates ranged between 89% and 95% in no particular order (see Figure 1 below). The correlation coefficient between the duration on HAART and the suppression rate was -0.109. *Figure 1: Impact of HAART Duration on Suppression rates (Not printed).*

Conclusions

Despite being a chronic illness, there was no correlation between duration on HAART and Viral suppression. This suggests that the synergy of efforts to support HIV patients may be aiding them to take their medication better.

The findings however pose more questions for future enquiry:

- What limits the suppression to 95% rate over years?
- Is there a subset of patients that remain unsuppressed over the years (chronic non suppressors)?

BCM Protocol number: H-25403

4. COMPETENCE-BASED TRAINING OF FRONTLINE HEALTH WORKERS IN PAEDIATRIC TB MANAGEMENT TO INCREASE PAEDIATRIC TB CASE IDENTIFICATION IN RWENZORI REGION, UGANDA.

Pauline Amuge, Alfred Lutaaya, David Damba, MoorineSekadde and Adeodata Kekitiinwa.

- Baylor College of Medicine Children's Foundation Uganda
- National TB and Leprosy Program-Ministry of Health-Uganda

Background:

Paediatric TB case finding lags behind that for adults. Paediatric TB currently accounts for 7.5% of the total TB cases notified annually compared to the estimated 15-20% with most of these are diagnosed at tertiary hospital level. We evaluated the effect of competence-based training of frontline health workers on paediatric TB case detection in seven districts in SouthWestern Uganda. Competence-based training included didactic and practical sessions, with real life case scenarios and field visits for in-service health workers.

Description:

In the period January to June 2016, over 800 health workers of various cadres underwent competence-based training in paediatric TB management. This involved a 5-day regional training of trainers by national trainers, and 3-day facility-based trainings for health workers at levels III, IV, and district hospitals. The curriculum included screening and diagnosis of TB in children, TB diagnostic algorithm, TB treatment and prevention, integration of TB in all health care entry points and quality improvement in TB care. Data was extracted from the national district health information system (DHIS2) for the period before training (Jan-Dec 2015) and after training (June 2016 to Dec 2017). TB indicators monitored and analysed included; new and relapse bacteriologically-confirmed pulmonary TB (PBC) cases (<15years, ≥15years), new and relapse clinically-diagnosed pulmonary (PCD) TB cases (<15years, ≥15years). Descriptive analysis was done.

Lessons learnt:

The number of new and relapse paediatric TB cases increased by almost four times from 36 (36/994, 3.5%) in 2015 to 137 (137/2103, 6.6%) in 2016 and tripled in 2017 (121/2130, 5.6%). There was also >100% increase in total number of new and relapse TB cases from 994 in 2015 to 2,103 (2016) and 2130 (2017). Number of TB-HIV co-infected persons also doubled from 363 cases in 2015 to 882 cases in 2017. Facility-based trainings yielded more trained health workers. Health workers' capacity building complements TB diagnostics to improve paediatric TB case finding.

Conclusion:

Decentralizing TB diagnosis to lower healthcare levels through facility-based training greatly improves paediatric TB case finding in resource-limited settings. National TB programs can consider using this approach.

5. HIV AND TB PERTURB THE IMMUNE REGULATORY AND CYTOTOXIC SUBPOPULATIONS OF NKT CELLS

Tomoki Nishiguchi, Godwin Mtetwa, Alexander Kay, Gugu Maphalala, Emily Mace, Anna Mandalakas, Andrew DiNardo

BACKGROUND

In the pre-antibiotic era, ~20% of Tuberculosis (TB) patients overcame the disease without therapy; implying host immunity can sometimes control disease. The risk of disease progression is higher among HIV-infected individuals, and therefore we evaluate how HIV alters the balance of cytotoxic versus immune regulatory NKT immune phenotype in individuals with TB and latent Mycobacterium tuberculosis infection (LTBi).

METHODS

We evaluated the NKT immune response from 19 individuals with TB (11 HIV-infected) and 25 with asymptomatic LTBi (10 HIV-infected). Using flow cytometry based multi-dimensional immune profiling, we analyzed the expression level of previously described determinants of NKT cytotoxicity (CD3dim and perforinhi) and immune regulatory (CD3bright) phenotype and function.

RESULTS

Participants with TB had increased CD3bright NKT cells ($p = 0.014$), while LTBi participants had increased CD3dim NKT cells. TB participants had an increased frequency of the immune regulatory CD3bright NKT subpopulation ($p = 0.048$), which interestingly had an increase in the cytotoxic perforinhigh population ($p = 0.021$). In contrast the cytotoxic CD3dim NKT population was increased in LTBi, compared to TB participants ($p = 0.078$). HIV did not effect

the ratio of CD3 bright versus dim in either TB or LTBI participants, however it did decrease the percentage of the cytotoxic perforinhigh sub-populations compared to HIV-uninfected participants in both TB and LTBI strata (p = 0.005).

CONCLUSION

CD3bright and perforinhi NKT sub-populations influence regulatory versus cytotoxic function, respectively. We demonstrate that participants with TB and HIV have perturbed NKT functionality characterized by an increased regulatory and decreased cytotoxic function. Among HIV-infected participants, the cytotoxic perforin NKT subset are predominantly altered. In contrast, TB and HIV-TB co-infection perturb both the perforinhi and CD3bright populations. The resultant decrease in the cytotoxic perforinhigh population may be a mechanism through which HIV promotes TB disease progression.

6. CHARACTERISTIC AND OUTCOMES OF CHILDREN, ADOLESCENTS, AND YOUNG ADULTS WITH KAPOSI SARCOMA TREATED IN A COMPREHENSIVE CARE PROGRAM IN MBEYA, TANZANIA

L. Campbell^{1,2,3}, J.S. Slone^{2,4}, P.S. Mehta^{2,4}, N. El-Mallawany^{2,4}, J. Bacha^{1,2,3}

- Baylor College of Medicine International Pediatric AIDS Initiative at Texas Children's Hospital Houston, TX, USA
- Baylor College of Medicine, Houston, TX, USA
- Baylor College of Medicine Children's Foundation - Tanzania, Pediatrics, Mbeya, Tanzania
- Texas Children's Cancer and HematologyCenters, Houston, TX, USA

Background:

Despite increasing availability of antiretroviral therapy (ART), Kaposi sarcoma (KS) remains an important HIV related malignancy in regions with high human herpes virus 8 seroprevalence. To address the needs of pediatric, adolescent and young adult (AYA) patients with KS, a comprehensive care program was established in Mbeya, Tanzania in 2011.

Materials and Methods:

A retrospective chart review was conducted to describe characteristics and outcomes of patients diagnosed with KS between 1 March 2011 and 31 Dec 2017. Services provided included chemotherapy, ART, nutrition and psychosocial support.

Results:

The cohort included 60 patients: 58% (35/60) male, median age 12.8 years (2.2-22.1). Clinical diagnosis was supported by histopathology in 36% (22/60). At diagnosis, 35% (21/60) had lymphadenopathic KS, 28% (17/60) had woody edema KS, 26% (16/60) had visceral and/or disseminated KS and 10% (6/60) had moderate cutaneous/oral KS. Severe anemia (Hgb < 8g/dL) was present in 28% (17/60) and severe thrombocytopenia (platelets < 50,000/mm³) was present in 22% (13/60). 97% (58/60) were HIV +, of those, 78% (45/58) were on ART for a median of 11 months (2 days -120 months). IRIS occurred in 24% (11/45). CD4 data was available for 95% (55/58), of whom 64% (35/55) met criteria for WHO severe immunosuppression. 45% (27/60) patients had severe acute malnutrition (SAM). 95% (57/60) patients were treated with chemotherapy; 3 patients died before treatment initiation. 52% (30/57) were treated with bleomycin and vincristine (BV); doxorubicin was added for 39% (22/57). Paclitaxel was given to 21% (12/57) who failed to achieve complete clinical remission (CCR) with BV or BV + doxorubicin; 1 patient was initially treated with paclitaxel. 96% (56/58) of HIV + patients were given ART. At the end of study period, 72% (43/60) patients were alive. No patients were lost to follow up; 7 transferred out. Of living patients, 67% (29/43) achieved CCR. Median follow up for living patients was 25 months (2-78) from diagnosis to end of study.

