MSF Scientific Days Southern Africa 2024

Eswatini, 17 April 2024

Agenda, Speakers and Abstracts 2024

MEDECINS SANS FRONTIERES

MSF Scientific Days Southern Africa 2024

Welcome

Eswatini, 17 April 2024

Welcome to Eswatini for the 2024 MSF Scientific Days, Southern Africa

With great pleasure, the MSF Eswatini mission, and the organising team of the 2024 MSF Scientific Days Southern Africa welcomes you to the Kingdom of Eswatini. We feel privileged to bring together local and international researchers to this "Conference Without Borders" to disseminate findings from locally led and international research through the MSF Scientific Days platform.

Launched in 2004 in London, MSF Scientific Days aim to connect audiences – across countries, organizations, specialties, and disciplines – to promote debate and exchange around the evidence underpinning our medical humanitarian operations and provide fresh scientific perspectives on humanitarian medical programming.

As an international medical organization, we believe in evidence-based healthcare interventions and that evidence should guide our actions for us to bring the best care to our clients who are the patients. Therefore, we appreciate your presence and look forward to your engagement in today's discussions and debates to help us improve the care we provide to patients and communities through evidence-based decision-making.

This year's event gathers speakers and attendees from around the world through a hybrid format for thought-provoking sessions on:

- Tuberculosis: celebrating successes, addressing challenges
- Sexual health in precarious settings (STI and AMR)
- Diagnosing acute and early HIV infection and pre-exposure prophylaxis in a choice framework
- New operational strategies for old problems: the patients and populations as partners approach

Thank you for joining us for the 2024 MSF Scientific Days Southern Africa held in the Kingdom of Eswatini. We hope that you find the conference informative, thought-provoking and enjoyable.

The MSF Scientific Days Team

MSF Scientific Days Southern Africa 2024

Speakers

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Luis Neira

Dr Luis Neira is a medical doctor and epidemiologist from the Juan N. Corpas School of Medicine in Bogota, Colombia, and holds an MSc in Tropical Medicine and International Health from the London School of Hygiene and Tropical Medicine. Passionate about humanitarian aid and neglected tropical diseases, he joined Mèdecins Sans Frontiéres (MSF) in 2003 and has since worked in different positions ranging from Field Doctor to Medical Coordinator and Head of Mission, a position which he presently holds in Eswatini. Throughout his career with MSF, he has worked in a diversity of contexts, in countries of West and East Africa, Latin America, Asia and the Middle East.

Hayk Karakozian

Dr Hayk Karakozian is a medical doctor specializing in obstetrics and gyneacology with post graduate training in Humanitarian Practice from the University of Manchester. He joined MSF in 2002 and has worked in several countries in Africa (Ethiopia and Eswatini), Asia (Kyrgyzstan, North Korea, Myanmar), and Caucasus (Georgia and Armenia) as a planner, coordinator, and evaluator of medical activities. Among other topics, he has pre-dominantly been involved in the areas of tuberculosis, including drug-resistant TB, HIV/AIDS, infectious hepatitis. He currently serves as the Medical Coordinator of MSF Eswatini with a sexual health project addressing infectious and non-infectious pathologies and an upcoming level 2 intensive care unit and non-communicable diseases ward at the Manzini hospital.

Bongiwe Malinga

Dr Bongiwe Malinga graduated from the University of Zimbabwe with a bachelor's degree in Medicine and qualified for general practice. She later graduated from the University of Kentucky, USA with a master's in Public Health. Dr Malinga has been with the Ministry of Health, Eswatini since 2006 when she started work at Mankayane Government Hospital as a clinician and further got promoted to Senior Medical Officer. In 2019, she joined public health services and held the position of Senior Medical Officer, Public Health. Dr Malinga's career led to a Fellowship with US CDC In Atlanta, USA in 2023. Currently she is in the Directorate Team of the Ministry of Health where she is focusing on clinical services.

Bernhard Kerschberger

Dr Bernhard Kerschberger is a public health expert specializing in infectious diseases, health policy, and system strengthening. Since 2008, he has contributed to MSF focusing on HIV, TB, STIs, and the COVID-19 response in South Africa and Eswatini, as well as general health care in South Sudan, and Kenya. His recent work emphasizes STI research and making health innovations accessible in resource-limited settings, including new diagnostics and treatments. Now part of Epicentre, he's dedicated to enhancing mixed-method research to improve patient-centredness in MSF operations. His commitment to improving public health outcomes is grounded in evidence-based approaches and a strong dedication to promoting diversity, equity, and inclusion within the healthcare sector.

