

associated with increased tigecycline resistance. Current data showed no clonal spread of single lineage of TR-CR KP in Taiwan. Continuous monitor of the situation of tigecycline resistant isolate is necessary.

**PS 2-489**

**EFFECT OF ACTIVE SURVEILLANCE AND TARGETED DECOLONIZATION PROGRAMS ON THE INCIDENCE OF METHICILLIN-RESISTANT STAPHYLOCOCCUS AUREUS INFECTIONS IN ADULT INTENSIVE CARE UNITS IN A TEACHING HOSPITAL IN TAIWAN**

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**Purpose:** To evaluate whether the effects of active surveillance and targeted decolonization programs on the incidence of MRSA infections in a routine clinical practice setting.

**Methods:** We conducted a retrospective cohort study in the adult surgical intensive care unit (SICU) and adult medical intensive care unit (MICU) of a university-affiliated tertiary hospital in northern Taiwan. All patients hospitalized in the SICU and MICU from May 2008 to July 2014 were included in the analysis. Active surveillance cultures were taken from the anterior nares of all patients admitted to the SICU and MICU. All patients carrying MRSA received nasal administration of mupirocin and skin decolonization with 0.4% chlorhexidine gluconate. The baseline period was May 2008 through August 2009 (Period 1). The intervention was implemented from September 2009 until July 2014 (Period 2).

**Results:** The mean MRSA infection rate in the MICU was reduced from 1.19‰ (Period 1) to 0‰ (January 2014 through July 2014). The mean MRSA infection rate in the SICU was reduced from 2.21‰ (Period 1) to 0.28‰ (January 2014 through July 2014). The MRSA infection rate in the hospital was reduced from 0.12‰ (Period 1) to 0.03‰ (January 2014 through July 2014), following the implementation of an active surveillance and targeted decolonization program.

**Conclusions:** Routine active surveillance and targeted decolonization programs in the adult ICUs setting can effectively reduce the incidence of MRSA infections.

**PS 2-490**

**INVESTIGATION OF VANCOMYCIN- RESISTANT ENTEROCOCCI (VRE) COLONIZATION IN A INTENSIVE CARE OF MEDICAL CENTER IN SOUTHERN TAIWAN**

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**Purpose:** To analyze control measures used to eradicate a Vancomycin-resistant Enterococci(VRE) colonization in a intensive care unit in southern Taiwan in 2013

**Methods:** In July 2013, VRE was isolated from 6 anus samples from 6 patients in the ICU simultaneously. To investigate an ICU-wide possible outbreak, a coordinated strategy between July and August 2013 comprised of (1) formation of a VRE task force, (2) ICU-wide screening, (3) isolation of carriers, (4) physical segregation of contacts, (5) active surveillance of high-risk groups, (6) increased cleaning and disinfection,

(7) temporal not admitted new patients to ICU, and (8) education and audits with focus on hand hygiene and contact isolation. Sampling of health care workers (HCWs) and patients environments were conducted to examine the possible relationship.

**Results:** A total of 16 HCWs hand and 100 environmental samples were obtained. All of the hand samples isolates from the 16 HCWs were negative for VRE. A total of 6 environmental isolates had VRE colonization, including 2 from the ventilator screenings, each one from patients hemodynamic monitor, emergency phone bells, medical chart and nurse working station, respectively. After implementation of the infection control strategy, no more new cases of colonization with VRE was found one month later.

**Conclusions:** A comprehensive infection control strategy orchestrated by a task force team with focus on hand hygiene, education, contact isolation, environmental cleaning and active surveillance help to combat the VRE colonization in ICU.

**PS 2-491**

**DIFFICULT-TO-TREAT ACALCULOUS CHOLECYSTITIS CAUSED BY CARBAPENEM-RESISTANT KLEBSIELLA PNEUMONIAE: A CASE REPORT**

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**Purpose:** The emergence of carbapenem-resistant *Klebsiella pneumoniae* (CRE) highlights the importance of effective antibiotics to maintain the safety of our health care system. Clinicians will encounter CRE as a cause of difficult-to-treat and often fatal infections in hospitalized patients. We report a case of CRE cholecystitis with treatment failure.

**Case report:** A 54-year-old female of systemic lupus erythematosus with end stage renal disease suffered from recurrent diffuse abdominal pain and fullness. Abdominal CT showed sclerosing peritonitis with diffuse thickening and calcifications of peritoneum. Empiric antibiotic treatment was given. Tenckhoff catheter was removed on June 17, 2013. Hypotension was noted. Antibiotics with cefpirome and moxifloxacin were given. She was admitted to intensive care unit (ICU) on June 29, 2013. Endotracheal intubation was performed due to respiratory failure. Total parenteral nutrition was kept for 1 month as ileus. Then nasojejunal tube was inserted for feeding. Fever and sputum culture showed *Pseudomonas aeruginosa* and carbapenem-resistant *Acinetobacter baumannii*. Antibiotics were shifted to tigecycline and colistin on July 26, 2013. Tracheostomy was performed for long-term care. As difficult weaning persisted, she was transferred to RCC on August 2, 2013. Due to elevation of the bilirubin level, abdominal CT showed distended gallbladder, suspected acalculous cholecystitis. Percutaneous transhepatic gallbladder drainage (PTGBD) was done on August 6, 2013. Bile culture showed CRE. Tigecycline and colistin was kept. Sudden onset of hypotension was noted on August 12, 2013. She was transferred to the ICU again. Her condition remained worsening despite aggressive treatment. Family members requested palliative therapy and the patient expired on August 13, 2013.

**Conclusion:** Cases of acute cholecystitis by CRE have rarely been reported. Our case experienced poor response to tigecycline and colistin therapy for CRE acalculous cholecystitis. Although tigecycline may have high concentration in the bile, but treatment failure may suggest combination of 3 drugs by tigecycline, colistin and meropenem for the difficult-to-treat CRE cholecystitis, particularly in ICU patients.

**PS 2-492**

**EFFECTS ON REDUCING PROLIFERATION AND DETECTION OF MULTIPLE-DRUG-RESISTANT ORGANISMS (MDRO) THROUGH MULTIDIMENSIONAL CONTROL MEASURES**

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**Purpose:** Widespread use of antibiotics promotes the spread of multi-drug-resistant organisms (MDRO) within medical intuitions. It also leads to treatment failure, extend hospital stays, and mortality increasing among patients. Nowadays, we can prevent the spread of drug-resistant organisms between patients through early detection of drug-resistant