

CANDIDACY CHECKLIST FOR NEONATAL THERAPEUTIC HYPOTHERMIA (COOLING)

PATIENT'S NAME: _____ HOSP. NO: _____

TIME of BIRTH: _____:_____ hrs. CURRENT AGE in hours /minutes: _____ hrs. _____ mins.

If current age is greater than 6 hours, call tertiary cooling centre before proceeding.

Directions for the use of this checklist: Start at the top and work through each numbered component. When directed to proceed to the exam, refer to the exam found on page 2. If there is missing data, (such as a known perinatal event and / or Apgar scores) and you are in doubt as to whether or not the patient qualifies for cooling, consult with the tertiary cooling centre promptly to discuss the patient.

**Note: If patient is < 6 hours old and meets the gestation, weight and blood gas criteria and has a witnessed seizure, patient is eligible for 'COOLING' regardless of additional exam findings. Consult the tertiary cooling centre to discuss any questions or concerns.*

Clinical Information	Criteria <i>(place a tick in the box that corresponds to the patient information)</i>	Instructions
Gestation	1 <input type="checkbox"/> ≥ 36 weeks gestation	Go to ⇒ 2 Weight
	= 35 weeks gestation <input type="checkbox"/>	May not be eligible Contact cooling centre
	< 35wks gestation <input type="checkbox"/>	Not Eligible
Weight	2 <input type="checkbox"/> ≥ 1800 grams	Go to ⇒ 3 Blood Gas
	< 1800 grams <input type="checkbox"/>	Not Eligible
Blood Gas pH = _____ Base Excess = _____ Source: Cord <input type="checkbox"/> Or 1st infant blood gas at <1 hour of life <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Arterial Capillary Venous Time Obtained: _____ : _____	3 <input type="checkbox"/> pH < 7.0 or Base excess ≥ -16	Criteria met thus far. Go to EXAM*
	No gas obtained <input type="checkbox"/> or pH 7.0 to 7.15 <input type="checkbox"/> or Base excess -10 to -15.9 <input type="checkbox"/>	Go to ⇒ 4 History of acute perinatal event
	pH >7.15 or Base Excess < 10 <input type="checkbox"/>	May not be eligible; Go to ⇒ 4 History of acute perinatal event
	4 <input type="checkbox"/> Variable / late foetal HR decelerations <input type="checkbox"/> Prolapsed / ruptured / tight nuchal cord <input type="checkbox"/> Uterine Rupture <input type="checkbox"/> Maternal haemorrhage / placental abruption <input type="checkbox"/> Maternal trauma (eg. vehicle accident) <input type="checkbox"/> Mother received CPR	Any ticked, Go to ⇒ 5 Apgar score
Acute Perinatal Event <i>(tick all that apply)</i>	No perinatal event or Indeterminate what the event was because of home birth or missing information	May not be eligible; Go to ⇒ 5 Apgar score
Apgar Score at 1 minute _____ 5 minute _____ 10 minute _____	5 <input type="checkbox"/> Apgar ≤ 5 at 10 minutes (yes)	Criteria met thus far. Go to EXAM*
	Apgar ≤ 5 at 10 minutes (no) <i>(no, was 6 or greater at 10 minutes)</i> <input type="checkbox"/>	Go to ⇒ 6 Resuscitation after delivery
Resuscitation after Delivery <i>(tick all that apply)</i> _____ PPV/intubated at 10 minutes _____ CPR _____ Adrenaline administered	6 <input type="checkbox"/> Continued need for PPV or Intubated at 10 minutes?(yes)	Criteria met thus far. Go to EXAM*
	PPV/Intubated at 10 minutes?(no) <input type="checkbox"/>	May not be eligible Go to EXAM*

Circle findings for each domain

PATIENT IS ELIGIBLE FOR COOLING WHEN 3 OR MORE DOMAINS HAVE FINDINGS IN COLUMNS 2 OR 3

Domain	1	2	3
Seizures	None	Seizures common: (focal or multifocal seizures) (Multifocal: clinical activity involving > one site which is asynchronous and usually migratory) Note: If the patient is < 6 hours old and meets the gestation, weight and blood gas criteria and has a witnessed seizure, patient is eligible for cooling regardless of the rest of this exam	Seizures uncommon: (excluding decerebration) <i>Or</i> Frequent seizures
Level of Consciousness	Normal or Hyperalert	Lethargic Decreased activity in an infant who is aroused and responsive Definition of Lethargic: <ul style="list-style-type: none"> • Sleeps excessively with occasional spontaneous eye opening • Responses are delayed but complete • Threshold for eliciting such responses increased • Can be irritable when disturbed 	Stuporous / Comatose Demonstrates no spontaneous eye opening and is difficult to arouse with external stimuli Definition of Stuporous: <ul style="list-style-type: none"> • Aroused only with vigorous and continuous stimulation Definition of Comatose: <ul style="list-style-type: none"> • No eye opening or response to vigorous stimulation In both stupor and / or coma, the infant may respond to stimulation by grimacing / stereotyped withdrawal / decerebrate posture
Spontaneous activity when awake or aroused	Active Vigorous, doesn't stay in one position	Less than active, not vigorous	No activity whatsoever
Posture	Moving around and does not maintain only one position	Distal flexion, complete extension or "frog-legged" position Term infants with HIE often exhibit <ul style="list-style-type: none"> • Weakness in hip-shoulder distribution (eg proximal part of extremities) • Distal joints, fingers and toes often exhibit strong flexion • Thumbs strongly flexed and adducted. • Wrists often flexed • Above postures are enhanced by any stimulation 	Decerebrate with or without stimulation (all extremities extended)
Tone	Normal <ul style="list-style-type: none"> • Resists passive motion Hypertonic, jittery <ul style="list-style-type: none"> • Lowered threshold to all types of minimal stimuli eg light touch, sudden noises • Infant may even respond to his/her own sudden movements 	Hypotonic or floppy, <ul style="list-style-type: none"> • Axial hypotonia (ie. head lag) and/or limb hypotonia 	Completely flaccid like a rag doll
Primitive reflexes	Suck: Vigorously sucks finger or ETT Moro: Normal: Limb extension followed by flexion with stimulus	Suck: Weak Moro: Incomplete	Suck: Completely absent Moro: Completely absent
Autonomic system	General Activation of Sympathetic nervous system Pupils: <ul style="list-style-type: none"> • Normal size (-1/3 of iris diameter) • Reactive to Light Heart Rate: <ul style="list-style-type: none"> • Normal, > 100bpm Respirations: <ul style="list-style-type: none"> • Regular spontaneous breathing 	General Activation of Parasympathetic nervous system Pupils: <ul style="list-style-type: none"> • Constricted (< 3mm estimated) • but reactive to light Heart Rate: <ul style="list-style-type: none"> • Bradycardia (< 100bpm, variable up to 120) Respirations: <ul style="list-style-type: none"> • Periodic, irregular breathing effort • Often have more copious secretions and require frequent suctioning 	Pupils: <ul style="list-style-type: none"> • Skew gaze, fixed, dilated, • not reactive to light Heart Rate: <ul style="list-style-type: none"> • Variable, inconsistent heart rate, irregular, may be bradycardic Respirations: <ul style="list-style-type: none"> • Completely apnoeic, requiring PPV & / or ET intubation and ventilation

Neurological Exam to evaluate candidacy for cooling: If in doubt as to whether patient qualifies for cooling, consult with the cooling centre promptly to discuss the patient.