NHS
Greater Glasgow and Clyde

CLINICAL GUIDELINE

Upper Limb Deep Vein Thrombosis (ULDVT) in adults

A guideline is intended to assist healthcare professionals in the choice of disease-specific treatments.

Clinical judgement should be exercised on the applicability of any guideline, influenced by individual patient characteristics. Clinicians should be mindful of the potential for harmful polypharmacy and increased susceptibility to adverse drug reactions in patients with multiple morbidities or frailty.

If, after discussion with the patient or carer, there are good reasons for not following a guideline, it is good practice to record these and communicate them to others involved in the care of the patient.

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Important Note:

The Intranet version of this document is the only version that is maintained.
Any printed copies should therefore be viewed as 'Uncontrolled' and as such, may not necessarily contain the latest updates and amendments.

Management of Upper Limb Deep Vein Thrombosis (ULDVT) in adults

December 2019

Background

ULDVT accounts for approximately 10% of all Deep Vein Thromboses (DVT) with an incidence of 0.16 per 1000 in the general population. The majority (60%) of ULDVT are provoked by the use of a central venous catheter (CVC), including peripherally inserted central venous catheters (PICC) and pacemakers. Occasionally ULDVT will be the first presentation of malignancy, in particular a mediastinal mass causing Superior Vena Cava Obstruction (SVCO).

Rarely, an ULDVT may be related to Venous Thoracic Outlet Syndrome (TOS) (also known as effort thrombosis or Paget-Schroetter syndrome) where axillary/subclavian vein thrombosis occurs, usually in a younger patient, in the context of strenuous and repeated activity of the upper limb. This may just relate to muscular build but there can be underlying anatomical causes such as first rib and anterior scalene muscle anomalies.

Diagnosis

Patients presenting with symptoms suggestive of ULDVT should undergo a full history and examination assessing for recent central venous cannulation and red flag symptoms suggestive of malignancy.

The role of D-dimer and Wells scoring in accurately excluding ULDVT is unknown and should not be used. Most patients will therefore require imaging and this should be with Doppler USS. If the USS is negative and there remains a high clinical suspicion, then contrast MRV is the next imaging modality of choice.

All patients should undergo a CXR if there is no clear cause for the ULDVT, to exclude obvious lung or mediastinal malignancy.

If Venous TOS is suspected in a patient with otherwise idiopathic ULDVT the patient should be referred to the vascular team in Queen Elizabeth University Hospital.

Treatment

Patients should be anticoagulated for a minimum of 3 months, usually with a Direct Oral Anticoagulant (DOAC). Apixaban is the DOAC used in NHSGGC for the treatment of VTE and should also be used for this indication. Rarely will the duration of anticoagulation be for longer than 3 months (see below – ***Follow up***).

The standard apixaban discharge letter (available here) can be used to communicate dose and duration of apixaban to primary care. All patients should be educated on the safe use of apixaban and provided with the NHSGGC Direct Oral Anticoagulation Patient Information leaflet.

Patients with known or concurrently diagnosed malignancy should be anticoagulated as per the NHS GGC guideline 'Treatment and Secondary Prophylaxis of Venous Thrombosis in Patients with Malignant Disease', located on StaffNet;
http://www.staffnet.ggc.scot.nhs.uk/Acute/VT/Pages/Treatment.aspx

The evidence for catheter directed thrombolysis is poor – although this may be considered if a patient presents with ULDVT as a consequence of TOS. If thrombolysis is considered it should be undertaken as soon as possible at the time of the acute event to ensure maximal effectiveness (within 2 weeks). The decision to thrombolyse should be made by the vascular team via an urgent referral.

Additional treatments, which include venoplasty and first rib resection may be considered if patency of the axillary/subclavian vein is restored.

Patients who develop an ULDVT secondary to a CVC/PICC/pacemaker should only have the device removed if either;

- It is no longer required
- It has become dysfunctional
- It is concurrently infected

Follow up

Patients with a temporary risk factor for ULDVT require 3 months anticoagulation only.

For idiopathic ULDVT, the risk of recurrence is much lower than for lower limb DVT (2% vs. 19% annual recurrence rate) and therefore rarely does long-term anticoagulation need to be considered. Thrombophilia screening should not be undertaken, unless there is a strong family history of VTE suggestive of a major inherited thrombophilia, as the annual risk of VTE recurrence, even in the presence of a thrombophilia, is <5%.

If there are any concerns that a particular patient may be at increased risk of VTE recurrence or their risk of recurrence is unclear, the patient should be referred to the haematology team, on that site, who manage venous thrombosis (Dr Bagot North Sector, Dr Hart South Sector, Dr Yasmin Clyde Sector).

Patients with ULDVT secondary to TOS may require follow up with the vascular team.