County Durham and Darlington DVT Pathway Information

1. Patients with a diagnosis of suspected or confirmed deep vein thrombosis (DVT) will be offered rivaroxaban if clinically appropriate.

2. Patients with suspected DVT should receive diagnostic interventions within 24 hours. Ultrasound scans are available 7 days a week and should be booked by telephoning **0191 3728690**.

3. Please note that patients who are DVT Likely (i.e. Wells Score ≥ 2 pts) and with a negative initial ultrasound scan, but a raised D-dimer, will have their treatment **stopped** until the results of the second scan are known – please see the *Further Information* section.

Provoked DVT

This is a DVT in a patient with a recent (within 3 months) and transient major clinical risk factor for venous thromboembolism (VTE), such as surgery, trauma, significant immobility (bedbound, unable to walk unaided or likely to spend a substantial proportion of the day in bed or in a chair), pregnancy or puerperium – or in a person who is having hormonal therapy (combined oral contraceptive pill or hormone replacement therapy).

Unprovoked DVT

This is DVT in a patient with no recent major clinical risk factor for VTE who is not having hormonal therapy.

Duration of Treatment

Provoked distal (below knee) DVT

Consider stopping anticoagulation treatment at 3 months (3 to 6 months for people with active cancer) after a provoked distal DVT if the provoking factor is no longer present and the clinical course has been uncomplicated.

Unprovoked DVT or provoked proximal (above knee) DVT.

You must seek advice on duration of treatment and further investigations either by using advice and guidance or referring to haematology.

NICE NG158 on venous thromboembolic diseases recommends the following:

Assess and discuss the benefits and risks of continuing, stopping or changing the anticoagulant with people who have had treatment for 3 months (3 to 6 months for people with active cancer) after a proximal DVT.

Consider continuing anticoagulation beyond 3 months (6 months for people with active cancer) after an unprovoked DVT and seek advice from secondary care. Base the decision on the balance between the person's risk of VTE recurrence and their risk of bleeding. Discuss the risks and benefits of long-term anticoagulation with the patient, and take their preferences into account.

Explain to people with unprovoked DVT and a low bleeding risk that the benefits of continuing treatment are likely to outweigh the risks.

Do not rely solely on predictive risk tools to assess the need for long-term anticoagulation treatment. Consider using the HAS-BLED score (available in Clinical Tools within SystmOne) to assess the risk of major bleeding in people having anticoagulation treatment for unprovoked proximal DVT. Discuss stopping anticoagulation if the HAS-BLED score is 4 or more and cannot be modified.

If treatment is stopped, give advice about the risk of recurrence and provide:

- information on symptoms and signs to look out for
- contact details both in-hours and out-of-hours if there are any new symptoms or signs, or other concerns.

Take into account the person's preferences and their clinical situation when selecting an anticoagulant for long-term treatment.

For people who decline continued anticoagulation treatment, consider aspirin 75 mg or 150 mg daily.

Review general health, risk of VTE recurrence, bleeding risk and treatment preferences at least once a year for people taking long-term anticoagulation treatment or aspirin.

Immediate Treatment

To ensure immediate treatment, patients entering the DVT pathway should be supplied with a prescription of four tablets of rivaroxaban 15 mg (take one bd) until diagnosis and required treatment course is confirmed.

The patient should be given the *DVT Pathway Investigation Proforma* patient held record, and the DOAC patient alert card will be supplied by the pharmacy. In addition, patients should also be counselled to let other health care professionals, such as dentists, involved in their care know that they are taking rivaroxaban.

Patients entering the DVT pathway should be provided with adequate information to give informed consent to their choice of treatment.

Any patient who is already anticoagulated should not enter the rivaroxaban DVT pathway and you should seek specialist advice**. For the avoidance of any doubt, patients must not be prescribed rivaroxaban and warfarin.**

Please familiarise yourself with rivaroxaban prescribing information contained in the current version of the BNF. More extensive prescribing information can be found in the summary of product characteristics (SPC), along with a copy of the patient information leaflet, both of which can be found here:

https://www.medicines.org.uk/emc/medicine/25592

Please also consider www.xarelto-info.co.uk/ as an information resource on rivaroxaban which is MHRA approved. Serious reactions must be reported to the MHRA via the yellow card scheme.

