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From: **Therapeutic Hypothermia for Neonatal Hypoxic-Ischemic Encephalopathy: Clinical Report**

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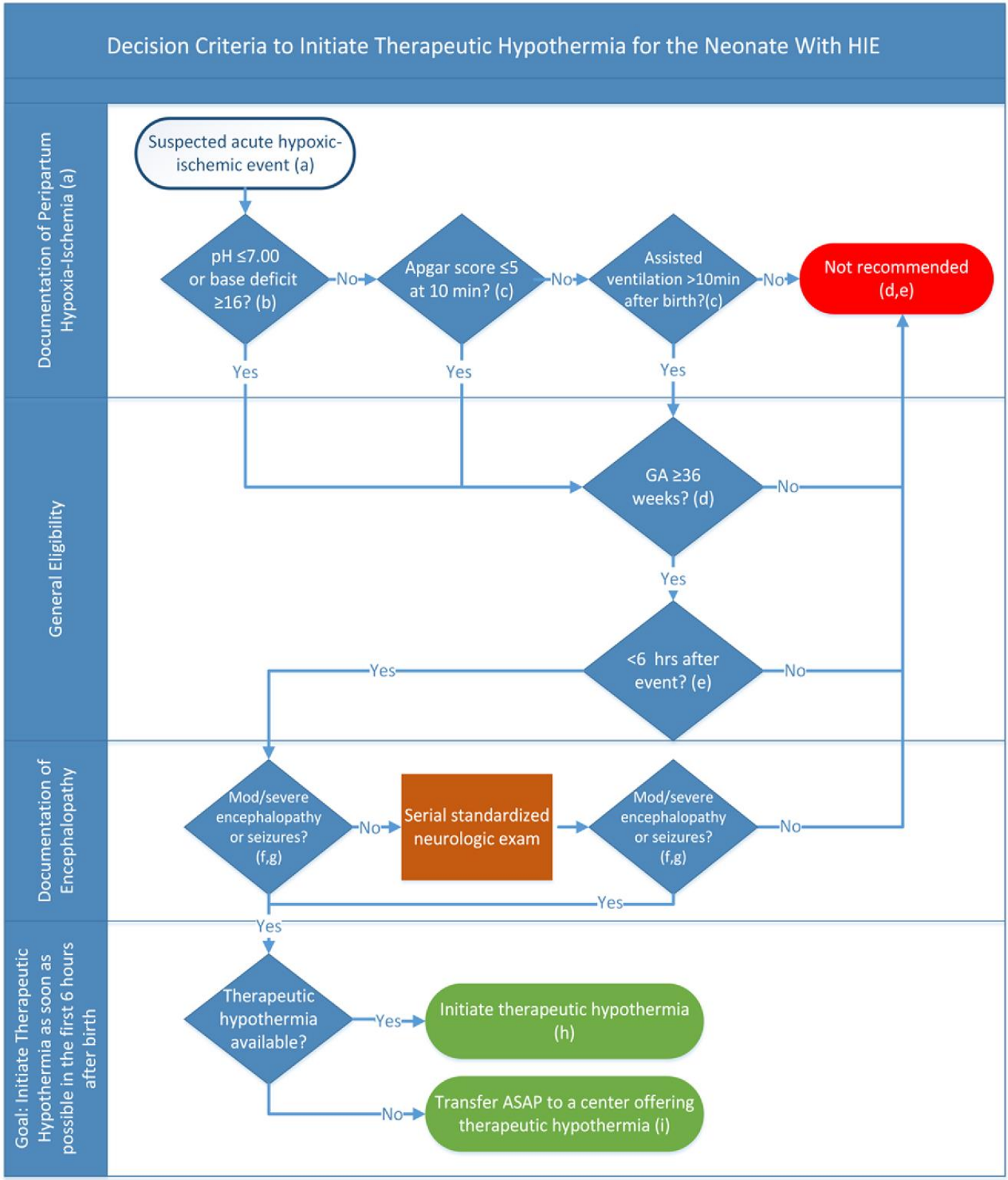

Figure Legend:

- Recommended algorithm of decision criteria for the initiation of therapeutic hypothermia for the neonate with hypoxic-ischemic encephalopathy (HIE). If hypoxic-ischemic encephalopathy (HIE) criteria are met at delivery or there is a high suspicion for HIE, passive cooling can be initiated by turning off the radiant warmer. This aids in starting therapeutic hypothermia as early as possible.
- For a center that does not offer cooling, discussion and documentation of eligibility is recommended particularly with regards to the determination of the severity of encephalopathy, especially in borderline cases.
- For borderline cases, transfer to centers that offer therapeutic hypothermia for further observation and monitoring may be considered.
- Blood gas samples (umbilical cord, arterial, venous, or capillary sampling) should be obtained within 60 min of birth. Of note, one of the large randomized controlled trial used a threshold base deficit ≥12.[15] The NICHD Whole-Body Cooling Trial included neonates for whom a blood gas was not available or the pH was 7.01–7.15 or base deficit was 10–15.9 mmol/L on a blood sample obtained within 60 min of birth, if 2 additional criteria were met: 1) presence of an acute perinatal event to support hypoxia-ischemia as a cause for the encephalopathy (history of late or variable decelerations, prolonged sustained fetal bradycardia [heart rate 15 min, cord prolapse, cord or uterine rupture, placental abruption, maternal trauma, hemorrhage, or cardiorespiratory arrest) and 2) need for assisted ventilation at birth and continued for 10 min or Apgar score ≤5 at 10 min after birth (Table 2).[11]
- Used as an independent criterion in the Coolcap, the TOBY, the selective head cooling with mild systemic hypothermia in China, the neo.nEURO.network and the ICE trials.[10,12–15] Used as a combination criterion with blood gases in the NICHD Whole-Body Cooling Trial (Table 2 and b above).[11]
- Infants born at 35 0/7 to 35 6/7 weeks' gestational age (GA) may be discussed on a case-by-case basis. Data equivocal. Discussion with the family of risks and benefits with documentation in the medical record is recommended.
- It is uncertain whether neonates 6 to 24 hours of age benefit from therapeutic hypothermia. Discussion with the family of risks and benefits with documentation in medical record is recommended.[33]
- Moderate to severe encephalopathy criteria (see Table 1).
- Clinical or electrographic seizures.
- Initiate as soon as possible after birth. For borderline cases, transfer to centers that offer therapeutic hypothermia for further observation and monitoring may be considered.
- If feasible, continue or initiate active (preferred) or passive therapeutic hypothermia.