Christine Al Kady

Dr Christine Al Kady graduated from the Lebanese University Faculty of Medical Sciences with diplomas in laparoscopy, obstetrics and gynaecology ultrasound, and healthcare management and quality. Christine has worked with MSF for around 5.5 years and is currently the obstetricians team leader in the Midwifery Led Model Project-Lebanon. She has completed the Structured Operational Research and Training Initiative course and was the primary investigator for an operational research study within MSF. Christine has also participated in multiple training courses relating to care for victims of sexual violence and is an instructor for MSF on this topic, the clinical management of rape, and is the focal point and leading person for the sexual violence service within MSF's South Beirut project previously, and Beirut Project currently.

Debra Vambe

Dr Debrah Vambe has 17 years of experience in medical and public health fields, holding Bachelor of Medicine and Surgery degrees, an MPhil in HIV/AIDS Management, and an MPH in Health Systems and Policy from the University of Zimbabwe, Stellenbosch, and Witwatersrand, respectively. Currently, Dr Vambe serves as the Global TB Program Instructor and Regional Study Manager for the TB GAPS Project in Eswatini, Lesotho, Malawi, Uganda, and Tanzania. She is a member of the WHO guideline review committee and was recently awarded as a 2024 Global TB Elimination Champion.

Animesh Sinha

Dr Animesh Sinha is a HIV/TB/Hepatitis advisor for Médecins Sans Frontières (MSF). He has worked in Russia and Belarus in drug-resistant TB programmes and in the TB-PRACTECAL clinical trial. He is involved in several studies, including ongoing studies in mycobacterium tuberculosis complex, drug-resistant tuberculosis, and post-exposure screening and management of household contacts. Dr Sinha has authored or co-authored several journal articles on tuberculosis in peer-reviewed journals. In addition, Dr Sinha has spoken at numerous national conferences and symposia, with his presentations focusing largely on drug-resistant tuberculosis. He is currently involved in the roll-out of 6-month MDR-TB treatment regimens.

Mikanda Kunda

Dr Mikanda Kunda is a senior medical doctor and HIV clinician serving as the Site Principal Investigator for the endTB clinical trial and the STEM-TB observational study. Dr Kunda obtained his Diploma in HIV Management from the Colleges of Medicine of South Africa and his BSc in Biomedical Sciences from the University of Lubumbashi, Democratic Republic of Congo (DRC). He went on to complete his Bachelor of Medicine, Bachelor of Surgery. Currently based at Botšabelo Hospital in Lesotho, Dr Kenda is skilled in clinical and programmatic management of multidrug-resistant tuberculosis (MDR-TB) and HIV, is a member of the National ART Advisory Committee, and represents Partners In Health Lesotho as a member of the National HIV/TB Working Group. He has previous experience in the government sector and with non-profit medical organisations.

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Speakers

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Lazro Fidelle Nyikayo Bol

Dr Lazro Fidelle Nyikayo Bol holds a bachelor's degree in general surgery and medicine from the South Sudan Upper Nile University. Between 2012 and 2015, Lazro worked as a medical director for different Ministry of Health facilities in South Sudan. Since April 2021, he has worked with MSF as an operational research activity manager (Study Coordinator) and focal point for antibiotics stewardship. Prior to this he was a focal point medical doctor for TB/HIV, hepatitis, and kala-azar in Wau Shilluk, Aburoc, and Malakal. Lazro has also served in internally displaced people's camps in South Sudan.

Babhekile Shongwe

Miss Babhekile Shongwe is the focal point for MSF's Patients and Populations as Partners (PPP) approach in Eswatini, fostering transformative partnerships and ensuring community engagement in MSF's health programs. Babhekile holds an Honours Degree in Applied Ethics from the University of Stellenbosch, Cape Town, and an undergraduate degree in Humanities from the University of Eswatini. Drawing from her experiences working in a factory after high school and volunteering as a peer educator at the university level, she consistently generates innovative ideas. Passionate about mental health and fitness, Babhekile advocates for their importance and delivers motivational speeches in high schools.

Marcos Tamariz

Marcos Tamariz is currently the Coordinator of the MSF Mombasa project in Kenya. He holds an MA in International History and Politics from the Graduate Institute of International and Development Studies (IHEID), Geneva. Marcos has worked with MSF, Médecins du Monde, and the ICRC, in DRC, Guinea, Palestine, Honduras, Mexico, and Kenya. With MSF, he served as Deputy Head of Mission in Mexico and Central America, where he participated in the implementation of the PPP approach in Honduras and is actively part of research projects on migration, adolescent, and youth populations and sexual and reproductive health (SRH). Marcos has previously worked with an international SRH NGO.