Conclusion:

Despite the resource limitations that exist in southwestern Tanzania, pediatric and AYA patients with KS can be successfully treated with the majority of patients in our clinical oncology program achieving positive outcomes.

7. ISONIAZID PREVENTATIVE THERAPY AND THE DEVELOPMENT OF TB IN HIV POSITIVE CHILDREN AT THE BAYLOR CLINICAL CENTER OF EXCELLENCE IN MBEYA, TANZANIA

Edward F.Ngaya, Jason M. Bachn, Benson Mayalla, JemaBisimba.

- Baylor College of Medicine Children's Foundation - Mbeya, Tanzania

- Baylor International Pediatric AIDS Initiative (BIPAI) at Texas Children’s Hospital, Baylor College of Medicine, Houston, TX, USA
- Baylor College of Medicine, Houston, TX, USA
- USAID - Tanzania

Background:

Isoniazid preventative therapy (IPT) is effective in preventing TB disease and has been recommended for all people (including children) living with HIV as part of a comprehensive care package. Tanzania has recently attempted to scale up use of IPT to the PLHIV, though the pediatric data is limited within this effort. This study describes the characteristics of children living with HIV (CLHIV) who received IPT, and the effectiveness of IPT to prevent TB disease at the Baylor Tanzania Mbeya Centre of Excellence (COE).

Methodology:

A retrospective chart review of HIV positive patients aged 1-19 years who received IPT from January through December 2017 as part of their comprehensive HIV care as per national guidelines. We analyzed their age, sex, CD4 count, viral load (VL), WHO stage, nutritional status, ART regimen and duration on ART. Patient’s data was reviewed for at least 12months to assess for the development of TB disease post-IPT completion.

Results:

A total of 612 HIV positive children received IPT during the study period. This was 34.8% (612/1756) coverage rate of those eligible for IPT at the COE. The majority of patients receiving IPT were females (50.3%), older than 5 years (83.4%), WHO stage 3 or 4 (75.3%), VL less than 1000 per the table (82.3%) , cd4 count above 500 (77.3%), on ART for > 1 year (86.4%), and of normal nutritional status (95.8%) (Table 1).

Of all who received IPT (n=612) only 1 patient (0.2%) developed TB after completion of IPT course.

Conclusion

Our findings showed that IPT is very effective in preventing TB disease in CLHIV, especially when used in those on ART as combined comprehensive prevention. Tanzania needs to put continuous emphasis and priority on scaling up the use of IPT for PLHIV, especially HIV positive children who are at increased risk for developing TB disease. Further IPT research is needed to assess the duration of protective effect of IPT in PLHIV, as well as the side effects incidence and cost effectiveness in comparison to TB treatment in Tanzania.

8. BEFORE YOU DIAGNOSE TB, YOU NEED TO WALK A MILE IN ITS POOS: PERFORMANCE OF A NOVEL STOOL-BASED TB DIAGNOSTIC TEST IN CHILDREN DIAGNOSED WITH TB IN INPATIENT AND OUTPATIENT SETTINGS IN MBEYA, TANZANIA

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Introduction:

A highly sensitive, non-sputum based diagnostic test for tuberculosis (TB) in children is urgently needed. Building off initial research of the eSwati COE team, we evaluated the performance of a novel stool-based quantitative polymerase chain reaction (qPCR) for the diagnosis of TB in children in Mbeya, Tanzania.

Methods:

Children newly diagnosed with TB at the Baylor College of Medicine Centre of Excellence in Mbeya, Tanzania were enrolled. Stool samples collected at diagnosis were analyzed for *M. tuberculosis (Mtb)* using a novel stool-based qPCR at NIMR-MMRC TB lab. Sensitivity, specificity, and additive yield of the stool qPCR was calculated using microbiologic confirmed TB as reference standard. To calculate specificity, a single stool qPCR was performed in asymptomatic, healthy controls.

Results:

Between September 2017 and January 2018, 23 children diagnosed with TB were enrolled. Median age was 7.1yr,

52.2% (12/23) female, 47.8% (11/23) HIV positive, 82.6% (19/23) malnourished, and 52.2% (12/23) inpatient status. 78.3% (18/23) had pulmonary TB, and 12.5% (3/23) had microbiologically confirmed TB. Healthy controls (n=21) had median age 11.5yr, 47.6% (10/21) female, 23.8% (5/21) HIV positive, and 61.9% (13/21) with known TB contact.

Stool qPCR was positive in 39.1% (9/23) of children with TB. Among microbiologically confirmed TB cases, stool qPCR demonstrated 100% sensitivity and 94.1% sensitivity. Among non-confirmed, clinically-diagnosed TB cases (n=20), stool qPCR detected an additional 6 cases (including 2 cases of extrapulmonary TB), providing an additive diagnostic yield of 30.0% to routine sputum testing. Among children with TB, those with positive stool qPCR (n=9) were more outpatient (77.7% vs 35.7%, p=0.05) and confirmed TB cases (33.3% vs 0.0%, p=0.02) compared to those with negative stool qPCR (n=14).

Conclusions:

Stool-based qPCR testing for TB showed high sensitivity and specificity among microbiologically confirmed TB in children with TB in inpatient and outpatient settings, as well as offered 30.0% additive diagnostic yield over routine sputum testing in this population.

9. IMPROVED HEALTH OUTCOMES FOR CHILDREN WITH CANCER: A CASE STUDY OF THE PEDIATRIC HEMATOLOGY AND ONCOLOGY PROGRAM IN UGANDA

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- Texas Children’s Cancer and Haematology Centres,
- Uganda Cancer Institute

Background:

Childhood Cancer is emerging as one of the leading causes of childhood death in developing nations. Annually, around 100,000 children in sub-Saharan Africa alone are diagnosed with cancer. Of the 7,000 children in Uganda who develop cancer every year, over 90% of them die. The story behind this burden is multifaceted including; late diagnosis, inadequate health systems, limited skilled personnel and lack of cancer medications. Hence the need to strengthen these areas.

Description:

In June 2015, Baylor Uganda signed a Memorandum of Understanding (MOU) and formed a partnership known as the Uganda Pediatric Hematology and Oncology (PHO) Programme with the Ministry of Health of Uganda (MOH), Texas Children’s Hospital(TXCH), Makerere University College of Health Sciences (MakCHS), Mulago National Referral Hospital (MNRH) and the Uganda Cancer Institute (UCI) focusing on building local capacity to treat and dramatically improve the diagnosis of thousands of children with cancer and blood disorders in Uganda.

Achievements and lessons learned:

In August 2016, the first East Africa PHO specialist training program was designed and launched at MakCHS and UCI. Four Pediatric cancer and blood diseases specialists are due to graduate from a 2-year program in August 2018 and the fellowship program will continue to produce specialists for East Africa every year. In addition, the medical team workforce for children with cancer was increased from 2 doctors to 17doctors thus transforming the quality of care these children receive. There has been a dramatic improvement in the survival of children with cancer at UCI, from 30% to 85% of children alive and receiving treatment after one month following cancer diagnosis. The program has also built strong community and parent relationships that have resulted in increased awareness of childhood cancer and treatment.

Conclusion and next steps:

Capacity building through the Global HOPE program sheds more light on the future of children diagnosed with care in SSA. Despite this progress, there are still large numbers of children and families who continue to die and suffer because of lack of resources. There is an urgent need for further support and partnerships to significantly reduce cancer related morbidities and mortality in most developing nations like Uganda.

10. IMPROVING LINKAGES AND RETENTION FOR TB CLIENTS THROUGH COMMUNITY HEALTH WORKERS: A CASE STUDY OF RWENZORI, UGANDA

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Back ground

Despite the high TB prevalence in Uganda, there is minimal integration of interventions delivered by community structures into the existing formal health system. Community health workers (CHWs) have been considered as a key pillar in attainment of the UNAIDS 90-90-90 targets as well as the STOP-TB strategy. Baylor-Uganda within its community-Facility framework model has worked with CHWs to assess their role towards timely identification, linkages and TB retention rates in health facilities with Rwenzori region, Uganda.