Treatment of DVT

Dosage

The recommended dose for the initial treatment of acute DVT is **15 mg twice daily for the first three weeks, followed by 20 mg once daily for the remainder of the treatment period (unless there is renal impairment)*.**

Patients must be advised to take rivaroxaban with food to improve absorption of the tablets.

If the patient is to remain on rivaroxaban longer term, renal function should be checked every 6 months, or sooner if the patient becomes clinically unwell.

**In patients with reduced creatinine clearance of between 30 – 49 ml/min, a reduction of the dose from 20 mg once daily to 15 mg once daily should be considered if the patient's assessed risk for bleeding outweighs the risk for recurrent DVT. Do not enter patient into DVT Pathway if creatinine clearance is below 30 ml/min. Please use creatinine clearance rather than eGFR (it is recommended that the MD+CALC Cockcroft-Gault equation should be used to calculate CrCl for DOACs as the current inbuilt calculators in SystmOne and EMIS do not give a reliable estimate).*

Missed Doses

If a dose is missed during the 15 mg twice daily treatment phase (day 1 - 21), the patient should take an extra rivaroxaban tablet immediately to ensure intake of 30 mg rivaroxaban per day. In this case two 15 mg tablets may be taken at once. The patient should continue with the regular 15 mg twice daily intake as recommended on the following day.

If a dose is missed during the once daily treatment phase (day 22 and onwards), the patient should take rivaroxaban immediately, and continue on the following day with the once daily intake as recommended. The dose should not be doubled within the same day to make up for a missed dose.

Interactions with other medicinal products

The use of rivaroxaban is not recommended in patients receiving concomitant systemic treatment with azole-antimycotics (such as ketoconazole, itraconazole, voriconazole and posaconazole) or HIV protease inhibitors (e.g. ritonavir).

For full details of interactions see the summary of product characteristics:
https://www.medicines.org.uk/emc/medicine/25592

Bleeding Risk

The risk of bleeding may be increased in certain patient groups, for example those with uncontrolled severe arterial hypertension and/or those taking other treatments that affect haemostasis such as NSAIDs, aspirin, platelet aggregation inhibitors or other antithrombotic agents. For patients at risk of GI bleeding, gastric protection with a PPI should be considered.

Should minor bleeding complications arise in a patient taking rivaroxaban, delay the next dose of rivaroxaban or discontinue treatment if appropriate, after DVT risk assessment. If bleeding is problematic, consider tranexamic acid 1g orally up to 6 hourly until cessation of bleeding, but it is suggested you seek secondary care advice. Moderate to severe bleeding requires urgent hospital admission.

Further information:

Patients who are DVT Likely (i.e. Wells Score ≥ 2 pts) but a positive D-dimer

You should **stop treatment** with rivaroxaban until the repeat ultrasound scan 6-8 days later (which you should arrange by telephoning **0191 3728690**). This is because the patient will have one of the three scenarios below:

1. Not have a DVT at all,
2. have an isolated calf vein DVT that would not have extended, or
3. have an isolated calf vein DVT that would have extended

Giving anticoagulation for the week is unnecessary for 1 and 2. In 3, continuing treatment would very likely stop extension for the week it is given (making the second scan pointless as it will be negative). When anticoagulation is then stopped the clot may then extend proximally and remain untreated - one week of anticoagulation being insufficient.

A repeat scan should be booked by telephoning **0191 3728690** for 6–8 days after the initial scan and this should be recorded on the second page of the patient held record.

Patients with a negative ultrasound scan, and a negative D-dimer

- think about alternative diagnoses
- tell the patient that it is not likely they have DVT. Discuss with them the signs and symptoms of DVT and when and where to seek further medical help.

