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and gentamicin, but more susceptible to cefoxitin, minocycline, and trimethoprim/sulfamethoxazole than the non-O25b-ST131 isolates. Most of the children were previously healthy with no apparent risk factors.
Conclusions: *E. coli* O25b-ST131 is a major community-acquired uropathogen in the children population. CTX-M-14 accounts for majority of the ESBL genotype in O25b-ST131 clones, while non-O25b-ST131 clones are present of great diversity in the ESBL resistance mechanism. The O25b-ST131 clone is not associated with more severe clinical disease, but it may make the diagnosis and selection of antimicrobials for treatment more challenging.

OS 6-1

DEVELOPMENT OF AN ELECTRONIC SURVEILLANCE AND INTERVENTION SYSTEM FOR HEALTHCARE-ASSOCIATED INFECTION

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Purpose: Traditional methodologies for healthcare-associated infection (HCAI) surveillance are labor intensive and time consuming which are ubiquitous application in the healthcare setting. However, infection control professionals (ICPs) with traditional method rarely monitor whole-hospital inpatients rather than covering several selected wards. Therefore, it is absolutely necessary to develop efficient and reliable surveillance method.
Methods: On the basis of clinical data center which has integrated the data sources of electronic medical record (EMR), clinical chemistry, microbiology, pharmacy, anesthesia operation, infectious disease report and discharge diagnoses, we developed an electronic surveillance system for monitoring HCAI. The system screened out abnormal or positive data of patient signs (fever and diarrhea), clinical chemistry related to infection, microbiology results, and labeled inpatients with invasive procedures.
Results: From 1st May to 31st October, the system screened out 7374 abnormal value in 3078 cases. ICPs followed the cases and identified nosocomial infection cases according to Centers for Disease Control and Prevention's National Healthcare Safety Network (CDC-NHSN) surveillance definitions. During this time, 579 cases were identified HCAI in 34342 discharged cases. 873 warning messages were transmitted to short message service (SMS), EMR system and Nursing Information System for medical staff. Nurses implemented interventions on the principle of isolation and gave feedback by information, and then ICPs traced the intervention effect.
Conclusions: On the basis of clinical data center, we established the electronic system and achieved great progress in combining surveillance, early warning, intervention, feedback and tracking information together,. A closed-loop management of infectious patients in the hospital can be easily realized owing to the application of this system.

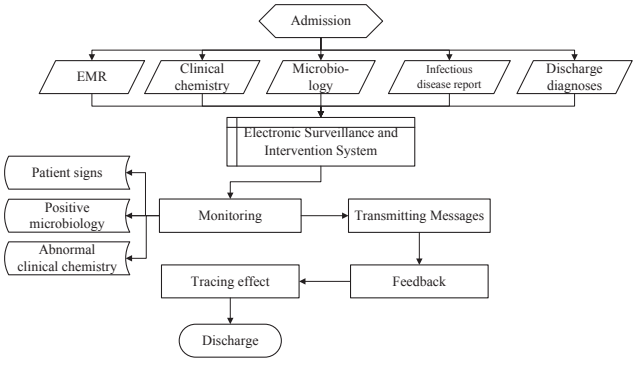

Figure. Formulation of the Electronic Surveillance and Intervention System

OS 6-2

EFFECTIVENESS AND COST OF IMPLEMENTATION AN ACTIVE SURVEILLANCE SCREENING POLICY FOR CARBAPENEM-RESISTANT *A. BAUMANNII* AND VANCOMYCIN-RESISTANT *ENTEROCCCI* IN AN INFECTIOUS DISEASES WARD IN TAIWAN

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Purpose: Carbapenem-resistant *Acinetobacter baumanni*(CR-AB) and Vancomycin-resistant *Enterococci* (VRE) infections are common and associated with high mortality and costs. Early identification of asymptomatic carriers can reduce patient-to-patient transmission. The role of active surveillance screening is not clear. The study examined whether an active surveillance screening policy can reduce transmission, and costs associated with CR-AB and VRE.
Methods: This active surveillance screening policy (ASP) was conducted from December 2013 to July 2014. All of the newly hospitalized patients with presence of ventilator/tracheostomy tube, skin wounds, urinary catheterization, previous admission at nursing home, intensive care unit and respiratory care unit and prolong hospitalization for more than 2-4 weeks were included. Sputum CR-AB and anus VRE culture was performed on day 1 after admission. A coordinated strategy included environmental cleaning and disinfection and education and audits with focus on hand hygiene and contact isolation was applied. The numbers of health care associated VRE and CR-AB infection at baseline and after intervention were analyzed by Fisher's exact tests.
Results: During the intervention period, the total ASP prevalence rate at admission for CR-AB was 4.7% (12/255) and those patients who transferred from other hospital yielded the higher prevalence rate 10%, followed by patients from nursing home (5.4%). The ASP prevalence rate for VRE was 9.2% (22/238) and those patients who transferred from other hospitals had the higher prevalence rate of 14.6%. There was 34 CR-AB and VRE colonization detected during this period. The cost increased US$603 per month after implementation of ASP. However, no any new health care associated infections were found during this intervention period.
Conclusions: If the potential outbreak prevention effect in the 34 CR-AB and VRE colonizer were taken into account, this ASP intervention would be cost saving (US$12,627 v.s US$4,821) and no any health care associated infections occurred.

OS 6-3

BACTEREMIA CAUSED BY CONTAMINATED INTRAVENOUS DRIP DRUG

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Purpose: Serratia marcescens is a species of rod-shaped Gram-negative bacteria, which is abundant in presence in the environment and involved in hospital-acquired infections (HAIs), particularly catheter-associated bacteremia, urinary tract infections and wound infections and is responsible for 1.4% of HAI cases in the United States.
Infection control practitioners detected two nosocomial bloodstream infection cases in succession in a neurosurgical ward. Both patients developed typical bacteremia signs and symptoms such as fever, chills and tachycardia when injected with the Mannitol drug.
Methods: Site investigations found an inappropriate heating process instantly.
Though the original Mannitol packing had been contaminated in the beginning, but subsequently, the laboratory confirmed the fluid in the original Mannitol bottle was sterile. Meanwhile the blood specimen and the intravenous drug within the infusion control set developed the same bacteria- *Serratia marcescen* strain. This means health care workers had contaminated the drug during the preparing or injection process.