Prehospital Pediatric Intubation: The Debate Rages On!

A recent study (Journal Watch Emergency Medicine Apr 1 2000) raised questions regarding the value of prehospital intubation compared with that of bag-valve-mask ventilation for pediatric patients in large, urban EMS systems. These authors wondered whether it was appropriate to continue using prehospital pediatric intubation in their system. They conducted a retrospective review of prehospital records, quality-assurance reviews, paramedic run reports, and hospital records over a 4.5-year period.

During the study period, EMS was summoned to calls for 46,605 pediatric patients. Intubation was attempted in 324 patients and was successful in 264 (82%). The receiving emergency department physician confirmed correct tube placement in 261 patients (99%). Esophageal intubations were discovered in 3 patients (1%), 2 in the ED and 1 on turnover to a flight nurse. All 3 patients were in cardiac arrest before intubation and eventually died. A review board determined that these deaths were unpreventable and that the esophageal intubations were noncontributory. The authors conclude that pediatric intubation in their established urban EMS system (some paramedics had more than 20 years of field experience) has a low incidence of esophageal placement.

Comment: This retrospective review is difficult to interpret because it's unclear whether additional esophageal intubations were undetected. EMS directors must critically review the literature and apply it to their own systems to make the very difficult judgment of whether to provide pediatric intubation. With either decision, good quality-assurance programs are essential.

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