

# EVALUATION OF THE COST SAVING ACHIEVED BY CENTRALIZING TOTAL PARENTERAL NUTRITION COMPOUNDING

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## BACKGROUND

Total parenteral nutrition (TPN) solutions are usually prepared by centralized compounding in the Pharmacy Department.

## PURPOSE

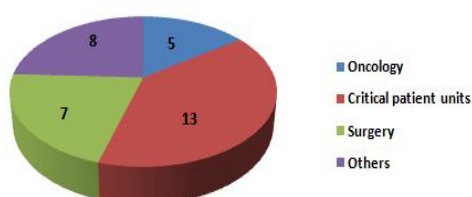
To evaluate the cost saving achieved with centralized compounding of TPN solutions (newborns and adults) and product use optimization in our Pharmacy Department.

## MATERIALS AND METHODS

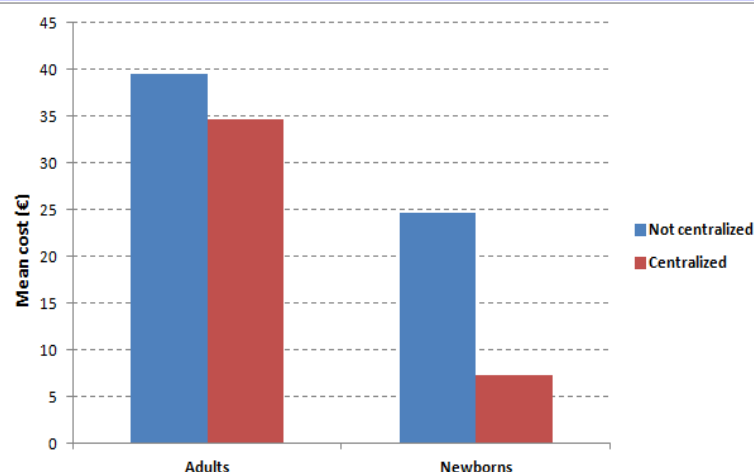
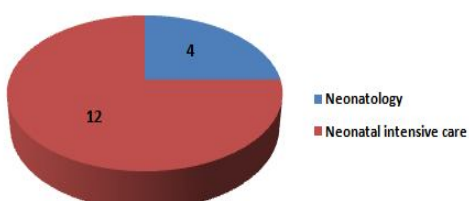
In order to calculate the number of TPN solutions and their cost, we studied preparation and dispensing on a single day. Data on the components of each solution prepared were extracted from the software used for TPN compounding (MedicalOne® Parenteral). Given the differences in composition, solutions were classified as adult and newborn. For each solution, two different costs were calculated: first the theoretical cost if each TPN solution was prepared separately in another clinical department (considering the cost of whole vials of each component, though in some cases only fractions were needed) and, second, the real cost of solutions prepared in the Pharmacy Department (calculating costs per millilitre and volumes used of each component). The cost saving was calculated as the difference between the theoretical and the real cost of each TPN solution. The mean saving per patient was calculated for adults and for newborns.

## RESULTS

Solutions for adults classified by department



Solutions for newborns classified by department



Mean cost per parenteral nutrition solution prepared, by not centralized and centralized compounding, for adults and newborns.

	Adults	Newborns
Mean cost saving (%)	12.2	70.6

## CONCLUSIONS

When TPN solutions are compounded centrally, significant cost savings are achieved, especially in newborns. Therefore, Hospital management should implement centralized compounding.