Appendix : ASSESSMENT OF THE INFANT WITH NEONATAL ABSTINENCE SYNDROME USING THE NEONATAL ABSTINENCE SCORING CHART (MR 495)

KEY POINTS:

● The **scoring interval** is the entire period between when you are scoring the infant and when the last score was assigned (ie. 4 hours if the previous score was less than 8, or 2 hours if the previous score was greater than 8).

●The NAS scoring system is dynamic rather than static. That is, scores should reflect all symptoms observed over the **entire** scoring interval, rather than at one set point in time.

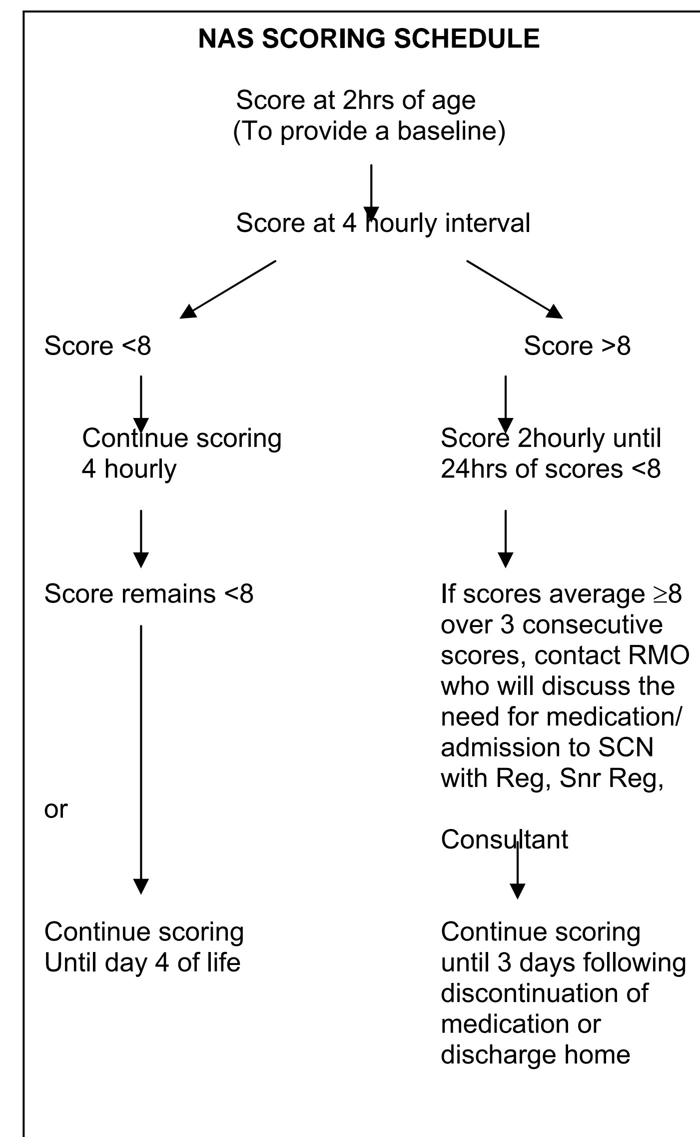
● If the infant is unsettled at the time of scoring, efforts should be made to settle the infant prior to scoring symptoms observed during the scoring interval.

● **Do not** wake a sleeping infant for the purpose of assessment. Instead, schedule assessments to occur after feeding at 2 – 4 hourly intervals.

●Mothers are to be familiarised with the scoring tool and be encouraged to participate in scoring of their infants.

SUGGESTED SUPPORTIVE MEASURES:

High pitched/excessive cry: Soothe infant with swaddling, talk quietly, hold infant firmly to body, rock gently. Reduce environmental stimuli (slow movements, reduce lighting and noise level, cover head end of cot).
Sleeplessness: Reduce environmental stimuli. Swaddle infant, minimise handling, rock gently and encourage skin-to-skin cuddles.
Excoriation: Place a sheepskin under sheet. Apply protective skin barriers (eg. Comfeel) to affected areas.
Hyperthermia: Dress in light clothing and use lightweight, soft fabric to swaddle. Nurse in an open cot withadequate ventilation. Avoid using a Perspex cot.
Nasal flaring/Tachypnoea: Refer to Medical staff . Avoid swaddling so that respiratory rate can be closely observed. Nurse supine unless continuously monitored in SCN.
Excessive sucking of fists: Apply mittens, keep hands clean, and consult with parents about the use of a dummy.
Poor feeding: Feed to demand, offer small frequent feeds, and allow to rest between sucking. Reduce environmental stimuli during feeds and assess coordination of suck swallow reflex. Refer to Lactation Consultant as required. Weigh and assess hydration daily and refer to Medical staff if infant doesn't achieve required fluid intake or has excessive weight loss.
Vomiting: Wind infant regularly when he/she stops sucking and at the end of the feed.
Peri-anal excoriation due to loose stools/diarrhoea: Change infants nappy with every feed. Discuss the use of appropriate barrier creams with medical staff, and it may be necessary to expose the buttocks to air to dry.



