PA-702 COLLABORATIVE IMPLEMENTATION OF LABORATORY QUALITY MANAGEMENT SYSTEM (LQMS), AMR SURVEILLANCE AND STEWARDSHIP IN COUNTY HOSPITAL LABORATORIES IN SOUTHEAST LIBERIA – JOURNEY SO FAR, LESSONS LEARNED

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Background Laboratory Quality Management Systems (LQMS), antimicrobial resistance (AMR) surveillance and stewardship (AMS) are important for quality patients' care and safety. Through collaboration between Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) and Liberia's Ministry of Health (MOH); Health Focus GmbH (www.health-focus.de) and Integrated Quality Laboratory Services (www.iqls.net) implemented LQMS, AMR surveillance and AMS in hospitals in southeast Liberia

Methods LQMS implementation started April 2021 with baseline assessment of five hospital laboratories, using WHO's Stepwise Laboratory Quality Improvement Process Towards Accreditation (SLIPTA) check-list. Training topics and Quality Improvement (QI) action plans were developed to address identified gaps. Internal audit of the laboratories was conducted in April 2023, while the final SLIPTA audit is scheduled for July 2023.

For AMR surveillance and AMS, a central bacteriology laboratory was established at the JJ Dossen hospital, Harper, Maryland County; and staff were trained to perform sample analysis (bacteria ID and AST) using standard methods. Steering Committee members in each hospital perform regular AMS ward rounds. Quality indicators of antimicrobial use (i.e. correct compounds, dosage and duration) were assessed before and after AMS ward rounds.

Results At baseline, only the JJ Dossen laboratory reached 1-star SLIPTA threshold; and guidelines for good clinical laboratory practice and quality management were grossly inadequate. Internal audit conducted in April 2023 showed marked improvement in LQMS, with all the laboratories making overall increases in their SLIPTA points. Similarly, there was significant improvement in the antibiotic treatment guideline (due to incorporation of local antibiogram data); completeness of microbiological diagnostics; and clinical outcome.

Conclusion Despite persistent systemic challenges (institutional and human), good collaboration between local and international partners, regular coaching, mentoring and supervision accounted for the successes achieved in this remote, difficult-to-reach part of Liberia. Critical stakeholders were integrated in the project to ensure continuous improvement and sustainability beyond current GIZ funding.

PA-706 CLINICAL AND MICROBIOLOGICAL PREDICTORS OF HEALING IN BURULI ULCER DISEASE

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Background Among participants with PCR confirmed BU, we examined the relationship between clinical and microbiologic characteristics and wound healing as assessed using three methods for the determination of rate of healing (RoH).

Methods Participants were grouped as fast healers and slow healers based on healing status at 8 weeks. Lesion measurements were obtained with acetate sheet tracings (2D) or Aranz software (3D) fortnightly. RoH was determined using the absolute area (AA), percentage area reduction (PAR) and linear (LM) methods at 4 weeks post-antibiotic treatment. Predicted time to healing was compared to the actual healing time. Baseline clinical and microbiological characteristics were assessed for associations with healing.

Results All three methods for calculating the RoH significantly distinguished between fast and slow healers ($p<0.0001$). The predicted healing time using the LM was comparable to the actual healing time for fast healers ($p=0.34$). Fast healers had shorter median time to healing [6, IQR (4,12)] compared to [24, IQR (20,33)] ($p<0.0001$) for slow healers. More slow healers had positive AFB (121/197(61%) at baseline, positive culture growth [52(46%), higher bacterial load at baseline (median IS404 cps/ml [500 IQR (500,1750) vs (500 IQR (250–2000; $p=0.038$]) and viable Mu 16srRNA (median (IQR) cps/ml [500 (500-,500) vs 0(0,500), ($p=0.003$)]) than fast healers. Slow healing was strongly associated with large (category II and III), plaque, oedematous lesions, longer time to clearance of viable M. ulcerans and development of paradoxical reactions.

Conclusion LM predicted healing time is comparable to actual healing time. Baseline characteristics associated with healing can be considered as markers for healing to facilitate improved disease management to reduce patient and caregiver anxiety.

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PA-707 REPORT OF COVID-19 VACCINE SAFETY MONITORING IN KANO STATE, NORTHWESTERN NIGERIA. 2021–2023

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