

A. Belaustegui Foronda, B. Sordo Aisa, Z. Baskaran Kaltzakorta, A. de Basagoiti Gorordo, I. Bilbao Meseguer, J. Hernandez Goicoechea, B. San Jose Ruiz, M. Castaño Lopez, E. Rodriguez España, S. Sautua Larreategui
Hospital Universitario Cruces, Pharmacy Department, Barakaldo (Bizkaia), Spain

Many times, parenteral nutritions (PN) for neonates need to be administered by a peripheral line. Historically, this problem has been solved infusing enriched glucose solutions without the protein input, which is very important in order to avoid catabolism.

Objective

To develop a standard PN:

- ❖ With amino acids.
- ❖ Suitable for peripheral infusion.
- ❖ Available for the Neonatology Department at any time.

Methods

- ❖ Literature search on standard PN.
- ❖ Microbiological and biochemical controls.
- ❖ Composition is calculated for an administration volume of 100 mL/Kg/24h.

Results

We elaborate 500 mL bags with the following composition → **Composition per 100 mL:**



Amino acids	2 g
Glucose	9.5 g
Sodium	4 mEq
Potassium	2 mEq
Magnesium	0.2 mEq
Calcium	1.5 mEq
Phosphate	0.8 mmol



Osmolarity: 792 mOsm/L
Total calories: 46 Kcal/100 mL

Implementation in February 2012

Based on microbiological and biochemical controls an expiry date of 7 days was established under refrigerated conditions and protected from light.

Conclusions

This formulation gives the physicians the possibility of continuing with the nutritional support by peripheral infusion, at any time.
This kind of nutritional solutions are valid to meet the nutritional requirements for only short periods, until a new central line is placed or the neonate tolerates a complete enteral feeding.