

Clinical Practice Guideline



UF Metabolic Bone Disease Prevention Guidelines

Prevention

VLBW (<1500g) and Infants < 30 weeks GA

Optimize nutrition

Monitor NRBs per ELBW and NICU Nutrition Guideline
LFTs 1 week after birth and Bi-monthly

Surveillance

Full Enteral Feeds

Prolonged PN

yes

yes

Bi-monthly NICU Renal Batteries and monthly LFTs

Bi-weekly NRB and Bi-monthly LFTs

Intervention

Alkaline Phosphatase

>600

Phosphorus

< 4.0 mg/dL

- Fragile bone precautions (see nursing protocol).
- Maximize Ca/Phos/Vit D intake to achieve goals above.
- Repeat LFTs in 2 weeks or sooner if clinical suspicion of MBD
- Consider limiting drug use such as caffeine, loop diuretics and corticosteroids
- Consider sending PTH hormone level
- Consider sending 25-(OH) Vitamin D level
- Vitamin D Target is 20 ng/ml. May increase Vit D delivery to 800IU

- Maximize phosphorus delivery if on parenteral/enteral nutrition.
- Consider adding PO enteral phosphorous supplementation if maximized fortification and on full PO feeds

>800

- Same as above plus the following:
- Consider Endocrinology consult
 - Consider Bone Imaging
 - Consider workup for other chronic/metabolic/endocrine illnesses

Daily Nutrient Targets

Preterm Infants (GA <37 weeks)

Calcium: 150–200 mg/kg/day
Phosphorus: 100 mg/kg/day
Vitamin D: 400 IU/day

Term Infants (GA ≥37 weeks)

Calcium: 210 mg/kg/day
Phosphorus: 100 mg/kg/day
Vitamin D: 400 IU/day