Radoslav Antonov

Radoslav Antonov holds an MSc in International Economic Relations and is the Project Coordinator of MSF's Manzini/Matsapha Project in Eswatini having transitioned from the private sector to MSF in 2010. His professional background and experience have successfully defined his contribution to project/mission management, HR, and finance as he worked in Pakistan, South Africa, the Philippines, Myanmar, Nigeria, Mozambique and Eswatini. Since the inception of MSF's Sexual Health Project in Manzini/Matsapha in 2023, the team has significantly embraced the PPP approach to ensure that patients and populations inform, participate in the design of, continuously evaluate and participate in the governance of sustainable sexual health services.

Lungile Khumalo

Lungile Khumalo is the Director of "Voice of Our Voices", an organization dedicated to supporting sex workers. Lungile brings six years of hands-on experience in designing and implementing health programs tailored to this vulnerable community. Of note, she was the first community member to conduct a National Sex Worker's Indaba (forum of different stakeholders where talks are held on topics difficult to discuss due to legal environment concerns). Among other achievements, her goal-oriented and self-motivated approach drives her commitment to empowering marginalized populations and fostering positive change.

Ntombifuthi Precious Shongwe

Ms Ntombifuthi Precious Shongwe is an activist and advocate at country, regional and global level. A development practitioner by profession, she is currently the Programme Manager at Swaziland National Network of Young Positives (SNYP+). Precious is passionate about youth and women empowerment and making sure that women living with HIV, young people living with HIV and adolescent girls and young women take up leadership spaces and are engaged at all levels. She also offers guidance on HIV programming for young and adult people living with HIV (PLHIV). She has experience is engaging government/decision makers on national HIV programmes and fair budget allocation, welfare of PLHIV in Eswatini and domestic funding for upcoming PLHIV organizations.

Sindy Matse

Sindy Matse is a public health practitioner who works for the Ministry of Health in Eswatini under the Eswatini National AIDS Program. She is currently serving as a Program Manager for the HIV program. Sindy is responsible for coordinating the implementation of pre-exposure prophylaxis (PrEP) programming, providing technical leadership in designing, planning, and implementing PrEP in the country. In addition, she is involved in several evaluations of KP/PrEP program effectiveness. She has successfully guided the introduction of PrEP as demonstration projects and later the country-wide scale-up of the intervention. Currently, she is coordinating the introduction of long-acting PrEP products. Before joining the HIV program, Sindy worked as a professional nurse.

Iza Ciglenecki

Dr Iza Ciglenecki is a coordinator of operational research activities at MSF. She studied medicine in Ljubljana, Slovenia, and did additional training in tropical medicine and epidemiology at the London School of Hygiene & Tropical Medicine. She has been working with MSF for 20 years in different roles, including as a clinician, program manager, and technical advisor. Her interest is disease control, with a focus on improvement of patient care and use of vaccines as part of epidemic control strategies.

Esther Mukooza

Dr Esther Mukooza is a medical anthropologist with a strong interest in academia. Having worked with MSF since 2020, Dr Mukooza's change efforts and research work have been in the field of HIV, TB, and sexual health, with increasing inclination towards the community-based participatory action research approach or framework. Prior to joining MSF, she was the Executive Secretary of the Uganda National Renewable Energy and Energy Efficiency Association (UNREEEA) where she focused on the nexus between energy and health and led teams in competence-based curriculum development. Dr Mukooza has also conducted multi-site ethnographic research-work in northern Uganda on the "nodding syndrome".

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Abstracts

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High burden and diagnostic complexities of genital infections with Chlamydia trachomatis, Neisseria gonorrhoea, and Trichomonas vaginalis – insights from Eswatini

Bernhard Kerschberger[1], Nombuso Ntshalintshali[1], Mano Isaac Mafomisa[1], Edwin Mabhena[1], Michelle Daka[1], Esther Mukooza[1], Skinner Lekelem[1], Sindisiwe Dlamini[2], Mpumelelo Mavimbela[2], Lenhle Dube[2], Sindy Matse[2], Nomvuyo Mabuza[2], Roberto de Latour[3], Hayk Karakozian[1], Nelly Staderini[3], Melat Haile[3], Pablo Valladres[4], Alexandra Calmy[4,5], Laurence Toutous Trellu[5], Iza Ciglenecki[3,4]

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Background

Sexually transmitted infections (STIs) present a global public health concern. In resource-poor, high-transmission settings, the reliance on the syndromic approach for diagnosing *Chlamydia trachomatis* (CT), *Neisseria gonorrhoea* (NG), and *Trichomonas vaginalis* (TV) infections results in misdiagnosis, thus contributing to unnoticed transmission and antimicrobial resistance. We assessed the burden of CT, NG and TV infections in Eswatini and evaluated the diagnostic accuracy of screen-only and screen-and-test approaches for identification.

