ESTABLISH INTERDISCIPLINARY TEAM OF HAND HYGIENE AUDITS HELP TO IMPROVE HAND HYGIENE
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Introduction: The real presentation of the staff hand hygiene implementation status is an important basis to help improve medical institutions, while avoiding audits “Hawthorne effect” is the key. Since 2012, the first interdisciplinary team includes the major members of all department / unit: physician, nurse, specialist assistant, Medical laboratory scientist, health examination center staff, after training as a complete unit of seed personnel, and the composition of the audit team to assist other unit audit, as to optimize workflow and enhance the implementation of hand hygiene basis.

Methods: Representatives recommended by directors of all departments. 1. Education Training (presentation and case report videos), to be certified by pre-and posttest; 2. regular case studies, and continue consensus 3. Group discussion led by infection control specialist to provide immediate consultation.

Conclusion: Audit assistance through different areas of trained expertise can reduce the Hawthorne effect, help to optimize the hand hygiene timing among all workflow in all categories, can improve medical personnel willing to perform hand hygiene.

THE INVESTIGATION AND TREATMENT OF SUSPECTED UPPER RESPIRATORY TRACT INFECTION CLUSTERING EVENTS IN PSYCHIATRIC WARDS
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Objective: To investigate and control an outbreak of vancomycin resistant enterococci (VRE) infection.

Methods: Epidemiological investigation, including multiple point-prevalence culture surveys of patients and environment, pulsed-field gel electrophoresis (PFGE) typing of patient and environmental isolates, implementation of infection control interventions and monitoring of control measures.

Setting: Medical intensive unit(MICU) in an 800-bed regional teaching hospital in Hsinchu, Taiwan.

Results: From April 14th to April 20th there were three cases of vancomycin resistant enterococci (VRE) healthcare associated bloodstream infections (BSIs) in a medical 16-bed medical intensive care unit (MICU) which had no case documented in the entire preceding 12 months. Outbreak investigation was initiated promptly. Between 1st May 2014 to 25th July 2014, by active surveillance of hospitalized patients at point of ICU admission, during ICU stay on a weekly basis and at point of ICU discharge, we collected 231 anal swab cultures form 129 ICU patients, of which 114 (49.3%) were positive for VRE. None of the colonized patients developed infections by VRE. Of the patients who were initially not-colonized at ICU admission, 14 patients became colonized during their ICU stay. Of 69 environmental cultures, 3 samples (1.44%) were positive for VRE. The contaminated environmental sites included bed rails, surface of ventilator machine and feeding pump.

PFGE typing indicated 8 clonal types prior to intervention with one predominant clone cultured from 4 (33.3%) patients(type A pulstype). Interestingly, one patient initially was colonized with pulstype C, but after 8 day, he became colonized with pulstype E from another patient who was already carrying pulstype E at ICU admission, documenting cross-contamination prior to intervention. The following interventions were implemented from May 1st to July 25th:

1. We educated and trained MICU healthcare and cleaning staff.
2. Field inspection were conducted by infection control nurses (ICN) and timely reminders were given.
3. We implemented a fastrack system of notification for multidrug resistant bacteria.
4. We increased the frequency of inter-patient curtain change and always replaced after each patient was discharged from ICU at terminal cleaning.

After these interventions, we found a decrease in percentage of patients newly colonized with VRE(33.3%−5%), dispersal of the predominant VRE pulstype A (33.3%−22.2%)with increased diversity of VRE pulstypes(13 pulstypes), and no new acquired cases of VRE infection.

CONCLUSIONS: Prior to infection control interventions, PFGE documented cross-contamination of VRE from patient-to-patient. Environmental survey did not reveal a point source or transmission vector. Although we did not perform culture of personnel, following education and training, aggressive environmental decontamination program including replacement of inter-patient curtains, new cases of VRE infection and colonization were prevented.