Clinical Guideline:	**Enteral Nutrition Clinical Guideline SUMMARY***
Effective Date:	2/27/2017, Revised 10/19/2017

*Refer to Enteral Nutrition Clinical Guideline for full guideline and references

Initiation of Enteral Nutrition	
All infants should have enteral nutrition initiated *as soon as possible (goal within 6-12 hours)* after admission unless **absolute contraindications** are present. Waiting for daily rounds to make routine feeding decision can delay progress and compromise nutritional status unnecessarily.	
Absolute contraindications *i.e. NPO except colostrum for mouth care which CAN be provided even if absolute contraindications are present*	• Hemodynamic instability (Dopamine >5 mcg/kg/min and/or escalating support) • Gastrointestinal pathology (e.g. NEC, mechanical or functional bowel obstruction) • Respiratory failure and/or severe apnea with **impending** need for intubation • Infants ≥35 weeks' gestation with respiratory rate >80 and/or significant increased work of breathing that precludes oral feeding, with expectation that respiratory status will resolve quickly (e.g. TTN)
Relative contraindications *i.e. eligible for **non-nutritive** feedings at medical team discretion in addition to colostrum for mouth care* *colostrum is preferred but do not delay if not available*	**Minimal enteral nutrition** ("gut priming," "non-nutritive feedings," "trophic feedings," etc) **@ 10 mL/kg/day** • Presence of Umbilical Arterial Catheter • Moderate to severe/worsening RDS with likely need for intubation; re-assess clinical status frequently • During indomethacin therapy for IVH prophylaxis **IVH Prevention Guideline** • Hemodynamically significant PDA undergoing treatment with indomethacin **PDA Guideline** • Hypoxic-ischemic encephalopathy undergoing therapeutic hypothermia **HIE Guideline** • Dopamine ≤5 mcg/kg/min at stable dose

Type of Enteral Feeding:		
What to feed: *(in order of preference)* (PDHM eligibility/duration: PDHM Guideline WNH H.4)	**Colostrum (colostrum is preferred for minimal enteral nutrition);** Maternal milk; Pasteurized donor human milk (PDHM), with consent; Infant formula appropriate for birth weight and/or gestational age:	
	Birth weight and/or Gestational Age	**Type of Infant Formula**
	≤1800 grams	Preterm, High Protein (*Enfamil Premature High Protein)*
	1801-2200 grams or <35 weeks	Preterm (*Enfamil Premature)*
	2201-2500 grams and/or 35-37 weeks	Post-discharge nutrient enriched (*Enfamil EnfaCare or Similac NeoSure)*
	>2500 grams and/or >37 weeks	Standard term (*Enfamil Newborn or Similac Advance)*

Guidelines for initiation and advancement of enteral feeding by birth weight			
Birth weight	**Initial volume* (mL/kg/day)** **given for 12-24 hours prior to advancement*	**Volume increases (mL/kg/day) every 12 hours**	**Goal Volume (mL/kg/day)**
≤1000 grams	10	10	150-160
1001-1500 grams	20	15	
1501-1800 grams	30	15-20	
1801-2500+ grams	30-40	20	

Fortification of Human Milk / Increasing Caloric Density of Infant Formula
Fortification of human milk and/or increasing caloric density of infant formula will be considered in **all infants** once tolerating **60 mL/kg/day*** for 2-3 feedings (6-12 hours). Advances may resume once 2-3 fortified feedings are given and well tolerated. **This helps further minimize deficits while weaning off PN and may improve tolerance due to a smaller initial exposure to HMF with gradual increase as feeding volumes advance* • Infants fed predominantly PDHM should be considered for additional caloric, protein and sodium supplementation once tolerating goal volume. -Recommended standard feedings for these infants is **Fortified Human Milk 26 kcal/oz High Protein Step 1** • Electrolytes should be checked within 5-7 days of coming off electrolyte containing IV fluids (consider earlier for predominately PDHM fed) • Electrolyte supplementation should be individualized based on laboratory findings; suggested initial dose of 2 mEq/kg/day NaCl vs. Bicitra.

Growth Monitoring and Interventions ***(once at goal volume feeds 150-160 mL/kg/day)***
Growth monitoring with neonatal dietitian: weight (g/kg/day or g/day over 7 days; length (cm/week); head circumference (cm/week) Optimal growth: >18 g/kg/day x7 days and >0.8 cm length/week; **Growth faltering**: <15-18 g/kg/day x7-14 days and <0.8 cm length/week **Growth faltering interventions**, **i**n order of preference: • Increase volume of enteral feedings by 10 mL/kg/day • Increase protein provision by 0.3 – 0.5 g/kg/day • After first increase in protein, increase kcal and protein calories together

Assessment and management of feeding intolerance	
Routine assessment of gastric residuals is **not recommended** unless other clinical concerns are present. Signs of potential feeding intolerance or more serious pathology include the following and warrant MD or LIP provider physical exam +/- x-ray and laboratory studies: • Sudden or substantial (>2 cm) increase in abdominal girth • Bloody stools • New onset emesis (particularly bilious emesis) • Abdominal tenderness, erythema or other discoloration • Large (>50% of feeding volume) gastric residual (especially bilious) in presence of other concerning signs If work-up reassuring, **resume feeding and previous volume/advance intervals**	Relevant guidelines: • Venting OG tubes **CPAP guideline** NICU O.1 • Skin care guidelines **NICU Skin Care Diaper Dermatitis**