care at exit site in peritoneal dialysis (PD) patients can reduce risk of Staphylococcus aureus (SA) colonization or exit site infection.
Methods: We enrolled 89 PD patients in 1 year study period. We first decolonized SA nasal carrier with mupirocin and chlorhexidine bathing. After stratification by initial SA carrier status, patients were randomly assigned to receive daily chlorhexidine care (intervention group, n = 50) or normal saline (control group, n = 39) at exit site. Outcome measurements included time free of SA colonization or time to exit site infection.
Results: The underlying disease, dialysis duration, and baseline exit site scoring were similar in intervention and control group. SA colonization rate at the 6th /12th month were significant lower in intervention group than control group (5.0% vs. 22.9%; p = 0.023 in the 6th month) (8.6% vs. 28.1%; p = 0.037 in the 12th month). MRSA colonization rate at 12th month were significant lower in intervention group than control group (0% vs. 12.5%; p = 0.047). Exit site scoring was worse in control group than intervention group in the 6th month (0.66 VS. 0.12, P = 0.008) but was similar in the 12th month (0.42 vs. 0.45, p =0.88). Genotyping of MRSA isolates showed ST (sequence type) 59 was the most predominant clone.

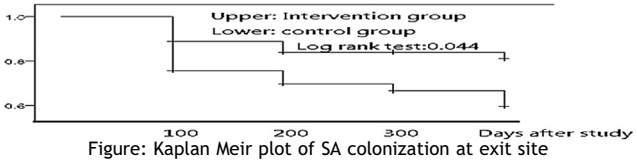

Figure: Kaplan Meir plot of SA colonization at exit site

Conclusions: Daily chlorhexidine care at exit site in PD patients may be a good strategy for SA (including MRSA) decolonization.

OS 13-3

ESTABLISHING PREVENTION AND CONTROL PROGRAM FOR WATER-RELATED INFECTIONS IN A REHABILITATION HOSPITAL OF HONG KONG

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Purpose: Different water systems are essential in healthcare settings. However, it may pose risk of healthcare-associated infections if not managing well. Its management includes facility design and practices involving various stakeholders in hospital. A comprehensive prevention and control programme for water-related infections is needed to safeguard the patient safety. The purpose of this study was to assess the risk of water-related infections in a 256-bed rehabilitation hospital, eradicate the sources of risk accordingly and fix the monitoring parts of the programme.
Methods: Questionnaire survey was used to screen the high risk facilities and practices in all (23) patient care areas. Another survey was followed to locate the infrequently used water outlets throughout the hospital. Further inspections on specific high risk items were conducted. Based on the risk assessment results, interventions were developed.
Results: The survey revealed that infrequently used water outlets and respiratory equipment with water reservoir were found in four and three clinical workplaces respectively. Users claimed that all were managed safely according to recommendations. The follow-up survey identified 14 infrequently used water outlets throughout the hospital. Inspection confirmed that the hydrotherapy pool was managed well. The preventive and control measures were developed:

1) Condemned the aqua massage unit due to low utility;
2) Incorporated a management package for infrequently used water outlets;
3) Established a monitoring component for hydrotherapy pool management;
4) Adjusted the water filtering system for endoscope rinsing to minimize the risk of water re-contamination and initiated a record system on filter management;
5) Adopted two checklists to delineate the roles of different stakeholders in hospital.

Conclusions: The established programme overviewed the high risk facilities and practices for water-related infections in hospital. Risks of water-related infections were minimized. Preventive and control measures were settled.

OS 13-4

A SUCCESSFUL AUDIT WITH MULTIDISCIPLINARY INTERVENTION IN CONTROLLING HOSPITAL ACQUIRED INFECTIONS IN POSTPARTUM MOTHERS IN A TERTIARY CARE OBSTETRICS UNIT

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Purpose: Hospital acquired infection (HAI) in obstetrics is an important component of expenditure in health sector and delays discharge of patient and bonding of mother with baby. A retrospective study done for 12 months in an obstetric unit revealed 32/810(4%), 3/78(4%), 28/131(21%), 3/12(25%) and 3/27(11%) following normal vaginal delivery (NVD), elective lower section cesarean section (LSCS), emergency LSCS, forceps delivery and vacuum delivery respectively, had a prolonged stay due to clinically suspected and/or laboratory proven infections.
Methods: These results were made aware to stakeholders; various interventions were done to promote strict infection control measures during these procedures. Following these, a prospective study was carried out in the same obstetric unit, over a period of 6 months, adhering to same criteria as of the previous study. All pregnant mothers with uneventful antenatal history were included into the study. Prolonged stay was defined as stay over 24 hours following normal /assisted vaginal delivery and 3 days following LSCS. Any clinically suspected and/or laboratory proven infections were considered as HAI.
Results: 12/739(1.6%) and 2/93(2.1%) following NVD and Emergency LSCS respectively, had prolonged hospital stay due to clinically suspected and/or laboratory proven infections. Pregnant mothers who underwent elective LSCS, forceps or vacuum deliveries did not have HAI following these procedures. Average prolonged stay due to HAI following NVD and emergency LSCS were 4.5 days and 6.5 days respectively.
Conclusions: Following interventions to promote strict infection control measures during procedures of delivery, a statistically significant drop in HAI and a reduction in duration of prolonged stay have been demonstrated. Reduced rates of HAI following NVD and emergency LSCS along with absence of HAI following elective LSCS and forceps / vacuum deliveries, strongly indicate that infection control interventions were successful, thus resulting in early discharge and reduced cost, while facilitating early bonding between mother and baby.

OS 13-5

IMPACT OF DAILY BATHING WITH CHLORHEXIDINE GLUCONATE AND VENTILATOR ASSOCIATED PNEUMONIA IN INTENSIVE CARE UNITS: A META-ANALYSIS

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Purpose
Objective. Ventilator associated pneumonia (VAP) is the most important nosocomial infection in intensive care units (ICUs). Our objective was to assess whether daily bathing with chlorhexidine gluconate (CHG) would significantly result in the reduction of VAP.
Design. Meta-analysis of randomized controlled trials and quasi-experimental studies were conducted.
Setting. Medical, surgical, trauma, and combined medical-surgical intensive care units (ICUs).
Patients. Adult patients.
Methods. We searched electronic search engine (PubMed), Embase and the Cochrane Central Register database for all published studies related to the application of daily CHG bathing with VAP risk.A key feature of the Grades of Recommendations Assessment Development and Evaluation (GRADE) method developed by the Cochrane review group was used to assess the quality of evidence.