

Neuromuscular Blocking Agents

Scope: Unless otherwise stated, these items pertain to all neuromuscular blocking agents used in any inpatient and outpatient locations associated with the facility.

Demographic Question

1) What percent of neuromuscular blocking agents used by anesthesia staff are dispensed by the pharmacy in either pre-filled syringes or prepared infusions?

- Less than 10%
- 11% to 25%
- 26% to 50%
- 51% to 75%
- 76% to 90%
- Greater than 90%

Self-Assessment Items

A	There has been no activity to implement this item.
B	This item has been formally discussed and considered, but it has not been implemented.
C	This item has been partially implemented for some or all patients, orders, drugs, or staff.
D	This item is fully implemented for some patients, orders, drugs, or staff.
E	This item is fully implemented for all patients, orders, drugs, or staff.

		A	B	C	D	E
Prescribing						
1	Outside the operating room (OR) and post-anesthesia care unit (PACU), neuromuscular blocking agents used for maintenance of paralysis in patients on a ventilator are prescribed via a protocol or order set. Scoring guideline: Choose <i>Not Applicable</i> <i>only</i> if neuromuscular blocking agents are never used outside the OR or PACU for patients on a ventilator.					
		NOT APPLICABLE				
2	Organizational policies do not allow orders for neuromuscular blocking agents with directions to “use as needed for agitation.”					
Dispensing						
3	If a neuromuscular blocking agent (e.g., continuous infusion) is ordered for a patient located in a care environment that does not typically support mechanical ventilation, pharmacy staff are required to verify that the patient is (or will be) supported by mechanical ventilation before dispensing the product.					
Storage						
4	Neuromuscular blocking agents are <i>only</i> available in rapid sequence intubation kits, surgical suites, post-anesthesia care unit/anesthesia stock, the emergency department, and/or critical care units, where patients can be ventilated and monitored by practitioners with demonstrated competencies.					

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5	Refrigerated and nonrefrigerated neuromuscular blocking agents are segregated from other medications or sequestered in a rapid sequence intubation kit or lidded box/drawer wherever they are stored in the facility (including ADCs, pharmacy, anesthesia supplies).					
6	Storage bins and/or ADC pockets or drawers containing neuromuscular blocking agents include an auxiliary label to clearly communicate that respiratory paralysis will occur and ventilation is required (e.g., WARNING: PARALYZING AGENT—CAUSES RESPIRATORY ARREST; WARNING: CAUSES RESPIRATORY PARALYSIS—PATIENT MUST BE VENTILATED). <i>Scoring guideline: Compliance can also be achieved by affixing an auxiliary warning label (in addition to the manufacturers' warning on the cap and ferrule) directly on all vials and/or other containers stocked in the storage locations, or by displaying a warning on an ADC screen, which must be acknowledged prior to removal of a neuromuscular blocking agent—score accordingly.</i>					
Product Labeling						
7	Final containers (e.g., pharmacy-prepared syringes, IV bags, pharmacy-repackaged vials) of pharmacy-prepared and dispensed neuromuscular blocking agents include a clearly visible warning (e.g., WARNING: PARALYZING AGENT—CAUSES RESPIRATORY ARREST; WARNING: CAUSES RESPIRATORY PARALYSIS—PATIENT MUST BE VENTILATED) that does not obscure important label information to communicate that respiratory paralysis will occur and ventilation is required.					
8	Syringes of neuromuscular blocking agents prepared by anesthesia staff are labeled with the name and concentration/dose of the drug, and the expiration date and time. (An anesthesia color-coded drug class label alone is not sufficient.) <i>Exception: Labeling is not required if the syringe is prepared immediately before drug administration, never leaves the hand of the preparer before administration, and the entire dose in the syringe is administered or the remaining volume is immediately wasted or discarded before the syringe leaves the hand. Expiration date and time are not required for short procedures, as defined by the facility.</i>					
Drug Preparation						
9	Anesthesia staff are provided with <u>and</u> use labeled, prefilled syringes of neuromuscular blocking agents that are available from an outsourcer or prepared by pharmacy, rather than using self-prepared syringes.					
10	Only the pharmacy prepares and dispenses continuous infusions of neuromuscular blocking agents to patient care units outside the surgical suites.					
11	A single, standardized concentration of a neuromuscular blocking agent is used for continuous infusions.					
Malignant Hyperthermia Management						
FAQ 12	Dantrolene and any required diluent is readily available (within 10 minutes of diagnosing a malignant hyperthermia event) in all patient care areas where succinylcholine is stocked (even if succinylcholine is only available in emergency intubation supplies).					

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for High-Alert Medications

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Discontinuation						
13	Before extubating a patient who was receiving a neuromuscular blocking agent, the IV administration set is flushed (or the set is changed) within an appropriate period of time before attempting extubation (based on the drug's duration of action) to prevent an inadvertent bolus after extubation of any residual drug remaining in the IV tubing.					
14	All continuous infusions of neuromuscular blocking agents are immediately discarded after discontinuation (and not left to hang on an IV pole or at the bedside).					
15	Vials, syringes, or unused infusion bags containing neuromuscular blocking agents dispensed from the pharmacy or removed from unit stock are not transferred with the patient to a receiving unit, even if the patient still requires their use. The agents must be returned to the pharmacy immediately and dispensed to the new unit only in response to new orders post-transfer.					