

Subject: Covering TPN

Date Reviewed: 06/2007

This is a guideline and may not apply to the individual circumstances of each infant. This guideline is intended to assist individualized decision making, not replace it.

Background

Light exposure of lipids, amino acids, and vitamins in the TPN solution causes production of potentially toxic peroxides. Light exposure includes UV light, ambient light, and especially phototherapy.

Peroxides have been implicated in contributing to the incidence of:

- Lung injury and chronic lung disease
- The hepatic complications associated with TPN
- Possibly other neonatal complications such as NEC, ROP, PVL, IVH

Recommendations

Infants who may benefit most from protecting TPN solutions from light exposure to decrease the potentially adverse effects of peroxidation include:

- Infants with birth weights <1000 grams.
- Infants with an anticipated need for extended TPN because of gastroschisis, omphalocele, short bowel syndrome, NEC, or other condition associated with long-term parenteral nutrition for > 2 weeks.