Lipid Selection in Neonates and Infants (Neonatology Service) Algorithm

Is patient expected to be on TPN >2 weeks?
- No
  - Is direct bilirubin ≥1 mg/dL?
    - Yes
      - >750 grams with feeding difficulties? AND/OR congenital anomalies, viral hepatitis, severe bleeding
        - No
          - Consult NNBI team to consider alternative lipid solution
        - Yes
          - Start Intralipid® at 1 g/kg/day (up to max of 3 g/kg/day)
    - No
      - Is patient at high risk for PNALD? (birth weight <750 g, NEC with laparotomy or drain, gastroschisis or intestinal atresia)
        - No
          - Is direct bilirubin ≥1 mg/dL?
            - Yes
              - Start Intralipid® at 1 g/kg/day (up to max of 3 g/kg/day)
            - No
              - OR continue current lipid solution
        - Yes
          - Is patient thought to have PNALD and receiving >50% of calories via TPN?
            - No
              - Is patient expected to be on TPN ≥14 days?
                - Yes
                  - Start Omegaven® at 1 g/kg/day* (may add Intralipid® 1 g/kg/day if high risk for growth failure; stop if direct bilirubin is ≥ 4 mg/dL)
                - No
                  - Start Intralipid® at 1 g/kg/day (up to max of 3 g/kg/day)
            - Yes
              - Start Omegaven® at 1 g/kg/day + Intralipid® 2 g/kg/day*
                - (stop Intralipid® if direct bilirubin ≥4 mg/dL)

* Consider the following labs:
  - Prior to starting Omegaven®: complete blood count, prothrombin time (PT), activated partial thromboplastin time (PTT), chemistry, liver function tests (LFTs), gamma-glutamyl transferase (GGT), triglycerides (TGs), direct bilirubin
  - Weekly: CBC, chemistry, LFTs, GGT, TGs, direct bilirubin, (Coags only if clinically indicated for bleeding)

Origination date: 10/2018
Pediatric P&T Subcommittee Approval: 10/2018
P&T Committee Approval: 1/2019
Discontinuation of Omegaven® in Neonates and Infants (Neonatology Service) Algorithm

Is infant off TPN for 7-10 consecutive days? 
OR 
direct bilirubin <1 mg/dL for 4 consecutive weeks?

Yes

Is infant on ≤ 40 mL/kg/da of enteral feeds? 
OR 
Awaiting intestinal transplant?

Yes 
Continue Omegaven®

No 
Stop Omegaven®

Not gaining weight?*
AND 
Direct bilirubin <1 mg/dL x 4 weeks
AND 
Not tolerating ≥ 40 mL/kg/day of enteral feeds

Add Intralipid® at 1 g/kg/day to Omegaven®
STOP Intralipid® if direct bilirubin >1 mg/dL or other LFT’s increasing after addition of Intralipid®

*Weight gain definition: Average weight gain is <1% of body weight in grams per day for 2 weeks and falling below growth curve

Origination date: 10/2018
Pediatric P&T Subcommittee Approval: 10/2018
P&T Committee Approval: 1/2019