# Royal Hospital for Women (RHW)
# BUSINESS RULE
# COVER SHEET

| NAME OF DOCUMENT | *N-PASS – Neonatal Pain and Sedation Score* |
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| EXECUTIVE SPONSOR | *S Bolisetty (Medical Co-Director Newborn Care Centre); S Wise (Nursing Co-Director Newborn Care Centre)* |
| AUTHOR | *S Neale (Nurse Educator)* |
| SUMMARY | *To objectively assess acute and chronic pain experienced by preterm, term and surgical infants, using a standardised and validated pain and sedation assessment tool in the Newborn Care Centre* |

# N-PASS – Neonatal Pain and Sedation Score

This Clinical Business Rule is developed to guide safe clinical practice in Newborn Care Centre (NCC) at The Royal Hospital for Women. Individual patient circumstances may mean that practice diverges from this Clinical Business Rule. Using this document outside the Royal Hospital for Women or its reproduction in whole or part, is subject to acknowledgement that it is the property of NCC and is valid and applicable for use at the time of publication. NCC is not responsible for consequences that may develop from the use of this document outside NCC.

## 1. BACKGROUND

Newborn infants are exposed to multiple painful and distressing procedures as a result of hospitalisation. Procedural, acute and chronic pain are all seen in the neonatal unit, often associated with invasive diagnostic procedures, treatment interventions and/or surgical care. The short, immediate and long term consequences of these experiences to neurodevelopment require ongoing assessment, prevention and appropriate management of pain in the neonatal care environment.

## 2. RESPONSIBILITIES

Medical and Nursing Staff

## 3. PROCEDURE

### 3.1 Equipment

- Neonatal Pain and Sedation Score (N-PASS) record sheet
- Cardio-respiratory monitoring equipment

### 3.2 Clinical Practice

1. Observe and assess infants using the N-PASS tool:
    - At least once daily – with bedside handover with the oncoming and finishing staff
    - 4 hourly for infants receiving analgesic and/or sedative infusions
    - 4 hourly for infants with indwelling tubes or lines that may cause pain (ETT, ICC, etc.)
    - 30 minutes post administration of analgesia in response to pain
    - Upon return to NCC from theatre
    - 2 hourly for first 24 hours post-operatively
2. Assess sedation and pain separately using the N-PASS tool (Appendix 1):
    - Assess each criteria (crying/irritability, behaviour state, facial expression, extremities/tone and vital signs) allocating the correlating number.
    - Sedation is scored from 0 to -2 for each criteria.
    - Pain is scored from 0 to +2 for each criteria. Pain scores greater than 3 require intervention.
    - Add relevant points for pain based on the gestation and corrected gestational age.
3. Document N-PASS on the bedside record sheet and respond accordingly.
4. Individualise pain management based on the score given:
    - Scores of 3-7 require non-pharmacological intervention, as such offering non-nutritive sucking, sucrose, repositioning, containment, kangaroo care, swaddling, nappy change, etc.
    - Scores above 8 require medical escalation and prescribing of sedation and/or analgesia
    - Pharmacological intervention will be discussed and prescribed by the treating medical team
5. Reassess N-PASS 30 minutes after each intervention.
6. Desired sedation scores should be individualised based desired level of sedation for the clinical situation and as discussed with the treating team:
    - Scores between -10 to -5 suggest deep sedation

- Scores between -5 to -2 suggest light sedation

### 3.2 Educational Notes

- Prevention of pain should be considered as first line management, Painful procedures should be minimised as much as possible and noxious stimuli reduced for infant comfort.
- Gestational age can alter the infant's response to pain.
- Sedatives may mask infant pain and alone do not provided pain relief.
- Parents/carer should be provided education to recognise and understand their infant's response to pain and stress.

## 4. ABORIGINAL HEALTH IMPACT STATEMENT DOCUMENTATION

Considerations for culturally safe and appropriate care provision have been made in the development of this Business Rule and will be accounted for in its implementation.

## 5. ABBREVIATIONS

| NCC | Newborn Care Centre | ETT | Endotracheal Tube |
|---|---|---|---|
| N-PASS | Neonatal Pain and Sedation Score | ICC | Intercostal Catheter |

## 6. REFERENCES


- Deindl P, Unterasinger L, Kappler G, et al. Successful implementation of a neonatal pain and sedation protocol at 2 NICUs. Pediatrics. 2013;132(1):e211-8.
- Hummel P, Lawlor-Klean P, Weiss MG. Validity and reliability of the N-PASS assessment tool with acute pain. J Perinatol. 2010;30(7):474-8.


## 7. REVISION AND APPROVAL HISTORY

| Date | Revision No. | Author and Approval |
|---|---|---|
| 8/9/2022 | 1 | S Neale (ANE); Primary document approved NCC CBR Committee |
| 17/11/2022 | 2 | Endorsed by RHW Safety and Quality Committee. Formatting changes applied |

**Appendix 1:** Neonatal Pain and Sedation Score (N-PASS)

| BEHAVIOR INDICATORS | SEDATION SCORING | SEDATION | | NORMAL/ PAIN | PAIN/AGITATION | | PAIN/ AGITATION SCORING |
|---|---|---|---|---|---|---|---|
| | | -2 | -1 | 0/0 | 1 | 2 | |
| Crying Irritability | | No cry with painful stimuli | Moans or cries minimally with painful stimuli | Appropriate crying Not irritable | Irritable or crying at intervals; Consolable | High-pitched or silent-continuous cry; Inconsolable | |
| Behavior State | | No arousal to any stimuli; No spontaneous movement | Arouses minimally to stimuli; Little spontaneous movement | Appropriate for gestational age | Restless, squirming; Awakens frequently | Arching, kicking; Constantly awake or Arouses minimally no movement (not sedated) | |
| Facial Expression | | Mouth is lax; No expression | Minimal expression with stimuli | Relaxed appropriate | Any pain expression, intermittent | Any pain expression, continual | |
| Extremities Tone | | No grasp reflex; Flaccid tone | Weak grasp reflex; decreased muscle tone | Relaxed hands and feet Normal tone | Intermittent clenched toes, fists or finger splay; Body is not tense | Continual clenched toes, fists, or finger splay; Body is tense | |
| Vital Signs HR, RR, BP, $SaO_2$ | | No variability with stimuli; Hypoventilation or apnea | Less than 10% variability from baseline with stimuli | Within baseline or normal for gestational age | Increase 10-20% from baseline; $SaO_2$ 76-85% with stimulation – quick increase | Increase greater than 20% from baseline; $SaO_2$ less than or equal too 75% with stimulation – slow increase; Out of sync/ fighting vent | |
| Gestation/ Corrected age | N/A | | | | | | |
| TOTAL SEDATION SCORE | /-10 | | | | | TOTAL PAIN/ AGITATION SCORE | /13 |

**Premature Pain Assessment**

**+3 if less than 28 weeks gestation/corrected age**
**+2 if less than 28 - 31 weeks gestation/corrected age**
**+1 if less than 32 - 35 weeks gestation/corrected age**