**II. Feeding Guidelines for Neonates with HIE**

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**I. What should be used for feeds?**

Feeding should be started with breast milk if available. Although there is no evidence to directly support the claim that breast milk is better than formula for improving the outcome of neonates with HIE, evidence has shown that breast milk may improve cognitive abilities in term neonates [1]. Although born at or near term, neonates who have suffered from HIE are at higher risk of developing necrotizing enterocolitis (NEC). Studies have demonstrated that breast milk feeding is associated with a lower incidence of NEC [2]. In addition, breast milk is a rich source of multipotent mesenchymal stem cells [3].

*Recommendations:*

1. Feed with breast milk if available and no contraindications exist (AAP policy).

2. May use formula if breast milk is not available.

*Level of Evidence:* IV- Case Series and Expert opinion based on current review of the literature.

**II. When should feeds be started and at what volume?**

Recent studies have demonstrated NEC to occur from 9-15 days of age in term neonates with HIE [4, 5]. Many of the risk factors present in term neonates for developing NEC, such as hypotension, may be present in neonates with HIE after the initial insult [4]. Further, the effect of hypothermia on feeding tolerance in this population is currently unknown. In addition, studies have illustrated that intestinal motility in neonates with HIE is abnormal at 7 days post insult [6]. Recently, reports have demonstrated the safety of minimal enteral feeds in neonates undergoing hypothermia [7].

*Recommendations*:

Feeding may be started as early as deemed appropriate by the clinical team. This may be with small amounts during hypothermia in neonates without hypotension or the need for pressor support. The clinician may also examine LFTs and creatinine when making decisions about feeding initiation and volumes since these may represent other end-organ damage which may indirectly suggest gut injury.

*Level of Evidence:* IV- Case Series and Expert opinion based on current review of the literature.

**III. How quickly should feeds be advanced?**

There is no evidence for term neonates who have suffered from HIE to guide the advancement of feeds. Therefore, one may extrapolate the experience and rationale used for preterm neonates [8]. Route of feeding and type of feed may also be considered in the advancement of feeds.

*Recommendations*:

Feeds may be advanced as rapidly as appropriate based on clinical condition and route of feeding.

*Level of Evidence:* V- Expert opinion based on current review of the literature.

**IV. References**

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