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Shortage of ICU Providers Who Operate Ventilators Would Severely Limit Care During COVID-19 Outbreak *SCCM Report Provides Solution for Expanding Healthcare Workforce*

MOUNT PROSPECT, Ill — March 25, 2020 — The profound shortage of intensivists and other ICU healthcare workers available to operate mechanical ventilators during a pandemic will be one of the most significant hurdles facing U.S. hospitals poised to treat critically ill COVID-19 patients. Hospitals need to proactively make plans now to maximize critical care services, which include reallocating healthcare workers and recognizing the need for canceling elective surgeries. A newly released [report](#) from the Society of Critical Care Medicine (SCCM) provides previously unpublished critical care statistics and puts this pandemic into context, discussing crucial resource availability for treating COVID-19.

Severe hypoxic respiratory failure requiring mechanical ventilation is the most common reason COVID-19 patients are admitted to the ICU. The report notes that while more than 200,000 mechanical ventilators may be available in the United States, the number of intensivists, advance practice providers, respiratory therapists, and nurses trained to safely operate mechanical ventilators would limit the care of ventilated patients. Mechanical ventilation of a fragile patient is dangerous if provided by someone other than these trained ICU professionals, which is why mechanical ventilation is not typically provided outside of the ICU.

“Since the outbreak, there has been a focus on beds and mechanical ventilation equipment – while these resources are important, they are useless if you do not have trained healthcare professionals who are at the bedside to care for the patient and use the ventilator,” said Lewis Kaplan, M.D., president of the Society of Critical Care Medicine. “The tiered staffing guidance detailed in the report helps hospitals be prepared to handle a large influx of critically ill patients.”

The new SCCM report provides an integrative solution to help hospitals expand their capacity to treat COVID-19 patients, as well as other patients requiring complex ICU care. This approach includes canceling elective surgeries and, to improve the ability to mechanically ventilate more patients, reallocating healthcare providers such as physicians, nurse anesthetists and certified anesthesiologist assistants who are experienced in managing patients’ ventilation needs.

The report notes that while the United States has significantly more critical care beds per person than any other country, COVID-19 could exhaust critical care resources leading to shortages and higher death rates unless hospitals plan ahead by implementing these recommendations.

The staffing guidance is included in the new [report](#), which provides previously unpublished statistics on critical care resources available in the United States as hospitals prepare for a potential influx of critically ill patients related to the COVID-19 pandemic.

The SCCM report includes the most current data and estimates of ICU resources available for COVID-19:

- Ventilator supply estimates suggest more than 200,000 ventilators may be available in the United States:
 - U.S. acute care hospitals own approximately 62,000 full-featured mechanical ventilators, and 98,738 older, more basic models.
 - The Strategic National Stockpile (SNS) has an estimated 12,700 ventilators available for emergency deployment.
 - Additional supply may be available through state stockpiles, ventilators rented from local companies by respiratory therapy departments to meet demand and modern anesthesia machines that are capable of ventilating patients.
- There are approximately 28,000 intensivists and 34,000 critical care advanced practice providers (APPs) in the United States available to care for critically ill patients. The projected shortage of intensivists, critical care APPs and nurses and respiratory therapists trained in mechanical ventilation would limit care of critically ill ventilated patients.
- 48% of acute care hospitals do not have intensivist on staff. The report provides recommendations for realigning resources to ensure patients receive the appropriate level of care.
- Hospitals should employ a tiered staffing strategy to expand the number of trained professionals who can both mechanically ventilate patients with COVID-19 and care for other critically ill patients.
 - Under this strategy, a non-ICU physician (such as an anesthesiologist, pulmonologist or hospitalist), who ideally has some ICU training but who does not regularly perform ICU care, is inserted at the top of each tier. This non-ICU physician extends the trained or experienced critical care physician's knowledge, while working alongside APPs who regularly care for ICU patients. The team of 24 would include ICU healthcare workers as well as physicians, nurse anesthetists and certified anesthesiologist assistants who are experienced in managing patients' ventilation needs but don't normally work in the ICU.
- Increasing the number of professionals trained in ventilation will help with future outbreaks.

"Public health efforts to slow the spread of COVID-19 and limit the number of people who need critical care at any given time, in combination with hospitals employing novel approaches to care including SCCM's tiered staffing strategy will save lives," said Dr. Kaplan.

Critical care physicians – also known as intensivists – are board-certified physicians who provide specialized care for critically ill patients. They receive advanced training and are experts

who offer specialized care for people who have experienced major surgery or trauma, as well as those with other critical medical needs.

Additional information about disaster preparedness is available at www.sccm.org/disaster.

THE SOCIETY OF CRITICAL CARE MEDICINE

The Society of Critical Care Medicine (SCCM) is the largest nonprofit medical organization dedicated to promoting excellence and consistency in the practice of critical care. With members in more than 100 countries, SCCM is the only organization that represents all professional components of the critical care team. The Society offers a variety of activities that ensures excellence in patient care, education, research, and advocacy. SCCM's mission is to secure the highest quality of care for all critically ill and injured patients. Visit sccm.org for more information. Follow [@SCCM](https://twitter.com/SCCM) or visit us on [Facebook](https://www.facebook.com/SCCM).