

# Hyperglycemia in Preterm Infants

Based Clinical Consensus in March 2021

## Background

Hyperglycemia has been associated with increased risk of many morbidities of prematurity, including intraventricular hemorrhage, late-onset infection and death. However, these associations come from observational studies so we cannot infer causation, and the ideal definition and management strategy for hyperglycemia in preterm infants remains unknown. To promote continuity of care, the group agreed to the following:

## Hyperglycemia Definition and Management

- Decrease GIR to 4-6 and optimize protein and lipid to maximize calories
- If patient remains hyperglycemia with decreased GIR, administer insulin for glucose > 220.
  - May use lower threshold in the case of hyperosmotic diuresis.
- As our unit has noticed more technical challenges with continuous infusion than spot dose, we recommend starting treatment with a single dose and monitoring effects. Can transition to continuous infusion if patient is requiring multiple single doses or glucose remains elevated.
  - Administer single doses of insulin no more frequently than q6h. Check blood glucose 1h and 4h after infusion.
  - Check blood glucose hourly when on continuous infusion of insulin.
  - Administer insulin through line close to patient, not a long-line.

## Other resources

- [Neoreviews: Hyperglycemia in Extremely Preterm Infants](#)

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