Clinical Characteristics and Risk Factors for Severe COVID-19 infections in Malaysia

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Introduction
COVID-19 started as a major public health outbreak in late 2019.1 Malaysia reported its first imported case on 25 January 2020, and adopted a policy of extensive contact tracing and hospitalizing of all patients, regardless of severity.2 We aim to describe clinical characteristics of COVID-19 patients nationwide and determine the risk factors associated with severe COVID-19 disease.

Methodology
Clinical records of all RT-PCR confirmed COVID-19 patients admitted to 18 designated hospitals in Malaysia between 1 February and 30 April 2020 with complete outcomes were retrieved. Variables were compared among patients classified as mild (Stage I-III) and severe (Stage IV-V) diseases.3,4 Univariate and multivariate regression analyses were used to identify determinants for disease severity.

Results
Our cohort comprised of 5889 cases (median age 34 years, male 71.7%). The majority were mild (92%), only 3.3% required intensive care with 80% admitted within the first 5 days. Older age (>51years), fever, cough, diarrhoea, breathlessness, tachypnoea, high serum CRP (≥5mg/dL) and abnormal chest radiographs on admission were significant determinants for disease severity (p >0.05). The case fatality rate was 1.2% and the three commonest complications were liver injuries (6.7%), kidney injuries (4%), and acute respiratory distress syndrome (2.3%)(Table 1).

Discussion/Conclusion
Lower case fatality rate was contributed by young and mild presenting COVID-19 patients.5 Abnormal chest radiographic findings in symptomatic elderly with tachypnoea require close monitoring in first 5 days to detect early deterioration. Early hospitalisation allows risk stratification and monitoring of patients for timely interventions.

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References