HYPOGLYCAEMIA
Supporting information

This guideline has been prepared with reference to the following:

British Association of Perinatal Medicine. Identification and Management of Neonatal Hypoglycaemia in the Full Term Infant - A Framework for Practice. 2017. BAPM

https://www.bapm.org/resources/40-identification-and-management-of-neonatal-hypoglycaemia-in-the-full-term-infant-2017

British Association of Perinatal Medicine. Newborn Early Warning Trigger and Track (NEWTT) - A Framework for Practice. 2015. BAPM

https://www.bapm.org/resources/38-newborn-early-warning-trigger-track-newtt-a-framework-for-practice-2015

Are Hypostop and maxijoule of use in the treatment of neonatal hypoglycaemia?
Evidence for the use of Hypostop in neonatal hypoglycaemia is limited to a single uncontrolled study (Bourchier, 1992). In view of this, current WHO guidance (WHO, 1997) is that Hypostop is not recommended in this situation.
There is a similar lack of evidence for carbohydrate feed additives such as maxijoule, with the only controlled study (Singhal, 1991) failing to address whether increased blood glucose in the supplement group had any beneficial effect on clinical outcome.

Bourchier D, Weston P, Heron P. Hypostop for neonatal hypoglycaemia. NZ Med J 1992;105:22

Singhal PK, Singh M, Paul VK, et al. A controlled study of sugar-fortified milk feeding for prevention of neonatal hypoglycaemia. Indian J Med Res 1991;94:342-5

World Health Organization. Hypoglycaemia of the newborn: review of the literature. Geneva: WHO, 1997. 39
http://www.who.int/maternal_child_adolescent/documents/chd_97_1/en/

Evidence Level: V

At what level can we define glucose levels as "profoundly low"?
Cornblath et al (2000) state that: "At very low glucose concentrations (<20–25 mg/dL, 1.1–1.4 mmol/L), intravenous glucose infusion aimed at raising the plasma glucose levels above 45 mg/dL (2.5 mmol/L) is indicated."

Cornblath M, Hawdon J, Williams A et al. Controversies Regarding Definition of Neonatal Hypoglycemia: Suggested Operational Thresholds. Pediatrics; 2000:105;1141-5

Evidence Level: V

At what level should we aim to maintain blood glucose?
Cornblath et al (2000) state that: "Although the recommendation for maintaining therapeutic levels in excess of 60 mg/dL (3.3 mmol/L) may be indicated in the symptomatic infant with documented profound, recurrent or persistent hyperinsulinemic hypoglycemia, it should not be the therapeutic goal for the vast majority of newborns with transient or brief episodes of low plasma glucose concentrations".

Cornblath M, Hawdon J, Williams A et al. Controversies Regarding Definition of Neonatal Hypoglycemia: Suggested Operational Thresholds. Pediatrics; 2000:105;1141-5

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