Description

In 2016, Baylor-Uganda initiated the community-facility framework model towards reaching the 90:90:90 target. 289 CHWs were selected in the community through the District Health office in collaboration with partner CBO's and were trained in Comprehensive HIV/TB Care for 6 days using a tailored curriculum. They work 22 days in a month and are facilitated with a monthly stipend. A follow on post training onsite mentorship was conducted to observe and guide home assessment, support treatment and adherence visits and door to door health promotion. CHW's worked with facility based health workers to compile lists of TB defaulters, conduct home tracing and reporting. Outcomes of interest include improved retention and reduction in loss to follow-up of clients undergoing the TB treatment for a period of 12 months and timely Linkage for referrals made from the community to the facility for presumptive TB cases. The TB program within Baylor-Uganda in Rwenzori, embraced and utilized the community-facility framework model to improve referral, linkage and retention. Data was collected for a period of 12 months from October, 2016 to September, 2017 and descriptively analyzed using excel.

Lessons learned

Linkage of TB clients to Community health workers and emphasis on monthly reporting greatly led to improvement of TB loss to follow up. From October 2016 to September, 2017, there was a notable drop in Loss to Follow Up in from 21% to 3% in Kyenjojo district; from 6% to 2% in Kamwenge district and from 13% to 2% in Kabarole district.

Conclusion

Community health workers when fully engaged improve identification, linkage to health facility for TB diagnosis and retention in care for those tested positive.

11. Isoniazid Preventative Therapy (IPT) implementation and coverage in HIV infected children under five on Antiretroviral Therapy (ART) at Baylor College of Medicines Children's Foundation, Swaziland (BCMCF, SD)

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- Baylor College of Medicine, Houston, Texas.

Background to IPT Implementation:

HIV infection is the biggest risk factor for TB progression amongst children infected with latent Mycobacterium tuberculosis in Swaziland. Since 2012, National TB Control Program (NTCP), Swaziland, adopted the WHO recommendation for scaling up IPT policy implementation among children living with HIV infection, as part of the strategic road map to reduce the burden of TB amongst children living with HIV. Previously, eligibility for IPT required six months of stable ART, a guideline that has since been changed, shortening the time to one month. TB disease symptoms screening is done at all patient clinic visits using a standard TB screening tool. Pulmonary and extra-pulmonary TB are excluded before patient becomes eligible for IPT in the setting of no further contra-indications.

Method:

Cross sectional IPT, data were abstracted from Electronic Medical Records. Inclusion criteria was limited to children under 5 on ART for equal to or greater than six months, and were patients of BCMCF, SD from December 2014 to December 2016. Descriptive statistics were used to describe data findings. A total 165 children were enrolled at BCMCF, SD during the 3-year period. Those who were lost to follow did not meet inclusion criteria.

Results:

Of the children on ART, 42% screened positive for TB symptoms. Of this, 14% were diagnosed and initiated on TB treatment. Of those screened, 58% were negative for TB symptoms and eligible for IPT. Of this, 18% were initiated on IPT and completed a 6 months course without reported adverse events, or development of breakthrough TB. Of those who screened negative and did not receive IPT, there were no stated contraindications.

Conclusions:

IPT delivery among children under the age of five on ART remains an operational challenge at the clinic. Reviewed data shows gaps and inconsistencies in uptake among eligible children on ART. *Fig. 1 (Not printed.)*

12. SCREEN-AND-TREAT CERVICAL CANCER SCREENING PROGRAM OUTCOMES, Eswatini

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- Baylor College of Medicine, Houston, Texas

Background:

The Baylor College of Medicine-Bristol Myers Squibb Children's Clinical Centre of Excellence (Baylor-Eswatini) in Mbabane launched the Breast and Cervical Cancer Screening Program in February 2015. In addition to primary prevention of breast and cervical cancer, this project aimed at addressing the unmet need for adolescents and women with low-grade cervical cancer lesions, which progressed to high grade lesions due to delays in the diagnostic cascade across various healthcare facilities in Swaziland.

Description:

Baylor-Swaziland was one of ten sites to receive grant funding from the Bristol-Myers Squibb Foundation through the Swaziland Breast and Cervical Cancer Network (SBCCN) to launch the Screen-and-Treat campaign on the 13th of February 2015. Screening data was integrated into the clinic electronic medical record (EMR) system. Clinic staff members received formal training on how to perform visual inspection with acetic acid (VIA), cryotherapy, colposcopy and Loop Electrosurgical Excision Procedure (LEEP). A retrospective chart review of women screened between February 2015 and May 2018 was performed.

Results:

The mean age of women screened for cervical cancer at the Baylor-Swaziland Clinic was 36, with a mean parity of 3. The total number of VIA procedures done since February 2015 was 2732 (2568 VIA negative, 164 VIA positive). Of the total number of females screened using VIA, only 88 (3.2%) compared to 20 (1%) in 2018 were adolescents; 84 VIA negative, 4 VIA positive. In addition, 2717 PAP smears were done; 1587 (58%) normal smears, 94 (3.5%) inflammatory smears, and 804 (30%) showing atypical cytology; 169 (6%) diagnosed as high-grade squamous intra-epithelial lesions (HSIL) versus 121 (4.5%) showing low-grade squamous intra-epithelial lesions (LSIL), 223 (8.2%) depicting atypical glandular cells of undetermined significance (AGUS) and 291(10.7%) atypical squamous cells of undetermined significance (ASCUS).

Conclusions:

Progression of early cervical cancer lesions to fulminant cancer can be minimised through early screening, detection and management. The Screen-and-Treat campaign has reduced the turnover times between diagnosis and treatment of cervical cancer, with more clients opting for VIA because it is quick and gives a spot-on diagnosis. A paradigm shift in health care worker attitudes regarding adolescent screening has tripled the number of adolescents screened. Self-testing will make this service more accessible to eligible adolescents.

13. REASONS FOR POOR ADHERENCE AMONG ADOLESCENTS LIVING WITH HIV/AIDS IN TANZANIA

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Background:

Adherence is the most important factor for successful treatment outcomes for adolescents living with HIV/AIDS, yet is one of the biggest challenges they face. This study aimed to elucidate different reasons reported by adolescents at our clinic as major causes for their poor adherence to antiretroviral therapy (ART).

Methods:

From June 2017 to December 2017, a total of 50 adolescents aged 10-17 years with chronic challenges with adherence to ART were enrolled into the adolescent psychosocial adherence program. The aim was to understand immediate causes for their poor adherence and address them. Participants met with peer educators to discuss topics such as adherence to therapy, life skills, coping with emotions, and sexual and reproductive health. At the start of the program, all participants were interviewed by a peer educator about adherence and HIV disclosure.

Results:

Among the reasons cited for poor adherence included lack of support from their families/caregivers, stigma, school responsibilities, and delay of disclosure. 90% (45/50) reported that HIV disclosure occurred when they were 10-17 years old, however, 70% of them (35/50) found out accidentally from friends or in teen clubs and cited this as a major reason for them not to continue with ARVS. When asked about how they felt when found out they are infected with HIV, 30% (15/50) reported they felt they were very sick and could not engage in any activities, 16% (8/50) thought they would be separated from their family and sent to other relatives like grandparents, 26% (13/50) felt they could not continue with schooling since they were afraid others will find out their status, 18% (9/50) felt they were no longer loved or cared for by the family, and 10% (5/50) reported they could die at any time and therefore did not need to take life-long medications.

Conclusions:

Many factors contribute to poor adherence to ART by adolescents living with HIV including lack of self confidence, lack of support from families, improper disclosure and medication fatigue. Efforts to address the challenges should be made first by understanding the immediate causes and engage peer educators to addressing them.

14. RATES OF VIROLOGICAL FAILURE/SUPPRESSION AMONGST ADOLESCENTS ON LIFELONG ART AT BOTSWANA-BAYLOR

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Background:

Antiretroviral therapy (ART) is effective in achieving viral suppression if adequately adhered to and this will lead to immune restoration or prevent immune deterioration, keeping persons living with HIV alive and healthy. Adherence to ART has been reported to be lower amongst adolescents compared to adults, with several studies documenting higher rates of virological failure amongst the former. This study was done at Botswana Baylor Children's Clinical Centre of Excellence which manages children, adolescents and young adults living with HIV. Currently the clinic has over 2406 patients on ART. The clinic also provides comprehensive adherence support and psychosocial services to clients.

