County Durham and Darlington NHS
NHS Foundation Trust

POLICY DOCUMENT CONTROL SHEET

Reference Number	GUID/N&G/0015
Title	Guideline for Venous Thromboembolism (VTE) diagnosis and treatment (adult in-patients)
Version number	3.1
Document Type	Guideline
Original guideline date	October 2011
Review & Approving body	Clinical Standards and Therapeutics Committee Quality and Healthcare Governance Committee
Date approved	22/3/2016
Next Review date	22/3/2019
Originating Directorate	Nursing and Service Transformation
Document Owner	Clinical Effectiveness Lead
Lead Director or Associate Director	Executive Medical Director
Scope	Trust-wide
Equality impact assessed (EIA) Completed on	Yes /
Status	Approved
Confidentiality	Unrestricted
Keywords	Venous thromboembolism, VTE, deep vein thrombosis, DVT, pulmonary embolism, PE, assessment, prophylaxis, low molecular weight heparin(LMWH), anti-embolic stockings

Ratification

Signature of Chairman of Approving Body	
Name / Job Title of Chairman of approving Body:	Prof Chris Gray, Exec Medical Director Quality and Healthcare Governance Committee
Date Ratified	
Signed copy held at (location):	Corporate Records Office, DMH

Prior to August 13th, this guideline was known as POL/N&G/0015

Contents

Document Control Information

Version control table

Date of issue	Version number	Status
June 2011	1.0	Superseded
September 2011	1.1	Superseded
October 2011	2.0	Superseded
January 2012	2.1	Superseded
23 February 2012	2.2	Superseded
13 August 2013	3.0	Superseded
22 March 2016	3.1	Approved

Table of revisions

Date	Section	Revision	Author
September 2011	Various sections	Revision of versions 1.0 –working draft documents taking into account peer comments	Helen Rutter – Clinical Effectiveness Lead
October 2011	Various sections	Revision of versions 1.1 –working draft documents taking into account peer comments	Helen Rutter – Clinical Effectiveness Lead
January 2012	11	Added to incorporate the Root Cause Analysis process for VTE episodes	Helen Rutter - Clinical Effectiveness Lead
February 2012	Monitoring	Monitoring mechanisms made more specific.	Helen Rutter - Clinical Effectiveness Lead
July 2013	Full review	Up-date in line with NICE guidance. Make specific for in-patients only. Change from guideline to guideline following discussion at Clinical Standards and Therapeutics Committee 07/08/2013	Helen Rutter – Clinical Effectiveness Lead Dr S Cowie – Consultant physician Dr A Foden - Consultant physician Members of VTE Group
5 February 2015	Appendices	Appendix 3 DVT Treatment proformas for Urgent Care/ GP has been added to the document	David Gibson, Pharmacist

1. Introduction

Venous thromboembolism (VTE), in either the form of deep vein thrombosis (DVT) or pulmonary embolism (PE) has been identified as being one of the main causes of morbidity and mortality in medical and surgical patients. Both present with a large range of clinical symptoms ranging from asymptomatic DVT to life threatening, acute PE.
VTE has a high mortality when untreated but treatment also carries risks, principally haemorrhage. Therefore, accurate confirmation of diagnosis is essential in all patients, usually by imaging. In addition, the duration of treatment with antithrombotics requires individual and careful consideration of the balance of benefits (reduced risk of long term complications and recurrent thrombosis) and risks (principally haemorrhage)[1]

2. Scope

- This guideline applies to adult patients who are either admitted with or develop symptoms of either DVT or PE whist an in-patient within the Trust.
- Adherence to this guideline is the responsibility of all Trust employees
- Obstetric patients will be treated in line with guideline GUID/MAT/1316 'Management of DVT and pulmonary embolism during pregnancy and the puerperium' and GUID/MAT/1015 'Management of massive PE'
- The recommendations in this guideline must be implemented taking into account the patient's individual clinical situation and the clinical judgement of the clinician in charge of their care.
- Assessment and prophylaxis guidance is in POL/N&G/0013 Guideline for Venous Thromboembolism (VTE) risk assessment and prophylaxis in adult patients admitted to hospital

3. Purpose

To ensure safe, standardised, evidence based approach to the diagnosis and treatment of patients who are either admitted with or develop symptoms of either DVT or PE whist an in-patient within the County Durham and Darlington NHS Foundation Trust.

