

Appropriateness of intra-operative blood transfusion in children at the Lagos University Teaching Hospital--an initial survey.

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Abstract

BACKGROUND:

The decision to transfuse intra-operatively is based on preoperative haemoglobin (Hb), estimated blood loss and physiological variables. The visual estimate of blood loss is notoriously unreliable especially with small volumes of blood losses in children.

OBJECTIVES:

We sought therefore to determine the appropriateness of intra-operative blood transfusion in a sample of children

METHODS:

All children requiring intra-operative blood transfusion between May and June 2008 were prospectively studied. Neonates and children already on blood transfusion at induction were excluded. Transfusion was prescribed at the discretion of the attending anaesthetist. The Estimated blood volume (EBV) and estimated blood loss (EBL) were determined. Appropriate transfusion was defined as blood transfusion at EBL > 15% of EBV, maximum allowable blood loss to PCV of 27% and pre-transfusion Hb < 8g/dl.

RESULTS:

Twenty-five patients were studied with a mean age of 4.16 +/- 3.59 years (Range 0.33-11 years). The mean preoperative PCV was 31.14 +/- 3.53% (range 25-34%). Twelve patients (48%) were appropriately transfused when MABL was calculated to PCV of 27%. Nine patients (36%) had appropriate blood transfusion at an EBL greater or equal to 15% of the EBV. Of the 12 patients that had pre-transfusion Hb measured, 2 (16.6%) were appropriately transfused at Hb < 8 g/dl.

CONCLUSION:

The use of near patient monitoring devices should be encouraged as this will give an accurate assessment of Hb and appropriate indication for transfusion. Equipment should be made available to perform gravimetric estimation of blood loss as the visual method is notoriously unreliable.