Methods

This cross-sectional study enrolled adults in six outpatient care sites in Shiselweni, from July 2022 to April 2023. A client self-questionnaire assessed STI risk factors and symptoms. Clinicians diagnosed male urethritis syndrome and vaginal discharge syndrome using the syndromic approach. Urine samples were collected in parallel for molecular testing on Xpert for CT/NG/TV pathogens. Proportions of laboratory-confirmed CT/NG/TV infections were calculated. Predictor risk scores (PRS) were developed for each sex using penalized logistic regression models (LASSO). We compared the performance of screen-only approaches (syndromic-screening with and without leukocyte esterase screening, self-reported symptom-screening, PRS-screening) with combined screen-and-test algorithms to identify CT/NG/TV infections. Performance benchmarks included <60% testing efficiency (the proportion of clients streamlined for molecular-based testing), ≥90% sensitivity, and reduction of false-positive cases.

Ethics

This study was approved by the Eswatini Health and Human Research Review Board and by the MSF Ethics Review Board.

Results

Of 1,396 study participants, 717 (65.4%) were women, the median age was 29 (interquartile range, IQR, 23-36) years, and 274 (19.6%) were known HIV-positive. Overall, 443 (31.7%) of 1,396 participants tested positive for one or more CT, NG, or TV infections, with 92 (20.8%) of 443 being asymptomatic. Combined CT/NG/TV infection was highest among clients newly diagnosed with acute/early HIV infection (50.0%), attending factory clinics (46.2%), and engaging in transactional sex (45.2%). Screen-only approaches demonstrated suboptimal performance in identifying infections with high proportions of false-positive cases and ROC ranging from 0.54 to 0.77. Combined screen-and-test algorithms eliminated false-positive cases, although no single approach met all established benchmarks. The most effective interventions for men included a combination of PRS-screening/molecular-testing (sensitivity: 87.3%, efficiency: 59.8%), and PRS-screening/molecular-testing complemented by targeted syndromic-screening/molecular-testing (sensitivity: 90.4%, efficiency: 62.1%). Similarly, for women, the combination of PRS-screening/molecular-testing complemented by targeted syndromic-screening/molecular-testing showed the best results (sensitivity: 79.7%, efficiency: 63.1%). Alternative screen-and-test algorithms could be identified by adjusting sensitivity and testing efficiency benchmarks to the requirements of the local context.

Conclusions

The prohibitive costs of molecular-based STI testing remains a challenge in resource-limited settings. Combined screen-and-test algorithms reduce testing requirements, enhance sensitivity, and eliminate false-positive cases. This potentially contributes to improved quality of STI care and mitigating the risk of antimicrobial resistance.

Conflicts of interest

None declared.

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Abstracts

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Are antibiotics being over-prescribed for the treatment of urinary tract infections? A prospective study among pregnant refugees in Beirut, Lebanon

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Introduction

Inappropriate use of antibiotics is widespread, and one of the main drivers for antimicrobial resistance (AMR). In pregnant women with suspected urinary tract infection (UTI), studies have suggested antibiotic over-use in up to 96%; use may be particularly high in settings with limited diagnostic resources and where reliant on symptomatic approaches. In south Beirut, specifically within camps where refugees settle and living conditions are poor, MSF has been operational since 2014 as the main provider of free primary healthcare services as well as sexual and reproductive health (SRH) care. Current MSF protocols operational in this setting recommend the use of urine dipsticks for UTI screening in pregnant women, followed by empirical antibiotic treatment for those with a positive result (positive for nitrites and/or leucocytes).

Methods

In 2021, around 6,300 (24%) of the total 26,300 antenatal care (ANC) consultations conducted had a suspected UTI, based on urine dipstick results, and all those suspected with UTI were prescribed antibiotics. A prospective study was conducted between April and July 2022, to determine if adding urine culture, following positive urine dipstick, to the protocol would reduce the use of unnecessary antibiotics. We used descriptive statistics to describe the population and compare positive and negative urine cultures. We calculated the proportion of patients receiving appropriate or inappropriate antibiotics.