Methods:

A cross-sectional study was conducted and all data on adolescents (10-19 years) with virological failure over the period December to May 2018 was collected from the clinic data base and analyzed. Virological failure was defined as 2 consecutive VL >400 copies/ml in the past 6 months. Viral suppression was defined as 2 consecutive VL <400 copies per ml.

Results:

There were 1245 adolescents aged 10-19 years on ART. Of these, 98 (8%) had virological failure, and viral suppression was 92%. The virological suppression rates were similar amongst Females (92.8%) and Males (91.2%). The suppression rates were also similar amongst younger and older adolescents: (10-14yrs) = 92.7% and (15-19yrs) = 91.2%. Of the n=98 failing treatment, 20% (n=20) had CD4 count \leq 350 cell/ μ L whilst 13% (n= 12) had a CD4 <200 cells/ μ L.

Conclusions

Viral suppression rates among adolescents on ART at Botswana-Baylor were high and comparable to adult populations (96%, Gaolathe, et al, 2016), despite the additional psychosocial burdens adolescents often face. Although more research is required, these findings suggest that comprehensive adherence and psychological support can be effective in improving treatment outcomes amongst adolescents on lifelong ART. A significant proportion of those with virological failure also had poor immune responses. Hence, they do need adequate prophylaxis and adherence support to reduce morbidity and mortality. Similar studies in public health facilities are required to monitor virological outcomes among this vulnerable population.

BCM Protocol number: H-25403

15. PROVIDING PREVENTION AND TREATMENT FOR YOUNG PEOPLE IN LESOTHO USING MOBILE CLINICS

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Background:

Lesotho continues to be significantly impacted by the global HIV epidemic with adult prevalence rates of 25% and disproportionate impact on adolescent girls and young women. Adolescents living with HIV face considerable challenges and have unique needs and vulnerabilities, compared to both adults and young children. To meet these unique challenges, client-centered approaches that simplify and adapt HIV services is necessary.

Description:

The Providing Prevention and Treatment for Young People (PROTECT) project expanded activities modeled after the DREAMS initiative to eight districts in Lesotho using two mobile clinics provided by the Ministry of Health. A nurse, nurse assistant and driver staff each mobile clinic which includes two examination rooms and a counseling room.

PROTECT focuses efforts towards achieving an AIDS-free population of adolescent girls and young women by offering community-based comprehensive HIV testing and counseling services (HTS), same-day ART initiation with linkage to local clinics, tuberculosis screening, sexual and reproductive health (SRH) counseling, sexually transmitted infection (STI) screening and treatment, condom provision and family planning services. PROTECT team members work in collaboration with community partners to create demand prior to service delivery.

Lessons Learnt:

The use of the mobile clinics has successfully reached this target population as over 85% of HIV testing is in 10-24 year olds. Improved collaboration with community partners and a shared schedule has contributed to project success. HIV testing yields are low, but the strategy is reaching an underserved population that includes individuals at high-risk of HIV. Approximately half of those testing positive are not initiated on ART on the same-day. Need for parental support and additional adherence counseling is the primary motivator for ART initiation after referral to a health facility.

Conclusions/Next Steps:

The project is anticipated to receive funding through 2021, with an increase in the number of mobile clinics to better serve districts and communities. Ongoing involvement with young people, including peer educators, will enable the project to reach additional youth. Collaboration with other prevention modalities, including voluntary medical male circumcision and pre-exposure prophylaxis, will be improved moving forward.

16. THREE INTENSIFIED ADHERENCE COUNSELLING SESSIONS MIGHT NOT BE ENOUGH IN HIV CARE MANAGEMENT: A CASE STUDY OF RWENZORI REGIONAL REFERRAL HOSPITAL, UGANDA

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Background

The desire to minimize treatment failure among HIV positive clients on anti-retroviral therapy (ART) is critical. Intensified adherence counselling (IAC) is one the approaches recommended to optimize ART treatment outcomes.

We describe treatment outcomes among clients with ART viral non-suppression at a large HIV clinic in, Rwenzori Uganda.

Methods

Secondary data review among 67 clients aged between 0-70 years with confirmed ART viral non-suppression at fortportal regional referral hospital was conducted. Data of patients on first line ART enrolling in IAC program was extracted from paper based non-suppressed register and imported to stata for analysis. Viral suppression was considered as viral load less than 1000 copies/ml. IAC sessions were provided monthly as guided by the ministry of health, Uganda. Adherence and suppression outcomes were descriptively analysed and presented as percentages and proportions. Proportions of consecutive good adherence, non-suppression were analysed and presented.

Results

Of the 67 records of non-suppressed clients, 40 (59.7%) were female. Ten (14.9%) were aged 15years and below, while 49 (73.1%) were above 25 years. Only 13 (19.4%) reported good adherence on first IAC session, 42 (63.6%) on the second and 52 (78.8%) on the third session. Of the 67 clients enrolled on IAC sessions, only 9 (13.4%) reported 3 consecutive good adherence scores by the third session and of these 7 (77.8%) were above 25 years. Of the 9 that registered good adherence on the three consecutive IAC sessions, 3 (33.3%) were on AZT-3TC-NVP, while 2 (22.2%) were on ABC-3TC-NVP. Overall, 44(65.7%) had a repeat VL test by month 6 of IAC, with 20 (45.5%) of these having achieved suppression. Of the 23 who were still in the program beyond 6 months, 2 (8.7%) achieved suppression.

Conclusion

Three intensified adherence counselling spaced a month apart might not be enough to yield viral suppression among HIV positive patients with detectable viral load. We recommend fortnight sessions while harmonising both facility and home based adherence sessions.

17. "WHERE ARE THE MISSING BABIES ALONG THE EID CASCADE? THE EXPERIENCE OF TRACKING "LOST TO FOLLOW UP" INFANTS IN KABAROLE AND BUNYABABU, WESTERN UGANDA.

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Background

Lost to follow up of HIV exposed infants (HEI) remains one of the main bottle necks to elimination of mother to child transmission in Uganda. The lost to follow up rate for HEI in Uganda is at 60%. To account for the outcomes of the HEI within a 24 months' cohort in Kabarole and Bunyangabu districts (Babies born between July to December 2014). Baylor Uganda conducted tracking of Mother-baby pairs that had been declared lost (having no outcome after 18 months of enrolment in to care.)

Description

The activity was conducted in Kabarole and Bunyangabu districts, Western Uganda over a period of 4 weeks. Community health workers (CHWS), a newly recruited cadre working full time and attached to specific health facilities were used to follow up all HEI declared lost. Lists of all lost HEIs were generated with locator information including addresses and phone contacts of primary givers. The lists were then shared with the CHWs who worked together with the community structures to conduct home visits and find the missing babies. Referrals were made by the CHWs for all identified babies and the HIV antibody tests done for HEIs that reported to the health facility. Descriptive analysis was done.

Lessons learned

A Total of 163 infants were tracked, 76(47%) returned to care and had a negative HIV antibody test, 2(1%) were HIV positive, 6(4%) died at the time follow up was done, 33(20%) had self-transferred to other health facilities, 10(6%) had changed addresses outside the coverage of the health facility 10(6%) 9(6%) had moved outside the district and could not be traced by the district community health structures, 23(14%) had given wrong locator information, 4(3%) had a new primary care giver.

Conclusion and next steps:

CHWs attached to health facilities were useful for reaching some of the infants who had been lost. There is a need to strengthen intra and inter-district linkages including introducing data exchange meetings for the HEI program to

ensure that HEI that move within and across districts are successfully tracked. A system that validates locator information for HEI babies should be developed to ensure their successful tracking.

18. DEVELOPMENT AND IMPLEMENTATION OF AN ALGORITHM FOR CODING AND RECORDING PSYCHOSOCIAL INTERVENTIONS WITH PLWHA

Ana-Maria Schweitzer, Stefania Mihale, Luiza VLahopol, Mihaela Bogdan

Background:

Psychosocial support represents an important component of service provision for PLWHA at Baylor centers within the network. Lack of standardization of terminology leads to difficulties in reporting patients needs, their match with interventions as well as the techniques used to address the needs.