Patients **who are DVT Unlikely** (i.e. Wells Score ≤ 1 pt) with a positive D-dimer and a negative ultrasound scan should be advised that they are not likely to have DVT and a second ultrasound scan would not need to be

organised in these circumstances.

Patients with Active Cancer

Active cancer refers to those patients currently receiving active chemotherapy; or diagnosed within the past 6 months; or recurrent or metastatic; or inoperable. It excludes squamous skin cancer and basal cell carcinoma.

NICE NG158 states that a DOAC can be considered for people with active cancer and confirmed proximal DVT.

Offer people with active cancer and confirmed proximal DVT anticoagulation treatment for 3 to 6 months. Review at 3 to 6 months according to clinical need.

For people with confirmed DVT and cancer that is in remission, follow the normal recommendations for treatment for confirmed DVT (see above).

Compression Stockings

Do not offer elastic graduated compression stockings to prevent post-thrombotic syndrome or VTE recurrence after a DVT.

However, if offering elastic graduated compression stockings to manage leg symptoms after DVT, explain how to apply and use them, how long they should be worn and when they should be replaced.

Iliofemoral DVT

NICE Guidance suggests that for patients with Iliofemoral DVT, catheter-directed thrombolytic therapy for patients should be considered. In these circumstances, contact secondary care.

D-dimer result

This should be asked for urgently in a patient who is DVT unlikely on presentation (Wells score 1 point or less). In a situation where the D-dimer result is unavoidably going to be delayed until the next day, then it would be sensible for the physician to weigh up the risk/benefits of giving a one off dose of rivaroxaban, and if these risk/benefits are ok then it may be appropriate to give an interim dose whilst waiting for the result.

Further Investigations

Please remember that there are a multitude of other causes for a raised D-dimer in the absence of DVT and you should consider further investigations.

Patients with clinical signs of superficial thrombophlebitis affecting the proximal long saphenous vein should have an ultrasound scan to exclude concurrent DVT.

Investigations for cancer

For people with unprovoked DVT who are not known to have cancer, review the medical history and baseline blood test results and offer a physical examination.

Do not offer further investigations for cancer to people with unprovoked DVT unless they have relevant clinical symptoms or signs.

Unprovoked DVT is associated with an increased risk of cancer, which may be undiagnosed when the DVT occurs. NICE agreed that a physical examination and review of medical history (including previous investigations such as imaging) are worthwhile precautions for people who have had an apparently unprovoked DVT. However, the evidence did not show any benefit from further investigations for cancer for people who have no signs or symptoms. Moreover, these investigations can be costly, time consuming, potentially invasive or pose a radiation risk, and cause anxiety. NICE therefore agreed that further investigations for cancer should not be offered to people without relevant signs or symptoms.

Thrombophilia testing

- Do not offer hereditary thrombophilia testing to patients who are continuing anticoagulation treatment.

- Consider testing for antiphospholipid antibodies in patients who have had unprovoked DVT if it is planned to stop anticoagulation treatment but be aware that these tests can be affected by anticoagulants and specialist advice may be needed.

- Consider testing for hereditary thrombophilia in patients who have had unprovoked DVT and who have a first-degree relative who has had DVT if it is planned to stop anticoagulation treatment, but be aware that these tests can be affected by anticoagulants and specialist advice may be needed.

- Do not offer thrombophilia testing to patients who have had provoked DVT.

- Do not routinely offer thrombophilia testing to first-degree relatives of people with a history of DVT and thrombophilia.

For more information please go to: CDDFT Pathology Handbook and look under “Thrombophilia Screen”

Unless you are happy this is a provoked distal DVT you must seek advice on duration of treatment and further investigations either by referring to haematology or using advice and guidance.

Documentation within Medical Records

Please ensure that all patients entered into the DVT Pathway have the relevant information documented within their medical records. This can be achieved by using the *DVT Pathway 2020/2021 – DQT* template.

To receive payment a D-dimer level and the following SNOMED/Read Code needs to be added to the records;

- **On deep vein thrombosis care pathway** (Read Code XaaBG, SNOMED code 869611000000104).

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