Ethics

This study was approved by the MSF Ethics Review Board, and by the ethics committee of the Lebanese American University.

Results

A total of 449 pregnant women with suspected UTI were included in this study; all received urine culture. 81 (18%) were culture-positive. Under usual practice, 368 women (82%) would have been overprescribed antibiotics, based solely on urine dipstick results. 197 (44%) of the cohort were symptomatic, and were given empirical antibiotic treatment, with cefixime administered to 42 (21%) women and fosfomycin to 155 (79%). *Escherichia coli* (79%) was the most common bacterial species isolated, followed by *Proteus* (11%). In addition, among the 81 positive cultures, 4 (5%) were found resistant to fosfomycin and 39 (48%) to cefixime.

Conclusion

These study findings reinforce concern around potential over-prescription of unnecessary antibiotics in such populations, which could contribute to a potential rise in AMR. In addition, resistance to cefixime, one of the recommended antibiotics to treat UTI's, is relatively high in this community. In contexts where urine culture is feasible, not costly, accessible, and results rapidly available, particularly with large cohorts of patients, urine culture should be the main method used to diagnose UTI; treatment should be based on microbiology/antibiotic sensitivity results.

Conflicts of interest

None declared.

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Abstracts

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Six-month multidrug-resistant tuberculosis regimens: from trials to practice

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Introduction

Approximately half a million individuals worldwide develop rifampicin-resistant tuberculosis annually, with low success rates in treatment outcomes necessitating novel therapeutic approaches. The TB-PRACTECAL trial assessed the safety and efficacy of oral regimens for rifampicin-resistant tuberculosis, yielding promising results. In Belarus and Uzbekistan, the Six Months All-Oral Regimens for Rifampicin-resistant TB Treatment (SMARRTT) are utilized in operational research settings. This study aims to conduct a preliminary evaluation of the effectiveness and safety of Six Month All Oral Regimens for patients with rifampicin-resistant tuberculosis.

Methods

A preliminary assessment of a 24-week regimen consisting of bedaquiline, pretomanid, linezolid, and moxifloxacin/clofazimine (BPaLM/BPaLC) was conducted in a cohort of patients with rifampicin-resistant tuberculosis. Treatment outcomes, time to culture conversion, types of adverse events (AEs), their frequency, and outcomes were analysed.

Ethics

This study was approved by the MSF Ethics Review Board, the Local Ethics Committee in Belarus, and the Ministry of Health Ethical Committee of Uzbekistan.

Results

Among 543 patients with available treatment outcomes, 503 (94%) experienced favourable outcomes, while 17 were lost to follow-up, and nine died. The median (interquartile range) time to culture conversion was 27 (23–28) days. Serious adverse events (SAEs) were observed in 8.9% of patients, with 48 SAEs reported, 33 of which were resolved, two resulted in sequelae, four were resolving, and eight were fatal.

Conclusion

The TB-PRACTECAL trial demonstrated the safety and efficacy of these 6-month multidrug-resistant tuberculosis (MDR-TB) regimens in a randomized controlled trial. Real-world effectiveness of BPaLM/BPaLC for rifampicin-resistant tuberculosis patients is notably high (94%), with a favourable safety profile.

Conflicts of interest

None declared.

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Abstracts

Eswatini, 17 April 2024

Improving treatment of multidrug-resistant tuberculosis: results of the endTB randomised clinical trial

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Introduction

Tuberculosis (TB) is a major public health challenge encountered across many Médecins Sans Frontières (MSF) fields. Management of drug-resistant TB is an operational priority for MSF. endTB is an MSF-sponsored randomised trial funded by Unitaid as part of the larger endTB project. The trial objective was to examine five new all-oral, shortened regimens for patients with fluoroquinolone-susceptible, rifampicin-resistant/multidrug-resistant TB (RR/MDR-TB).

