CVICU Infant Feeding Guideline for Continuous and Bolus Feeds

CHOC Children's

Inclusion Criteria: All infants < 1 year of age and cared for in the CVICU

Exclusion Criteria: Patients > 1 year of age and infants with profound hypo/ hypertension, hypoxia, or general clinical instability

General Guidelines

- Initiate feeds with breast milk – maternal or banked (after parent information sheet signed).
- Follow diet order to determine advancement frequency, feeding route, and regimen (continuous or bolus).
- **Use birth weight or pre-OR weight (dry weight) unless otherwise specified by the provider.**
- Cautiously start feedings in infants with hypertension, thrombocytopenia, or hypoxemia.
- Timing of feeding advancement based on order entry time (routine/non-urgent changes).
  - Entered by 0700, prepared with AM batch for use first feeding after 1000 delivery.
  - Entered between 0700-1500, prepared with PM batch (to be fed after 2200).
  - Entered after 1500 are prepared with AM batch the next day.
- Round up/down feeding volume to the nearest mL.
- Do not advance for signs/symptoms of feeding intolerance (see below) and notify provider.
- **Hold at line 7 until provider authorizes more advancement.**
- Use current line when transitioning from continuous to bolus feeds.
- Taste trials are deducted from the hourly/bolus feeding volume.

Continuous Feedings

Date	Line Day	Weight (kg)	Continuous Wt X mL/kg/d ÷ 24	Column A Continuous (NGT/NJT) = mL/hr
	1		X 10 ÷ 24	
	2		X 20 ÷ 24	
	3		X 40 ÷ 24	
	4		X 60 ÷ 24	
	5		X 80 ÷ 24	
	6		X 100 ÷ 24	
	7		X 120 ÷ 24	
	8		X 130 ÷ 24	
	9		X 140 ÷ 24	

Bolus Feedings

Date	Line Day	Weight (kg)	Bolus Wt X mL/kg/d ÷ 8	Column B Bolus (NG or PO + gavage remainder per order) = mL q feed
	1		X 10 ÷ 8	
	2		X 20 ÷ 8	
	3		X 40 ÷ 8	
	4		X 60 ÷ 8	
	5		X 80 ÷ 8	
	6		X 100 ÷ 8	
	7		X 120 ÷ 8	
	8		X 130 ÷ 8	
	9		X 140 ÷ 8	

Recommendations/Considerations

- When initiating, determine IV +PO via provider order and re-evaluate throughout guideline use.
- Include skin-to-skin care as infant is stable to increase mother's milk supply.
- Facilitate non-nutritive breastfeeding or direct breastfeeding when PO feeds initiated.
- Fortification is based on patient caloric needs and volume restrictions. Around approximately line day 6, anticipate an increase to 24 kcal/oz, followed by 27 kcal/oz.
- Increase kcal only after discussion with provider and with order.
- Fortify with *Gentlease* for term infants or *Neosure* for preterm infants unless otherwise specified.
- Implement anti-reflux precautions/ therapies, if needed.
- When appropriate, consider osmolality of medication.

Feeding Intolerance Assessment

Abnormal Abdominal Exam/Change in Stool

- Bilious/Bloody Aspirates
- Repeated Emesis
- Increased Distention – AG > 2cm
- Discoloration
- Loops
- Tenderness
- Frank/Obvious Blood
- Newly OB+
- H2O Loss

Clinical Deterioration/Cardiopulmonary

- Temperature Instability
- Increased O2 requirements
- Increased HR variability/arrhythmias
- Suspect Sepsis
- Lethargy
- Hypotension/increased vasoactives
- Lactic acidosis
- Decreased venous saturation
- Decreased NIRS
- Severe hypertension

Patient/Family Education

- Refer to CVICU unit specific education

Approved Evidence Based Medicine Committee
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Reassess the appropriateness of Care Guidelines as condition changes and 24 hrs after admission. This guideline is a tool to aid clinical decision making. It is not a standard of care. The physician should deviate from the guideline when clinical judgment so indicates.

References

Newcombe et al. (2017). A post-operative feeding protocol to improve outcomes for neonates with critical congenital heart disease. *Journal of Pediatric Nursing, 35,* 139-143.

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