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Hospital

# Stay Ahead of Supply Issues for Neonatal Starter PN

**Top Takeaways**

*-Be ready to compound neonatal starter PN on-site so that NICU babies can still receive essential IV nutrition despite supply disruptions.*
*-Expect to see standardized starter PN ingredients, concentrations, and bag sizes to simplify compounding and reduce errors.*
*-Alert a pharmacist if you see that a baby is getting starter PN orders for longer than 24 to 48 hours.*

**Hospitals need to be ready to compound their own neonatal "starter" parenteral nutrition (PN) bags**...due to anticipated supply disruptions.

NICU babies usually need IV nutrition ASAP after delivery, since they have limited fat and energy reserves...and their immature gut can't handle large amounts of food by mouth.

Think of starter PN as a nutritional bridge. It's a ready-to-go bag of amino acids and dextrose (+/- electrolytes) that can be hung at any time...and supplies essential nutrients until custom PN can be ordered.

But a major supplier recently announced it will stop making premixed starter PNs. And FDA has temporarily adjusted compounding guidance to provide flexibility while the market adapts to the supply gap.

In the meantime, stay alert for changes if your pharmacy moves to making starter PN on-site...and help ensure bags are compounded safely.

**Expect to see standardized ingredients** for starter PNs...to avoid excessive options and possible errors.

Most pharmacies limit starter PN to only 1 bag volume (250 mL, etc)...and 1 strength of amino acids (3 to 4%) and dextrose (5 to 10%).

Keep in mind that starter PN can only use specific amino acid products tailored for newborns...Aminosyn-PF, Premasol, or TrophAmine.

Similarly, don't grab premix multi-chamber PN bags to prep starter PN. These premix bags have too much volume (1 L, etc)...inappropriate electrolyte concentrations...and incorrect amino acids for newborns.

**Look for other additives** that might be added to starter PN bags.

Some hospitals add calcium gluconate (2.33-3.75 mEq per 250 mL bag, etc)...since low calcium intake can lead to bone issues in NICU babies.

You may also see preservative-free heparin (0.5-1 unit/mL, etc) to prevent IV line clots. Double-check heparin product strengths due to possible 10-fold error risks (10 vs 100 units/mL, etc).

Don't expect to add intravenous lipid emulsion, or ILE (Intralipid, etc). It's given separately from starter bags due to incompatibility risks...and some NICUs wait up to 1-2 days after birth to start ILE.

**Prioritize safety steps** when compounding starter PN bags.

Refer to safety policies around double checks, barcode scanning, and automated compounding devices to help confirm products, volumes, etc.

Then assign beyond-use dates following USP <797>, pharmacy policies, etc. For example, starter PN prepped in Category 2 conditions is usually stable for up to 9 days refrigerated...or 30 hr at controlled room temp.

**Help conserve supply** by alerting a pharmacist if you see long courses of starter PN on a baby's med list. It's best

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for NICU babies to move to custom PN within 24 hr...and no later than 48 hr.

**Key References:**

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