

# Financial Toxicity After Hospitalization; Considerations in Coronavirus Disease 2019 Recovery\*

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In the United States, there has been growing concern that as the cost of healthcare steadily rises, the out-of-pocket costs for patients will become unsustainable, even for those with health insurance (1). In 2017, healthcare spending increased by 3.9% amounting to a total national health expenditure of \$3.5 trillion or nearly \$11,000 per person (2). This amount is expected to nearly double by 2027 approximating \$17,000 per person (3). ICU care is one of the most sophisticated and costly types of care available to patients at risk for organ failure (4). Overall, ICU costs account for 15–20% of all hospital costs (5). Patients with respiratory failure requiring mechanical ventilation have estimated daily costs somewhere between \$4,000 and \$11,000 (6). Although the macro estimates for these healthcare costs are substantial, they fail to account for the human and financial impact on individual patients and families at the micro level. In this issue of *Critical Care Medicine*, the article by Hauschildt et al (7) provides a rare opportunity to give audience to the micro level financial experience after an ICU stay from the patient's perspective and how the consequential costs either burdened or buffered the patient's recovery (7).

Hauschildt et al (7) conducted semi-structured phone interviews as an adjunct to the Reevaluation of Systematic Early Neuromuscular Blockade multicenter randomized clinical trial at 9–16 months following hospitalization for critical illness and acute respiratory distress syndrome (ARDS). Patients were screened for financial toxicity, which the authors defined as “objective” financial burden or “subjective” financial distress

\*See also p. 1103.

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resulting from out-of-pocket costs associated with medical treatment. Forty-six patients agreed to participate in interviews, of which 67% reported some form of negative financial impact they attributed to their ARDS hospitalization. Although this is a small study, the authors found, at a very granular level, that patients who acquired medical expenses as a result of their ARDS hospitalization experienced financial toxicity that outweighed their available resources (7). Some patients described their financial toxicity as limiting their recovery by causing adverse mental health effects and altering their medication or rehabilitation compliance due to an inability to pay. Medical expenses became overwhelming mainly due to insufficient insurance coverage that left patients responsible for substantial out-of-pocket costs. Patients who reported little to no financial toxicity were those who described mechanisms that limited the number of burdens such as coverage under Medicaid, Medicare or generous employer-based benefits.

The authors made important suggestions which could help to buffer financial stress and limitations in patient recovery. For example, follow-up could include screening for financial toxicity given its potential to impact ongoing treatment and recovery. Also, efforts to improve recovery care could minimize patient disability and increase the patient's ability to return to work. Last, patients who identify as being at risk for a limited recovery due to financial toxicity could be referred to resources that assist patients with managing costs (7).

Although this research is valuable in understanding the costs associated with an ICU stay for ARDS from the patient's perspective, there are a few limitations to consider before making generalizations to the broader population. First, participation in phone interviews consisted of a response rate of 58%, which accounted for 46 patients from 22 sites across the United States. Although the authors point out that each of the patterns described in the results were represented across multiple sites, states, and regions. The methodology may not adequately account for the multilevel response characteristics at each site and the number of patients included is very low. Second, the descriptive nature of qualitative research and the small sample size in the study by Hauschildt et al (7) creates limitations in forming generalizable results. Because results were based on patient perspective rather than a formal quantitation, those who participated in interviews could have been skewed by recall and/or selective disclosure bias. Nonetheless, individual

patient perspectives add an important and unique perspective that is often not investigated, particularly with ICU survivors.

Despite these limitations, the qualitative results from the study by Hauschildt et al (7) may help to inform screening and follow-up practices for patients who experience an unexpected ICU hospitalization due to coronavirus disease 2019 (COVID-19). Although COVID-19 symptoms may be distinct pathophysiologically from traditional ARDS, the two will surely have one thing in common, that is devastating financial outcomes. The patterns described in the results of the study by Hauschildt et al (7) may be informative when considering that 20% to 60% of people have been projected to become infected with COVID-19, 15% of which are expected to require hospitalization that may be longer and more severe (8). Although these projections are highly uncertain and driven by unknowns about how the pandemic will evolve, using more robust data from other illnesses, such as ARDS, to better understand the financial toxicity associated with the COVID-19 pandemic may be instructive as we help people recover from the care associated with COVID-19.

As this pandemic evolves, the costs of this illness will be a growing concern for the patient, hospitals, and the greater healthcare system. Nonpharmaceutical interventions, such as social distancing and the closure of nonessential businesses, are in place to slow the spread of COVID-19, however, the unintended effect of this intervention has caused millions of Americans to experience unemployment and changes to their health insurance. Some projections estimate that 2–7% of uninsured people will require hospitalization for COVID-19 accounting for between 670,000 and 2 million hospital admissions (8). If COVID-19 patients are left to pay the bill of large medical expenses, we could expect to see similar consequences of financial toxicity described by Hauschildt et al (7). In fact, some reports have already exposed patients' concerns as being more focused on who is going to pay for treatment rather than concern for their own recovery. One nurse in New York revealed the tragic last words of his patient while being placed on a ventilator to treat severe respiratory distress due to COVID-19, being: "Who's going to pay for it (9)?"

At the level of the hospital, the administration has indicated hospitals will be reimbursed for COVID-19 treatment provided to the uninsured through the Coronavirus Aid, Relief, and Economic Securities Act at Medicare rates; however, Medicare rates have been estimated to be about half of what private insurers pay on average (10). Hospitals are also adopting nonpharmaceutical interventions to reduce the risk of spreading the virus, such as the urgent shift away from traditional revenue generating procedures like elective surgeries and clinic visits. The effects of this shift may have some lag time before an impact is seen, but it is sure to have a damaging effect on hospital cash reserves and earnings, which in time, will ultimately trickle down to program modifications and patient-level consequences.

Although ARDS and the COVID-19 pandemic have several differing clinical characteristics, both have the potential for financial toxicity to the patient, hospitals, and the healthcare system. Although policymakers and advocates tackle the larger macro-level interventions, we as physicians must stay focused on providing the best care for our patients. Physicians can play an important role in understanding that financial toxicity may interfere with patient recovery and incorporate screening measures that could limit the number of burdens causing financial distress and ease patient recovery. The study by Hauschildt et al (7) reminds us that patients are willing to share their experiences after critical illness and this knowledge can help inform our practices, all we have to do is ask.

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