Description:

We have analyzed the processes and interactions between patients and psychologists/social workers at the Baylor clinic to identify the content of psychosocial interventions. The content was matched with the main concepts described by the Intervention Mapping framework for developing interventions and with the behavior change taxonomies described in health psychology literature by Michie et al. All interventions were categorized in the following main categories: care phase, performance objective, change objective, behavior change techniques. An algorithm to code each interaction with the patients of the psychologist/social worker was established.

Lessons learned:

The new algorithm has immediately improved the quality of the psychosocial interventions at Baylor Romania clinic. The time spent by employees with data base registrations has decreased by 50%. All interventions have now a clear and measurable objective and all behavior change techniques are associated with a specific intervention. The electronic database has also been changed to accommodate these changes and to generate reports.

Conclusions/ next steps:

In time, this new approach will allow us to obtain a clear profile of patients' needs, most demanded interventions, most common techniques used. Similar with the medical science, psychology interventions need to be standardized for higher precision and higher quality of work. This new approach has the potential to be used by all Baylor centres in order to create comparable reports.

19. FORMATION OF A BABY CLUB TO REACH VIRAL SUPPRESSION IN MOTHER-INFANT PAIRS: MBABANE, SWAZILAND

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Background

Attaining viral suppression in both infants and mothers is the only path for HIV positive infants to thrive into toddlerhood yet there are innumerable barriers to reaching this goal. The infant's positive status is a flag that something was awry in the PMTCT cascade and thus hints at maternal needs that must be met promptly. We created a psychosocial support and playgroup, Baby Club, at the Mbabane COE to address the unmet needs of both the mothers and infants with the goal of reaching viral suppression in the dyad.

Methods

Baseline viral suppression data was reviewed prior to Baby Club initiation. HIV positive mothers of infants less than 2 years were invited to attend the monthly Baby Club. From August 2017-present monthly sessions were held at the COE whereby the dyads were seen by a clinician and simultaneously engaged in an hour long group activity with varied scope. The mothers were provided with transport support and a lunch stipend (approx. 60-80E/mother) via two local NGO's. Viral suppression rates after 3 months of Baby Club attendance were then reviewed.

Results

Prior to BC initiation the viral suppression rate for our infants was <30%. After 8 months of BC sessions, 17/19 (90%) infants were suppressed. 3 infants with prior detectable viral load suppressed. 11/12 (92%) mothers were suppressed with 3 women having changed to 2nd line ART therapy and suppressed at three months.

Conclusion

A monthly psychosocial support and play group coordinated with drug refill and clinical visit is a successful alternative to routine care at our COE. A focus on education and empowerment of the caregivers has proven to be a vital aspect of this program that has helped the women improve adherence and support each other with the challenges of caring for an HIV positive infant.

20. THE EFFECTIVENESS OF MALE INVOLVEMENT IN CHILDRENS' CARE

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Background:

Globally, male involvement in maternal and child health care is viewed as a priority to reach Sustainable Development Goals. Targeting men with HIV prevention, treatment and care services is proposed to positively impact mortality, new infections and economic impact of HIV in Africa. Despite this recognition, involvement and participation of men remains weak with ongoing cultural and health system barriers in Lesotho.

BCMCF has formed a monthly male support group for male caregivers: *Bo Ntate Ba Tsoellang* or 'Caring Fathers'. Participants have a platform to share challenges related to child-rearing, learn life skills, and receive education HIV and related health topics.

Methods:

The electronic medical record (EMR) at Baylor College of Medicine Bristol-Myers Squibb Children's Clinical Center of Excellence, Maseru, was used to extract data including current age, ART status, viral load monitoring and father's involvement in care. Inclusion criteria included current age 0-19 years, on ART for at least six months, viral load results between July and December 2017 and documentation of father's involvement.

Attendance logs for Caring Fathers were reviewed. Men who attended at least three sessions in 2017 were included. Secondary analysis of EMR data reviewed the subset of children meeting criteria whose father actively attends Caring Fathers.

Results:

A total of 504 charts were included based on the criteria outlined above. Viral suppression was achieved in 93.8% (473/504) of children. Highest suppression rates were seen in children with involved fathers at 95.3% (246/258) and lowest in children with deceased fathers at 90.7% (88/97). Viral load data for children whose father attends Caring Fathers reveals suppression rates of 94.7% (18/19), equivalent to that seen in children with involved fathers.

Conclusions:

Father's involvement in chronic HIV care correlates with improved treatment success. Caring Fathers is one method of engaging with fathers. Efforts are needed to expand and establish similar groups at other health facilities.

21. MALNUTRITION TREATMENT OUTCOMES OF PATIENTS RECEIVING RUTF VS PEANUT BUTTER AND FORTIFIED BASED FLOUR

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Background

High morbidity and mortality rate in Tanzanian children is in part due to deficiency of protein energy foods. This leads to severe acute malnutrition (SAM) and moderate acute malnutrition (MAM) in children. Ready to Use Therapeutic Food (RUTF) is the gold standard dietary supplements for management of children with SAM and MAM. At Baylor-Tanzania, due to a shortage of RUTF, peanut butter (PB) and fortified blended flour (FBF) are used as

substitutes in management of children with malnutrition. This study aims to compare treatment outcomes of children receiving RUTF versus those receiving PB and FBF.

Methods

This was a retrospective cohort study. Data was obtained from electronic medical record (EMR) and malnutrition database. The study period was from May 2015 to May 2017. Children between 6 months and 18 years who were treated for SAM or MAM were included.

Results

A total of 169 children (46.7% females) were included in this study. Of the 169 enrolled, 119 clients were discharged after reaching targeted weight. 73 (61.3%) received RUTF and 46 (38.7%) received PB and FBF. Those receiving RUTF took an average of 7.7 weeks to reach targeted weight vs. 7.3 weeks for those receiving PB and FBF ($p=0.48$). There were no significant differences in the rate of TB, HIV status, gender, initial weight, or age between groups. There was a significant difference in the distribution of patient nutrition status between nutritional support type ($p=0.002$, Table 1).

Conclusions

Time taken for clients to reach target weight among those using RUTF, FBF, and PB was almost similar. In absence or shortage of RUTF, PB and FBF may be an alternative to manage children with malnutrition even if they have TB or are HIV infected. We recommend a study with larger sample size from multiple Centers of Excellence to further evaluate the use of PB and FBF for management of malnutrition in absence of RUTF. Nutritious food should be available and accessible to all groups at all time to support therapeutics food on management of malnutrition. *Fig. 1 (Not printed).*

22. COMMUNITY HEALTH WORKERS, THE UNSUNG HEROES: A LOOK AT THE IMPACT OF USING COMMUNITY HEALTH WORKERS IN COMBATING SEVERE ACUTE MALNUTRITION IN TANZANIA.

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➤ Baylor College of Medicine Children's Foundation - Tanzania

Background:

In Tanzania over 600,000 children under five years are malnourished, with more than 100,000 severely malnourished, many of whom reside in Mbeya and Songwe regions. However, treatment coverage for children with severe acute malnutrition (SAM) is only 39% for Mbeya and Songwe regions. One factor contributing to this situation is the weak health system: health services are of low quality and there are inadequate numbers of skilled health worker.

Description:

To better reach children with SAM in Mbeya and Songwe regions, Baylor Tanzania with support from UNICEF implemented a program of household screening by community health workers (CHWs). CHWs were given a one-day orientation on how to screen, identify, refer, follow-up, raise awareness, and conduct nutritional counseling to caregivers within their villages. CHWs did house-to-house screening, participated in village health days and occasionally collaborated with health care providers (HCPs) at facilities during the monthly Growth and Monitoring visits. Each village has at least 2 CHWs who work under voluntary basis to motivate and ensure they continue screening and referring; we offer stipend allowances for transport, stationary and T-shirts during quarterly supervision visits. The CHWs use nutrition screening registers, referral forms, and monthly reporting books. Reporting is done on a monthly basis and mentorship and supervision is done on a quarterly basis.

