## Abstracts, 4th DICID

2009, with the new shell vial cultrue method for rickettsia, we isolated an alphaproteobacteria as an emerging agent from a patient.

Case Description: A 49-year-old male was admitted to Peking University First Hospital because of having progressive skin ulcer on the right thigh and repeated fever. The physical examination showed an enlarge lymph node  $(4 \text{ cm} \times 5 \text{ cm})$  with an ulcer with escha at the right groin area. There was a large inflamed area with an ulcer and decaying tissue with some extravasate on the right thigh. Bone marrow examination showed arrest and CD68 staining showed increased hemophagocytic cells. The laboratory data showed WBC 1.26×109/L, ALT 236 IU/L, AST 366.2 IU/L, total bilirubin 43.7 umol/L, LDH 1262 IU/L. A series of antibiotics including penicillin, levofloxacin, sodium cefoperazone, sulbactam, cefuroxime, ornidazole, cefepime, sodium imipenem/cliastatin and anti-infection herbal medicine were unsuccessfully used and the patient died of multi-organ involvement.

Shell vial culture was performed and an Alphaproteobacteria isolate was obtained. 16SrRNA sequence determination of the isolate showed this strain was 99% similar to strain CRIB-02 that belonged to the genus *Rhodoplanes*. The titer of antibody against *Rhodoplanes* sp. ZLJ-0 isolates in the patient's serum was IgM < 1:40 and IgG was 1:320. We propose *Rhodoplanes* sp. strain ZLJ-0 to be an emerging human pathogen and are involved in local skin infection and febrile conditions. Differential diagnosis of febrile patients should be conducted in clinical practice and an active search for emerging Alphaproteobacteria agents should be performed to determine the epidemiology, clinical signs and pathogenic features of these agents.

Acknowledgements: This study was funded by the National Natural Science Foundation of China (No. 30771854) and the national Basic Research Program of China (973 Program2010CB530206).

## PP-018 Multidrug resistance and integrons among Escherichia coli isolates from patients with urinary tract infections

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**Objectives:** Antibiotic resistance in urinary tract infection (UTI) is a growing public health problem in the world. The aim of this study was to identify the *Escherichia coli* causing *UTI* in patients and detection of antibiotics resistance and the occurrence of class 1, 2 and 3 integron in multidrug resistant.

**Methods:** 200 *E. coli* isolated in pure growth and in counts exceeding 10<sup>5</sup> from consecutive urine cultures of five hospitals, Tehran, Iran, during 2008–2009 were included in the study. All isolates were tested for susceptibility to 16 antimicrobials using the disc diffusion method. Detection of class 1 and class 2 integron was performed by polymerase chain reaction (PCR). The classes of the integron were determined by analyzing integrase PCR products by restriction fragment length polymorphism (RFLP).

**Results:** Resistance to Ampicillin was observed in 81.9% of isolates, Co-trimoxazole 76.8%, Tetracycline 63.3%, Cephalotin 59.2%, Nalidixic Acid 44.4%, Chloramphenicol 42.7%, Gentamycin 34.4%, Cefixim 25.6%, Ceftriaxone 23.4%, Ceftazidim 21.1%, Norfloxacin 18%, Nitrofurantoin 16.4%, Ciprofloxacin 13.8%, Amikacin 11.1% and Imipenem 3.5%. 187 (93.5%) isolates out of 200 were multi-drug resistance. Existence of integron was confirmed in 63.1% (n = 118) of isolates. Associations of multi-drug resistance to Ampicillin (P < 0. 01), Gentamycin (P < 0. 02), Norfloxacin (P < 0.031),

Co-trimoxazole (P < 0.005) and Nalidixic Acid (P < 0.024), with integron were statistically significant. Totally, the prevalence of int11 and int12 among the strains was 64.4% (n = 76) and 35. 6% (n = 42), respectively.

**Conclusion:** The present data showed high prevalence of resistant to Ampicillin, Co trimoxazole, tetracycline and cephalotin among the *E.coli* strains isolated from children with *UTI*. The high prevalence of integron among the *E.coli* strains under the study and the *MDR* pattern, suggest that the antibiotic resistance cassette in these strains are mostly carried on integrons rather than transposable elements or plasmid.

## PP-019 Analysis of hospital infection in two parts of the same hospital

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**Objective:** To investigate the nosocomial infection characteristics in the two parts of the same hospital under the same administration mode.

**Methods:** The clinical data of patients with microbiogically documented nosocomial infection from Jan 2007 to Dec 2007 were retrospectively analyzed. Pathogens were identified by bacterial biochemical identification panel, antimicrobial susceptibility tests were done by disc agar diffusion test.

**Results:** The prevalence rate of nosocomial infection was 4.9% and 4.8% in the two parts of the same hospital; There were not significant difference in the distribution of infection site and bacilli, but there was significant difference in fungi among pathogens isolated from nosocomial infection cases (16.0% vs 8.0%), and the rate of nosocomial infection were changing in the different departments in the two parts of the same hospital.

**Conclusion:** There are different nosocomial infection characteristics even if in the same hospital, The nosocomial infection should be strengthened in the departments with more in-patients, according to the developping program of hospital.

## PP-020 Analysis of the effect of the distribution of pathogens and their antimicrobial resistance by administrative intervention

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**Objective:** To evaluate the effect of the distribution of pathogens and their antimicrobial resistance by controlling the use of the third generation cephalosporin.

**Methods:** Pathogens were identified by bacterial biochemical identification panel, antimicrobial susceptibility tests were done by disc agar diffusion test.

- **Results:**
- 1. 6,591 strains were isolated from clinical samples in the past three years, the most common pathogens were *Enterobacter* (24.7%), *Klebsiella pneumoniae* (20.8%), *Pseudomonas aeruginosa* (12.0%), *Staphylococcus aureus* (11.4%), *Staphylococcus epidermidis* (6.8%).
- 2. The antimicrobial resistant rate of Gram-negative bacilli was decreasing after the controlling the use of the third generation cephalosporin.

**Conclusion:** It can reduce the drug resistant rate of Gramnegative bacilli to control the use of the third generation cephalosporin.

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