**Abstract:** Introduction: Carbapenemes have been the drug of choice for the treatment of Acinetobacter spp, however in recent years, the number of isolates showing resistance to these antibiotics has increased especially oxacillinases, an analogue of OXA-58, was identified a series of epidemiological surveys have also identified the blaOXA-58 gene in A. baumannii. The aim of this study was to determine the association between bla OXA genes carriage and in vitro antimicrobial susceptibility pattern of the pathogens to selected B-lactamases antibiotics including Carbapenemes.

**Material and methods:** About 150 suspected B-Lactams resistant Acinetobacter spp. Isolated from different samples including urine, blood, CSF, and wound exudates collected from Central laboratories of admitted patients in ICU units of Nemazee Hospital in Shiraz. All the isolates will be subjected to the following: Conformational biochemical tests and Analytical profile index (API) test to detect species type Antimicrobial susceptibility testing by MIC by microbroth dilution assay using Clinical and Laboratory Standards Institute. A multiplex PCR assay will be done for the detection of different OXA genes using bla OXA 58-like and bla OXA-24-like primers.

**Results:**
Isolates were from sputum(27%), blood(10%), urine(42%), wound(7%), CSF(5.7%), eye discharge(3%), nasal(4.3%), BAL(1%). The representative isolates including bla OXA-58-like bla OXA-24-like isolates was 5.4% and 17.1% respectively.

**Conclusion:**
The resistance of A. baumannii isolates to many of carbapenemes such as amikacin, carbapenems, ceftazidime and tigecycline is increasing and the isolates may become resistant to other antibiotics in the future. The A. baumannii resistance determinants may be difficult to detect in a routine laboratory test since A. baumannii has a high degree of intrinsic resistance to antibiotics. Lack of detection may be a factor that contributes to the spread of resistance determinants in A. baumannii. This is the first molecular study of an outbreak of OXA-58 producing A. baumannii isolates in Iran.

**Keywords:** Acinetobacter, carbapenems, Multiplex-PCR, OXA blaOXA-24-like, blaOXA-58 like genes

**Presentation:** Poster