Neonatal Abstinence Scoring System

Modified Finnegan Scoring System

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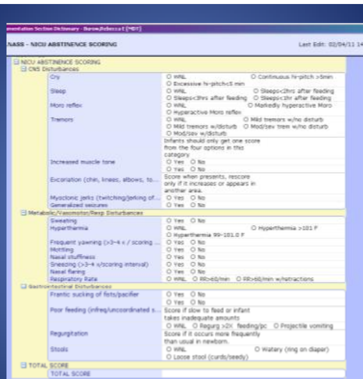
Neonatal Abstinence Scoring System

Modified Finnegan Scoring System

- A semi-subjective scoring system
- List of 20 symptoms
  - Symptoms often seen with drug-exposed infants
  - Score assigned for each symptom and associated degree of severity
  - The total abstinence score is determined by totaling the score assigned to each symptom over the scoring period



NASS - NICU ABSTINENCE SCORING — Last Edit: 02/04/11 14

NICU ABSTINENCE SCORING

CNS Disturbances

Cry	O WNL O Continuous hi-pitch >5min O Excessive hi-pitch<5 min
Sleep	O WNL O Sleeps<2hrs after feeding O Sleeps<3hrs after feeding O Sleeps<1hr after feeding
Moro reflex	O WNL O Markedly hyperactive Moro O Hyperactive Moro reflex
Tremors	O WNL O Mild tremors w/no disturb O Mild tremors w/disturb O Mod/sev trem w/no disturb O Mod/sev w/disturb
	Infants should only get one score from the four options in this category
Increased muscle tone	O Yes O No
	O Yes O No
Excoriation (chin, knees, elbows, to...	Score when presents, rescore only if it increases or appears in another area.
Myoclonic jerks (twitching/jerking of...	O Yes O No
Generalized seizures	O Yes O No

Metabolic/Vasomotor/Resp Disturbances

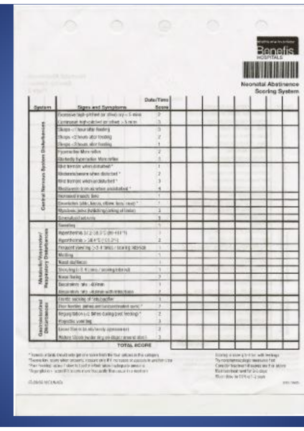
Sweating	O Yes O No
Hyperthermia	O WNL O Hyperthermia >101 F O Hyperthermia 99-101.0 F
Frequent yawning (>3-4 x / scoring ...	O Yes O No
Mottling	O Yes O No
Nasal stuffiness	O Yes O No
Sneezing (>3-4 x/scoring interval)	O Yes O No
Nasal flaring	O Yes O No
Respiratory Rate	O WNL O RR>60/min O RR>60/min w/retractions

Gastrointestinal Disturbances

Frantic sucking of fists/pacifier	O Yes O No
	O Yes O No
Poor feeding (infreq/uncoordinated s...	Score if slow to feed or infant takes inadequate amounts
	O WNL O Regurg >2X feeding/pc O Projectile vomiting
Regurgitation	Score if it occurs more frequently than usual in newborn.
Stools	O WNL O Watery (ring on diaper) O Loose stool (curds/seedy)

TOTAL SCORE

TOTAL SCORE	



Key Points

- First score/Baseline score – done approximately 2 hours after birth or admission
- Re-scoring at 3-4 hour intervals
- If high scores- more frequent scoring
- Scoring is dynamic
  - All signs and symptoms observed during the scoring interval are included in the point total for that period.

Key Points

- If the score is > 8-
  - scoring is increased to every 2 hours and continued for 24 hours from the last total score of 8 or higher
- If the scores every 2 hours are < 7 for 24 hours-
  - resume the 3-4 hour interval

Consider Treatment

If scores are:

- > 8 for 3 consecutive scores
- > 12 for 2 consecutive scores
- > 15 once

Goal

- Score of < 8
  - Allows for appropriate drug weaning
- Discharge
  - Score < 8 off medications for 24- 72 hours

NAS

- Designed for term infants on 4 hour feeding schedule
- Needs to be modified for preterm infants.
- Scoring should be performed 30 minutes to 1 hour after a feeding, before the baby falls asleep.

Assessment and Scoring

- A crying baby should be soothed and quieted before assessing muscle tone, Moro reflex and respiratory rate.

Modified Finnegan

- Central Nervous System Disturbances
- Metabolic /Vasomotor/Respiratory Disturbances
- Gastrointestinal Disturbances

Central Nervous System Disturbances

Excessive or high-pitched crying

- Score 2: high-pitched or prolonged < 5 minutes
- Score 3: continuous high-pitched or prolonged > 5 minutes

Sleep

- Scale of increasing severity
  - Term- One score from the 3 levels of severity
  - Preterm- eating every 3 hours can sleep for 2 ½ hours.
    - score 1 if sleeps < 2 hours
    - 2 if < than 1 hour
    - 3 if does not sleep between feedings.

Moro reflex

- Score 2: pronounced jitteriness (rhythmic tremors that are symmetrical and involuntary) of the hands during or at the end of a Moro reflex.
- Score 3: jitteriness and clonus (repetitive involuntary jerks) of the hands and / or arms are present during or after the initiation of the reflex.

