Timely Administration of Sedation After Intubation with Etomidate in the Emergency Department

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Introduction:
- Etomidate is a commonly used sedative to facilitate intubation in the Emergency Department (ED).
- With a duration of action of 4 to 14 minutes, a second sedative should be administered within 14 minutes to ensure continuous sedation, especially in those who are chemically paralyzed.
- We hypothesized that less than half of ED patients intubated with etomidate receive timely administration of a second dose of sedative.

Results:
- 117 patients met inclusion criteria. 42% were female, 78% were White, and mean age was 60 years (SD=21).
- The most common chief complaints were dyspnea (27/117, 23%), stroke/ICH (24/117, 20.5%), and blunt trauma (23/117, 19.7%).
- In total, 105/117 (90%, 95% CI 0.83-0.94) received a second dose of sedative, however only 38/105 (36%, 95% CI 0.28-0.46) received the second dose within 14 minutes.
- Midazolam (38%), lorazepam (30%), and propofol (21%) were the sedatives most commonly administered after intubation.
- 107/117 (91.5%) received an initial paralytic agent for intubation; succinylcholine was used in 100/107 (93.5%).
- Overall, 58/107 (54%) received a subsequent dose of paralytic after intubation; 55/58 (95%) received rocuronium.
- There was no significant association between timely sedation and receiving a second paralytic.
- Gender, age, race, chief complaint, GCS, depressed level of consciousness, systolic blood pressure, and heart rate were examined for association with timely administration of a second sedative, and none were significant.

Conclusions:
- Less than half of patients intubated with etomidate in our ED received timely administration of a second sedative.
- A second dose of paralytics was frequently administered, suggesting that patients are at risk of paralysis and mechanical ventilation without sedation.