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A REVIEW OF THE USE OF THE TRUST'S STANDARD PARENTERAL NUTRITION BAGS FOR PAEDIATRIC PATIENTS

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Standardised parenteral nutrition (PN) bags enable the provision of early nutrient supplies as well as having advantages by reducing microbiological contamination and compounding errors¹ and their use is recommended by the Paediatric Chief Pharmacists Group.²

Aim To determine the uptake and suitability of the Trust's current paediatric standard parenteral nutrition bags.

Method Data was collected over a six month period from Jan-Jun 2013.

Data on the number of bags ordered and wasted and the total volume and quantity of macronutrients was collected.

Once the data was evaluated, patients prescribed an individualised bag where one of the current standard bags could have been used were highlighted. For patients who could not receive one of the current standard bags, details of bag volume and macronutrients were plotted on a scatter graph to compare the differences with the current standard bag compositions.

Results There were 505 (78%) individualised and 148 (22%) standard bags ordered between Jan and Jun 2013. The high percentage of individualised bags leads to a higher cost to the Trust as the cost of an individualised bag is around £20 more expensive than the average standard bag as well as there being an increased work pressure on pharmacy resources and an increased risk of contamination. There were 54 out-of-date standard bags that were wasted over the data collection period leading to a cost of roughly £1,300. This is due to the poor uptake and the minimum order number for each of the current standard bags.

The individualised bag compositions were reviewed and it was identified that only 16 (3%) patients could have received one of the current standard bags.

The standard bags are already diluted to a pre-determined volume which was identified as a limiting factor for the complex surgical, gastroenterology and intensive care patients.

The current standard bag compositions were based on the European Society for Clinical Nutrition and Metabolism (ESPEN) guidance. During the data collection it was noted that different members of the nutrition team were using either the Ball regimens or the ESPEN guidance, leading to different quantities of the macronutrients being ordered.

Conclusion The current set of standard parenteral nutrition bags are not fit for purpose. The issues identified are that the current standard bag volumes limit their use in the more complex paediatric patients and there is no agreed Trust guidance available to assist with macronutrient ordering. The review has led to the development of a new set of standard bags being developed which will be more concentrated to allow for different volumes to be given and the development of Trust guidance on macro and micronutrient provision to enable a higher uptake of the new standard bags and reduce the cost in wastage.

REFERENCES

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