Change Notification for the UK Blood Transfusion Services

Date of Issue: 12 April 2023 **Implementation:** to be determined by each Service

No. 15 – 2023

Thrombosis «and Thrombophilia»

Renamed and revised entry

Changes are indicated using the key below. This formatting will not appear in the final entry.

original text

«inserted text»

~~deleted text~~

The following changes apply to:

BM-DSG Bone Marrow & Peripheral Blood Stem Cell | CB-DSG Cord Blood | GDRI Geographical Disease Risk Index | TD-DSG Tissue – Deceased Donors | TL-DSG Tissue – Live Donors | WB-DSG Whole Blood & Components

Obligatory	**1. Must not donate if:** a) Due to atherosclerosis (e.g. coronary thrombosis). ~~b) History of axillary vein thrombosis.~~ «b)»~~c)~~ Recurrent thrombosis. «c)»~~d)~~ Less than seven days after completing anticoagulant therapy. «d)»~~e)~~ Has a thrombophilic trait and has had one or more episodes of thrombosis. «e) History of Vaccine Induced Thrombotic Thrombocytopenia (VITT), Thrombotic Thrombocytopenic Purpura (TTP) or Heparin Induced Thrombocytopenia (HIT)» **2. Bone Marrow Donor:** Inform anaesthetist of past history of thrombosis.
Discretionary	a) If a specific cause for an isolated deep vein thrombosis or pulmonary embolism has been identified, not of itself a reason for exclusion, and anticoagulant therapy has been stopped for at least seven days, accept. ~~b) Has a thrombophilic trait and has never had an episode of thrombosis, accept.~~ «b) If the potential donor has a thrombophilia, refer to DCSO for expert clinical advice c) If the potential donor has a history of Axillary Vein Thrombosis, refer to a DCSO. (Please see additional information) d) If the potential donor has a history of Superficial Thrombophlebitis, and • The donor is not on antithrombotic therapy, and • No underlying cause has been identified which precludes donation,

	accept – if in doubt **refer to DCSO**.»
See if Relevant	Anticoagulant Therapy «Autoimmune Disease Cardiovascular Disease Coronavirus vaccination Drug Index - preparations which may affect platelet function» Malignancy «Nonsteroidal Anti-Inflammatory Drugs»
Additional Information	«G-CSF may induce a transient prothrombotic or hypercoagulable state in donors. Surgery (in bone marrow donation) is a well-known risk factor for thrombosis. The literature suggests several severe thrombotic events including a death in (related) donors donating bone marrow as well as PBSC. (Halter et al -2009) This has led to a generally accepted policy to defer donors with (risk factors or a predisposition to) thrombotic events. Thrombophilia is a broad medical term which describes a multifactorial condition where the blood has an increased tendency to clot. Individuals with thrombophilia can present with arterial or venous thrombosis. The causes of thrombophilia include inherited and acquired disorders, and a combination of causes may be present. Inherited causes of thrombophilia may be discovered through family testing. These include: • Antithrombin, Protein C and Protein S deficiency • Factor V Leiden and prothrombin gene mutations Acquired causes of thrombophilia may present later in life and can be associated with: • Malignancy including myeloproliferative neoplasms • Antiphospholipid syndrome and other autoimmune connective tissue disorders. These may be associated with a lupus anticoagulant and/or anticardiolipin antibodies on laboratory testing. VITT, TTP and HIT are rare disorders characterised by arterial or venous thrombosis in combination with a low platelet count (due to platelet consumption). Donors who recover from these disorders are unlikely to be eligible to donate due to the therapy they received (e.g the primary treatment for TTP is plasma exchange with FFP) or an underlying condition (e.g. the indication for Heparin therapy that triggered HIT). VITT was recognised as a complication of some SARS-CoV-2 (COVID-19) vaccinations. Axillary Vein Thrombosis can be precipitated by excessive use of the arm (e.g. sports or working above head level) but other precipitants include venous compression in thoracic outlet syndrome, diabetes, smoking, malignancy and venous canulation. The donor may be eligible to donate if the underlying cause has been identified and corrected, but this should be balanced with the remote risk of local complications from a subsequent donation. Superficial thrombophlebitis is inflammation of a vein just under the skin, usually in the leg, which can be accompanied by a small blood clot. This is different to, and less serious than, a deep vein thrombosis (DVT). If the superficial clot extends to where the superficial and deep veins join, a DVT can develop. Superficial thrombophlebitis normally settles within two to six weeks. Some individuals may be treated with anticoagulants to reduce the risk of extension.»

	~~*Unexplained DVT is associated with an increased risk of atherosclerosis NEJM 348(15) 1435.*~~
«*Reason for Change*	Align with the recently updated WB-DSG This entry has been renamed and revised to include more detail about a range of thrombotic and thrombophilic disorders.»

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