EVIDENCE-BASED MEDICINE INFOSHEET: EPIDEMIOLOGY AND HEALTH SYSTEMS

Updated [7/14/20] Review completed by: [Olivia Chen] Peer Review by: [Jason Rosenfeld, DrPH]

Key topic areas / questions identified: Is there increased morbidity and mortality in the elderly population?

Key Findings:

4 articles were reviewed (Total n=101,045; Majority of sample in China; Other countries: United States, United Kingdom).

- 8 out of 10 deaths reported in the US have been in adults 65 years or older.⁶
- Male sex, age ≥ 60 years, delay in diagnosis and diagnosis of severe pneumonia were associated with increased CFR (Case Fatality Rate)¹.
- According to the China CDC, the CFR was 3.6, 1.3 and 0.4 for those 80, 70-79 and 60-69 years of age, respectively, versus a CFR of 0.4 in those aged 30-59 years old².
- Hospitalization rates were highest (13.8) among adults aged ≥65 years compared to 2.5 and 7.4 in those 18-49 and 50-64 years of age, respectively, in the United States³.
- Higher proportion of severe to critical cases have been observed in the elderly population with dyspnea, lymphocytopenia, comorbidities including cardiovascular disease and chronic obstructive pulmonary disease, and acute respiratory distress syndrome being predictive of poor outcome⁴.

Recommendations:

- Older and male patients with higher APACHE II and SOFA scores, elevated PCT level, excessive fluid volume input, as well as the delayed use of corticosteroid might increase the risk of death⁵.
- Clinical suspicion, accompanied by a relevant epidemiological history, should be followed by early imaging and virological assay¹.
- Preventive measures (e.g., social distancing, respiratory hygiene, and wearing face coverings in public settings where social distancing measures are difficult to maintain) should be continued to protect older adults (≥60 years) and persons with underlying medical conditions^{3,7}.

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