Autologous transfusion in surgical patients at Kenyatta National Hospital, Nairobi.

Authors: Magoha GA, Mwanda WO, Afulo OK.

Abstract

OBJECTIVE:
To identify autotransfusion strategies and their basis in elective surgery patients.

DESIGN:
A cross sectional prospective study.

SETTING:
General surgery and orthopaedic wards, Kenyatta National Hospital, Nairobi.

SUBJECTS:
Adult patients of both sexes planned for elective surgery.

MAIN OUTCOME MEASURE:
For every patient, the following were enquired about and documented: age in years, sex, ethnicity, religion, occupation and educational standard. Blood values of haemoglobin, platelet counts, total and differential white cell counts, urea, electrolytes and liver function tests were assayed. Others were the number of units of blood donated before the operation, the type of surgery performed, time taken from diagnosis to performing the operation and whether the blood was transfused preoperatively, intraoperatively and postoperatively.

RESULTS:
A total of sixty three cases constituting five per cent of all surgical patients admitted during the period of study were evaluated. Of these 53 (84%) were males and ten (16%) females. The age range was 15 to 65 years with a peak at 45-49 years. There were more Christians (90%) than Muslims (10%). In all, 32 (51.6%) had primary school education, 23 (36.5%) secondary school education, seven (11.3%) no formal education and one (1.6%) had attained college level. Employment pattern showed 50% were civil servants, 30% were self employed and 20% were unemployed. The duration of disease ranged from 1-24 weeks with two peaks at two weeks and six weeks. Orthopaedic cases constituted 78.7% and general surgery 21.3%. Preoperative haemoglobin ranged from 13.5-14.2 g/dl. Transfusions were given intraoperatively to 41 (66.1%) and to 12 (33.9%) postoperatively. Mean duration of hospitalisation was 13 days (range 5 to 21 days). 98.4% deposited only one unit while 1.6% deposited four units of blood. Only one patient required additional transfusion from homologous donors.
CONCLUSION:

The strategies and basis for autotransfusion have been demonstrated among a majority of adult patients requiring orthopaedic procedures. Major determinants are shown to be baseline blood count profiles and time to operation.