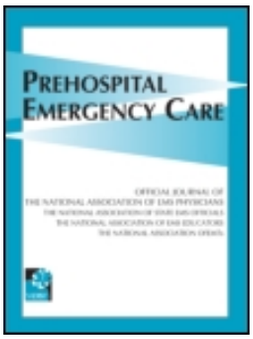

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LETTERS TO THE EDITOR

PARAMEDIC USE OF SUCCINYLCHOLINE

To the Editor:—I wish to congratulate Drs. Wayne and Friedland on their article "Prehospital Use of Succinylcholine: A 20-year Review."[1] After reading this article, I feel compelled to make several comments. First, it is certainly to the credit of the Whatcom Medic One program and the associated instructors and medical control physicians to have used succinylcholine with such a high degree of success in so many patients. I was astounded that they have been using paralytics in the field since 1976, while more than 20 years later many other EMS systems are first now grappling with the wisdom of allowing their paramedics to administer this medication.

In addition, I wish to make the following points lest other EMS systems use Wayne and Friedland's paper as an argument to incorporate succinylcholine into their paramedics' scope of practice without further study. Paramedics in Wayne and Friedland's system receive 2,500 hours of training, which is more than *twice* the training most paramedics receive. One could therefore argue that any comparisons between these paramedics and those receiving the standard 1,200 hours of training are inherently flawed.

Wayne and Friendland's point regarding the importance of strong medical control also cannot be overemphasized. While the number of paramedics in the Whatcom Medic One program is not mentioned in the article, one can estimate it based upon the population of the county it serves (175,000). The ability of paramedics to safely incorporate succinylcholine into their scope of practice in a large, urban EMS system needs to be addressed. However, several limitations currently exist that might make such an addition suboptimal, if not unnecessary. The sheer number of paramedics in our system (435), coupled with the annual call load (250,000), along with 26 different base station hospitals makes close on- and off-line medical control extremely difficult. In addition, the regulations under which our system operate have no required periodic skills testing. Although the extremely high call load ensures that most of our paramedics get more than enough opportunities to intubate, the finer points of their techniques are difficult if not impossible to determine.

Last, although the authors cite the average response times for BLS and ALS, the average *transport* times are not provided. I would imagine that in the more rural areas of Whatcom County, transport times are often rather lengthy, necessitating perhaps more aggressive prehospital interventions. Any time we are faced with the decision to expand the paramedic scope of practice in our county, we always are reminded that our average transport time is approximately 10 minutes. This proximity to receiving hospitals often makes certain field interventions less critical, although inability to oxygenate would obviously be the exception.

Interestingly, Wayne and Friendland's data show that 20% of the intubations using succinylcholine were on trauma patients with a GCS > 10. I would be curious to see a more detailed description of these patients, and what factors led paramedics to determine that these patients needed to be intubated. Do paramedics in this system also have pulse oximetry available? If so, it would be helpful to see what percentage of those patients were hypoxic prior to intubation.

In conclusion, the paramedics (and medical directors) of Whatcom County deserve recognition for their high success rate in the use of succinylcholine to facilitate intubation. I hope that some of the issues raised here serve to promote further analysis or well-designed clinical trials in urban EMS systems before such a potentially lethal medication is administered in the field.

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Reference

1. Wayne MA, Friendland E. Prehospital use of succinylcholine: a 20-year review. Prehosp Emerg Care. 1999;3:107–9.

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In reply:—First, we would like to thank Dr. Eckstein for his positive words. We too would echo some of his concerns, but would point to Seattle as a larger community that has been doing paralytic-assisted intubations for almost 27 years. We think this would demonstrate that

size, in and of itself, does not necessarily preclude having such a program. However, we would still repeat our caveats concerning training, continuing education, and medical control.

To answer some of Dr. Eckstein's questions, we offer the following. We have approximately 50 ground and air paramedics in our system. Our transport times vary from 5 to 120 minutes, depending on location in a county of our vast size. We have been using pulse oximetry for over 12 years and real-time, end-tidal CO_2 with waveform for over eight years. While a GCS score of 10 may not seem all that low, documented threat to airway and/or hypoxemia was present in the vast majority of these trauma patients.

Again, we wish to thank Dr. Eckstein for his critical assessment of our work. We look forward to the discussion that this has already stimulated.

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