

Extensively Drug Resistant Bacteria Among Pediatric Patients  
at Siriraj Hospital, 2011 – 2017

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### Introduction

Infection caused by drug resistant microorganism is one of the major problems in global health care. This study focuses on pediatric population to raise awareness of drug resistant bacteria infection and leads to further study involving what cause and risk the infection by these organisms.

### Objective

To study the incidence of extensively drug resistant (XDR) bacteria among pediatric patients in Siriraj hospital which is one of the largest tertiary care unit in Thailand since January 2011 to December 2017. The antibiotic susceptibility test of these microorganism and result pursuing antibiotic treatment are also included in this study

### Study design

Retrospective chart review

### Methods

All XDR bacteria was under patrol of infectious control unit of Siriraj hospital. The list of the specimens was achieved and reviewed.

### Results

125 specimens of XDR bacteria collected from pediatric patients were documented and related medical records were reviewed. 119 cases were identified to be infected by these organisms. This study revealed 74.8% of XDR bacteria to be carbapenem resistant *Acinetobacter baumannii*. Factors influenced XDR bacteria infection include intensive care setting, underlying medical conditions, devices and preceding antibiotic treatment. The study has revealed 20% of patients have ended up dead

### Conclusion

Carbapenem resistant *Acinetobacter baumannii* is the most causative organism responsible for XDR bacteria infection among pediatric patients at Siriraj hospital. The factors which effect infection by these organisms include intensive care unit setting, underlying medical condition, medical device and preceding antibiotic treatment. Infection caused by these agents was responsible for 20% of mortality

**Keywords**

Drug resistant bacteria, Pediatric patient, Siriraj hospital

