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Title: THE GAP BETWEEN KNOWLEDGE AND ACTION: UNDERSTANDING FRONTLINE HEALTH CARE PROVIDER MANAGEMENT PRACTICES OF PEDIATRIC SORE THROATS IN UGANDA

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Background & Aims: Primary prevention of Rheumatic Heart Disease (RHD) involves detection and adequate treatment of Group A streptococcal (GAS) infections. The Rheumatic Heart Disease Community Streptococcal Treatment Program "RESET" aims to reduce new cases of RHD through a community streptococcal treatment program in Eastern Uganda. Part of the intervention bundle includes improvement of guideline-based care for sore throat through frontline healthcare provider education on the Cape Town clinical decision rule for sore throat and guideline-recommended antibiotics. We evaluated pre- and post-training knowledge gain, and during implementation of the program, we assessed frontline provider practices in the management of pediatric sore throats.

Methods: In a primary workshop, we trained 1-2 frontline health care providers from each of the public and private health facilities in Tororo district. Workshop topics spanned overview of RHD, primary prevention of RHD, epidemiology of sore throats, assessment of a child with sore throat, diagnostic approaches including the pragmatic Cape Town clinical decision rule, and guideline-recommended antibiotics for bacterial pharyngitis. Trainees also participated in case-based discussions. Pre-and-post training tests were administered. Additionally, primary trainees were randomly assigned to additional post-training assessment, at 1 week, 3 months, or 6 months post-training. Further, we provided educational materials including clinic posters and desk booklets. Before program implementation, we conducted health facility readiness assessment by checking availability of educational and reference material in clinic rooms, ease of access to sore throat logs, availability of recommended antibiotics, among others. Primary trainees were expected to conduct secondary training of other frontline care providers at their facilities.

Results: One hundred and one frontline health providers from 80 public and private facilities participated in the primary training workshop. Of these 52% were male, over 80% were from public facilities, and the median duration in clinical practice was 9 years. Half of the trainees were nurses while other cadre included clinical and medical officers. Additionally, there were 456 secondary trainees across the district of whom 53.7 % were prescribing clinicians. The median pre-training score was 55%. There was a sharp increase in knowledge immediately post-training to 85%, peaking at 1-week (95%). Although there was a decline at 3 months (80%) and at 6months (75%), these median scores were still higher than pre-training scores. For facility readiness, while >80% of health facilities had practice-guiding materials, <30% had them displayed in clinic rooms where children are evaluated. There was generally poor uptake and completion of sore throat logs that were provided by the program. Despite this, we used surrogate data from existing Health Management Information System (HMIS) record books to understand management practices for sore throats. At 3 and 6 months of program implementation, over 70% of facilities were not applying the recommended clinical decision rule in the assessment of children presenting with sore throat. Further, frontline providers rarely prescribed the recommended antibiotics for bacterial sore throat even though these medications were available.

Conclusions: Education of health care workers has been part of intervention bundles in previous successful RHD primary prevention programs. However, toady in Uganda, despite the improvement in frontline health care provider knowledge about sore throats, there has been a lack of progress in implementing guide-line based care. The RESET program is being amended to understand the contemporary factors contributing to this disparity between knowledge and action among frontline healthcare providers in the primary prevention strategy for the control of RHD.