Results:

In the period between January 2014 to May 2018, Baylor Tanzania trained 660 CHWs. Between 2016-2017, a total of 94,465 under-five children were screened. The activity identified 489 SAM and 2912 moderate acute malnutrition (MAM) cases. The 489 children were referred to nearest health facilities offering SAM services. All caregivers received group counseling sessions on proper feeding. In community screening during village health days, a total of 14,032 under-five children were screened, identifying 239 SAM, 749 MAM cases and 239 were referred.

Next steps:

We found that CHWs help strengthen health systems by working in collaboration with HCPs to ease their work load. They help with identification and referral of malnutrition cases and by providing nutrition education. We need to work to further formalize this cadre to ensure sustainability.

23. NUTRITION CLUB IMPROVES CAREGIVERS KNOWLEDGE AND UNDERSTANDING OF CHILD NUTRITION AT BAYLOR MBEYA COE

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Introduction

Childhood malnutrition is estimated to contribute to more than one third of all child death deaths, although it is rarely listed as the direct cause. Baylor Mbeya COE launched a "nutrition club" targeting caregivers of children with, or at risk of, undernutrition or malnutrition as a means to improve the nutritional knowledge and status of their children.

Methods

Through special program called "Nutrition Club," Baylor is capacitating caregivers on nutrition issues including breastfeeding issues, food preparations, home gardening, vegetables and fruits, child care, and hygiene practices, all aimed at resolving and prevent recurrence of malnutrition and enabling caregivers to actively treat and prevent malnutrition in their children. The topics are taught by the COE nutritionist via hands-on sessions with caregivers. During nutrition club, a cooking demonstration is given to teach caregivers how to safely prepare high-quality nutritious foods. Each nutrition club also has an active question and answer session, and also provides caregivers a forum to make new friendships and relationships amongst themselves. Nutrition clubs meets one Saturday per month, and targets caregivers whose children are enrolled in the COE's malnutrition program. Data on nutrition awareness was collected from 50 nutrition club caregivers (20 males and females 30) through questionnaires on pre and post test from November to December 2017.

Result

Table 1 lists the knowledge gained from nutrition club as measured by pre- and post-test questionnaires. Improvements in reported knowledge were seen across all topics (Table 1).

Table 1: Changes in awareness of nutrition topics and safe practices among nutrition club participants (N=50) as measured by pre- and post-tests and questionnaires. *(not printed)*

Conclusion

A large proportion of participants demonstrated a lack of knowledge, which can contribute to poor nutrition status and recurrence of malnutrition to children in Mbeya. Through nutrition club, caregivers were equipped with more knowledge and information on nutrition issues including feeding practices, breastfeeding, hygiene practices, child development which help to prevent and stop the recurrence of malnutrition among children in Mbeya. Next steps include monitoring if these positive changes continue long term, as well as measuring the clinical status and nutritional outcomes of the children whose caregivers participated in nutrition club.

24. VISUAL ACUITY DEFECTS SCREENING IN CHILDREN ATTENDING THE SUMMER CAMP IN AÑELO

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Background

Sight has an essential role during the first years of life in permitting social interaction, learning and communication. Sight conditions early in childhood had an adverse result in the adequate development of children and can have a negative effect in school performance.

Early detection of visual acuity defects allows timely treatment and avoid progressing into more advance stages. Several studies in Argentina speak about a prevalence of sight disorders of 15 to 25% in school-aged children.

Methods:

A descriptive and cross-sectional research study involving screening to 210 children between 4 and 15 years old ,that attended the Summer Camp of the Añelo Town Council, was carried out during January and February 2018.

The Snellen table was used to assess sight. The test was applied following the protocol.

In order to determine sight degree, the following criteria were set: a) normal: sight 8/10-10/10 in both eyes or less than 2/10 difference between both eyes b) low: sight under or equal to 7/10 in both eyes, or more than 2/10 difference between both eyes.

Results:

Screening was conducted on 210 children between 4 and 15 years old.

Forty four (44) children were diagnosed with visual acuity defects and 1 child with strabismus.

Results obtained showed that 20.95% of the children had visual acuity defects at the time of the screening. These children were referred for further evaluation to the ophthalmologist and glasses would be given by Fundacion to those with low economic resources.

Conclusions:

The frequency of visual acuity defects found reflects the importance of strengthening early screening controls and providing correct follow-up of detected cases with eye specialists.

It is also recommended to strengthen visual screening within the Public Health system, mainly in primary health care services, training health teams and conducting visual acuity testing with an age-appropriate tool during well-child visits.

Social communication campaigns shall be in place to remind the importance of visual acuity testing in children.

25. VERNAL KERATOCONJUNCTIVITS IN THE PEDIATRIC HIV POPULATION OF ESWATINI

O'Banion Jacquelyn¹, Sarah Hope Perry, Miriam Abadie, Pons Jonathan, LeaniePiek, Mthetwa Nobuhle

- Emory University School of Medicine, Department of Ophthalmology
- Baylor College of Medicine, Houston, Texas
- Good Shepherd Hospital, Eswatini
- Eswatini National AIDS Program, Eswatini

Background:

Vernal Keratoconjunctivitis (VKC) is a potentially blinding disease that is a common reason for hospital presentation amongst the pediatric population in Africa. While atopic disease in general has been reported to be increased in persons with HIV, there is little literature regarding any ophthalmologic involvement. Eye care providers in Swaziland have anecdotally noted a high frequency and high severity of VKC in children with HIV. This study evaluates the relationship between VKC and HIV in the pediatric HIV population.

Methods:

This was an observational study evaluating the prevalence and severity of VKC in the pediatric HIV population. Children aged 5-18 were recruited from one of three sites (Baylor Mbabane, Baylor Manzini or Good Shepherd Hospital) from November through February as this coincided with the 'active season' of VKC in Eswatini.

Results:

A total of 44 children had VKC (9.1%, 6.5-11.75%) of some form. 1% were classified as moderate or severe VKC. Of those seen, 26 children (5.4%) stated they had been previously diagnosed with VKC. Seventy-three percent of the children with VKC were male (p-value 0.001). The majority of children with VKC were recruited from the Siteki or Manzini study sites and lived in the Lubombo or Manzini region of Swaziland. Analysis of historical HIV data showed no difference between children with VKC and nonVKC with respect to HIV diagnosis age, years since diagnosis, mode of transmission, ARV use, ARV duration, CD4 count, and VL. The most commonly reported symptoms were itching, tearing and photophobia. Nine percent of children with VKC reported missing school on a monthly basis due to eye discomfort.

Conclusions:

In conclusion, we found a higher prevalence of VKC overall in the pediatric HIV population over the 4% reported in the literature. Based on our results we have seen that VKC is a problem in the pediatric HIV population and carrying out a low cost surveillance study is possible. The next phase of this study will extend to the community and compare VKC in children with and without HIV.

26. CLOSING THE GAP IN CRYPTOCOCCAL SCREENING AMONG HIV INFECTED PATIENTS; AN EXPERIENCE OF STRENGTHENING THE CAPACITY OF HEALTH WORKERS TO IDENTIFY AND SCREEN PATIENTS FOR CRYPTOCOCCAL MENINGITIS

Immaculate Namuleme Ddumba¹, BlasioKunihira¹, Patricia Nahirya Ntege¹, Leticia Namale¹, Adeodata Kekitiinwa¹

- Baylor College of Medicine Children's Foundation Uganda

Background

Cryptococcal meningitis (CCM) is one of the leading causes of mortality among HIV infected persons accounting for 20-30% of HIV related deaths in Africa. Uganda adopted the WHO policy of screening all HIV infected persons with CD4 < 100 and patients with suspected treatment failure for CCM for early treatment and to improve their survival. Patients with positive screening tests are managed according to the national treatment guidelines. We share the best practices used by Baylor Uganda to increase identification of HIV positive clients with CCM.

Description

A total of 36 health workers from high volume health facilities in 8 districts providing HIV clinical and laboratory care were identified by Baylor Uganda in partnership with the district. They were given a one-day classroom training on identification and management of CCM in December 2017. Facility based follow up mentorships by both a clinician and laboratory personnel were conducted in February and March 2018. Health facilities were supported to make supply orders for serum CrAG screening tests used to screen for CCM. The results of the number of patients eligible and screened for CCM at each health facility were monitored quarterly. Descriptive analysis was done.