Methods

endTB was a phase 3, randomised, controlled, non-inferiority trial performed in seven countries (Georgia, India, Kazakhstan, Lesotho, Pakistan, Peru, and South Africa) in five WHO regions. Participants with RR/MDR-TB (aged ≥15 years old) were randomly assigned to six regimen groups (1:1:1:1:1:1; 9BLMZ, 9BCLLfxZ, 9BDLLfxZ, 9DCLLfxZ, 9DCMZ, or control) using Bayesian response-adapted randomisation. Experimental regimens were 9 months long; all contained 4–5 drugs, including pyrazinamide, a fluoroquinolone, either bedaquiline and/or delamanid, and linezolid and/or clofazimine. The internal, concurrent control regimen was the evolving WHO-recommended standard. Primary outcome was the proportion of favourable outcome at week 73, defined by two negative sputum culture results. The non-inferiority margin was 12%. We performed efficacy comparisons in the modified intention-to-treat population (mITT), which included all randomised participants who took at least one dose of study treatment (safety population) and who had a positive pre-randomisation TB culture, and in the per-protocol population (PP), defined as mITT excluding participants who did not receive the protocol-defined treatment. We performed safety comparisons on the safety population. This study is registered on ClinicalTrials.gov (NCT02754765).

Ethics

The endTB trial has been approved by MSF Ethics Review Board and by ethic committees of partner organisation (Harvard Medical School, Interactive Research and Development, Institute of Tropical Medicine) and each participating country.

Results

Of 754 participants enrolled between 2017 and 2021, 696 and 559 were included in the mITT and PP analyses, respectively. Median age was 32.0 years (IQR 23.0–44.0), and 264 (38%) of 696 participants were female. Overall, regimens 9BLLfxCZ, 9BLMZ, and 9BDLLfxZ achieved non-inferiority in mITT and PP analyses. 9BLLfxCZ also achieved superiority. 9DCMZ regimen achieved non-inferiority in mITT, but not in PP. 9DCLLfxZ did not achieve non-inferiority. The proportion of participants experiencing grade 3 or higher adverse events or serious adverse events was similar between the regimens. Grade 3 or higher hepatotoxicity occurred in 12.6% (78/619) of participants in the experimental regimens overall and in 7.1% (9/126) of participants in the control group.

Conclusion

The endTB trial results increase patient-centred treatment options for RR/MDR-TB with three shortened, all-oral, non-inferior regimens to a current well-performing standard of care. A fourth regimen could be considered for patients for whom bedaquiline and/or linezolid is not available. These results could be extrapolated to children and pregnant women. The implications on the MSF TB field activities are important and could lead to improved access to care and better treatment outcome.

Conflicts of interest

None declared.

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Xpert MTB/RIF Ultra on stool and urine to diagnose tuberculosis in children living with HIV in South Sudan

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Introduction

Over half of childhood tuberculosis (TB) remains undiagnosed yearly. TB culture is often unavailable. WHO recommends Xpert-Ultra as the first test for diagnosis of paediatric TB, but microbiological confirmation remains low and often requires invasive procedures. We aimed to determine the utility of Xpert-Ultra for stools and urine samples to diagnose TB in in children living with HIV (CLWH) in two high-TB burden settings.

Methods

This cross-sectional multicentric study took place at Simão Mendes hospital, Guinea-Bissau, from July 2019 to April 2020, and in Malakal hospitals, South Sudan, from November 2019 to June 2023. Children of 6 months to 15 years with presumptive TB underwent clinical and laboratory assessment, with one respiratory or extrapulmonary sample (gold standard (GS)), one stool, and one urine specimen analysed with Xpert-Ultra.

Ethics

This study was approved by the Guinea-Bissau National Health Ethics Committee, the South Sudan Ministry of Health Ethical Review Board, and the MSF Ethics Review Board.

Results

A total of 93 HIV-positive children were enrolled from Bissau (n=57) and Malakal (n=36), with 49 (53%) females and median age of 3.3 (interquartile range, IQR, 1.5-10) years. Three-quarters of children had severe acute malnutrition (SAM). A total of 72 (77%) children were on ART at baseline and 26 (34%) of 77 had CD4 count <200cells/mm3. Confirmation of TB was achieved in 10 (11%); 61 (66%) had unconfirmed TB, and 22 (24%) had unlikely TB. Of 93 children with GS diagnosis, the overall yield of positive TB results was 11% (10/93): 10% (9/90) in pulmonary samples and 20% (1/5) in extrapulmonary samples. A total of 86 and 91 samples were used to evaluate Xpert-Ultra on stools and urine, respectively. Compared to GS, sensitivity and specificity on stools were 87.5% (95% CI 52.9-97.8) and 100% (95% CI 95.3-100), whereas on urine were 30% (95% CI 10.8-60.3) and 100% (95% CI 95.5-100), respectively. No patients were positive in stools or urine and negative with GS.

Conclusion

Xpert-Ultra in stools showed high sensitivity and specificity in HIV-infected children when compared to gold standard. Sensitivity of urine was low, but more research is needed to determine its clinical indication.

