

IREDELL HEALTH SYSTEM

NOWS Morphine Treatment Protocol	
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Department of Pediatrics P&T Committee	Date: 09/2022 10/2022

Policy:

Neonatal Opioid Withdrawal Syndrome (NOWS) Morphine Treatment Protocol triggered by Eat, Sleep, Console (ESC) Scoring <3, after re-scoring in 1 hour, and verified all non-pharmacological interventions have been utilized with non-NOWS causes excluded.

Refer to *Care of the Infant with Neonatal Opioid Withdrawal Syndrome* policy.

Protocol:

1. Admit to Special Care Nursery (SCN) for pharmacological treatment to start morphine.
 - a. Keep mother and infant together, if possible
 - b. Morphine initiation after transfer, if continues with “No” to any ESC item.
 - c. **Initial dose: Oral morphine at 0.04 mg/kg PO q3 hours PRN ESC Score of < 3.**
2. If score is <3 one hour after initiation of morphine:
 - a. Team huddle with RN and if non-pharmacologic measures maximized and non-NOWS excluded, start Escalation dosing regimen.

Escalation Dosing Regimen:	
If ESC score remains < 3 one hour after morphine dose: (See example listed at end of policy)	<ol style="list-style-type: none"> 1) Give an additional 0.02 mg/kg breakthrough dose of morphine 2) Increase PRN (or scheduled) q3hr dose by that amount (up by 0.02 mg/kg) 3) Continue as needed until ESC scores 3, with max dose of 0.2 mg/kg/dose *Use caution when giving escalation doses, monitor closely for respiratory depression

3. Continue scoring per protocol. Score with feeding every 3 hours and 1 hour after any PRN dose.
4. Give PRN morphine as needed for scores less than 3 at three hour reassessments.
 - a. If continues with scores < 3 at 1 hour after PRN doses, then morphine escalation is required for continued “No” (score <3). See Escalation Dosing Regimen above.
 - b. If does not require escalation at 1 hour reassessments, but requires multiple PRN doses – change oral morphine from PRN to q3h scheduled at current dose if either of the following 2 have occurred:
 - 1) 3 or more PRN doses in 12 hour period
 - 2) 5 or more PRN doses in 24 hours period
 *Escalation doses between the q3hr doses do not count in this step.
5. If patient scores < 3 while on scheduled morphine, reassess 1 hour after scheduled dose and if remains < 3, give escalation dose of 0.02 mg/kg and increase schedule dose by 0.02 mg/kg/dose. May increase every 12 hrs (max 0.2 mg/kg/dose).

6. Weaning regimen as detailed below:

- a. Weaning will follow stabilization of symptoms with primarily scores of 3, while on the same dose for 24 hrs.

Weaning from scheduled:	1) Wean dose by 10-20% of maximum dose every 12-24 hrs 2) When dose is \leq to 0.02 mg/kg/dose, change to q3h PRN
Weaning from PRN:	Wean dose by 0.01 mg/kg/dose q12-24 hrs

7. Morphine discontinuation:

- a. If dose is \leq to 0.02 mg/kg/dose and receiving \leq 1 dose every 12 hrs OR
b. If dose is no longer possible to measure (minimal measurable dose = 0.02 mg)
8. Discharge: Monitor for at least 48 hours off morphine before discharging.

Example: Initial dose of morphine is 0.04mg/kg at 0000 for an ESC score of 2. At 0100, nurse states infant is still inconsolable with a score of 2. Give a breakthrough dose of morphine at 0.02 mg/kg now (0100), and if remains less than 3 at 0200, give a repeat dose of 0.02mg/kg. Then with the next 3 hr dose if the score remains <3 , give the increased dose of 0.08 mg/kg/dose at 0300.

If instead, the infant only required one escalation dose at 0100 but no dose required at 0200, if <3 at 0300 the new q3h dose would be 0.06 mg/kg/dose.

For calculation of doses to determine PRN vs. scheduled, only the 0000 and 0300 would count towards the 3 in 12 hrs or 5 in 24 hrs. The 0100 and 0200 doses do not count in that calculation.

INITIAL EFFECTIVE DATE: 01/2023

DATES REVISIONS EFFECTIVE:

DATES REVIEWED (no changes):