

Thromboembolic Prophylaxis Guidelines for Patients undergoing Surgery for Bone or Soft Tissue Sarcomas

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We have recently completed a retrospective audit of thromboembolic events in 252 patients with primary bone or soft tissue tumours referred between 1998 and 2003. The results of this audit demonstrated a DVT rate of 4% and a 0.4% rate of fatal PE, although this is likely to be an underestimate due to the study's retrospective design. All patients with thromboembolic events had large thigh tumours, mean size 16.6 cms (range 11 to 23 cms), giving a 12% incidence of Venous Thromboembolism in patients with thigh tumours compared to none in other anatomical sites. The majority of events occurred prior to definitive surgery with 5 of 10 deep venous thromboses and 2 of 3 pulmonary emboli presenting following open biopsy. As yet no benchmarking exists for cancer patients with musculoskeletal tumours.

The following guidelines have been developed for the management of patients undergoing surgery (including open biopsy) for bone or soft tissue sarcomas.

1. All patients undergoing major resection/reconstructive surgery for bone or soft tissue tumours will receive routine chemical prophylaxis in the form of low-molecular-weight heparin (tinzaparin, 3,500 units) commencing 6 hours post surgery, and continued for the duration of the patients' hospital stay, unless contraindicated. These patients will also be considered for mechanical prophylaxis by the consultant and this will be documented in the medical notes. Patients at increased risk will be considered for extended anticoagulation.
2. Patients undergoing open biopsy for suspected or confirmed bone or soft tissue sarcoma of the lower extremity, including thigh tumours (>than 5cms) will have a pre-operative Doppler scan.
3. Patients undergoing open biopsy for lower extremity tumours will receive chemical prophylaxis (tinzaparin). This will commence post-operatively and continue for the duration of the patients hospital stay, unless contraindicated.
4. Patients with confirmed lower extremity tumours who require further surgical intervention or chemotherapy/radiotherapy will be considered for extended chemical prophylaxis.
5. Patients undergoing surgery for upper extremity tumours will receive mechanical prophylaxis in the form of below knee TED stockings. Patients assessed to be at increased risk of thromboembolism will be considered for chemical prophylaxis.
6. All Patients will receive written information regarding the potential increased risk of developing a thromboembolism if receiving hormone replacement therapy or the contraceptive pill.

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4th October 2005

Review date: October 2006