Lessons learned

There was an increase in patients with CD4 < 100 screened for CCM from 50 in the period October to December 2017 to 112 in the period January to March 2018. Over the same period, there was an increase in CCM positive patients identified and managed from 10 to 64. There was no reported mortality from CCM after treatment interventions. An increase in the number of patients screened for CCM was observed after the follow up mentorships in the period January to March 2018.

Conclusion and next steps

Training and facility based follow up mentorship of health workers is critical to the implementation early identification of CCM among newly identified HIV positive patients and treatment failure. This can be further strengthened with adequate supply of screening tests and drugs for management.

27. DESIGN AND IMPLEMENTATION OF AN INFORMATION SYSTEM TO COLLECT AND STORE DATA IN THE CLOUD BASED ON THE EPI INFO™ PLATFORM

Salguero M. Diego, Galvis D. Andrés, Parra R. David

Baylor College of Medicine Children's Foundation-Colombia

Background: The way patient's data was collected and stored in the Baylor Foundation in Colombia was neither efficient nor centralized. This created many difficulties when trying to track any patient, including Parent-child relationships. There were no parameters for collecting data and it was dependent on the collector. There was also information duplicity making it challenging to determine with any precision the total number of patients and it was not possible to obtain the complete medical history of patients due to misspelled names or errors in identification number.

Aims: Design, develop and implement a solution using Epi Info™ 7.0, which is a free & public domain suite that allows data collection, storage and analysis of medical information taken at the health centers and in our case indigenous communities where the foundation is present.

Methods: The solution was implemented by a group of 3 people in a span of 5 months in 6 different stages: (i) standardization of existing data using R statistical software, (ii) designing of Epi Info™ forms, (iii) uploading standardized data to Epi Info™, (iv) standardization of reports, (v) documentation, and (vi) training of data collectors. Additionally, field studies of Internet connectivity were carried out to determine which areas could support an online solution and which areas required an offline solution.

Lessons Learned: This initiative allowed the standardization of pre-existing data in 10 different databases including a total of 6053 unique patients from over 200 communities, and it also enabled the rectification of 1151 patients registered with wrong information. The following table shows the databases in the standardization stage:

TABLE 1. Baylor Foundation databases (not printed).

Initially the solution was implemented in the Desktop version of Epi Info™ with a SQL database. However, in this protocol, loading times took up to 8-10 minutes, which made it difficult to operate efficiently. For this reason, Epi Info™ Cloud Data Capture was used instead and loading times improved to seconds.

Conclusions/Next steps:

Design Forms and create user-friendly reports in Epi Info™. By coupling the Cloud-based solution with the desktop version it was possible to create a viable solution for data collection both with and without using an Internet connection. Moreover, issues such as information duplicity, parent-child relationship, and incorrect community recording were mitigated by the way the information is recorded in the system.

28. PREVALENCE OF CHLAMYDIA TRACHOMATIS AND NEISSERIA GONORRHOEAE IN HIV POSITIVE ADOLESCENTS IN ESWATINI.

Jasumback L Caitlyn, Perry Sarah, Mandalakas Anna, Hlatshwayo Makhosazana, Masangane Zandile, Kay Alex

- United State Peace Corps, Eswatini
- Baylor College of Medicine, Houston, Texas
- Baylor College of Medicine Children's Foundation Swaziland, Eswatini
- Eswatini Ministry of Health Sexual and Reproductive Unit, Eswatini⁴

Background

Sexually transmitted infections (STIs) are a major public health concern worldwide. They affect quality of life, can cause infertility, cancers, pregnancy complications, and facilitate the transmission of human immunodeficiency virus (HIV). The World Health Organization (WHO) estimated that in 2012 there were 131 million new cases of chlamydia and 78 million new cases of gonorrhoeae among 15-49 year olds worldwide. There is no current prevalence data on STIs in HIV positive adolescents in Eswatini.

Methods

A cross-sectional study from 9 October 2017 to 26 April 2018 was done at the Baylor Center of Excellence in Mbabane, Swaziland. Participants were recruited consecutively if they met the inclusion criteria, 15-24 years old and HIV positive. Participants were required to complete a sexual health history questionnaire and provide a first catch urine sample. A subset of sexually active participants provided an oropharyngeal swab and/or vaginal swab. Urinalysis was done on all urine samples. Samples were processed using the protocol from Cepheid for the GeneXpert CT/NG test.

Results

A total of 250 participants were enrolled during the time period, 109 males and 141 females. The rate of chlamydia and/or gonorrhoeae was highest at 17.74% in 20-24 year old females (Table 1). Of the participants that claimed to be sexually active 11.76% (n=16/136) were positive for chlamydia and/or gonorrhoeae. Urine samples were 100% sensitive and specific when compared to vaginal swabs. A majority of the infections were caused by gonorrhoeae (Fig. 1). Symptomatic screening had a sensitivity of 12.5% and specificity of 95%.

Table 1: STI numbers and rates broken down into subsets: age (15-19 and 20-24) and sex (female and male). (not printed).

Figure 1: Distribution of STIs in study (CT=chlamydia, NG=gonorrhoeae) (not printed).

Conclusions

In conclusion, STI infections are heterogeneously distributed throughout this important population, and very common in 20-24 year old females demonstrating significant gender based disparity in STI prevalence in this population. Critically, symptomatic screening performed poorly as a clinical tool for diagnosing chlamydia and/or gonorrhoeae. No participants reporting abstinence tested positive for an STI, demonstrating the utility of this question as an initial screen. More research needs to be done to understand how to cost-effectively test for STIs in this population to facilitate early diagnosis and appropriate treatment.

MH/599C/ IRB 000 9688/NHRRB 536/1

29. STRENGTHENING PUBLIC HEALTH SUPPLY CHAINS IN 8 DISTRICTS OF RWENZORI REGION, UGANDA

William Mutabaazi, Allan Mutebi, Joseph Kabanda, Patrick Ajuna, Christine Ocokoru, Gerald Sentogo, Herbert Bumbi, Emmanuel Mwesigye, Benjamin Muwanika, Calvin Epidu, Leticia Namale and Adeodata Kekitiinwa

- Baylor College of Medicine, Children's Foundation, Uganda
-

Background

Survival rates among people living with HIV (PLHIV) has improved due to availability of anti-retroviral drugs (ARVs). Inconsistence in supply directly impacts on patient care and quality of life. In 2016, 40% of 78,000 PLHIV among Baylor-Uganda supported facilities would experience treatment interruptions of 1-4 days due to quantification inaccuracies during requisitioning by health care providers. In January 2017, only 40% of the 124 health facilities were able to accurately quantify HIV supplies including ARVs. The Baylor Uganda set out to improve quantification of supplies and best practices are shared.

Description:

To bridge this gap, a step wise quality improvement approach was used. This involved: availing a quantification quality assessment tool to the facilities; establishing and training a team of district mentors to provide technical assistance to problematic/poor performing health facilities; establishing district ordering review meetings held before the end of bimonthly ordering cycles to assess for quality of orders submitted online; and reviewing of 'order fulfilment' by central warehouse, tracking stock levels, retrieving excess surplus above 4 months of stock from health units and archiving the stock at district stores to allow same day redistribution to a stocked out health centres. The ministry of Health's ARV Ordering Quality (AOQ) assessment tool was used to identify quantification gaps. Health facility scores were analysed and disseminated to mentors for targeted mentorships.

Lessons learned:

Following the interventions quantification accuracy improved from 40% in January 2017 to 75% in December 2017. The support on ARV quantification has impacted the ordering of other health medical commodities with improvement from 30% in 2016 to 91% by March 2018 of completed reporting for essential medicines, TB medicines, General Laboratory Supplies and HIV test kits.

Conclusions/Next steps:

Continuous performance assessment on quality of quantification of health facility orders and targeted mentorship of health workers improves stock levels of health commodities in general.