4. Definitions

For the purpose of this guideline the following definitions stand.
VTE: Venous thromboembolism
PE: Pulmonary embolism
DVT: Deep vein thrombosis
LMWH: Low molecular weight heparin
CTPA: Computed tomographic pulmonary angiography
CXR: Chest x-ray
VKA: Vitamin K antagonist

5. Duties

- Medical Director. The Medical Director has overall clinical responsibility and will report issues as they arise to the Board
- VTE Group. The VTE Group is responsible for overseeing the development and implementation of the guidelines for the diagnosis, treatment and management of VTE.
- Clinical Directors. Clinical Directors are responsible for implementation within Care Group.
- Medical staff. Medical staff are responsible for carrying out appropriate diagnostics and prescribing appropriate treatment.
- Nursing staff. Ward nursing staff are responsible delivering treatment, medication and care as prescribed by medical staff.

6. Diagnostic investigations for deep vein thrombosis(see appendix 1)

6.1 If a patient presents with signs or symptoms of deep vein thrombosis (DVT), carry out an assessment of their general medical history and a physical examination to exclude other causes.

6.2 If DVT is suspected, use the two-level DVT Wells score (see table 1) to estimate the clinical probability of DVT and record the likelihood in patient notes.

Table 1

Clinical feature	**Points**
Active cancer (treatment on-going, within 6 months, or palliative)	1
Paralysis, paresis or recent plaster immobilisation of the lower extremities	1
Recently bedridden for 3 days or more or major surgery within 12 weeks requiring general or regional anaesthesia	1
Localised tenderness along the distribution of the deep venous system	1
Entire leg swollen	1
Calf swelling at least 3 cm larger than asymptomatic side	1
Pitting oedema confined to the symptomatic leg	1
Collateral superficial veins (non-varicose)	1
Previously documented DVT	1
An alternative diagnosis is at least as likely as DVT	−2
Clinical probability simplified score	
DVT *likely*	2 points or more
DVT *unlikely*	1 point or less
Adapted with permission from Wells PS et al. (2003) Evaluation of D-dimer in the diagnosis of suspected deep-vein thrombosis. New England Journal of Medicine 349: 1227–35	

6.3 Offer patients in whom DVT is suspected and with a ***likely*** two-level DVT Wells score (see table 1):

- parenteral anticoagulation and a proximal leg vein ultrasound scan and, if the result is negative, a D-dimer test
  or
- a D-dimer test and an interim 24-hour dose of a parenteral anticoagulant (if a proximal leg vein ultrasound scan cannot be carried out within 4 hours) and a proximal leg vein ultrasound scan carried out within 24 hours of being requested.

Consider repeating the proximal leg vein ultrasound scan 6–8 days later in patients with a positive D-dimer test and a negative proximal leg vein ultrasound scan if clinically indicated.

6.4 Offer patients in whom DVT is suspected and with an ***unlikely*** two-level DVT Wells score (see table 1 above) a D-dimer test and if the result is positive offer:

- parenteral anticoagulation and a proximal leg vein ultrasound scan

or

- an interim 24-hour dose of a parenteral anticoagulant (if a proximal leg vein ultrasound scan cannot be carried out within 4 hours) and a proximal leg vein ultrasound scan carried out within 24 hours of being requested

6.5 Diagnose DVT and treat (see CCDFT guidelines) patients with a positive proximal leg vein ultrasound scan.

6.6 Take into consideration alternative diagnosis in patients with:

- an *unlikely* two-level DVT Wells score (see table 1) **and**
  - a negative D-dimer test, **or**
  - a positive D-dimer test and a negative proximal leg vein ultrasound scan.

- a *likely* two-level DVT Wells score (see table 1) **and**
  - a negative proximal leg vein ultrasound scan and a negative D-dimer test, **or**
  - a repeat negative proximal leg vein ultrasound scan.

Advise patients in these two groups that it is not likely they have DVT, and discuss with them the signs and symptoms of DVT and when and where to seek further medical help.

7. Diagnostic investigations for pulmonary embolism (see appendix 2)

7.1 If a patient presents with signs or symptoms of pulmonary embolism (PE), carry out an assessment of their general medical history, a physical examination and a chest X-ray to exclude other causes.

7.2 If PE is suspected, use the two-level PE Wells score (see table 2) to estimate the clinical probability of PE and record the likelihood in patient notes.

