High Mortality & Relapse Rates of Melioidosis in Singapore
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Introduction
Burkholderia pseudomallei is regarded as a bioterrorism threat and a common cause of community acquired infections in the tropics. Singapore is a small urban city without paddy fields and farming land spaces, but we continue to see cases of melioidosis. We report our 10-year clinical experience of patients with melioidosis managed in Singapore General Hospital and looked at the trends in the epidemiology, clinical features and mortality.

Methods
Patients with a positive culture for B. pseudomallei during the period 1 Jan 2001 to 31 Dec 2010 were retrospectively identified and their case records were reviewed.

Results
170 patients were identified, and most employed patients were blue-collar workers. At presentation, 51.8% of patients reported having a history of diabetes, while 16 patients were newly diagnosed with diabetes. Symptoms were acute in more than half of the patients. Most patients (70.0%) needed mechanical ventilation and 21.8% needed inotropic support.

All the initial B. pseudomallei isolates were susceptible to ceftazidime while only 1 isolate was resistant to imipenem.

Mortality
- 44 deaths, with 28 (16.5%) attributable to melioidosis
- 11 deaths occur before the diagnosis of melioidosis (2 of the deaths were deemed related to metastatic cancer)

Recurrence (n=142)
- 33 (23.2%) patients had recurrent disease (22 culture proven)
- median time to recurrence was 3.2 (0.1-33.3) months
- 23 (69.7%) recurrent cases had incomplete treatment

Conclusions
Melioidosis resulted in high mortality and recurrence rates in our study and it was due to delayed diagnosis and incomplete treatment in those who survived. Our practice of using low dose cotrimoxazole in combination with doxycycline for maintenance treatment may have contributed to the high recurrence rates.

References