

CRNAs as Advanced Practice Providers in Critical Care Settings

The COVID-19 pandemic poses an existential threat to the United States (US) healthcare system, which will require non-traditional and divergent solutions. Certified Registered Nurse Anesthetists (CRNAs) are immediately available, highly skilled, advanced practice registered nurses (APRNs) who are capable of filling diverse roles across healthcare systems. CRNAs comprise over 50 percent of the US anesthesia workforce and are expert clinicians with highly specialized skills such as airway management, ventilator support, vascular volume resuscitation, and advanced patient assessment. Because of this unique skillset, CRNAs should be utilized as advanced care providers to expand the Nation's critical care workforce.

Clinical Need

The COVID-19 virus results in severe illness in 15.7 percent of positive cases with a death rate of 1-3 percent. The Johns Hopkins Center for Health Security identified a potential need for 200,000 additional intensive care unit (ICU) beds during a moderate pandemic scenario. In a more severe scenario this number could rise to 2.9 million ICU beds. Many patients will need mechanical ventilation and will require care from clinicians with experience managing ventilators and who understand and oversee complex hemodynamic monitoring.

CRNAs Can Address This Need

CRNAs, on average, have 3 years of prior critical care nursing experience. This experience, along with their training and expertise in anesthesiology, positions CRNAs to help in many different areas including but not limited to:

- **Advanced airway management** including intubation as well as the initiation and assessment of pharmacological interventions for patients in respiratory distress
- **Advanced ventilator management** including the conversion of operating room ventilators to ICU ventilators and oversight of patients needing ventilatory management
- **Advanced hemodynamic monitoring** including titration of vasoactive medications and vascular volume resuscitation
- **Placement of invasive lines and monitors** including central lines, peripherally inserted central catheters (PICC), and arterial lines
- **Rapid advanced physical assessment** to allow for triage of multiple patients' respiratory and hemodynamic status
- **Leading a team of rapid responders** to provide lifesaving interventions
- **Consultation on the management of critically ill patients** who are receiving paralytic medications, are in alternative positions such as prone, or who require deep levels of sedation outside that normally managed in the ICU

How to Mobilize This Essential Workforce

To best respond to this unprecedented crisis, CRNAs should be given full authority to practice to their highest level of education and training. They should be integrated fully into the critical care team, and their roles should reflect their high degree of clinical skill and expertise. New roles that may not currently exist in health systems are needed in this complex and challenging environment. These could include direct patient care of high acuity patients as well as directing the care of multiple critically ill patients. CRNAs are the answer to rapidly, safely, and effectively extending the critical care resources that facilities need to care for the patients being affected by the COVID-19 pandemic.