

## PS 1-092

## INVESTIGATION OF A CLUSTERED INFECTION IN THE DEPARTMENT OF OPHTHALMOLOGY AT A REGIONAL HOSPITAL

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**Purpose:** Two strains of *Citrobacter freundii* resistance to ceftriaxone (CRCF) were isolated from the corneal ulcer specimens of two patients in two weeks from the Department of Ophthalmology at a regional hospital. An investigation in the department was performed.

**Methods:** A surveillance culture for environmental objects and healthcare workers (HCWs) in the Department of Ophthalmology were involved. The isolate was identified using the Phoenix automatic system (Becton Dickinson Diagnostic Systems, Sparks, MD). The standard disk diffusion was performed for antimicrobial susceptibility testing, and interpretive criteria according to the guidelines recommended by the Clinical and Laboratory Standards Institute (CLSI).

**Results:** Four *C. freundii* strains were isolated from the environmental objects: wash-basin, keyboard and mouse, wet-cotton with normal saline (from two different consulting rooms) in the department. Three *C. freundii* strains were CRCF that possess the same phenotypic antimicrobial pattern with two patients except isolated from wash-basin which the *C. freundii* was susceptible to ceftriaxone.

**Conclusions:** No doubt, the medical staffs are without sterile concept that caused this case. We discovered the wet-cotton with normal saline which had been used in patients for treatment. In fact the wet-cotton must be kept at sterilization but they did not do at all. Contaminated medical material may cause infection, we isolated CRCF that from the wet-cotton that possess the same antimicrobial pattern with two patients. Whether this event is outbreak, the molecular typing will be confirmed.

## PS 1-093

INVESTIGATION AND CONTAINMENT OF AN OUTBREAK OF HEALTHCARE-ASSOCIATED INFECTIONS CAUSE BY *SERRATIA MARCESCENS* IN A LIVER SURGICAL WARD AND A SURGICAL INTENSIVE-CARE UNIT AT A MEDICAL CENTRE

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**Purpose:** Between March and June, 2010, a significant increase in *S. marcescens* infection/colonization was found in a surgical ward and surgical intensive care unit (SICU) of a medical centre.

**Methods:** Epidemiologic investigation with on-site inspection of daily nursing practice and sampling specimens from vacuum balls draining intra-abdominal materials and environmental surfaces was conducted. The *S. marcescens* isolates were analyzed to determine if they were of the same clone using pulsed-field gel electrophoresis (PFGE).

**Results:** A total of 10 patients whose ascites culture grew *S. marcescens* were found in the surgical ward and the SICU; 49 specimens, including 24 specimens of different vacuum ball drainages and 25 environmental specimens, were sampled. *S. marcescens* grew from 5 vacuum ball drainages and one trolley surface in the surgical ward and the SICU. All *S. marcescens* isolates were proven to be of the same strain. The first wave of this *S. marcescens* outbreak started in the surgical ward, and the second wave was ignited shortly after the index patients in the surgical ward was transferred to the SICU. Investigators found at on-site inspection that vacuum ball drainages were not appropriately managed, and requirements of hand hygiene as well as infection control measures were not fully fulfilled.

**Conclusions:** The *S. marcescens* outbreak was successfully contained by re-education on infection control for the staff, improved adherence to the standard operation protocol for handling vacuum ball drainages, and increase in frequency of the surgical ward and the SICU inspection to assure strict adherence to infection control requirements.

## PS 1-094

VANCOMYCIN-RESISTANT *ENTEROCOCCUS GALLINARUM* OUTBREAK IN A PEDIATRIC INTENSIVE CARE UNIT

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**Purpose:** Surveillance of multidrug resistant organism is important to decrease health-care associated infection (HCAI). Since December 2013, an unusual increase in infections caused by vancomycin-resistant *Enterococcus gallinarum* (VREg) was identified in a pediatric intensive care unit (PICU). The purpose of this study aims to demonstrate this unusual HCAI.

**Methods:** A series of investigation and intervention were conducted during this outbreak. We did a retrospective chart review, performed pulse-field gel electrophoresis (PFGE) of the isolates, and also initiated aggressive control measures.

**Results:** A total of 15 VREg isolates from 3 patients were identified during December 2013 to February 2014. Two patients were diagnosed as urinary tract infections, and the other was diagnosed as blood stream infection. The PFGE patterns of 3 isolates from each patient showed close related. All of them have been hospitalized in two adjacent isolated rooms in PICU. The education in infection control of medical and cleaning staff was emphasized. No other vancomycin-resistant enterococcus was identified during environment investigation.

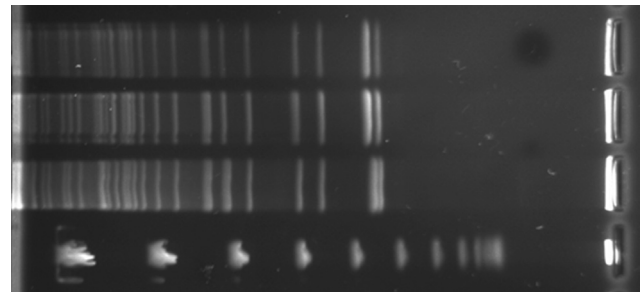


Figure Pulse-field gel electrophoresis patterns of the vancomycin-resistant *Enterococcus gallinarum* strains.

**Conclusions:** An outbreak of VREg was identified and controlled by successful infection control strategy.

## PS 1-095

## OUTBREAK OF INFLUENZA

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**Background:** On 18 September 2013, within 24 hours, there was sudden admission of 8 patients admitted through Accident and Emergency department.

Many came in with fever, pneumonia and viral upper respiratory tract infection.

All came from the same destitute home. The destitute home was built to cater to care for people whom have no family members. This home comprise of 3 levels with 24 dormitories, catering to 224 residents.

**Study aims:** To find out what was the reason for sudden increase admission from the destitute home.

**Methods:** Case definition was set up. Patient who came from the same home and had display of fever and respiratory tract infection like cough, running