

BPG 06: Sedation

Statement of Best Practice

Patients receive appropriate sedation to meet their needs, optimising comfort and with minimal adverse effects.

1: Introduction

Indication for sedation will be different for each patient and their individual requirements will change as their disease process improves or deteriorates. Although comfort and safety are principle objectives it is not without its problems.

Under sedation can lead to agitation, distress and reduces the nurses ability to maintain a safe environment for the patient. However, over sedation in the short term can cause , respiratory depression, sleep deprivation, confusion/delirium/anxiety, protracted stay in Intensive Care, loss of control and choice, changes in cardiovascular system resulting in the need for inotropes, decreased blood flow to organs (potential to cause multi organ failure) and increases cost. In the long term ,over sedation can cause delays in rehabilitation due to muscle weakness and evidence suggests a small proportion of patients may go onto develop symptoms consistent with post-traumatic stress, which are linked with the missing time these patients experience from over sedation.

2: Aim

The aim of sedation is to produce a patient who is comfortable, safe rousable, able to trigger mechanical ventilation (without compromising treatment) and who is able to tolerate uncomfortable procedures / therapies. To achieve this, the patient is required to be minimally sedated.

Relative Contra- indications/Local Exclusions

- Raised Intra Cranial Pressure
- Hypoxic brain damage within 48hrs post insult
- Patient nursed prone
- FiO₂ >60%
- PEEP > 10
- Patient on neuromuscular blocking agents (paralysis
- Patient prior to theatre / transfer
- Patient awaiting bronchoscopy / tracheostomy / scan procedures

3: Types of Sedation

Deep Sedation - Aim for RASS sedation score of -4 or -5

- Patient currently on muscle relaxants
 - Induced hypothermia
 - Inverse ratio ventilation

- Patients with acute cerebral pathology in whom coma is induced as a “protective” measure
- Patients with severe ventilator problems in whom inverse ratio ventilation, high levels of PEEP (>15) and a high FiO₂ (>80%) is required, and in whom coughing is undesirable.
- Patients on High Frequency Oscillation do not always need muscle relaxants, but are likely to require deep sedation.

Minimal Sedation - Aim for RASS sedation score of 0 to -1

- Used to ensure distress is avoided (patient with ET tube)
- Sedation should be at a level to ensure the patient is comfortable enough to sleep if they wish, but not at a level which induces sleep
- RASS score should be repeated 4 – 6 hourly, and sedation targeted to maintain it at between 0 to -1
- Sedation should be stopped as soon as possible
- Daily CAM-ICU tests should be done on all patients with a sedation score >-4. Patients should have their Delirium treated appropriately as per protocol (see NoECCN BPG 05 Delirium guideline)
- Sedation should not be used instead of analgesia. Opioid’s should be used if the patient has had a significant surgery and requires analgesia. (see NoECCN BPG 07 Pain Guideline)

Night Sedation

- All non-pharmacological methods should be tried first:
 - Darkened room
 - Minimal noise level
 - Minimal interruptions
 - Warm drink
- No pharmacological agents induce natural sleep, and many have adverse effects on sleep pattern.
- Should be used for short term use only, as tolerance can build up.
- Should not be given unless the patient is distressed. Being awake is not in itself an indication for treatment.

4: Assessment of sedation

Patients on critical care units should have their level of sedation recorded at least twice a day, to ensure that the patient is comfortable, cooperative and not over-sedated. Various scoring systems have been produced, some more complex than others. However, one that incorporates both sedation and agitation is helpful not only for assessing sedation, but as a first step in identifying possible delirium. The Richmond Agitation-Sedation Scale (RASS) and Sedation-Agitation Scale (SAS) are the most valid and reliable sedation assessment tools for measuring quality and depth of sedation in adult critical care patients. The RASS is a frequently used scale that is currently endorsed by NICE clinical guidelines 103 – Delirium. Whatever the choice of scale, the intention should be a calm and cooperative patient. Adoption of a systematic approach to the assessment of sedation has demonstrated reduced lengths of stay.

References

Coombs, M., Dyos, J., Waters, D. and Nesbitt, I. (2013) **Assessment, monitoring and interventions for the respiratory system in Critical Care manual of Clinical Procedures and Competencies**. Edited by Mallet J., Albarran, J.W. and Richardson, A. WILEY Blackwell: West Sussex.

Barr, J et al.(2013) **Clinical Practice Guidelines for the Management of Pain, Agitation, and Delirium in Adult Patients in the Intensive Care Unit**. CCM Journal: Vol 41, No 1,263-306

Sessler CN et al (2002) **The Richmond Agitation-Sedation Scale: validity and reliability in adult intensive care patients**. American Journal Critical Care Med;166:1338-1344

With acknowledgment to V Linnett QE CCD Sedation Guideline 2009 and Dawn Cameron and Donna Mundle Darlington Memorial Hospital Sedation Policy

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<u>Score</u>	<u>Term</u>	<u>Description</u>
+4	Combative	Overly combative, violent, immediate danger to staff
+3	Very Agitated	Pulls or removes tubes, catheters; aggressive
+2	Agitated	Frequent non-purposeful movement, fights ventilator
+1	Restless	Anxious, movements not aggressive
0	Alert & Calm	
-1	Drowsy	Not fully alert, has sustained awakening (eye-opening/contact) to voice ≥ 10 secs
-2	Light Sedation	Briefly awakens w/eye contact to voice < 10 sec
-3	Moderate Sedation	Movement or eye opening to voice (no eye contact)
-4	Deep Sedation	No response to voice, movement or eye opening to physical stimulation
-5	Unarousable	No response to voice or physical stimulation

Observe Pt.
1. Alert, restless, agitated (0 - +4)
2. Not alert, state pt's name, ask to "open eyes & look at me" <ul style="list-style-type: none"> a. Pt. awakens w/eyes open & contact (-1) b. Pt. awakens w/eyes open & contact unsustained (-2) c. Pt. has movement in response to voice but not eye contact (-3)
3. No response to verbal, physically stimulate pt. <ul style="list-style-type: none"> a. Pt. has movement (-4) b. Pt. has no response (-5)

Sedation-Agitation Scale (SAS)

Score	State	Behaviors
7	Dangerous Agitation	Pulling at ET tube, climbing over bedrail, striking at staff, thrashing side-to-side
6	Very Agitated	Does not calm despite frequent verbal reminding, requires physical restraints
5	Agitated	Anxious or mildly agitated, attempting to sit up, calms down to verbal instructions
4	Calm and Cooperative	Calm, awakens easily, follows commands
3	Sedated	Difficult to arouse, awakens to verbal stimuli or gentle shaking but drifts off
2	Very Sedated	Arouses to physical stimuli but does not communicate or follow commands
1	Unarousable	Minimal or no response to noxious stimuli, does not communicate or follow commands