30. "TAKE THE BURULI BY THE HORNS" EFFECTIVE DIAGNOSIS AND MANAGEMENT OF BURULI ULCER IN AN HIV POSITIVE ADOLESCENT IN MBEYA, TANZANIA

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- Baylor College of Medicine, Houston, TX, USA
- Baylor College of Medicine Children's Foundation - Tanzania, Pediatrics, Mbeya, Tanzania
- Department of Dermatology, Hospital of the University of Pennsylvania, Philadelphia, PA, USA

Background:

Buruli ulcer, caused by *Mycobacterium ulcerans*, can cause significant morbidity in affected patients and may be more aggressive in those who are severely immunocompromised. We present a case of successful Buruli ulcer management utilizing the resources of the Mbeya Center of Excellence (COE).

Case Report:

A 15 year old HIV + male presented to the COE with a large leg ulcer with foul smelling drainage (Fig 1a). The ulcer had been increasing for two months and causing difficulty with ambulation. Smear from the wound discharge revealed 3+ acid fast bacilli (AFB) with negative Gene X pert. Culture for *M. tuberculosis* was negative. Tuberculin skin test was negative. Leg X ray showed a periosteal reaction along the distal fibula (Fig 1b). Skin punch biopsy taken from the edge of the ulcer showed clusters of Gram positive cocci beneath the surface of the ulcer and clusters of Gram negative rods on the surface of the ulcer. At presentation, the patient had been on antiretroviral therapy (ART) AZT-3TC-NVP for 8 years and 8 months with a CD4 of 7/0.7% cells/ μ L. VL was sent but not resulted by the laboratory. He had moderate acute malnutrition (BMI 15.7 kg/m²). CXR was normal and Hb was 11.8 g/dL.

Based on the patient's clinical features and the AFB smear results, he was diagnosed with Buruliulcer WHO category III and was started on rifampicin (delivered via FDC RH tabs), and ciprofloxacin. He was also treated for bacterial superinfection with ceftriaxone, ampicillin/cloxacillin, metronidazole and clindamycin. Daily wound care was provided at the COE together with paracetamol, ibuprofen and oral morphine for analgesia. Peanut butter was provided as nutritional supplementation to promote wound healing. Due to immunologic treatment failure, his ART was changed to TDF-FTC-LPV/r. After completing 12 weeks of ciprofloxacin and rifampicin, the ulcer significantly

improved (Figure 1c). His CD4 increased to 140 (5.5%) cells/ μ L although his VL was not yet fully suppressed at 5879 cp/mL after three months of second line ART.

Discussion:

Buruli ulcer can cause significant morbidity in HIV infected patients and an index of suspicion should be maintained in patients with large ulcers with discharge which is AFB positive and Gene Xpert negative. Positive outcomes can be achieved slowly with antibiotics, wound care, analgesia and effective ART.

Figure 1a: Clinical presentation (not printed). **Figure 1b: Leg X-Ray** (not printed). **Figure 1c: Clinical presentation after 12 weeks of rifampicin +ciprofloxacin** (not printed).

31. INSTITUTIONALIZING PHARMACOVIGILANCE IN A PEDIATRIC AND ADOLESCENT HIV TREATMENT CENTRE: LESSONS FROM BAYLOR-UGANDA

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➤ Baylor College of Medicine Children's Foundation Uganda, Kampala, Uganda,

Background:

Pharmacovigilance augments patient safety and rational use of medications. The rate of Adverse Drug Reaction (ADR) reporting to the National Pharmacovigilance Centre (NPC) is still low in Uganda. This evaluation aimed to assess interventions which would enhance and sustain ADR reporting in a Pediatric and adolescent HIV treatment Centre.

Description:

This descriptive evaluation embraced WHO defined Pharmacovigilance dimensions; medication errors, ADRs and misuse of formulations. To assess medication errors; a quality control (QC) and Quality assurance (QA) was established in the pharmacy. Applying a QC process at entry of consumption data and packing of prescribed medicines. Clients were counselled on medicine administration and use prior to dispensing. QA or final review of prescription was done by a pharmacist or delegated staff on subsequent days. Identified errors were categorized, documented and rectified via a phone call or client recalled if necessary. To assess ADR reporting, completed ADRs forms were collected, preliminary analysis done and subsequent submission to the National Pharmacovigilance Centre. Periodic feedback about Health Care Provider's (HP) reporting rate was provided. For formulation misuse, we assessed HP and clients' capacities to identify and distinguish formulations by product design; colour and packaging material

Lessons learned:

Between January and June 2017, the QC and QA unit averted 50% (2/4) of the major errors, 79% (15/19) of the moderate errors and 61% (11/18) of the minor errors. ADR reports increased from 7 in 2013 to 32 in 2014 and from 12 in 2016 to 26 in 2017; these were associated to periodic feedback to the HP about their reporting. Fig. 1 (not printed).

From product design perspective 64% of the HCP and only 30% of clients could identify the formulations with similar color and packaging materials.

Conclusions

Strengthening institutional pharmacovigilance at HIV treatment facilities through simple interventions like provision of feedback to HCP improves patients' safety and quality of care. Pharmaceutical manufacturers should also standardize their products in terms of colour and packaging to mitigate against irrational formulation use by product design.



Registration:

Registration will be open at the Kopanong Hotel Conference Centre as follows:

- Monday, 12th November starting at 14.00 hours to 18:00hours
- Tuesday 13th November starting at 8:00hours to 17:00hours

Instructions for presenters:

Please arrive 10 minutes before the session begins.

Poster Session:

Posters will be pinned in line with the oral presentations. After the oral presentations posters will be given 5 minutes to present on the poster.

Social Events and Activities LINE UP

Monday, 12 November, 2018 Main Hall Celebrating 20 sessions of Networking Welcome Dinner and Reception	
<i>Dress code: Casual</i>	
<i>Programs Director:</i> <i>Zandile Nhleko and Mduduzi Mbingo</i>	
18:30	Arrival and Networking. Finger foods are served.
19:00	Call to Order. Zandile Nhleko and Mduduzi Mbingo
19:05-19:20	Welcome to: Eswatini, the Network Agenda, Liyana Trailer and Bholoja- Preview Khosie Hlatshwayo ED Baylor Swaziland.
19:20-19:50	Welcome to the 20 th Session of Networking - Where we come from, where we are and where we are going. Mike Mizwa - COO
19:50-20:00	Celebrating 20 sessions of Networking - The Eswatini style AND Outline for the week. Zandi Nhleko- PM Baylor Swaziland
20:00	Dinner/Networking and Departure
Tuesday 13 November, 2018 Braai Area Cultural Dinner & Dance	
<i>Dress Code: Country Traditional Attire</i>	
<i>Programs Director:</i> <i>Zandile Nhleko and Mduduzi Mbingo</i>	
18:30	Arrival & Dinner.
19:00	Showcase your traditional dance & teach others: <ul style="list-style-type: none"> • Eswatini, Uganda, Argentina, Malawi, Tanzania, Romania, Lesotho, Colombia, Angola, Botswana
20:00	<ul style="list-style-type: none"> • <i>Spirit Award</i> for country showing the most enthusiasm in showcasing their dance • <i>Spirit Award II</i> for country most eager to learn new traditional dances
20:15	Dance a small part of the night away with DJ Zwide.

Wednesday 14 November, 2018 Venue TBD Movie Night – Liyana	
Dress Code: Casual	
<i>Programs Director:</i> <i>Zandile Nhleko and Mduduzi Mbingo</i>	
18:30	Dinner
19:40	<p style="text-align: center;">Liyana</p> <p>A movies about five orphaned children from Swaziland collaborate to craft a collective fairytale drawn from their darkest memories and brightest dreams. Their fictional character, Liyana, is brought to life in innovative animated artwork as she embarks on a perilous quest to rescue her young twin brothers. The children’s real and imagined worlds begin to converge, and they must choose what kind of story they will tell - in fiction and in their own lives.</p>
20:40	Debrief
21:00	Departure
Thursday November 14, 2018 Venue TBD Dinner with Bholoja	
Dress Code: Casual	
<i>Programs Director:</i> <i>Zandile Nhleko and Mduduzi Mbingo</i>	
18:30	Arrival and Networking.
	Welcome Remarks.
	Key Note Address.
	Dinner.
19:30	<p style="text-align: center;">Open the dance floor.</p> <p style="text-align: center;">Bholoja - one of the gifted musicians to emerge out of Eswatini, singing Afro-Pop, traditional African and Swazi soul.</p>



Meeting Logistics Team

Contact information

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