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Mortality Among Patients Receiving Invasive Mechanical Mentilation: Know Your Denominator

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In this article, Dr. Richardson and colleagues report: "Mortality for those requiring mechanical ventilation was 88.1%." This is based on 282 deaths at the time of censoring out of 320 total "discharged alive and dead" patients receiving invasive mechanical ventilation. However, a closer examination of table 5, row 1 reveals that 1151 total patients received invasive mechanical ventilation in the cohort over the study period. 831 of these patients (72%) remain alive in the hospital. This is not openly discussed in the article, aside from a brief allusion to the problem at the end of the limitations section. Unfortunately, the 88.1% ...

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Biased Estimation of Mortality in Setting of Administrative Censoring

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There is a substantial error in the estimation of mortality among patients requiring mechanical ventilation which I fear has led to a biased (overly high) estimate. This is the estimate (88%) that has been cited so often in the media.

Based on the data presented in Table 5 of the manuscript, 1,151 patients hospitalized for COVID-19 required mechanical ventilation (top row of table). Among this group 282 died while hospitalized, 38 were discharged from hospital, and 831 remained alive and hospitalized at the time that data were administratively censored as of April 4th, 2020. The authors estimated ...

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