OP 66. Group O blood order cut backs in SANBS.

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Introduction

The availability of group O red cell products is usually under strain due to emergency or heterologous blood group transfusion. The average days cover for group O red cells in the South African National Blood Service (SANBS) during January and February 2012 was 3.2 compared to the targeted 5.0 ideal days cover.

Many patients have multiple transfusion episodes where additional blood is ordered via a new requisition or by telephonic order. When shortages exist or are anticipated, technicians in blood banks cut back on the orders in consultation with the ordering doctors. Periodically requisitions or telephonic requests for additional red cell products are received after the cut back request. When dire shortages are experienced such requests may also be cut back. The aim of this study was to compare the re-order rates and intervals of previously cut back versus non-cut back requests.

Materials and methods

A retrospective study of all requisitions recorded on the SANBS Meditech operating system for red cell products received during January and February 2012 was undertaken to determine the cut back rate on requests for group O red cell products due to shortage. Formal requisitions and subsequent telephonic requests were each treated as individual requests. The intervals between requests for red cell products for the same patient were analyzed. The requests for additional group O blood on previously non-cut back requests formed the control group. The requests for additional group O blood on previously cut back requests formed the test group. A chi square test was used to determine significance.

Results

During the study period there were 33242 requisitions for 25823 patients received. Additionally, 2033 (6.12%) telephonic requests were received. 2514 (7.13%) requests were removed from further analysis because they represented standby requests where no blood was ultimately issued. Due to blood shortages 4025 (13.11%) requisitions were cut back. 5108 (15.36%) patients required additional blood of which 803 (15.72%) had previously been cut back and 4305 (84.28%) had not. There were 1007 (25.02%) additional group O red cell products of the 4025 cutback requests ordered compared to 7942 of 30936 (25.67%) non cut back requests ($p=0.38$).

Analysis of the time interval between additional requests of blood for each patient shows that 10.33% and 12.59% ($p=0.04$) occurred on the same day for previously cut back and non-cut back requests respectively.. However, on the next two days there were significantly more red cells products ordered from the cutback group (28.50%) compared to the non-cut back group (21.62%) ($p<0.0005$) and 17.18% and 13.47% ($p=0.002$) on day 1 and day 2 respectively. After day 2 there were no significant differences in reorder rates between the two groups.

Conclusions

The lower re-order rate on the same day on cut-back requests compared to non-cut-back requests shows that issued blood was generally being transfused followed by a re-evaluation of the patient's condition before re-order took place. The higher re-order rate one and two days after the cut back indicates possible patient morbidity attributable to the cut back intervention which requires further investigation.