Emergency Department Intubations Are Increasingly Successful

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First-pass ED intubation success increased from 80% in 2002 to 86% in 2012, with concomitant increases in the use of video laryngoscopy and rocuronium.

Emergency department (ED) intubation is constantly evolving, with new devices, techniques, and medications being frequently adopted. To evaluate temporal trends, National Emergency Airway Registry (NEAR) investigators analyzed registry data on ED intubations at 13 large hospitals in the U.S., Canada, and Australia from 2002 to 2012.

Among more than 17,500 intubations, the first-pass success rate was 83%, and the overall success rate was 99%. Over the 10-year period, first-pass success increased from 80% to 86%. Use of video laryngoscopy increased from <1% in 2002 to 39% in 2012. Succinylcholine and etomidate were used for most intubations, but use of rocuronium increased from 8% to 42% over the course of the study period. Use of propofol and ketamine also increased, but only in 2012 (potentially due to an etomidate shortage).

Comment: Emergency department intubations are increasingly successful, with etomidate and succinylcholine still used in the majority of intubations. Some of this improvement is likely due to the concurrent increase in video laryngoscopy, which should continue.

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