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Framework for strengthening infection prevention and control: Using a multi-modal approach for hand hygiene

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BACKGROUND

Political and organisational support for implementing infection prevention and control (IPC) programmes at national and healthcare facility levels can lead to significant reductions in healthcare associated infections (HAI) and patient harm. [1]

The World Health Organization's (WHO) recommendations for the core components of an IPC programme provide a framework and roadmap for implementing these programmes in Pacific Island countries and territories (PICTs). [2]

The core components include a functional national and healthcare facility level IPC programme; national IPC guidelines; IPC education and training; HAI surveillance; multi-modal strategies; monitoring/auditing IPC practices and feedback; and supporting the built environment, materials and equipment for IPC.

WHO recommends using '5 Moments for Hand Hygiene' in healthcare settings to protect the patient, the healthcare worker and the healthcare environment against the spread of pathogens, and using the WHO multi-modal strategy to improve hand-hygiene practices, which include monitoring and feedback. [3]

The '5 Moments for Hand Hygiene' approach encourages healthcare workers to clean their hands (1) before touching a patient, (2) before clean/aseptic procedures, (3) after body fluid exposure/risk, (4) after touching a patient, and (5) after touching patient surroundings. [3]

In 2021 and 2022, 34 IPC focal points from 8 PICTs were trained as Gold Standard Hand-Hygiene Auditors, who are now able to train General Auditors in their respective countries. Vanuatu volunteered to pilot the hand-hygiene training programme. As a result, 5 IPC focal points in-country are now trained as Gold Standard Hand Hygiene Auditors.

ACTION TAKEN

1. SPC sought the services of the Doherty Institute and worked together with PICTs to develop a targeted HAI surveillance programme for surgical site infection (SSI) for post-operative caesarean sections and a hand hygiene auditing programme.
2. The standard operating procedure for hand-hygiene auditing was adapted from the '5 Moments for Hand Hygiene' manual to make it more appropriate for a Pacific Island context.
3. The Gold Standard hand-hygiene training was delivered via Zoom by Hand Hygiene Australia (HHA) in four training sessions of 1–2 hours duration over a 2-week period. The training included learning how to implement and use the WHO multi-modal approach to improve hand-hygiene compliance.
4. The use of multi-modal strategies has been shown to be the best evidence-based approach to achieve sustained behavioural change in implementing IPC interventions. The multi-modal approach includes the following strategies:
 - a. System change
 - b. Training / Education
 - c. Evaluation and feedback
 - d. Reminders in the workplace
 - e. Institutional safety
5. Following the completion of the training, the IPC focal points conducted baseline hand-hygiene audits of 200 moments each for three wards: the neonatal intensive care unit (NICU), and surgical and medical wards.
6. In June and July 2022, baseline hand-hygiene audits of a total of 595 hand-hygiene moments were carried out in the NICU and surgical and medical wards. The results revealed that Villa Central Hospital (VCH) had a hand-hygiene compliance rate of 23%. The individual compliance rates were 34% for NICU, 26% for the surgical ward, and 8% for the medical ward.
7. The VCH hand-hygiene improvement plan was developed using the multi-modal approach.
8. The use of multi-modal strategies supports all aspects of IPC and underpins the guidelines for implementing the core components of IPC.
9. Multi-modal thinking means that IPC practitioners do not focus on single strategies to change practices (e.g. training and education), but consider a range of strategies that target different influences on human behaviour (e.g. monitoring and feedback, infrastructure and organisational culture).

CONCLUSIONS

The Pacific roadmap for implementing IPC programmes at national and healthcare facility levels in PICTS provides a platform for strengthening IPC interventions through the use of multi-modal strategies designed to achieve sustained behavioural change.

Hand hygiene and HAI surveillance are key functions of IPC teams and are considered vital components of preventing transmission of HAI as well as reducing healthcare costs and out-of-pocket expenses.

IPC focal points who have carried out baseline hand-hygiene audits against the '5 Moments for Hand Hygiene' are now equipped to enhance hand-hygiene programmes in their own countries. With strong political will and leadership, there is now great potential to improve hand-hygiene compliance in PICTs and to reduce the burden of HAI.

References

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