Table 2

Clinical feature	**Points**
Clinical signs and symptoms of DVT(minimum of leg swelling and pain with palpation of the deep veins)	3
An alternative diagnosis is less likely than PE	3
Heart rate > 100 beats per minute	1.5
Immobilisation for more than 3 days or surgery in the previous 4 weeks	1.5
Previous DVT/PE	1.5
Haemoptysis	1
Malignancy(on treatment, treated in the last 6 months)	1
Clinical probability simplified score	
PE *likely*	More than 4 points
PE *unlikely*	4 points or less
Adapted with permission from Wells PS et al. (2000) Derivation of a simple model to categorize patients' probability of pulmonary embolism: increasing the model's utility with the SimpliRED D-dimer. Thrombosis and Haemostasis 83: 416-20	

7.3 Offer patients in whom PE is suspected and with a *likely* two-level PE Wells score (see table 2):

- immediate interim parenteral anticoagulant therapy followed by a CTPA or VQ SPECT scan, **or**
- immediate interim parenteral anticoagulant therapy followed by a CTPA, if a CTPA cannot be carried out immediately.

Consider a proximal leg vein ultrasound scan if the imaging is negative and DVT is suspected.

7.4 Offer patients in whom PE is suspected and with an *unlikely* two-level PE Wells score (see table 2) a D-dimer test and if the result is positive offer:

- an immediate CTPA, **or**
- immediate interim parenteral anticoagulant therapy followed by a CTPA or VQ SPECT scan

7.5 All patients may be considered for a VQ SPECT scan. However patients will substantial abnormalities on the chest x-ray or have severe COPD are more likely to have significant ventilation abnormalities which may make interpretation difficult.

Patients who should be considered for a VQ SPECT include:

- Any patients who does not have known severe COPD or substantial abnormalities on a CXR
- Patient s ≤ 60 years, particularly younger women
- Patients who have allergies to contrast
- Patients who have poor renal function
- Pregnant patients

7.6 Diagnose PE and treat (see CDDFT treatment guidelines) patients with a positive CTPA or in whom PE is identified with a V/Q SPECT or planar scan.

7.7 Take into consideration alternative diagnoses in the following two groups of patients:

- Patients with an *unlikely* two-level PE Wells score (see table 2) and **either**:
  - a negative D-dimer test, **or**
  - a positive D-dimer test and negative imaging.

- Patients with a *likely* two-level PE Wells score (see table 2) and **both**:
  - a negative imaging **and**
  - no suspected DVT

Advise these patients that it is not likely they have PE and discuss with them the signs and symptoms of PE, and when and where to seek further medical help.

8. Patients with signs or symptoms of both deep vein thrombosis and pulmonary embolism

If a patient presents with signs or symptoms of both DVT (for example a swollen and/or painful leg) and PE (for example chest pain, shortness of breath or haemoptysis), carry out initial diagnostic investigations for either DVT or PE, basing the choice of diagnostic investigations on clinical judgment.

9. Treatment

9.1 Pharmacological interventions – Deep vein thrombosis or pulmonary embolism

9.1.1 See treatment guidelines CDDFT for DVT/PE; and for dose adjustment in renal impairment contact pharmacy and see guidelines.

For patients with PE and haemodynamic instability, offer UFH and consider thrombolytic therapy (see local guidelines)

9.1.2 Offer LMWH to patients with active cancer and confirmed proximal DVT or PE, and continue the LMWH for 6 months. At 6 months, assess the risks and benefits of continuing anticoagulation.

9.1.3 Offer a VKA to patients with confirmed proximal DVT or PE within 24 hours of diagnosis and continue the VKA for 3 months. Please ensure that referral to the anti-coagulation service and duration of therapy documented. Consider a clinical review of all patients with diagnosed DVT/PE in outpatients.

9.1.4 Offer a VKA beyond 3 months to patients with an unprovoked PE, taking into account the patient's risk of VTE recurrence and whether they are at increased risk of bleeding. Discuss with the patient the benefits and risks of extending their VKA treatment.

9.1.5 Consider extending the VKA beyond 3 months for patients with unprovoked proximal DVT if their risk of VTE recurrence is high and there is no additional risk of major bleeding. Discuss with the patient the benefits and risks of extending their VKA treatment.

9.2 Thrombolytic therapy (see local guidelines)

9.2.1 Deep vein thrombosis

Consider catheter-directed thrombolytic therapy for patients with symptomatic iliofemoral DVT who have:

- symptoms of less than 14 days' duration **and**
- good functional status **and**
- a life expectancy of 1 year or more **and**
- a low risk of bleeding.

