

## **Complications of Melioidosis: A Systematic Review**

### **ABSTRACT**

Introduction: Melioidosis, also known as Whitmore disease, is caused by the gram-negative bacillus, *Burkholderia pseudomallei* and remains a public health concern in Southeast Asia and northern parts of Australia. This study attempts to identify all possible complications of melioidosis and its outcomes. Methods: Literature search was conducted from databases such as PubMed, Science Direct and Scopus from 1st January 2000 to 31st August 2019. Medical Subject Headings (MeSH) search strategy was used with the terms 'Melioidosis' or 'Burkholderia pseudomallei' and 'Complications'. Results: A total of 162 titles were identified and 22 articles were included in the review. Findings showed that among the 22 articles, the ratio of male to female melioidosis incidence was 2.3 to 1, with most cases (86.4%) aged older than 14 years old and showed a mean age of 46 years old. A third (7/22) of the papers reported the involvement of the nervous system as a complication of melioidosis followed by cardiovascular complications. Among the 23 cases reported, 13 had underlying medical conditions with most of them (84.6%) having diabetes mellitus or newly diagnosed with diabetes mellitus. Overall, only one case (4.3%) had resulted in mortality, while 17.4% developed complications and 78.3% managed a full recovery after undergoing treatment for melioidosis. Conclusion: The most commonly found complication of melioidosis involved the nervous system but patient outcomes were favourable. Rare complications included mycotic aneurysm that can be fatal. Melioidosis can affect almost any organ leading to various complications.