## **POSTER SYMPOSIUM – P14**

# Increasing Trend of Antibiotic Resistance in Pantai Jerudong Specialist Centre, Gleneagles-JPMC and Jerudong Park Medical Centre

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#### **OBJECTIVE**

In recent years, the rise of antibiotic resistance has become a medical concern in Brunei Darussalam which makes treatment more challenging. This leads to lengthier hospital stays and increase in the cost of healthcare. Several factors such as prolonged or inappropriate use of antibiotics, poor infection control and inadequate sanitary conditions could be the cause of antibiotic resistance. This study aims at observing the emergence and rise of antibiotic resistance in Pantai Jerudong Specialist Centre (PJSC), Gleneagles-JPMC (GJPMC) and Jerudong Park Medical Centre (JPMC).

### **MATERIALS AND METHODS**

Data were collected between January 2013 and September 2017. Isolates [methicillin-resistant *Staphylococcus aureus* (MRSA), *Acinetobacter baumannii*, *Pseudomonas aeruginosa*, *Klebsiella pneumoniae* and *Escherichia coli*] were analysed according to location. Antibiotic susceptibility of drug-resistant bacteria were also closely monitored. Isolates are from clinical specimens, identified and tested as per standard methods. Data were obtained using WHONET software.

#### **RESULTS**

Drug-resistant *A. baumannii*, primarily found in BNSRC and GJPMC, accounts for 95% of the total number of *Acinetobacter* infections in year 2017. These findings correlate with the data from Centres for Disease Control and Prevention. Higher number of MRSA cases are seen in Brunei Neuroscience Stroke & Rehabilitation Centre (BNSRC). These may be due to cross-infection between hospitalised patients. Linezolid is still comparable to vancomycin in the effectiveness against MRSA. Colistin sulphate remains as the last resort antibiotic treatment for MDR/XDR *P.aeruginosa* and *A.baumannii*.

# **CONCLUSION**

This data calls for the need of the implementation of national surveillance and stricter infection control protocols, as well as ensuring compliance to antibiotic stewardship programmes.

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