A016 – ADVICE LEAFLET HAEMATOLOGY

General Practice advice for managing patients with venous thromboembolism (VTE) diagnosed at Norfolk and Norwich University Hospital VTE clinic

1. Background

Patients diagnosed with deep vein thrombosis (DVT) or pulmonary embolism (PE) are discharged to primary care after anticoagulation has been initiated. This advice sheet is to support GPs after discharge.

2. Initial anticoagulation

- A direct oral anticoagulant (DOAC) will be initiated by the VTE clinic.
- If not suitable for a DOAC either low molecular weight heparin (LMWH) only or LMWH and warfarin will be supplied.
- An initial supply of anticoagulant is given to the patients from the VTE clinic. All further prescriptions for anticoagulants should be supplied by GP
- To minimise errors it is recommended that patients do not switch anticoagulants in the first 3 months of treatment unless clinically indicated (treatment failure or side effects)
- Warfarin monitoring: The hospital monitors the INR until it is therapeutic (INR >2). At this point the patient is advised to discontinue LMWH and warfarin monitoring is transferred to his/her GP. The risk of further VTE is highest in the first month following diagnosis of VTE. If the INR is <1.5 during this period, further therapeutic dose LMWH is advised until the INR is >2 again[1].
- It is the GPs responsibility to review duration and stop treatment once completed.

3. Laboratory Investigations taken in VTE clinic

- Results are reviewed by VTE clinic. Significant abnormalities are referred to GP for follow up.

4. Patients taking aspirin, clopidogrel, ticagrelor or other antiplatelet agents

- Patients with cardiac stents MUST continue these drugs and a Cardiologist contacted for advice. For other indications antiplatelet drugs should usually be stopped for the duration of anticoagulation. If these drugs need to continue consider gastroprotection (e.g. lansoprazole)

5. What is the cause of VTE and are further tests required?

Patients diagnosed with DVT or PE should have an underlying cause considered by their GP.

Provoked DVT or PE: This is defined as DVT or PE occurring within 3 months of a major transient risk factor e.g. surgery, trauma, significant immobility, pregnancy, oestrogen containing contraceptive pill or oral hormone replacement therapy (HRT), flare of inflammatory bowel disease.

Unprovoked DVT or PE: Thrombosis that occurs without a recent major clinical risk factor.

Investigations for cancer are now only required if the clinical history, physical examination or blood tests indicate further investigation is required. Routine CT scans for unprovoked VTE are not recommended[2].

Thrombophilia testing is not routinely recommended. The results do not usually change management. Occasionally it may be of value in cases of unprovoked VTE if anticoagulation is to be discontinued[2]. Seek Haematology advice if required.

6. Stockings and post-thrombotic syndrome (PTS)

- PTS symptoms (pain, swelling, skin changes, itching, ulceration) occur frequently after DVT.
- The routine prescription of compression stockings for prevention of PTS is not recommended.[2]
- A class 2 below knee compression stocking with an ankle pressure >23 mmHg can be prescribed for symptomatic relief in patients who have troublesome symptoms. Patients who have peripheral artery disease, leg ulcers or peripheral neuropathy should not have stockings prescribed.
- For patients who have chronic, severe symptoms a Vascular Surgery opinion for clinical assessment and specialist compression hosiery may be helpful.

7. Duration of anticoagulation[1,2,3] (For VTE related to pregnancy, cancer or IV drug use see 8.1 - 8.3)

VTE type	Provoking factors for VTE	Initial treatment	Long term treatment*
First Proximal DVT or PE	VTE with transient provoking factor: e.g. surgery, OCP, leg fracture, acute medical illness, long haul travel	**3 months** (can increase to 6 months if symptoms still improving or provoking factor not fully resolved)	Not usually required
	VTE with persistent provoking factor: e.g. severe immobility, chronic inflammatory disorder	**3 months** (can increase to 6 months if symptoms still resolving)	Consider long term anticoagulation to prevent VTE recurrence
	Unprovoked		
Calf Vein DVT	Not relevant	**3 months**	Not required
Recurrent proximal DVT/PE	Initial treatment as above. Long term treatment usually required unless very high risk of bleeding or second episode followed strong transient provoking factor e.g. surgery.		
Recurrent calf vein DVT	Initial treatment as above. Long term treatment not usually required		

*Long term treatment is a balance between VTE recurrence risk, bleeding risk and patient preference. Bleeding risk is related to age. Patients diagnosed in VTE clinic with a first proximal DVT without a transient provoking factor are offered a Haematology outpatient appointment to review treatment. This will be indicated on clinic paperwork.

8.1 Pregnancy

- **Continue LMWH for the duration of pregnancy and for at least 6 weeks post partum. The total duration of treatment must not be less than 3 months**. LMWH only is used. Antenatal patients diagnosed with VTE must be referred to an Obstetrician for management.

8.2 Cancer patients:

- **6 months anticoagulation and review**: For patients who have completed cancer therapy and are in remission anticoagulation can be stopped after 6 months. Patients not in remission should continue on anticoagulation. For patients at high risk of bleeding (e.g. brain metastasis, thrombocytopenia [platelets < 50 x 10^9/L]), or in whom anticoagulation is impairing quality of life, it is often preferable to discontinue - discuss with the patient's Oncologist if advice is required.

8.3 Intravenous drug users

- **3 months anticoagulation and review**: LMWH only or DOAC is prescribed. Prevention of future thrombosis is best achieved by avoiding further intravenous drug misuse, rather than indefinite anticoagulation.

9. Superficial vein thrombosis (superficial thrombophlebitis)

- Superficial vein thrombosis may be diagnosed either clinically or by ultrasound
- For patients referred with symptoms suggestive of superficial vein thrombosis a concurrent DVT is excluded by ultrasound or Wells/D-dimer in all patients
- Superficial vein thrombosis within 3cm of the saphenofemoral junction is treated with 3 months of therapeutic dose anticoagulation
- Patients with superficial vein thrombosis which is located above the knee, or in the popliteal fossa, or > 5cm in length below knee are treated with 6 weeks low dose anticoagulation (rivaroxaban 10mg OD or dalteparin prophylactic dose)
- Patients not receiving an anticoagulant are advised to try oral NSAIDs as first line treatment (if no contraindication).
- The purpose of anticoagulation is to treat symptoms and prevent progression to DVT
- Long term anticoagulation is not required
- Topical NSAIDs may provide additional symptomatic relief
- For superficial vein thrombosis associated with varicose veins consider surgical referral for definitive treatment

10. General points

- Persons on long term anticoagulation for VTE:
  - An annual review by the patients GP is advised to assess if anticoagulation should continue, based on risk of recurrence, risk factors for bleeding and patient preference.
  - Apixaban/Rivaroxaban – note dose reduction at 6 months for long term treatment
- The Haematology department is happy to accept referrals, or letters requesting advice for difficult anticoagulation decisions
- Dental advice. See Scottish dental guidance: https://www.sdcep.org.uk/published-guidance/anticoagulants-and-antiplatelets/
- Heavy menstrual bleeding is a common side effect of anticoagulation therapy. Treatment options include changing anticoagulant, tranexamic acid, hormonal therapy or levonorgestrel intrauterine device depending on individual patient circumstances. Seek advice if required.

11. References

1. British Committee for Standards in Haematology: Guidelines on oral anticoagulation with warfarin 4th edition 2011
2. NICE clinical guideline NG158 Venous thromboembolic diseases: diagnosis, management and thrombophilia testing 2020

3. American College of Chest Physicians: Antithrombotic therapy and prevention of thrombosis 9th edition. *Chest* 2012, 2015