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We thank Dr. Oud (1) for his thoughtful and important points about our recently published study (2) in *Critical Care Medicine*. Oud (1) is correct that using the National Inpatient Sample precludes linkage of inpatient data to other post-hospital data sources, and that, as noted in our Discussion, “earlier hospital transfer to long-term acute care hospitals and/or increased discharge to hospice over time (3, 4) may shift deaths out of hospital without meaningfully changing overall mortality.”

However, the premise of performing stratified analysis with 48-hour mortality, 3–14-day mortality, and greater than 14-day mortality subgroups was recent evidence suggesting that “early” deaths are more directly attributable to sepsis itself (and thereby, modifiable by sepsis-specific initiatives), while late deaths are associated with pre-ICU comorbidities. Therefore, in contrast to prior studies investigating unstratified (e.g., 30-d or in-hospital) mortality, we expected that “early” (i.e., 48-hr) mortality would be a more specific way to capture the effect of sepsis initiatives in the past 20 years. Our finding that septic shock 48-hour mortality declined markedly over 2 decades is unlikely to be explained by discharge to hospice or long-term acute care hospitals, which generally occur later in a patient’s course. Furthermore, the opposite direction of 48-hour mortality trends between mechanically ventilated patients with and without septic shock is also unlikely to be explained by increased discharge to long-term acute care hospitals or hospice.

We agree that evaluation of trends in 3–14-day mortality and greater than 14-day mortality, like prior studies of 30-day or in-hospital mortality, remains vulnerable to changing trends in patient disposition. We view our findings as hypothesis-generating, and further studies linking post-hospital data (including date of death) may help explain whether our observed decreases in 3–14-day in-hospital mortality or greater than 14-day in-hospital mortality are meaningful decreases in mortality (perhaps due general ICU quality improvements, rather than sepsis-specific initiatives) or artifacts of changing trends in disposition. In the

meantime, our finding of decreased early, 48-hour septic shock mortality (contrasted with increasing early mortality in mechanical ventilation) may provide context to understanding the impact of sepsis management strategies over time.

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