9.2.2 Pulmonary embolism

- Consider pharmacological systemic thrombolytic therapy for patients with PE and haemodynamic **instability** (see CDDFT guidelines).
- Do not offer pharmacological systemic thrombolytic therapy to patients with PE and haemodynamic **stability** (see CDDFT guidelines)

9.3 Mechanical interventions – Proximal deep vein thrombosis or pulmonary embolism

9.3.1 Offer below-knee graduated compression stockings with an ankle pressure greater than 23 mmHg to patients with proximal DVT a week after diagnosis or when swelling is reduced sufficiently and if there are no contraindications[6], and:

- advise patients to continue wearing the stockings for at least 2 years
- ensure that the stockings are replaced two or three times per year or according to the manufacturer's instructions
- advise patients that the stockings need to be worn only on the affected leg or legs.

9.3.2 Offer temporary inferior vena caval filters to patients with proximal DVT or PE who cannot have anticoagulation treatment, and remove the inferior vena caval filter when the patient becomes eligible for anticoagulation treatment

9.3.3 Consider inferior vena caval filters for patients with recurrent proximal DVT or PE despite adequate anticoagulation treatment only after considering alternative treatments such as:

- increasing target INR to 3–4 for long-term high-intensity oral anticoagulant therapy, **or**
- switching treatment to LMWH.

9.3.4 Ensure that a strategy for removing the inferior vena caval filter at the earliest

possible opportunity is planned and documented when the filter is placed, and that the strategy is reviewed regularly.

Referral for IVC filter is made via the radiology department at UHND

10. Patient information

10.1 Give patients having anticoagulation treatment verbal and written information about:

- how to use anticoagulants
- duration of anticoagulation treatment
- possible side effects of anticoagulant treatment and what to do if these occur
- the effects of other medications, foods and alcohol on oral anticoagulation treatment
- monitoring their anticoagulant treatment
- how anticoagulants may affect their dental treatment
- taking anticoagulants if they are planning pregnancy or become pregnant
- how anticoagulants may affect activities such as sports and travel
- when and how to seek medical help.

10.2 Provide patients who are having anticoagulation treatment with an 'anticoagulant information booklet' and an 'anticoagulant alert card' and advise them to carry the 'anticoagulant alert card' at all times.

10.3 Be aware that heparins are of animal origin and this may be of concern to some patients. For patients who have concerns about using animal products, consider offering synthetic alternatives based on clinical judgment after discussing their suitability, advantages and disadvantages with the patient.

10.4 Advise patients about the correct application and use of below-knee graduated compression stockings, how long they should be worn and when they should be replaced.

11. Self-management and self-monitoring for patients treated with vitamin K antagonist (VKA)

Do not routinely offer self-management or self-monitoring of INR to patients who have had DVT or PE and are having treatment with a VKA.

12. Investigations for cancer

12.1 Offer all patients diagnosed with unprovoked DVT or PE who are not already known to have cancer the following investigations:

- a physical examination (guided by the patient's full history) **and**
- a chest X-ray (not needed if CTPA completed) **and**
- blood tests (full blood count, serum calcium and liver function tests) **and**
- urinalysis.

12.2 Consider further investigations for cancer with an abdomino-pelvic CT scan (and a mammogram for women) in all patients aged over 40 years with a first unprovoked DVT or PE who do not have signs or symptoms of cancer based on initial investigation.

13. Thrombophilia testing

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

13.2 Consider testing for antiphospholipid antibodies in patients who have had unprovoked DVT or PE if it is planned to stop anticoagulation treatment.

13.3 Consider testing for hereditary thrombophilia in patients who have had unprovoked DVT or PE and who have a first-degree relative who has had DVT or PE if it is planned to stop anticoagulation treatment.

13.4 Do not offer thrombophilia testing to patients who have had provoked DVT or PE.

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

14. Root Cause Analysis

The purpose of the Root Cause Analysis (RCA) is to determine the facts of a case, identify the root causes and make recommendations to prevent reoccurrence.

Following all confirmed VTE incidents, when the trust has provided care within 90 days of a VTE incident being identified, an RCA must be undertaken using the short VTE RCA template:

This is available at:
http://intranet/Directorates/CorporateDirectorates/NursingDirector/ClinGov/PatSafety/Root%20Cause%20Analysis/VTE%20RCA%20Investigation%20Tool%20(March%202013).doc

Consultants and teams have the responsibility to complete this work within 30 working days of the VTE event being recognised. Competed RCA's are to be sent to michelle.parry@cddft.nhs.uk or lorraine.stainsby@cddft.nhs.uk in the Patient Safety Team.

