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'Alternative' Airways Nonviable?

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A recent study evaluating trauma patients who had emergency prehospital airway management found that 31% of patients failed prehospital intubation (PHIs). The study, conducted at Ryder Trauma Center in Miami tracked 1,320 emergency admissions to their Level 1 trauma center between August 2003 and June 2006.

Because EMS providers treat the sickest patients in unpredictable environments, often in the back of a moving ambulance, endotracheal intubation isn't always possible. (Photo Keith D. Cullom)

"I am not surprised there was a higher rate of failed intubation than in an emergency room because [paramedics and EMTs] were dealing with the sickest of the sick in some

of the most dangerous of situations," says Miguel A. Cobas, MD, assistant professor of anesthesiology and surgery at the Department of Anesthesiology and Perioperative Medicine at the University of Miami's Miller School of Medicine and lead investigator of the study.

Results of the study found that of the 1,320 patients, EMS personnel had initially intubated 203 in the field, with 74 surviving to discharge. Sixty-three (31%) failed to meet successful intubation criteria.

However, critics argue that the study defined a successful intubation only as one in which an endotracheal tube was used.

"When a patient has an adequate airway and good oxygenation and ventilation, that would be a successful airway to all of us in emergency medicine and prehospital emergency care," says Kathleen Schrank, MD, FACEP, FACP, professor of medicine at the University of Miami's Miller School of Medicine and EMS medical director for the City of Miami Fire Rescue. "It doesn't matter which tube or device is being used to accomplish that. A perfectly good Combitube or LMA was considered failed, and that's a very major flaw in the whole design and discussion of this study."

Cobas and his research team, however, deliberately designed the study to count only endotracheal intubations as successful. "Securing the airway is the gold standard, and, therefore,

the word 'intubation' should be reserved for the passage of the endotracheal tube to the vocal cords," he says. "That is what is defined as intubation. Anything that is not an intubation is considered a non-intubation."

Cobas and Schrank agree that a closer relationship between trauma anesthesia and EMS is needed. "From working with them, I think anesthesiologists better understand that EMS faces a difficult intubation on critical care trauma patients and will often take the alternative airway as a first choice, which is not a failed airway, it's an alternative airway," says Schrank.

Cobas believes that the study will open doors to communication and further evaluation as well. "I have the utmost respect and admiration for what paramedics and EMS do in the field," he says. "There are many more things to be discovered in the area of airway management in the field, and I think this opens the door to many interesting studies going forward."

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