Use of Paralytic Agents Facilitates Intubation Outside the Operating Room

*For emergent intubations outside the emergency department and operating room settings, use of neuromuscular blocking agents reduced prevalence of hypoxemia and complications.*

Neuromuscular blockade (NMB) is used routinely in the emergency department, but not in other settings outside the operating room. In a prospective, observational study, researchers assessed 454 patients not in cardiac arrest who were intubated emergently outside the operating room at two university hospitals. Overall, 287 patients received NMB (rocuronium in 70% and succinylcholine in 30%).

An advanced airway team consisting of supervising critical care specialists, anesthesia residents, and respiratory therapists performed the intubations with propofol (70% of NMB recipients and 58% of nonrecipients) or etomidate (23% and 29%). Opioids or midazolam were administered to 18% and 7% of NMB recipients and 8% and 11% of nonrecipients, respectively.

Cormack–Lehane grade and number of intubation attempts were significantly lower in NMB recipients. Patients who received NMB also had a significantly lower prevalence of hypoxemia (defined as desaturation to <80% during intubation or within the first 5 minutes afterward; 10.1% vs. 17.4%) and fewer procedure-related complications (3.1% vs. 8.3%). These differences persisted after controlling for number of intubation attempts, laryngoscopic view, and use of sedatives.

**Comment:** There is overwhelming evidence that intubation with neuromuscular blockade is more successful and safer than intubation with an induction agent alone. Critical care response within a hospital needs to include properly trained providers who are skilled in advanced airway management, especially neuromuscular blockade, and appropriate rescue techniques.

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- [Medline abstract](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4010849/) (Free)