Measurement of compliance to hand hygiene by healthcare workers in tertiary care hospitals of South India: An observational cross sectional study

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Background: Hands of Health Care Workers (HCW) are colonized with pathogens which are repeatedly shown to be associated with nosocomial infections. If properly implemented, hand hygiene alone can significantly reduce the risk of cross-transmission of infections in hospitals.

Objectives: To observe current levels of hand hygiene in selected clinical areas and to make recommendations for improvement.

Methodology: A cross-sectional study was conducted at across 4 tertiary care hospitals located across 4 south Indian states (Telangana, Tamil Nadu, Pondicherry, and Karnataka). A total of 120 HCWs selected through simple random sampling (30 - Doctors, 60 - Nurses and 30 - other paramedical staff) working in Gynecology, Pediatrics, Post-Operative recovery wards, Intensive Care Units (ICU) and Surgery departments were observed for hand hygiene compliance. World Health Organization's (WHO) methodology for undertaking hand hygiene observational audits was adopted and “Hand Hygiene Monitoring Mobile Application” was used to record and calculate the compliance rate.

Results: A total of 320 hand hygiene opportunities (64 in each department) were observed for which total hand hygiene actions performed were only 71 (Compliance: 20.3% - Gynecology, 15.6% - Pediatrics, 17.2% - Post-Operative recovery wards, 29.7% - ICU, 28.1% - Surgery wards). Compliance to WHO 5 moments was also measured (Compliance: 19.1% - Before touching a patient, 25.5% - before clean/aseptic procedure, 40% - After body fluid exposure risk, 23.8% - After touching a patient, 18.2% - After touching pt. surroundings).

Conclusion: To provide, adequate bedside hand hygiene facilities, suitable hand washing agents, adequate patient to HCW ratio and organize training sessions.

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