

LIBERTYHEALTH

Jersey City Medical Center
Department of Patient Care Services

Guideline:

Spontaneous Awakening Trials
& Spontaneous Breathing Trials

Developed by:

Critical Care Committee

Approved by:

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Approved by Policy Committee:

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Purpose: To safely wean the patient from mechanical ventilation as soon as possible. Daily interruption of continuous sedation infusions and timely extubation from ventilator support is linked to enhanced patient outcomes.

POLICY: Spontaneous awakening trial (SAT) & Spontaneous Breathing Trial (SBT) protocol will be used by Registered Nurses (RNs) and Respiratory Therapists (RTs) to guide in the process for extubation readiness.

PROCESS

I. Spontaneous Awakening Trials:

All sedation and analgesics will be turned off for neurological assessment every shift, unless there is an order that requires uninterrupted sedation. Uninterrupted sedation order shall be written every 24 hours.

Patients will be assessed at 0800 using the SAT Safety Screen. If the patient passes the SAT Safety Screen, sedation and analgesic medication will be turned off by the critical care RN. The patient will be off sedation for one hour, unless the patient exhibits any signs of SAT failure. If the patient fails the SAT sedatives will be restarted at ½ dose and titrated to RASS goal. Increased monitoring of patients off sedation is required as this is a potential period for self-extubation.

II. 2 Minute Tolerance Screen:

If patient passes the SAT, the patient is assessed by both the RT and RN at the patient's bedside using the SBT Safety Screen. The RN and RT will document time, baseline vitals, SpO₂, and prepare the patient for *Tolerance Screen* (position, suction ET tube, and explain procedure to patient). If the patient passes the SBT Safety Screen, the RT will conduct a 2 minute Tolerance Screen. The patient will be placed on CPAP/spontaneous Mode Peep 5, Pressure Support of 5 and Fio₂ unchanged. The RN and RT remain with patient. If patient exhibits any signs of SBT failure, during this time period, continue mechanical ventilation at prior settings.

III. Spontaneous Breathing Trials:

SBTs are conducted every 24 hours if patient passes SAT and SBT Safety Screens.

If the patient passes the 2 minute Tolerance Screen, the patient is placed on CPAP/spontaneous Mode Peep 5, Pressure Support of 5 and Fio₂ unchanged. The SBT can last between 30 to 120 minutes. If patient exhibits any signs of SBT failure, during this time period, continue mechanical ventilation at prior settings. Physician or PA, will be notified of outcomes during rounds. If patient passes SBT, extubation is considered. An extubation order is necessary by physician or PA, if extubation from ventilator is determined.

A gradual ventilator weaning process is recommended for those patients that fail SBTs. The Adult Ventilator Weaning Guideline Order Sheet can be used for this purpose.

IV. Documentation of Trials:

- The RN and RT will record time, vital signs, SpO₂, and RSBI at commencement, exit or end of trial
- The RN and RT will document patient outcome and/or reason for failure
- The RN and RT will document why patient not extubated if passed

Reference:

Buchman, T, et al. *Critical Care Medicine*. Mutlicenter implementation of a consensus-developed, evidence-based, spontaneous breathing trial protocol. 2008; 36 (10).

Epstein, S. *Current Opinion in Critical Care*. Weaning from ventilatory support. 2009;15:36-43.

Girard, TD et al. *Lancet*. Efficacy and safety of a paired sedation and ventilator weaning protocol for mechanically ventilated patients in intensive care (awakening and breathing controlled trial). 2008; 371.

Rumpke, A & Zimmerman, B. *Dimensions of Critical Care Nursing*. Implementation of a multidisciplinary ventilator-weaning and sedation protocol in a community intensive care unit. 2010;29(1).

Professional Practice	Y_____	N/A _____
Cardiac Care	Y_____	N/A _____
Emergency Dept	Y_____	N/A _____
Peri-Op	Y_____	N/A _____
Maternal Child Health	Y_____	N/A _____
Behavioral Health	Y_____	N/A _____
Cardiac Cath Lab	Y_____	N/A _____
Interventional Radiology	Y_____	N/A _____
Med Exec	Y_____	N/A _____
Pharmacy/ P&T	Y_____	N/A _____
Critical Care Committee	Y_____	N/A _____