SANDWICH
Sedation and Weaning in Children

COMFORT Behavioural Score Titration Guide

COMFORT Behavioural Score

COMFORT Behavioural Score	CRIES / NISS	Action
>17	CRIES < 4 NISS < 2	**Issue is SEDATION** Consider increasing/ adapting Sedation
>17	CRIES > 4 NISS ≥ 2	**Issue is PAIN** Consider increasing/ adapting analgesia
12- 17	CRIES < 4 NISS ≤ 2	**Patient is comfortable**
10 – 12	CRIES < 4 NISS ≥ 2	**Consider Weaning Sedation**
< 10		Patient is **OVER SEDATED** Wean Sedation

CRIES Pain Score (0-10)

Pain score, can be replaced with appropriate alternative validated pain score e.g. FACES, FLACCS, Patient Reported Score.
CRIES of 4 or more is sufficient pain level to require intervention.

RESPONSE	SCORE 0	SCORE 1	SCORE 2
Cry	No cry or cry which is not high pitched	High pitched cry but consolable	High pitched cry and inconsolable
Requires O_2 to maintain SaO_2 >95%	No	Requiring O_2 <30%	Requiring O_2 >30%
Increased vital signs	Heart rate & blood pressure +/- 10% baseline	10-20% increase in heart rate or blood pressure	>20% increase in heart rate or blood pressure
Expression	Neutral	Grimace	Grimace / grunt
Sleeplessness	No	Wakes frequently	Constantly awake

(Krechel & Bildner, 1995)

Nurse Interpreted Score for Sedation

1	2	3
UNDER SEDATED	ADEQUATELY SEDATED	OVER SEDATED
Agitated, Irritable actively fights vent	Lightly asleep, awake & relaxed	No response to ET suction or other procedure

Nurse interpreted level of sedation takes into account the bedside nurse expertise and normal behaviour or mannerisms as reported by parents/ guardians. Allows for interpretation to include emotional and neurodevelopmental factors.

COMFORT Behavioural Score Titration Guide

First assess the COMFORT B Score then assess the pain score and the NISS.

COMFORT Behavioural Score

COMFORT Behavioural Score	Guidance
>17	**CRIES < 4 NISS < 2 Issue is SEDATION** If the CRIES is less than 4 and the NISS is less than 2 it indicates the high score is related to UNDER-SEDATION. Seek advice about increasing the sedation
>17	**CRIES > 4 NISS ≥ 2 Issue is PAIN** If the CRIES is greater than 4 it indicates the high score is related to PAIN. Seek advice about increasing analgesia
12- 17	**CRIES < 4 NISS ≤ 2 Patient is comfortable** The patient is comfortable with adequate analgesia and/ or sedation.
10 – 12	**CRIES < 4 NISS ≥ 2 Consider Weaning Sedation** CRIES of less than 4 and a NISS of more than or equal to 2, the patient is a little too sedate. Seek advice about considering a reduction in sedation and/or analgesia
< 10	**Patient is OVER SEDATED Wean Sedation** COMFORT Behavioural Score of 10 or less this indicates the patient is over-sedated and requires the sedation and/or analgesia to be actively reduced

CRIES Pain Score (0 – 10)

CRY CHARACTERISTIC- Pain related cry is high pitched
REQUIRES OXYGEN- Consider other causes pneumothorax, over-sedation
BLOOD PRESSURE- Assess BP last to prevent upsetting the infant causing difficulty with other areas of assessment
EXPRESSION- Grimace characterised by brow bulge, eyes shut, deepened naso-labial furrow, mouth open
SLEEPLESSNESS- Based on infants state in the hour preceding assessment

By utilising a pain score in combination with a COMFORT Behavioural Score the interpreter can more accurately determine if the high score is in relation to pain or under-sedation

A high COMFORT Score can indicate pain, or can indicate distress as a result of behavioural factors- anxiety, separation from parents, confusion or grief. A knowledge of the child's baseline behaviours will assist in distinguishing causes of high COMFORT B Scores.

If the CRIES score is reported as 4 or more this is indicative of a sufficient level of pain that a pharmacological or non-pharmacological intervention should be initiated. Non-pharmacological methods of pain relief and comfort must always be considered in combination with pharmacological methods

Nurse Interpreted Score for Sedation (0 – 3) (NISS)

The NISS is designed and validated for use as an adjunct to the COMFORT B Scoring, NOT suitable for use on it's own.

Takes into account the bedside nurse expertise in combination with the normal behavioural mannerisms as reported by family members.

The NISS allows the bedside nurse to interpret and classify the patients' level of sedation while accounting for emotional and neurodevelopmental factors to identify if the patient's sedation should continue unchanged, be reduced or be increased

SCENARIO 1: COMFORT B score 20 - Should indicate under-sedation requiring an INCREASE in sedation
Patient known to have movement disorder & nurse aware he waves his arms repeatedly when happy, significantly increasing COMFORT B score.
Patient allocated NISS 2 - no increase in sedation necessary as patient is comfortable

SCENARIO 2: COMFORT B score 9 - Should indicate over-sedation requiring an DECREASE in sedation and/ or analgesia
Nurse aware parents have reported their child becomes very still and quiet when in pain or distressed.
Patient allocated NISS 1 - sedation and/or analgesia adapted to provide comfort