Management of hypoglycemia in newborns

**Flowchart 1:** Identify a baby with hypoglycemia

**Suspect:**
1. Small baby (birth weight <2 kg)
2. Large baby (birth weight of 4 kg or more)
3. Baby of diabetic mother

**Suspect:**
- Baby with one or more emergency signs (Sheet A-Management of Emergencies)
- Baby with one or more of the following clinical features – lethargy/stupor, poor suck or difficulty in feeding, jitteriness, convulsions, apnea

**Check blood glucose every 12 hours until 48-72 hours of life**

**Check blood glucose every 12 hours until the baby is stable or the symptoms have resolved**

**Blood glucose <45 mg/dl**

Hypoglycemia

**Follow Flowchart 2 or 3**

Flowchart 2
Management of a baby with blood glucose of 25-45 mg/dl but no symptoms of hypoglycemia

Blood glucose 25-45mg/dl
AND
Baby has no symptoms

Breastfeeding or expressed breast milk by cup/spoon/paladai

Monitor blood glucose after 1 hour or before next feed

> 45 mg/dl

25-45 mg/dl

< 25 mg/dl

Increase frequency (if breast-fed) or Increase volume of feed (if cup / spoon / paladai-fed)

Follow Flowchart 3

Monitor blood glucose before next feeds;
Discontinue monitoring if blood glucose is 45 mg/dl or more on two consecutive measurements

Baby with blood glucose 25-45 mg/dl who has symptoms of hypoglycemia, follow Flowchart 3

For additional / next level management please refer to WHO Guidelines (Managing Newborn Problems and Pocket Book of Hospital Care of Children), http://www.otop-in.org/sick-newborn/, http://www.newbornwhocc.org/
Flowchart 3
Management of a baby with blood glucose less than 25 mg/dl OR/AND symptoms of hypoglycemia

Blood glucose <25 mg/dl
OR
Blood glucose 25-45 mg/dl and symptoms of hypoglycemia

Bolus of 2 ml/kg 10% Dextrose IV over 5 minutes
(if no IV line, give the same by intra-gastric tube)

IV 10% Dextrose at daily maintenance rate

Monitor blood glucose after 30 minutes

Blood glucose <45 mg/dl

If blood glucose remains <45 mg/dl after 2 boluses, continue IV 10% Dextrose and arrange for referral

Blood glucose ≥45 mg/dl

Continue glucose infusion

Monitor blood glucose every 3 hours:
If level is ≥45 mg/dl or more on two consecutive measurements, start decreasing glucose infusion;
Increase oral feeding concurrently

Stop IV fluids when oral feeding reaches at least 2/3 of daily requirement;
Allow the baby to breastfeed;
Stop monitoring when 2 values of blood glucose are more than 45 mg/dl on full oral feeding

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