Ramsay Sedation Scale (RSS)

- RSS is a subjective tool to evaluate precisely the level of consciousness during titration of sedative medications in the ICU.
- It is widely used in UK due to its simplicity but it has been criticized for lack of detailed descriptors to enable clear discrimination between sedation levels.

Score	Definition
1	Anxious and agitated or restless or both
2	Cooperative, oriented, and tranquil
3	Responds to commands only
4	Brisk response to a light glabellar tap or loud auditory stimulus
5	Sluggish response to a light glabellar tap or loud auditory stimulus
6	No response to a light glabellar tap or loud auditory stimulus

Sedation Agitation Score (SAS)

- SAS is a seven point scale with progressive severity levels for both sedation and agitation.
- Riker et al(Crit Care Med 1999) prospectively tested the SAS and found that it is reliable and have high correlation with ramsay scales.

Score	Category	Description
7	Dangerous agitation	Pulling at endotracheal tube, trying to remove catheters, climbing over bedrail, striking at staff, thrashing side-to-side
6	Very agitated	Does not calm despite frequent verbal reminding of limits, requires physical restraints, biting endotracheal tube
5	Agitated	Anxious or mildly agitated, attempting to sit up, calms down on verbal instructions
4	Calm, cooperative	Calm, easily arousable, follows commands
3	Sedated	Difficult to arouse, awakens to verbal stimuli or gentle shaking but drifts off again, follows simple commands
2	Very sedated	Arouses to physical stimuli but does not communicate or follow commands, may move spontaneously
1	Unarousable	Minimal or no response to noxious stimuli, does not communicate or follow commands

RASS

- RASS is an instrument to assess sedation and agitation in adult ICU patients that is simple to use and discrete criteria and sufficient levels for sedative medication titration and agitation eveluation.
- Sedation and agitation is evaluated in a single scale, the sequential approach establishes a single score by first assessing agitation and then assessing sedation.

- RASS is designed to have precise, unambiguous definitions for levels of sedation that rely on an assessment of arousal, cognition and sustainability using common response (eye opening, eye contact, physical movement) to common stimuli (spoken voice, physical stimulation) presented in logical progression.

Table 1. The Richmond Agitation-Sedation Scale (RASS)

Score	Term	Description	
+4	Combative	Overtly combative, violent, immediate danger to staff	
+3	Very agitated	Pulls or removes tube(s) or catheter(s); aggressive	
+2	Agitated	Frequent nonpurposeful movement, fights ventilator	
+1	Restless	Anxious but movements not aggressive or vigorous	
0	Alert and calm		
–1	Drowsy	Not fully alert, but has sustained awakening (eye opening/eye contact) to voice (>10 seconds)	Verbal stimulation
–2	Light sedation	Briefly awakens with eye contact to voice (<10 seconds)	
–3	Moderate sedation	Movement or eye opening to voice (but no eye contact)	
–4	Deep sedation	No response to voice, but movement or eye opening to physical stimulation	Physical stimulation
–5	Unarousable	No response to voice or physical stimulation	

Procedure for RASS Assessment

1. Observe patient
   - Patient is alert, restless, or agitated. — Score 0 to +4
2. If not alert, state patient's name and say to open eyes and look at speaker.
   - Patient awakens with sustained eye opening and eye contact. — Score –1
   - Patient awakens with eye opening and eye contact, but not sustained. — Score –2
   - Patient has any movement in response to voice but no eye contact. — Score –3
3. When no response to verbal stimulation, physically stimulate patient by shaking shoulder and/or rubbing sternum.
   - Patient has any movement to physical stimulation. — Score –4
   - Patient has no response to any stimulation. — Score –5

Adapted with permission.[29]

- RASS relies on patient auditory and visual acuity and is not suitable for patients with severe impairment.

- Sessler et al (Am J Respir Crit Care Med.2002)in his study demonstrated that RASS has high reliability and validity in medical, surgical ventilated and non ventilated and sedated or non sedated adult ICU patients.
- Wesley et al (JAMA. 2003) also demonstrated excellent interrater reliability and validity.
- Tapia et al (Front. Pediatr, 2021) and Kerson et al (J Intensive Care. 2016) has shown that RASS is useful instrument for monitoring sedation in PICU.

Updated on 16/8/2024

Reference

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