SYSTEM	SYMPTOM	**DESCRIPTION** SHOULD BE SCORED IF:
CENTRAL NERVOUS SYSTEM DISTURBANCES	Excessive high pitched cry	♦ Cries intermittently or continuously for **up to 5mins** despite caregiver intervention. ♦ Infant is unable to decrease crying within a 15 sec Period using self-consoling measures.
	Continuous high pitched cry	♦ Infant cries intermittently or continuously for **greater than 5mins** despite caregiver intervention. ♦ **NB:** Since an infants cry may vary in pitch, this **should not be scored** if high-pitched crying is not accompanied by other signs described above.
	Sleep	♦ Scores based on the **longest period of sleep** within the entire scoring interval. ♦ Include light **and** deep sleep (Deep- regular breathing, eyes closed, no spontaneous activity; Light – irregular breathing, brief opening of eyes at intervals, some sucking movements.
	Hyperactive Moro Reflex	(Moro Reflex: Lift the infant slightly off the bed by the wrists or arms and allow the infant to fall back on the bed. NB: should not be performed when infant is crying or irritable.) ♦ Infant exhibits pronounced jitteriness of the hands during, or at the end of, the Moro Reflex.
	Markedly hyperactive Moro Reflex	♦ Infant exhibits jitteriness and repetitive jerks of the hands and arms during, or at the end of, the Moro Reflex.
	Mild tremors when disturbed	♦ Infant exhibits observable tremors of the hands or feet whilst being handled.
	Moderate-severe tremors when disturbed	♦ Infant exhibits observable tremors of the arm/s or leg/s, with or without tremors of the hands or feet, whilst being handled.
	Mild tremors when undisturbed	(Undisturbed tremors should be assessed by observing the infant for at least 2 one-minute undisturbed periods) ♦ Infant exhibits observable tremors of the hands or feet whilst not being handled
	Moderate-severe tremors when undisturbed	♦ Infant exhibits observable tremors of the arm/s or leg/s, with or without tremors of the hands or feet, whilst not being handled.
	Increased Muscle Tone	♦ Should be assessed when infant awake but not crying. ♦ There is **tight flexion** of the infants arms and legs (unable to slightly extend the arms or legs)
	Excoriation	♦ If occurs on **chin, knees, cheeks, elbow, toes or nose.** ♦ Does not include excoriated nappy area cased by loose stools.
	Myoclonic jerks	♦ The infant exhibits **twitching movements** of the muscles of the face or extremities, or if jerking movements of the arms or legs are observed.
	Generalised convulsions	♦ Generalised activity involving tonic (rigid) extensions of all limbs (but may be limited to just one limb), or manifested by tonic flexion of all limbs. ♦ Generalised jitteriness of extremities is observed. Hold or flex the limbs, if the jitteriness does not stop, it is a seizure. ♦ If **subtle seizures** are present (eye staring, rapid eye movements, chewing, fist clenching, back arching, cycling motion of limbs +/-autonomic changes) then they **should be scored** in this category.
VASOMOTOR/ RESPIRATORY DISTURBANCES	Sweating	♦ If perspiration felt on forehead, upper lip or back of neck. ♦ **Do not score** if sweating due to overheating (ie, cuddling, swaddling)
	Fever	♦ Values as outlined on MR 495
	Frequent yawning	♦ The infant yawns **greater than 3 times** within scoring interval.
	Mottling	♦ Mottling is present on chest, trunk, arms or legs.
	Nasal stuffiness	♦ The infant exhibits **noisy respirations** due to presence of exudate +/-runny nose.
	Sneezing	♦ The infant sneezed **more than 3 times** in the scoring interval. ♦ May occur as individual episodes or may occur serially.
	Nasal Flaring	♦ Present **at any time** during the scoring interval.
	Respiration rate	♦ **NB:** Can not be assessed while the infant is crying.
GASTROINTESTINAL DISTURBANCE	Excessive Sucking	♦ The infant shows increased (>3 times) rooting (turns head to one side searching for food) while displaying rapid swiping movements of hand across mouth prior to **or** after a feed.
	Poor feeding	♦ The infant demonstrates excessive sucking prior to a feed, yet sucks infrequently during feeding, taking small amounts, and/or demonstrates an uncoordinated sucking reflex. ♦ Also score if infant continuously gulps the milk, and stops frequently to breathe.
	Regurgitation	♦ Regurgitation, **not associated with burping,** occurs **2 or more** times during the feed.
	Projectile vomiting	♦ **1 or more** projectile vomiting episodes occurs either during or immediately after a feed
	Loose stools	♦ Scored if stool, which may or may not be explosive, is curdy or seedy in appearance. ♦ A liquid stool, **without a water ring on the nappy,** should also be scored as loose.
	Watery stools	♦ The infant has soft, mushy, liquid or hard stools that are accompanied by a **water ring** on the nappy.