Conflicts of interest

None declared.

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Burden of acute and early HIV infection in an outpatient setting in Shiselweni, Eswatini

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Introduction

Unaddressed acute and early HIV infection (AEHI) contributes to continuous HIV transmission despite global achievements in HIV control. In sub-Saharan Africa, diagnosis and care for AHI is almost non-existent, and current testing guidelines provide no guidance. Within a larger cross-sectional study assessing the burden of sexually transmitted infections, we implemented routine testing for HIV, including AEHI.

Methods

Adults (≥18 years) accessing HIV testing services in six clinics in Shiselweni, Eswatini, were enrolled from July 2022 to March 2023. HIV testing counselors performed finger-prick HIV testing using standard serial rapid tests (RDT, Determine™ and Uni-Gold™), as well as the 4th generation antibody/p24 antigen RDT Determine™ HIV Early Detect in parallel. Quantitative HIV RNA detection was performed in the central laboratory with the Xpert platform. Chronic HIV infection was defined as positive serial antibody RDTs and detectable HIV viremia, and AEHI as negative or discordant RDT and detectable HIV viremia. Patients newly diagnosed with HIV were offered immediate anti-retroviral therapy (ART) initiation and assisted partner notification, and clients testing negative were offered HIV prevention including HIV pre-(PrEP) and post-exposure (PEP) prophylaxis.

Ethics

Ethics approval was obtained from the MSF Ethics Review Board and the Eswatini Health and Human Research Review Board.

Results

Among 1195 clients enrolled, 732 (61.2%) were women, with a median age of 27 years (interquartile range, IQR, 22-33). Overall, 44 (3.6%, 95% CI 2.7-4.9) clients were diagnosed with HIV; 34 (2.8%, 95% CI 2.0-4.0) presented with chronic HIV infection and 10 (0.8%, 95% CI 0.4-1.5) with AEHI. Among ten patients with AEHI, eight (80%) had negative RDT and two (20%) discordant RDT. Clients diagnosed with AEHI were mainly young (nine [90%] were <30 years old) and women (nine [90%]). Most (eight [80%]) reported symptoms suggestive of AEHI: five (50%) with fever, three (30%) with sore throat, and six (60%) with symptoms suggesting STI. The median viral load among AEHI cases was 3.3 (IQR 0.75-10) million copies/mL. The Determine™ HIV Early Detect™ identified no additional HIV cases compared to Determine™; sensitivity was low (20%, 95% CI 2.5-55.6), specificity high (99.8%, 95% CI 99.4-100), area under the curve was 0.6 (0.47-0.73), positive predictive value 50% (95% CI 6.8-93.2) and negative predictive value 99.8% (98.6-99.7).

Conclusion

Testing for AEHI in this high HIV burden setting with good epidemic control increased the yield of newly detected HIV infections among clients attending HIV testing service by a fifth and identified patients with high risk of onward transmission. Identifying and treating AEHI in routine outpatient settings can contribute to prompt HIV diagnosis and care, thus contributing to epidemic control in generalized HIV epidemic settings.

Conflicts of interest

None declared.

MSF Scientific Days Southern Africa 2024

Abstracts

Eswatini, 17 April 2024

Drivers of HIV pre-exposure prophylaxis (PrEP) choice among women in Eswatini given the availability of oral PrEP and vaginal PrEP ring

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Introduction

HIV incidence in Eswatini is high (1.1% in adult women). Oral HIV pre-exposure prophylaxis (PrEP) was hailed for allowing women more control over HIV prevention, but continuation rates remain low. The vaginal Dapivirine ring may improve PrEP use, but factors influencing women's PrEP choices are not yet well documented. This study explored drivers of PrEP choice among women in Eswatini.

Methods

The study was conducted in six Shiselweni region health facilities from October 2022 to May 2023. 98 of 463 eligible women were initiated on PrEP. 14 women chose the ring, 83 chose oral, and 365 declined PrEP. By the end of the study period, only two women were still followed (one oral PrEP and one ring). Women initiating PrEP received one vaginal ring or 1 month's supply of oral PrEP at initial visit and 3 month's supply at each consecutive visit. In-depth interviews were conducted with women who opted for daily oral PrEP (n=6), ring (n=5), and who declined PrEP (n=6), despite eligibility. Interviews covered being offered PrEP, using PrEP, and choice drivers. Twelve healthcare workers (HCW) providing PrEP shared their knowledge and attitudes to PrEP options and prescribing experiences. Three focus group discussions with purposively sampled male and female community members were conducted to ascertain attitudes towards different PrEP options. Data generation was in Siswati, audio-recorded, translated and transcribed into English. Data were coded inductively and analysed thematically.

