Change Notification UK National Blood Services No. 57 - 2022

Thrombosis and Thrombophilia

These changes apply to the Whole Blood Donor Selection Guidelines.

Please amend the following entry.

<table>
<thead>
<tr>
<th>Obligatory</th>
<th>For Acquired Thrombophilia, see:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Is there a specific A-Z entry for the underlying cause?</td>
</tr>
<tr>
<td></td>
<td><strong>Must not donate if:</strong></td>
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<tr>
<td></td>
<td>a) Due to atherosclerosis (e.g. coronary thrombosis).</td>
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<tr>
<td></td>
<td>b) History of axillary vein thrombosis.</td>
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<td></td>
<td>c) Two or more episodes of thrombosis requiring treatment.</td>
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<tr>
<td></td>
<td>d) Less than seven days after completing anticoagulant therapy.</td>
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<tr>
<td></td>
<td>e) History of Vaccine Induced Thrombotic Thrombocytopenia (VITT), Thrombotic Thrombocytopenic Purpura (TTP) or Heparin Induced Thrombocytopenia (HIT)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Discretionary</th>
<th>a) If a first episode of thrombosis, such as deep vein thrombosis (DVT), retinal vein thrombosis or pulmonary embolism (PE):</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>has not had a cause identified which of itself would be a reason for exclusion, and anticoagulant therapy has been stopped for at least seven days, accept.</td>
</tr>
<tr>
<td></td>
<td>• If no underlying cause that excludes the donor has been identified, and</td>
</tr>
<tr>
<td></td>
<td>• The donor is not known to have thrombophilia, and</td>
</tr>
<tr>
<td></td>
<td>• The donor is well and anticoagulant therapy (if used) has been stopped for at least seven days, accept.</td>
</tr>
</tbody>
</table>
b) If the potential donor has thrombophilia, is not on anticoagulant therapy and has never had an episode of thrombosis, and,

- The donor is not on antithrombotic therapy, and
- The donor has never had an episode of thrombosis, and
- The donor has not been treated with antithrombotic therapy for recurrent pregnancy loss, and
- The donor has never been treated with plasma-derived clotting factor concentrates, and
- If relevant, the underlying cause of an acquired thrombophilia (see additional information) does not exclude the donor accept.

c) If the potential donor has a history of Axillary Vein Thrombosis, refer to a DCSO.

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.

See if Relevant

- Anticoagulant Therapy
- Autoimmune Disease
- Cardiovascular Disease
- Drug Index - preparations which may affect platelet function
- Malignancy
- Nonsteroidal Anti-Inflammatory Drugs

Additional Information

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 anti-cardiolipin antibodies on laboratory testing.

Retinal Vein Thrombosis (also known as Retinal Vein Occlusion) is a form of retinal vascular disease and can affect central or branch retinal veins. The condition is uncommon under the age of 60 but becomes more frequent in later life. The condition may be associated with risk factors including hypertension, hyperlipidaemia, diabetes mellitus, atherosclerosis, and smoking.

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 thrombosis is associated with an increased risk of atherosclerosis, malignancy and thrombophilia. It is possible that donating blood may make a person with an underlying condition more prone to thrombosis.

Information
Part of this entry is a requirement of the Blood Safety and Quality Regulations 2005.

Reason for Change
This entry has been renamed and revised to include more detail about a range of thrombotic and thrombophilic disorders.
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