Letter to the Editor

A reply to "*Aligning airway management strategy with resuscitation priorities for out-of-hospital cardiac arrest*" by Burjek *et al.*

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We thank Drs. Burjek and colleagues for their thoughtful review of the Pragmatic Airway Resuscitation Trial (PART) (1) (ref for Burjek *et al.*). We agree that strategies to reduce cognitive load during airway management are important and potentially beneficial. However, several points are worth clarification.

While the results of PART suggest improved outcomes with an initial laryngeal tube (LT) strategy, they do not imply this is the only technique that should be used during out-of-hospital cardiac arrest (OHCA). An additional strategy not described by Brujek *et al.* is gum elastic bougie-facilitated intubation, an approach that has been shown to improve first-pass intubation success in the Emergency Department (ED) (2). The best devices and techniques are best determined at the local level based upon the nature of the Emergency Medical Services (EMS) system, the setting of the community, resources available for training/skill maintenance, and finances available for acquiring and supporting equipment.

With regards to replacement of the LT with an endotracheal (ET) tube on ED arrival, the 33% replacement rate in the endotracheal intubation (ETI) group was primarily related to the use of the LT as a rescue airway in that arm. From our experience, ET tubes that are confirmed to be correctly placed and providing effective ventilation are replaced far less frequently.

An additional consideration not articulated by Dr. Burjek is the systemwide "dilution" of intubation experience. Out-of-hospital ETI is relatively uncommon, with many paramedics performing only 1 ETI per year or about 7.5 per 1,000 EMS calls (3,4). This low frequency makes attaining and maintaining proficiency with ETI challenging. Approximately 60–70% of prehospital ETI take place on OHCA; the remainder of cases include trauma and non-arrest medical cases such as acute pulmonary edema and drug overdoses (5). An EMS agency's decision to switch from ETI to supraglottic airways (SGA) in OHCA would significantly reduce the overall number of opportunities for performing ETI. In turn, paramedics would be less prepared for intubating trauma and non-arrest medical cases (3).

While SGA might be possible in some trauma and non-arrest medical patients without protective airway reflexes, we must continue to develop new techniques for managing these cases. For example, the broader use of continuous positive airway pressure and high flow nasal cannula oxygen may offer key management options for acute pulmonary edema (6). Trauma patients requiring intubation are often agitated, requiring the use of rapid sequence intubation (RSI), a very difficult technique available to few EMS

providers. Some systems have innovated the use of rapid sequence airway (administration of RSI medications followed by SGA insertion) (7). As with all new concepts, rigorous study is necessary to verify the results before we implement practice change.

The publication of PART as well as the French Cardiac Arrest Airway Management trial (CAAM) and the United Kingdom Airways-2 trial have enhanced our understanding of airway management techniques in OHCA (1,8,9). However, key questions remain unanswered. We face many important challenges as we determine how to best manage the airway in the out-of-hospital setting.

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Footnote

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