15. Monitoring

Monitoring criterion	Response
Who will perform the monitoring?	Clinical Effectiveness Lead VTE Group
What are you monitoring?	Methods of diagnosis used for suspected VTE and treatment once a positive diagnosis has been made in line with trust guideline.
When will the monitoring be performed?	Annually
How are you going to monitor?	Annual audit of patients with DVT or PE who have been in-patients during consecutive months looking at their diagnosis and treatment management.
What happens if any shortfalls are identified	Information will be provided to Care Groups for them to address relevant issues
Where will the results of the monitoring be reported?	VTE Group and Care Groups for action. Clinical Audit Committee for information.
How will the resulting action plan be progressed and monitored?	Action plans will be developed by Care Group representation in the VTE group and disseminated for action. VTE group will monitor progress.
How will learning	Dissemination of key results and actions throughout the trust. Targeted work in

take place?	areas where there is a deficit. VTE Group minutes to be fed into QHGC.

16. References and sources of information

NICE CG 144 Venous thromboembolic diseases: the management of venous thromboembolic diseases and the role of thrombophilia testing (June 2012)

SIGN (Scottish Intercollegiate Guidelines Network) (2010) Prevention and management of venous thromboembolism.

17. Associated documents

- Policy for the Development and Management of Guideline and Guidance Documents
- Policy for Venous Thromboembolism (VTE) risk assessment and prophylaxis in adult patients admitted to hospital
- Incident Management policy

18. Equality Impact Assessment

Equality Analysis / Impact Assessment

Full Assessment Form **v2/2011**

Division/Department:	Patient Safety and Governance
Title of guideline, procedure, decision, project, function or service:	Guideline for Venous Thromboembolism (VTE) diagnosis and treatment
Lead person responsible:	Clinical Effectiveness Lead
People involved with completing this:	Denise Kirkup. Head of Assurance and Compliance

Type of guideline, procedure, decision, project, function or service:

Existing ☐

New/proposed ☐

Changed ✓

What is the aim of your guideline, procedure, project, decision, function or service and how does it relate to equality?

The guideline describes the process for diagnosing a suspected deep vein thrombosis or pulmonary embolism and the appropriate treatment if confirmed..

Who is the guideline, procedure, project, decision, function or service going to benefit and how?

Guidance for staff on diagnosis and treatment. Benefit for patients for in providing staff with this guidance.

What outcomes do you want to achieve?

Correct diagnosis and treatment of deep vein thrombosis or pulmonary embolism.

What barriers are there to achieving these outcomes?

Staff awareness and implementation of the guideline.

How will you put your guideline, procedure, project, decision, function or service into practice?

Implementation of guideline via VTE Group, governance forums and via the intranet.

Does this guideline link, align or conflict with any other guideline, procedure, project, decision, function or service?

Yes, Guideline for Venous Thromboembolism (VTE) risk assessment and prophylaxis in adult patients admitted to hospital

Step 2 – Collecting your information

What existing information / data do you have?

Annual audit and Root Cause Analysis

Who have you consulted with?

VTE Group members, Pharmacy, radiology and appropriate staff within Care Groups

What are the gaps and how do you plan to collect what is missing?

No gaps identified.

Step 3 – What is the impact?

Using the information from Step 2 explain if there is an impact or potential for impact on staff or people in the community with characteristics protected under the Equality Act 2010?

Ethnicity or Race

None

Sex/Gender

None

Age

None.

Disability

None.

Religion or Belief

None.

Sexual Orientation

None

Marriage and Civil Partnership

None

Pregnancy and Maternity

Specific guidance is available for obstetric patients.

Gender Reassignment

None.

Other socially excluded groups or communities e.g. rural community, socially excluded, carers, areas of deprivation, low literacy skills

None.

Step 4 – What are the differences?

Are any groups affected in a different way to others as a result of the guideline, procedure, project, decision, function or service?

No

Does your guideline, procedure, project, decision, function or service discriminate against anyone with characteristics protected under the Equality Act?

Yes ☐ **No** ✓

If yes, explain the justification for this. If it cannot be justified, how are you going to change it to remove or mitigate the affect?

Not applicable.

