

Hand hygiene improvement at the Neonatal Intensive Care Unit of Black Lion Hospital.

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INTRODUCTION

According to the 2009 WHO guideline, healthcare-associated infections (HAI) in developed countries accounts for 5-15% of hospitalized patients and can affect 9-37% of those admitted to an intensive care unit. Though there is insufficient data on health care associated infections in developing countries, it may be comparable or higher. The impact of health care associated infections can result in long hospital stays, long-term disability, and increasing antimicrobial resistance. Also, it contributes to financial burdens, excess of deaths, high costs for the health systems and emotional stress for patients and their caregivers.

PROBLEM STATEMENT/AIM OF THE QUALITY IMPROVEMENT (QI) PROJECT

Despite the availability of water (for handwashing) and alcohol (for hand sanitization) at the Neonatal Intensive Care Unit of the Black Lion Hospital, there is still a high neonatal death rate due to sepsis. The QI team attributed this to a lack of awareness of appropriate hand hygiene practices among mothers/caregivers, and the lack of sufficient attention to standard guidelines on hand hygiene among health professionals. We embarked on this project to assess and improve the hand hygiene practices of health professionals and caregivers.

METHODOLOGY

Study setting: This study was conducted at the Neonatal Intensive Care Unit of the Black Lion hospital, Addis Ababa, Ethiopia.

Study design: this was a QIP and we used the PDSA approach.

Plan: To assess the daily hand hygiene practices of health professionals and care givers at the NICU using the WHO guidelines, and provide the necessary support to improve daily hand hygiene practices consistent with these guidelines.

Do: For the baseline data, we assigned one of the NICU staff members to secretly observe and document the daily hand hygiene practices of 449 doctors, 451 nurses, 874 mothers and care givers over four weeks. After noticing that there was a huge practice gap, we designed the following change ideas: create a standard operating manual for hand hygiene, promote awareness on appropriate hand hygiene practices among mothers and caregivers, provide reminders and tips for handwashing on the general notice board and all service points, ensure a continuous supply of digital thermometers, alcohol and soap, and use monthly meetings to promote hand hygiene practices among health professionals that have direct contact with neonates.

Study: We collated the data, interpreted it and discussed what accounted for the hand hygiene practices that were observed.

Target measure: Increasing the proportion of participants with appropriate hand hygiene practices to a target of 100%.

ACT: Following a review of the initial data, opportunities for further improvement were identified and these include monthly clinical audits on hand hygiene practices, further health education sessions on hand hygiene as well as ensuring that staff members and the heads of department act as role models for change. Lectures were given to all stakeholders about the magnitude of healthcare-associated infections. Surprise audit reports were presented to all stakeholders and a process map of hand hygiene practices were also posted at the various service points. The QI team publicly recognised those with good hand hygiene practices.

Participants - The members of the QI team include:

- Dr. Fikremariam Gudeta. FMR₃ (QI team leader).
- Dr. Meseret Zerihun. Assistant Professor and Head of Family Medicine department, AAU (Member).
- Dr. Asrat Demissie. Assistant Professor and Head of Neonatology Department, AAU. (Member).
- Efrata Yemaneh. (Data collector).
- Dr. Ashna Bowry, MSc, MD, CCFP, Lecturer, University of Toronto (Advisor).
- Dr. Praseedha Janakiram. MD, CCFP Assistant Professor, University of Toronto (Advisor).
- Dr Andrea Janssen, Assistant Professor, AAU. (Advisor).
- Mothers/care givers (Members).

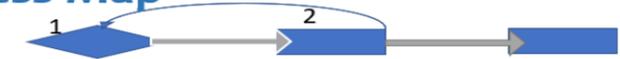
EXAMPLES OF INTERVENTION TOOLS USED

Different descriptive pictures and reminders posted about hand hygiene

Do not forget to wash your hands.



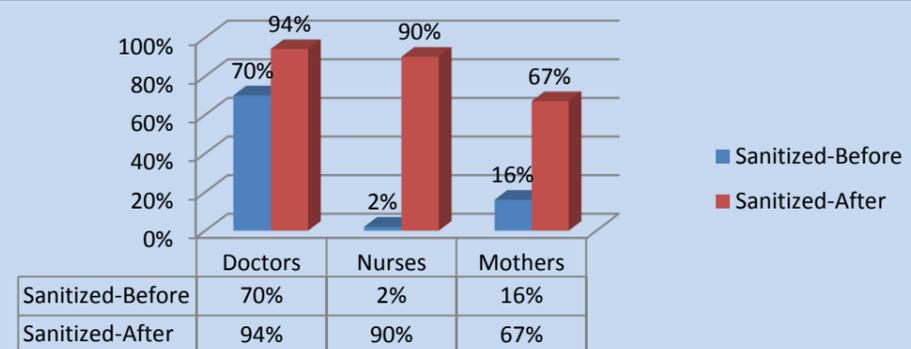
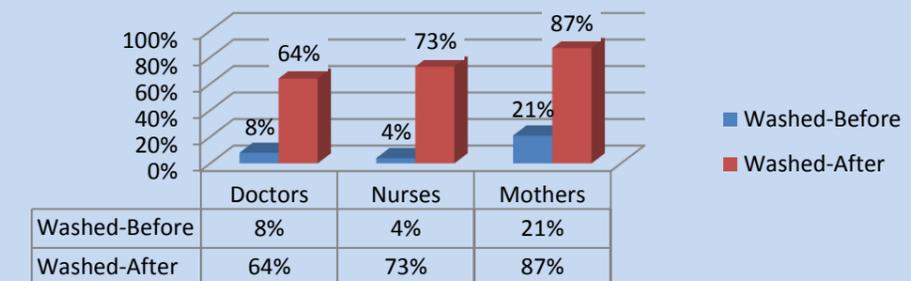
Process Map



1. Wash hand/clean with alcohol, then clean instrument with alcohol before using on patient.
2. See the patient
3. Repeat (1) and (2) till all patients have been seen.

Clean instrument with alcohol, wash hand/clean with alcohol before leaving.

RESULTS



CONCLUSION

The proportion of participants with adequate hand hygiene practices improved after two PDSA cycles. However, continuous and sustainable quality improvement projects should be done to maintain and improve upon this change.

REFERENCE

WHO Guidelines on Hand Hygiene in Health Care ,2009

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