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Background: In July 2017, the Ethiopian Public Health Institute (EPHI) launched an antimicrobial resistance (AMR) surveillance network at 4 sentinel laboratories. The National Clinical Bacteriology and Mycology Laboratory (NRL) at EPHI performs monthly confirmatory testing on a subset of isolates submitted by these sites. We assessed the existing confirmatory testing program to identify gaps and develop solutions, including a monitoring and evaluation (M&E) system. **Methods:** We assembled a technical working group (TWG) of key stakeholders. Laboratory site visits included workflow observation, process mapping, document review, and technologist interviews. Proposed solutions to observed gaps were drafted in formats consistent with their intended application. Feedback from the TWG was incorporated into final drafts. Available AMR network staff members were trained remotely, and they will train remaining staff. **Results:** Table 1 describes major gaps and solutions identified. **Conclusions:** Confirmatory testing provides a mechanism to evaluate laboratory testing proficiency, target improvements, and estimate surveillance data quality, yet standardized methods were lacking. Our efforts highlight key components of confirmatory testing programs and provide a model for use in laboratories with similar needs.

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Improving Neonatal Survival Through Preventing Infections in Resource-Constrained Environment: A Quality Improvement Project

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Background: A recent study using minimally invasive tissue sampling at Chris Hani Baragwanath Academic Hospital (CHBAH), a public tertiary-care hospital in South Africa, reported that 70% of preterm neonatal deaths were due to healthcare-associated infections (HAIs). Based on these findings, CHBAH in collaboration with the CDC conducted an infection prevention and control (IPC) assessment and identified IPC gaps: limited training and mentorship of staff, medication preparation near the patient zone, and inadequate equipment cleaning and a high infection rates. We implemented a program from February 2019 to February 2020 to address these identified gaps, with the aim of reducing the neonatal sepsis rate. **Methods:** We focused our interventions on 3 essential activities in the neonatal wards: (1) conducting medication compounding in a safe environment with dedicated trained clinical pharmacy personnel; (2) improving cleaning and reprocessing of medical equipment through use of dedicated ward assistants; and (3) improving infection control-related behavior of frontline healthcare staff through on-site IPC mentorship and training. We captured data on process measures including medication errors and hand hygiene and outcome measures. We also looked at rates of infection, defined as positive cultures from blood and CSF per 1,000 patient days. **Results:** A NICU satellite pharmacy was established in February 2019 and was managed by a lead pharmacist and pharmacy assistants. Following the intervention, medication errors were reduced from 17% in March to 2% in September; nursing staff previously dedicated to medication preparation were able to spend more time in patient care. Furthermore, 4 full-time ward-assistants were hired in February 2019, and equipment is now cleaned using a standardized protocol in a dedicated cleaning area. A dedicated IPC team was assembled in January 2019 to develop standard operating procedures and conduct frequent trainings with healthcare personnel on IPC practices. Since these trainings were implemented, hand hygiene compliance improved from 25% to 48% over a 4-month period. There has been no significant change in blood/CSF infection rates from before implementation (2018): 17.7 per 1,000 patient days (95% CI, 16.7–18.8) compared to rate of 19.1 per 1,000 patient days (95% CI, 17.7–20.6) after implementation (March–September 2019), with a rate ratio of 1.08 (95% CI, 0.98–1.19). **Conclusions:** The impact of this program was demonstrated through process improvements and reduction in medication errors. However, to date there has been no change in the overall infection rates, suggesting that additional IPC interventions are needed or that other factors are contributing to the high infection rates.

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