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## Airway management in a prehospital combat setting

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*To the Editor,*

In a retrospective review of US Army medical evacuation patient care records, Hardy et al. [1] compared outcomes of US military injured that received prehospital advanced airway interventions. The authors conclude that patients who received a supraglottic airway devices (SAD) had higher morbidity demonstrated by fewer ventilator, hospital, and ICU free days than those receiving cricothyrotomy or mask ventilation.

We would like to add several appreciations. The authors do not specify the SADs used. This data is essential to make an accurate analysis of the data. It is well known that second-generation SADs, although they do not completely protect the airway from aspiration, provides better efficacy and safety compared with first-generation devices [2]. The first-generation SADs (e.g. the classic laryngeal mask airway) have several limitations, fundamentally providing only a moderate pharyngeal seal that may be associated with inadequate ventilation, gastric inflation, regurgitation and pulmonary aspiration. The design of second-generation supraglottic airways allows for greater pharyngeal seal pressures and they contain an oesophageal port which provides functional separation of the respiratory and gastrointestinal tracts and allows for the draining or aspiration of gastric contents. Second-generation SGAs are also more likely to enable oxygenation and ventilation [3]. Thus, only second-generation SADs are recommended in the recent guidelines [3-5]. Likewise, each second-generation SAD has specific attributes as the time of placement, seal pressure, type of separation of gastrointestinal and respiratory tracts and use as a conduit for endotracheal intubation (blind or fibre-optically guided tracheal intubation).

The competence and experience of the operator with the device also play a relevant role since they influence the success of insertion and correct placement. Different studies indicate a low failure rate in the clinical use, although the consequences of failure included an increase in hospital admission and ICU admission [6].

All of this justifies the need to specify the kind of SAD since they constitute a heterogeneous group of non-equated devices. Therefore, it is necessary to take all these data into account. Otherwise, the conclusions of this interesting work could be misleading.

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## Impact of prehospital airway management on combat mortality

*Response to Letter to Editor,*

We appreciate the inquiry regarding our publication and thank you for the letter. We were unable to determine the type or generation of supraglottic airway devices used in the prehospital combat setting from the MEDEVAC documentation. An additional consideration affecting patient outcomes regarding supraglottic airway devices in the prehospital combat setting is the difference in the combat environment versus the hospital environment. As mentioned in our discussion section, combat medics do not carry paralytics, the patients are not fasting, and the environment is considerably different than that of the hospital. Furthermore, the primary causes of injury in our patient population are improvised explosive devices and high velocity rifles which result in injuries significantly different from those in the US civilian setting. This is in addition to the differing types of supraglottic airway and varying competence of the operator that you mentioned. Regardless, further research comparing the different supraglottic airway devices is necessary to draw more definitive conclusions.

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