



Measure Abbreviation: NMB 01 (QCDR Measure ID: ASPIRE2)

Data Collection Method: This measure is calculated based on data extracted from the electronic medical record combined with administrative data sources such as professional fee and discharge diagnoses data. This measure is explicitly not based on provider self-attestation.

Measure Description: Percentage of cases with a documented Train of Four (TOF) after last dose of non-depolarizing neuromuscular blocker.

NQS Domain: Effective Clinical Care

Measure Type: Process

Measure Summary: NMB 01 is a monitoring measure that identifies the percentage of cases that had a documented Train of Four or acceleromyography result after the last dose of non-depolarizing neuromuscular blocker. The purpose of this quality measure is to help reduce the number of patients who have residual neuromuscular blockade after extubation.

Inclusions: All patients that have received either by bolus or infusion a non-depolarizing neuromuscular blocker (NMB) AND were extubated post-operatively or in the PACU. The following NMBs were included:

- Atracurium
- Cisatracurium
- Pancuronium
- Rocuronium
- Vecuronium

Older drugs (Mivacurium and Doxacurium) were not included.

Exclusions:

- ASA 5 and 6 cases.
- Patients that were not extubated in the immediate post-operative period.
- Patients not given NMBs.
- Cardiac surgery without pump (CPT: 00560)
- Cardiac surgery with pump and <1 year old (CPT: 00561)
- Cardiac surgery with pump and > 1 year old (CPT: 00562)
- Cardiac surgery with hypothermic arrest (CPT: 00563)
- CABG with pump (CPT: 00567)
- Heart Transplant (CPT: 00580)
- Any cardiac case with an intraoperative note mapped to one of the following MPOG Concepts:
 - 50399 Cardiopulmonary bypass -- aortic clamp on/off note
 - 50409 Cardiopulmonary bypass terminated
 - 50410 Cardiopulmonary bypass initiated (full)

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- 50416 Cardiopulmonary bypass -- crossclamp and circulatory arrest time totals
- 50417 Cardiopulmonary bypass -- Access cannula removed note
- 50714 Cardiopulmonary bypass - Bypass start / stop event
- Cases performed by cardiac surgical service: MPOG concept 80005.

Success: Documentation of a Train of Four count (1, 2, 3, or 4), sustained tetany, or TOF ratio provided by acceleromyography AFTER last dose or stopping of infusion of neuromuscular blocker and before earliest extubation. Note: A Train of Four value of '0' is accepted for cases in which sugammadex is administered for reversal.

Threshold: 90%.

Responsible Provider: The provider signed in at time of earliest extubation.

Risk Adjustment (for outcome measures):

Not applicable.

References:

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Pedersen T, Viby-Mogensen J, Ringsted C. Anaesthetic practice and postoperative pulmonary complications. *Acta Anaesthesiol Scand* 1992; 36:812-8.