Conclusion: These results confirm the hypotension and higher APACHE II score as prognostic factors of CP in patients with community-acquired PPU and emphasize the antifungal therapy is not a prognostic value of direct to the population in this context.

**THE EFFECTIVENESS OF BIOLOGICAL INDICATOR AND E-TRACKING SYSTEM IN STERILIZATION FAILURE EVENT**

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Purpose: Steam sterilization is the most popular method used in hospital, but the failure rate varies from 1% to 65%. Use biological and chemical indicators are the gold standard for sterilization monitoring in the healthcare facilities. We wish to have a chance to verify the accuracy of these indicators.

Methods: At 10:10am Sep 5th by 2014, the hospital CSR (Central Service Room) encountered a florescent positive biological indicator after incubated 160 minutes. Then the head nurse prompt click the button in the e-tracking system to alarm the recall process hospital-wide at 10:13am. Although the sterilizer record and Bowie-Dick test, class 4 chemical indicator were passed, the class 5 chemistry indicator is fail. CSR also contacted infection control department, service engineer, supervisor of CSR and operating room (OR) for this emergency event.

Results: The e-tracking system show immediately 47 instrument sets processed in that questionable load, 5 of 47 already sent to operative room and children hospital operative room. With this system, CSR successfully recall 4 packs, only 1 pack was used at 10:18am of the day due to pediatric OR nurse misunderstanding the risk of sterilization failure. The questionable sterilizer was removed from service, and all the relative loads were reprocessed and also started to investigate the root causes. Finally, we found this rare event was due to CSR operator error finally.

Conclusions: We also found we need to educate the OR nurses, correct the CSR operation procedures, well trained the new employee, and audit the sterilizer record and monitoring products. The valued rapid readout biological indicator alarm in a short period and did do a great job to alarm the sterilization failure and prevent from pose the patient in infection risk.

**HAND WASHING TECHNIQUE IMPROVEMENT**

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Purpose: It is important that hand washing should be carried out correctly to reduce the spread of microorganisms. Hence, “seven steps of hand washing”, advocated by the World Health Organization, has been promoted in our hospital for years. Staff competence in hand washing technique is being assessed by infection control nurse and link nurses through observational audit annually. However, those who are compliant to hand hygiene may not be washing their hands effectively, even when there are guidelines posted in their workplaces and at the hand washing basin areas. This study aims to explore which part of hand that the staff have commonly missed during hand washing

Methods: The study was conducted during the hospital Hand Hygiene Campaign in May 2014. Firstly, staff were asked to apply florescent cream on their hands thoroughly and place their hands under ultraviolet (UV) light to check their hands. Secondly, they went on to wash hands. Finally, they were asked to check their hands under the UV light again. Staff would be shown which areas they have missed and educated on how to improve hand hygiene technique.

Results: A total of 115 staff participated the test: nurses(27%), housekeeping staff(22%), clerical staff(16%), allied health staff(13%), healthcare assistants(13%), doctors(5%) and other positions(10%). There was only 14% of staff wash hands thoroughly without any florescence on their washed hands under UV light. The commonest area that was not washed properly was ‘fingernails’(85%)—92% of them were found to have long fingernails. The second common area was ‘fingertips’(67%), followed by the ‘areas between fingers’(27%), ‘wrist’(14%), ‘palms’(10%) and ‘back of hands’(8%). The ‘back of thumbs’, always emphasized to be easily missed, was being washed effectively in our test.

Furthermore, 4% of staff found to have lesions on their hands; all of them had florescence remained on the lesions after hand washing.

Conclusions: Staff should be aware of skin care to prevent eczema, and lesions, if present, should be covered well. All staff welcomed our study that allows them to understand hand hygiene technique and its importance. Hand washing is a simple but important procedure that can prevent unnecessary hospital-acquired infections and ultimately save lives.

**IMPROVING HAND HYGIENE OF NURSING PRACTITIONERS IN A REGIONAL HOSPITAL**

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Purpose: Hand hygiene is a simple and effective way to reduce the spreading of multi-drug-resistant microorganisms. Accuracy and compliance of hand hygiene are important. The compliance of hand hygiene for our nursing practitioners (NP) was 90% in average during November 2013-January 2014. But the accuracy was around 51.3% below the hospital average (81.4%). So we conducted this project to improve the hand hygiene accuracy for our NPs.

Methods: We conducted root-cause analysis and we found two associated factors, which included 1. lack of education program for NPs; 2. lack of regular and comprehensive monitoring for hand hygiene for NPs.

We held education training course of hand hygiene for NPs. We also monitored the hand hygiene accuracy and compliance for NP every month. We provided the results to our nursing department with discussion and evaluation in the department meeting.

Results: Educational training courses were held on Jan 22, 2014 and Feb 5, 2014 to teach the correct procedures of hand hygiene. Leader of NP was responsible for internal audits. Infection control nurses were also conducting external audits for NPs’ hand hygiene. The accuracy of hand hygiene was as low as 44.4% in April 2014. The result was proposed to Infection Control Committee and Department of Nursing of our hospital and asked NPs to advocate the correct procedures of hand hygiene and conducted internal quality improving activity. Then the accuracy and compliance of hand hygiene achieved 100% in June 2014.