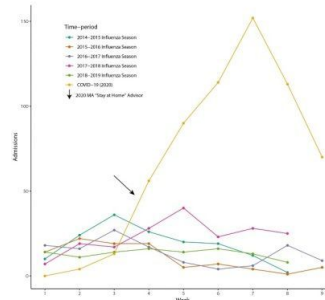## COVID-19 vs Influenza: Comparative Study

New research compares the epidemiology and clinical characteristics of COVID-19 patients against those of influenza patients to find if hospitalisations, morbidity and mortality differ for two diseases.

You might also like: WHO has launched a free online course dedicated to the rehabilitation of COVID-19 patients. <u>Learn more</u>

The research was based on data from a large tertiary care teaching hospital in Boston, MA (USA) comprising admission rates, clinical measurements and clinical outcomes for COVID-19 patients hospitalised between 1 March and 30 April 2020, and influenza cases confirmed over five influenza seasons (eight months each) beginning 1 September 2014. Overall, data from 1,052 influenza patients and 582 COVID-19 patients were analysed.

The metrics applied included sociodemographics, personal medical history, death rates, incidence and duration of mechanical ventilation, and hospital and ICU admissions, among others.

According to the findings, there were 210 hospital admissions for influenza over the 8-month season on average, compared to 582 admissions for COVID-19 over the two-month period of the study. The mortality was substantially higher in COVID-19 patients (20%) than in influenza patients (3%).

For COVID-19, the median weekly number of patients who required intubation was 17 and the share of those was 30%, while for influenza the numbers stood at 1 patient and 8% respectively. In addition, among those who required ventilation support, considerably fewer COVID-19 patients had major comorbidities compared to influenza patients: 25% and 4% respectively. The causes for mechanical ventilation differed between the two groups. In the former group, the need for mechanical ventilation was mainly caused by pneumonia and/or acute respiratory distress syndrome (in 94% of patients as opposed to 56% of influenza patients). Also, for COVID-19 patients the median duration of ventilation support was 14 days, while for influenza patients it was 3 days.

While acknowledging that the study was limited to a single facility and thus might not be representative on a wider scale, the authors note that COVID-19 caused significantly more weekly admissions, higher severity of illness and lethality than influenza. Specifically, over the course of two months there were more patients who required ventilation support or died due to COVID-19 than there were influenza patients in five entire seasons of influenza combined.

Image credit: Donnino MW et al. (2021)

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