Tremors

- Scale of increasing severity
- Baby should only receive one score from the 4 levels of severity
- Undisturbed refers to baby asleep or at rest in crib

Increased muscle tone

- Score if: excessive or above-normal muscle tone or tension is observed
  - muscles become "stiff" or rigid and the baby shows marked resistance to passive movements.
- Example:
  - no head lag when being pulled to the sitting position;
  - if there is tight flexion of the baby's arms & legs (unable to slightly extend these when an attempt is made to extend and release the supine infant's arms & legs)

Excoriation

- Skin abrasions- result from constant rubbing against a surface
- Score only when excoriations first appear, increase or appear in a new area

Myoclonic jerks

- Score if involuntary muscular contractions
- Twitching or jerking of limbs
  - irregular
  - exceedingly abrupt (usually involving a single group of muscles)

Generalized seizures

- Referred to as tonic seizures
- Most often a generalized activity involving tonic extensions of all limbs
- Sometimes limited to one or both limbs on one side
- Activity doesn't stop if limb is held

Generalized seizures-cont.

- Swimming
- Rowing
- Pedaling
- Bicycling
- Eye staring
- Rapid involuntary movements of eyes
- Chewing
- Back arching
- Fist clenching

Metabolic /Vasomotor/Respiratory Disturbances

Sweating

- Score If: spontaneous sweating
  - not due to excessive clothing or high room temperature
- Score if: there is moisture on forehead, upper lip or back of neck

Hyperthermia

- Temperature taken per axilla
- Mild pyrexia- 99-100 is an early indication of heat produced by increased muscle tone or tremors
  - Score 1 if: 99-101°
  - Score 2 if :> 101°

Yawning

- Score if: more than 3 yawns observed within the scoring interval

Mottling

- Score if: mottling (marbled appearance of pink and pale or white areas) is present on the baby's chest, trunk, arms or legs.

Nasal stuffiness

- Score if: nasal drainage with or without stuffy nose

Sneezing

- Score if: more than 3-4 sneezes observed within the scoring interval

Nasal flaring

- Score only if: repeated dilation of the nostrils is observed without other evidence of lung or airway disease

Respiratory rate

- Score 1 if: >60 per minute without other evidence of lung or airways disease
- Score 2 if: respirations > 60 per minute & involve retractions

Gastrointestinal Disturbances

Excessive sucking

- Score if:
  - –hyperactive/disorganized sucking
  - –increased rooting with swiping movements of hand across mouth
  - – attempts to suck fists or thumbs (more than that of an average hungry infant)

Poor feeding

- Score if: baby demonstrates excessive sucking prior to feeding, yet sucks infrequently during a feeding taking a small amount of breast milk or formula
- Demonstrates an uncoordinated sucking reflex (difficulty sucking and swallowing)

Poor feeding- cont.

- Premature infants may require tube feeding and should not be scored for poor feeding if tube feeding is expected for their gestation

Regurgitation / vomiting

- Score 2 if: > 2 times during or after feeding
- Score 3 if: projectile vomiting

Loose stools / diarrhea

- Score 2 if loose (curds/seedy appearance)
  - –May or may not be explosive
- Score 3 if watery stools (water ring on diaper around stool) are observed
- Check the diaper after the exam is completed

Nursing Interventions

Excessive or high-pitched crying

- **Reduce environmental stimuli**
- Hold firmly and close to the body
- Gentle rocking, talking/singing/humming
- Use of infant swing

Sleeplessness

- Wrap or swaddle baby
- Minimal handling
- Skin to skin
- Use swing
- Feed baby on demand

Myoclonic Jerks, Tremors, Jitteriness, Irritability

- Prepare everything prior to disturbing the baby to minimize handling
- Slow movements
- Reduced lighting
- Reduced noise levels
- Soft music
- Massage
- Relaxation baths

Excoriation

- Tegaderm® to knees and elbows
- Clean skin regularly
- Dry clothing and bedding to prevent skin infection

Hyperthermia

- Ensure adequate hydration
- Reduce environmental temperature
- Avoid heavy bedding
- Dress or swaddle in loose light fabrics
- Skin to skin contact with mother

Nasal Stuffiness / Excessive Nasal Secretions

- Use gentle suction if nasal secretions cause obstruction to ensure adequate respiratory function

Nasal flaring / tachypnea

- Avoid swaddling so that respirations can be observed
- Refer to Medical Staff if cyanosis or mottling observed

Excessive Sucking

- Apply mittens if trauma to fingers.
- Offer pacifier- for nonnutritive sucking.

Poor Feeding

- Feed on demand
- Reduce environmental stimuli during feeding
- Frequent small feeds with rest between sucking
- Assess coordination of suck/swallow reflex- support cheeks and jaw if necessary
- If insufficient fluid intake notify Medical Staff
- May need hypercaloric formula

Regurgitation / vomiting

- Burp frequently when baby stops sucking & at end of feeding

Loose/watery stools

- Frequent diaper changes
- Use barrier creams
- Occasional skin exposure to allow bottom to dry

Total Score

Treat if scores are:

- ≥ 8 for 3 consecutive scores
- ≥ 12 for 2 consecutive scores
- ≥ 15 once

- Achieving reliable scores using the Modified Finnegan Neonatal Scoring Tool can be done by:
  - Establishing set descriptions of the criterion scored
  - Education of staff
  - Consider reassessing inter-rater reliability among staff