



WEBINAR SESSION 3 (OCT 2018) - SUMMARY

Overcoming Hurdles in Handwashing: A Clinician's Perspective on Driving Change in Healthcare Facilities

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Purpose of this Webinar

In low- to middle-income countries (LMIC), up to 40% of neonatal deaths are attributed to sepsis, sometimes acquired during delivery or post-natal care in a healthcare facility (HCF). Healthcare acquired infections (HCAI) which can result in sepsis are associated with unhygienic practices and inadequate infection prevention control mechanisms. Direct contact through hands, particularly those of the healthcare workers, is a common mode of transmission for pathogens that cause HCAI. In this webinar, Nkwan Jacob Gobte, Supervisor of the Infection Prevention and Control (IPC) Program for Cameroon Baptist Convention Health Services, shares the methodology and results of a successful intervention in a Cameroon HCF, aimed at reducing the incidence of neonatal sepsis by targeting healthcare worker hand hygiene practices. The multimodal program incorporated the distribution of locally produced alcohol-based hand rub (ABHR) paired with infection prevention training, and also targeted other unhygienic practices within the facility.

Summary of Presentation

Identifying the Need for the Intervention

- In 2002, a referral hospital in Cameroon experienced multiple outbreaks of neonatal sepsis. There was no targeted surveillance of neonatal sepsis at that time, and the severity of the problem may have been underestimated.
- An investigation into possible modes of infection transmission in the obstetric unit revealed no designated handwashing stations for hospital staff aside from physicians, a lack of awareness of hand hygiene among hospital staff, shared common use items from baby to baby (such as wash basins, bar soap, diapers when weighing, and petroleum jelly), and improperly diluted chlorine for disinfecting surfaces.

Overview of Program Intervention

Based on observations within the hospital, a multimodal intervention was designed which targeted all of the unhygienic practices identified and included:

- Shared common use items between babies was discontinued
- Three mobile handwashing stations were brought in for staff
- Staff training was provided on hand hygiene as well as sepsis case surveillance and registration
- Chlorine solution for surface disinfection was replaced with the WHO recommended strength
- A facility-based alcohol ABHR production program was introduced

ABHR Production and Distribution

- The program produced ABHR within the health facility using locally sourced ingredients and a recommended formula from World Health Organization
- After mixing, a quality assurance team would test the ABHR for microbiological contamination, pH and disinfection efficacy.
- ABHR was then provided to staff in personal sized bottles and placed around the health facility, and later into stationary dispensers at key locations.
- The program started at a referral hospital in 2003, expanded to four additional HCFs in 2012, and to 37 by 2017.
- The program was evaluated based on quantity of ABHR produced and used, staff demand, amount used by facility, and staff refilling frequency.

Overview of Results

- From 2002-2006, the hospital saw a general downward trend in neonatal sepsis after the program's implementation

Key Take-aways and Lessons Learned

- In this setting, sourcing materials and producing ABHR locally was three times less costly than importing the ABHR or buying from outside, and some imported ABHR products were determined to be microbiologically contaminated.
- Sustainability of program has been attributed to strong leadership support for the program within the HCF and aligning the program to fit with other infection prevention initiatives.
- Staff training on hygiene and infection prevention ensured staff knew why and how to use the ABHR, which likely facilitated the staff use and demand of the product.
- Major challenges include the labor-intensive production of ABHR, supply chain issues, and outcome and impact monitoring.

Important Comments from the Discussion

- IPC committees or focal points are useful for improving hand hygiene because they remind the staff to wash their hands during daily meetings as well as provide IPC refresher trainings in the workplace. It is an effective means to ensure that staff think about hand hygiene regularly. The chief of ward will request IPC materials from the focal point, who helps to monitor hygiene practices within the ward. In our experience in Cambodia, if the facility has a strong commitment by the IPC focal point, the hygiene is very good.
- Personal workload, hygiene awareness, and lack of water are barriers to compliance of staff hand hygiene, more research is needed to understand triggers for better hand hygiene behavior.
- Local context is influential to how an ABHR program could be implemented, in Cambodia for example, local production is difficult because glycerol is expensive, and staff prefer not to use ABHR because of the smell.
- The WHO's framework from hand hygiene in healthcare facilities was used alongside ABHR program to promote behavior change and system strengthening
- The ABHR production is not time consuming and did not require additional staff and salaries to produce.

- The multi-modal strategy focused on improving existing practices HCF and did not result in additional workload for staff to incorporate.

Summary of Action Items

1. Investigate the hygiene practices within the facility and identify problem areas
2. Produce ABHR within the facility if possible
3. Perform quality assurance testing of ABHR for safety and efficacy
4. Monitor production, use, and demand of ABHR within facility
5. Incorporate hygiene behavior change communication alongside and throughout program