

# Perioperative Haemorrhage and Transfusion in Musculoskeletal Tumour Surgery.

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## Abstract

**Background and Objectives:** Musculoskeletal tumor surgery in the West African subregion is rapidly evolving. These procedures are associated with significant blood losses necessitating large amount of transfusion, of which there is inadequate documentation. Allogeneic blood transfusion has been associated with increased recurrence of malignancies and is fraught with various complications. This study is aimed at evaluating the blood loss and transfusion requirements in various musculoskeletal tumor surgeries at a tropical Orthopedic Oncology unit. **Method:** A prospective study was conducted in patients with musculoskeletal tumors, undergoing surgery over a 5 year period. 74 procedures were performed in 58 patients and data such as age, sex, tumor type, surgical procedure, total blood loss, amount of blood transfused and attendant complications were retrieved. **Results:** The age range of the patients was 7 to 85 years with a mean age of 26.1 years. [M:F ratio 1.6: 1]. Surgery for benign bone tumors accounted for 55% of the procedures performed, while primary malignant lesions were the diagnosis in 41% of cases. Surgery was performed for secondary malignant tumor in 4% of cases. Tourniquet use was possible in only 36% of the surgeries, and the operation time range from 42 to 184 minutes [mean 67.5 minutes]. The range for total blood loss was 5 to 4950 mls. The mean blood loss was more for extensive procedures such as, forequarter amputations, above knee amputations, and resection / reconstruction. There was significant correlation between the total blood loss and the operation time. Blood transfusions were required in 57.1% of the surgeries and the total number of units transfused range from 0 to 4500 mls. The early complications of blood transfusion noted in these patients include, febrile reaction [33%], malaria fever [21%], hemolytic reaction [6%]. **Conclusions:** Blood loss in Orthopaedics musculoskeletal tumour surgery is significantly high, warranting large amount of blood transfusion. Adoption of standard blood management strategies by individual units, the use of autologous blood transfusion, and recombinant erythropoietin may reduce the attendant complications associated with blood transfusion.