

## **Melioidosis in Malaysia: incidence, clinical challenges, and advances in understanding pathogenesis**

### **ABSTRACT**

Malaysia is an endemic hot spot for melioidosis; however, a comprehensive picture of the burden of disease, clinical presentations, and challenges faced in diagnosis and treatment of melioidosis is not available. This review provides a nonexhaustive overview of epidemiological data, clinical studies, risk factors, and mortality rates from available literature and case reports. Clinical patterns of melioidosis are generally consistent with those from South and Southeast Asia in terms of common primary presentations with diabetes as a major risk factor. Early diagnosis and appropriate management of Malaysian patients is a key limiting factor, which needs to be addressed to reduce serious complications and high mortality and recurrence rates. Promoting awareness among the local healthcare personnel is crucial to improving diagnostics and early treatment, as well as educating the Malaysian public on disease symptoms and risk factors. A further matter of urgency is the need to make this a notifiable disease and the establishment of a national melioidosis registry. We also highlight local studies on the causative agent, *Burkholderia pseudomallei*, with regards to bacteriology and identification of virulence factors as well as findings from host–pathogen interaction studies. Collectively, these studies have uncovered new correlations and insights for further understanding of the disease.