strains showed positive to KPC gene test in 46 strains of resistance to imipenem:sensitivity rate:91.3%. 1 strains showed positive to KPC resistance test in the only case of intermediate result.

Conclusions: Positive result in imipenem-intermediate or Imipenem-resistance of Enterobacteriaceae showed high risk of KPC gene. Therefore, isolation of such cases and environment sterilization was suggested for avoiding the spread of KPC strain.

**Table 1: KPC-positive strain in CRE in 2014.**

<table>
<thead>
<tr>
<th>Bacteria</th>
<th>No.</th>
<th>No. of KPC+ (sensitivity rate)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Klebsiella pneumonia</td>
<td>83</td>
<td>42(50.6%)</td>
</tr>
<tr>
<td>Klebsiella oxytoca</td>
<td>1</td>
<td>1(100%)</td>
</tr>
<tr>
<td>Escherichia coli</td>
<td>22</td>
<td>0(0%)</td>
</tr>
<tr>
<td>Citrobacter freundii</td>
<td>1</td>
<td>0(0%)</td>
</tr>
</tbody>
</table>

**Methods and results:** Carbapenem resistant enterobacteriaceae (CRE) was collected from January 2013 to June 2014. There were 26 cases and 27 CRE strains were isolated. 24 Klebsiella pneumoniae (24/27 = 89%), and 3 Escherichia coli (3/27 = 11%) were isolated, including 6 strains with KPC gene (6/27 = 22%). The number of specimen from urine, wound, and sputum are 18, 4, and 5, respectively. In these 26 cases, 10 were from long-term care facilities. They were prolonged bed rest required and 5 of them with KPC gene. In addition, 14 cases were expired (14/26 = 54%), including 4 with KPC gene.

Conclusions: CRE infection usually results in increment of length of stay and mortality. In order to prevent the spread of resistant strains, Infection Control Center modified the infection control procedures as follows, (1) to send the report of resistant strains to clinical unit, infection control unit, and physicians automatically; (2) to use the information system to assist the management of antibiotics; (3) to carry out the screening program of long-term care residents; (4) to follow up the bacterial culture of CRE cases; (5) to implement and check the disinfection of environment and equipment and to promote the hand hygiene actively; (6) to educate and assess the caregivers and family about the knowledge of infection control.

**PS 1-192**

**MULTIDRUG-RESISTANT ACINETOBACTER BACTERIA DID NOT DEMONSTRATE INCREASED LETHALITY IN GALLERIA MELLONELLA INFECTION MODEL.**


**Purpose:** Multidrug-resistant Acinetobacter bacteria (MRAB) are important pathogen with the potential of causing nosocomial outbreaks. In this study, we aimed to investigate the lethality of a cohort of clinical and environmental MRAB in an invertebrate infection model.

**Methods:** Susceptible type strain of Acinetobacter baumannii ATCC19606 was used as control. MRAB isolates were collected from surveillance samples from patients and hospital environmental surveillance swabs. The bacterial identities were confirmed by biochemical characteristics and by automated method with Vitek-2. Presence of colonial mucoidy was also noted. The isolates were tested for antibiotic susceptibilities according to CLSI methods and interpretations. Isolates which were resistant to beta-lactams, aminoglycosides, fluoroquinolones were included. Galleria mellonella larvae at the final instar (250 – 350g per larva) were used as the infection model. Ten microlitre of MRAB at 10⁶/mL were injected into the left first proleg. Lethality was observed daily for 7 days. Sterile water and untraumatised larvae were used as control. Each set consisted of 10 larvae. All tests were done in duplicates.

**Results:** Eight strains of MRAB isolates were collected. Four from patients’ surveillance cultures, another four from environmental surveillance cultures. Two isolates each from the patients’ and environmental cultures were noted to be mucoid. All larvae infected with MRAB and the susceptible strain (ATCC 19606) survived up till day 7 of observation.

**Conclusions:** Lethality of Galleria mellonella larvae was not increased by the infection of susceptible or resistant Acinetobacter bacteria. It is also not affected by the origin of isolation (from patients or from environment), nor the presence of mucoidy. It is possible that these factors did not contribute to increase in virulence. However, a virulent strain of Acinetobacter bacteria needs to be established to confirm these findings.

**PS 1-193**

**AN ANALYSIS OF CARBAPENEM RESISTANT ENTEROBACTERIACEAE, ASSOCIATED NOSOCOMIAL INFECTIONS, AND CONTACT ISOLATION MEASURES.**

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**Introduction:** With population aging in Taiwan, more and more elderly rely on long-term care facilities. Long-term care residents depend on mechanical ventilators, endotracheal tubes, or catheters for life extension but these devices increase the risk of infection. The over and improper use of antibiotics results in multiple drug-resistant strains.

**Figure 1** Incidence of HA-CDI by age group.

**Conclusions:** This study describes detailed epidemiology of CDI in WA made possible by the linkage of surveillance, ribotype and hospitalisation data. A significant proportion of infections identified by hospitals was community-acquired, highlighting the need to undertake specific community-based studies.