Ethics

The study was approved by the MSF Ethics Review Board and by the Eswatini Human Health and Research Review Board.

Results

Some women preferred oral PrEP due to higher efficacy. Others chose PrEP ring to counter challenges with oral PrEP. Some community members reported that PrEP-use increased HIV risk, with some men adding they would fight a partner found using PrEP. Accordingly, some women preferred ring and few disclosed PrEP-use to partners. Ring-use difficulties discouraged some from PrEP ring initiation or continuation, while some reported believing it would protect against all sexually transmitted infections but also increase pregnancy risks. Decliners preferred condoms as they await injectable PrEP, believed that INGOs were spreading HIV through PrEP, or desired to avoid PrEP during pregnancy. Others preferred antiretroviral therapy for life when infected, rather than the PrEP burden. HCWs felt that clients under-looked HIV prevention. Some worried about being blamed if their clients sero-converted following inconsistent PrEP-use, mentioning that injectable PrEP would allay their fears around non-adherence risks.

Conclusions

Perceptions and experiences surrounding PrEP-use influence PrEP choice decisions. Improved knowledge about PrEP options would further empower women to protect themselves against HIV acquisition.

Conflicts of interest

None declared.

MSF Scientific Days Southern Africa 2024

Agenda

Eswatini, 17 April 2024

All times in Central African Time

9:00 – 9:15 **Opening remarks**

Head of Mission: **Dr Luis Neira**

Chief Guest: **Mr Mduduzi Matsebula** (Minister of Health)

Programme Director: **Dr Hayk Karakozian**

Session 1: Chair – Dr Bongiwe Malinga

Sexual health in precarious settings

9:15 – 9:55 **Dr Bernhard Kerschberger** – *High burden and diagnostic complexities of genital infections with Chlamydia trachomatis (CT), Neisseria gonorrhoea (NG), and Trichomonas vaginalis (TV) – insights from Eswatini.*

9:55 – 10:15 **Dr Christine Al Kady** – *Are antibiotics being over-prescribed for the treatment of urinary tract infections? A prospective study among pregnant refugees in Beirut, Lebanon*

10:15 – 10:45 Q&A/Discussion

10:45 – 11:10 Coffee break

Session 2: Chair – Dr Debra Vambe

Tuberculosis: celebrating successes, addressing challenges

11:10 – 11:30 **Dr Animesh Sinha** – *Six-month multidrug-resistant tuberculosis regimens: from trials to practice*

11:30 – 11:50 **Dr Kunda K. Mikanda** – *Improving treatment of multidrug-resistant tuberculosis: results of the endTB randomised clinical trial the endTB clinical improving treatment of multidrug-resistant*

11:50 – 12:10 **Dr Lazro Fidelle Nyikayo Bol** – *Xpert MTB/RIF Ultra on stool and urine to diagnose tuberculosis in children living with HIV in South Sudan*

12:10 – 12:40 Q&A/Discussion

12:40 – 13 :40 Lunch Break

Session 3: Chair – Ms Babhekile Shongwe

New operational strategies for old problems: the 'patients and populations as partners' approach

13:40 – 13:45 Facilitator Babhekile introduces the patients and populations as partners (PPP) topic

13:45 – 14:35 **Marcos Tamariz** – *Presentation illustrating PPP in practice: A case of the Mombasa study*

Marcos Tamariz – *Panelist 1: Supporting efforts to reduce HIV key population stigma among healthcare workers in Mombasa*

Radoslav Antono – *Panelist 2: Eswatini*

Lungile Khumalo – *Panelist 3: Eswatini voice of the voiceless*

Precious Shongwe – *Panelist 4: Eswatini Network of young positives*

14:35 – 15:00 Coffee break

Session 4: Chair – Make Sindy Matse

Diagnosing acute and early HIV infection and pre-exposure prophylaxis in a choice framework

15:00 – 15:20 **Dr Iza Ciglenecki** – *Burden of acute and early HIV infection in an outpatient setting in Shiselweni, Eswatini*

15:20 – 15:40 **Dr Esther Mukooza** – *Drivers of HIV pre-exposure prophylaxis choice among women in Eswatini given availability of oral PrEP and vaginal PrEP ring.*

15:40 – 16:20 Q&A/Discussion

16:20 – 16:30 Closing remarks

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