


COMMENTARY

An Emergency Amendment to the National Scope of Practice for Paramedics in the Setting of a Global Pandemic

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Unprecedented events force us to look at “the way we’ve always done it” and reconsider how we might better leverage underutilized resources. This could not be truer of our paramedic services as we embark into uncharted territory around the COVID-19 pandemic. As frontline providers, advanced life support paramedics and emergency medical technicians (EMTs) comprise a significant component of the nation’s health system. Paramedic services provide both a point of entry and clinical care for patients. In 2018, there were over 400,000 nationally certified EMS personnel in the United States, with more than 100,000 being highly skilled paramedics.¹

Changes to paramedic scopes of practice related to airway and ventilator management are urgently needed across rural America, where existing limited resources are challenged for the coming months. Changes to paramedic scopes of practice need to be supported through local regulatory changes, access to education and mentoring, consideration of health professional and patient safety, and ongoing monitoring of these and other emerging issues. For instance, basic life support providers (including rural volunteers) need to take more of the advanced life support paramedic load in the event of paramedics moving into the hospital domain, and this may require regulatory changes and training programs.

Paramedics in the United States work within a National Scope of Practice Model that ensures patient safety and influences educational standards and paramedic roles. In common with other health disciplines, safety concerns related to paramedic care are managed through regulation, education, and quality improvement. One unintended consequence of the National Scope of Practice is that it can stifle innovation and flexibility during times of crisis. The COVID-19 crisis is a prime example of this, where paramedics are unable to fully engage in the health care system at a time when their skills and experience are most needed. Crises dictate that health disciplines should not compete over scopes of practice boundaries. Reports from other parts of the world have demonstrated the magnitude of catastrophic outcomes when human or technology resources are limited, and health systems overwhelmed and characterized by poor agility.²

While the utility of paramedics to aid in managing patients at home is being increasingly realized with the implementation of community paramedic programs, the health care system and the nation are missing the opportunity to leverage the skills and knowledge of nationally registered paramedics to carry out more advanced skills related to airway and ventilation management as members of interdisciplinary teams during the current pandemic. This view is based on the demonstrated capacity

of paramedics to learn new skills and adapt to challenging practice environments, combined with demonstrated evidence that manual ventilation practices can be detrimental to patient outcomes.³⁻⁶ Mechanically ventilated patients have better outcomes with a 1:1 patient to staff member ratio.^{7,8}

Surge prediction models for pandemic response and global experiences to date indicate that tens of thousands of ventilators are needed in the coming weeks and months. While governments and corporations can fund and mass-produce the equipment required, the supply of a professional and competent workforce needed to operate the equipment is of equal concern.

Critical care concepts should be applied as part of the continuum of care and not just as a resource offered within the walls of a hospital. Multiple studies have demonstrated that the earlier low-volume ventilation is initiated, the more likely it is to be maintained through to the ICU.⁹⁻¹¹ Known as ventilator inertia, paramedics could have a real impact on the care and management of critically ill patients by initiating these principles on the first contact. While the complexity of critical care patients requires the resources and knowledge that a highly experienced interdisciplinary critical care team brings to the bedside, experienced paramedics could be better utilized as members of these teams in both the out-of-hospital and hospital settings.

In the out-of-hospital setting, from a resource management standpoint, utilizing a ventilator could free up valuable human assets during transports.¹² Transport is one of the most dangerous times in patient care and particularly important to those in rural America that have limited critical care resources. Adverse events have been reported to occur in 68% of in-hospital transports with serious adverse events occurring in 4.2% to 8.9% of cases.^{13,14} Reducing the drain on limited rural hospital resources and minimizing the risk of moving intubated patients to tertiary care centers is a significant value of paramedic ventilator management.

Ventilator use in the out-of-hospital environment has generally been limited to the realm of interfacility transfers, with many already managed by nationally registered paramedics who may not have had specialized critical care training.¹⁵ In other cases, critical care paramedics and certified flight paramedics with additional training play critical roles in managing the critically ill patients as members of interdisciplinary transport teams.¹⁶ With a robust training and quality assurance program, non-critical-care paramedics could be trained to safely initiate and manage ventilators in the transport and non-transport settings. As such, paramedics would become valuable team members and experienced resources

within hospitals¹⁷ during times of extreme need, such as the current global pandemic.

The need for specific changes to the paramedic Scope of Practice is urgent as the ability of in-hospital staff to manage vented patients is becoming overwhelmed through exponential growth in demand and an increasingly stressed workforce.¹⁸ Now is time that we must reconsider the restrictions on paramedic scope of practice related to ventilator management.

While the standard paramedic is not a replacement for highly trained critical care health professionals (doctors, respiratory therapists, nurses, and paramedics), there is utility in widening practice capacity—both in hospital and out—of ventilator use by paramedics during the current pandemic. Creative and nimble solutions should be embraced to leverage the paramedic profession in these difficult times. Our health care system(s) are bursting at the seams, and paramedics are an untapped resource.

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