Step 5 – Make a decision based on steps 2 - 4

If you are in a position to introduce the guideline, procedure, project, decision, function or service? Clearly show how this has been decided.

Agreed, approved and implemented with agreement of the VTE Group and Quality and Healthcare Governance Committee.

If you are in a position to introduce the guideline, procedure, project, decision, function or service, but still have information to collect, changes to make or actions to complete to ensure all people affected have been covered please list:

N/A

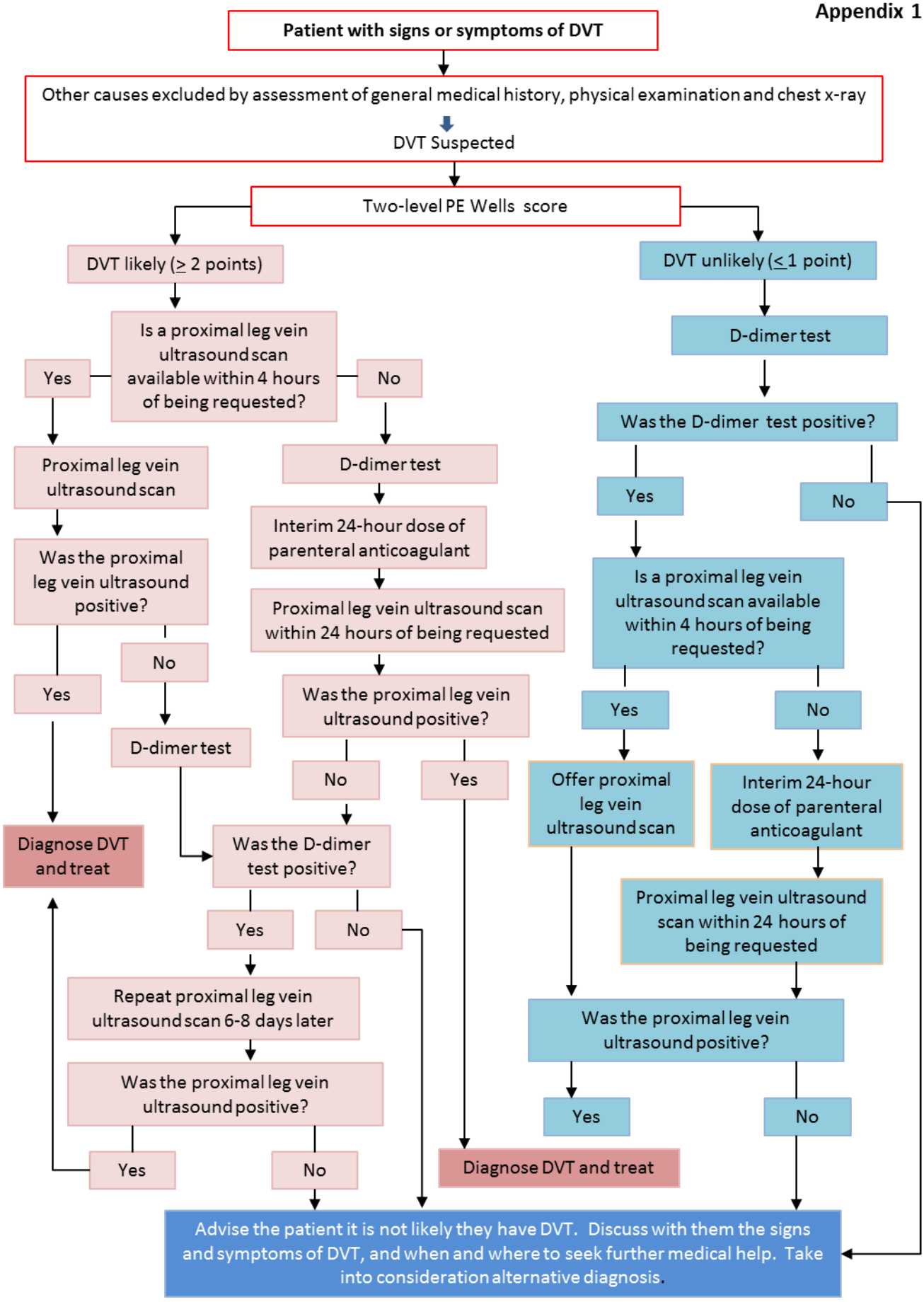
How are you going to monitor this guideline, procedure, project or service, how often and who will be responsible?

Monitoring as described in section 12.

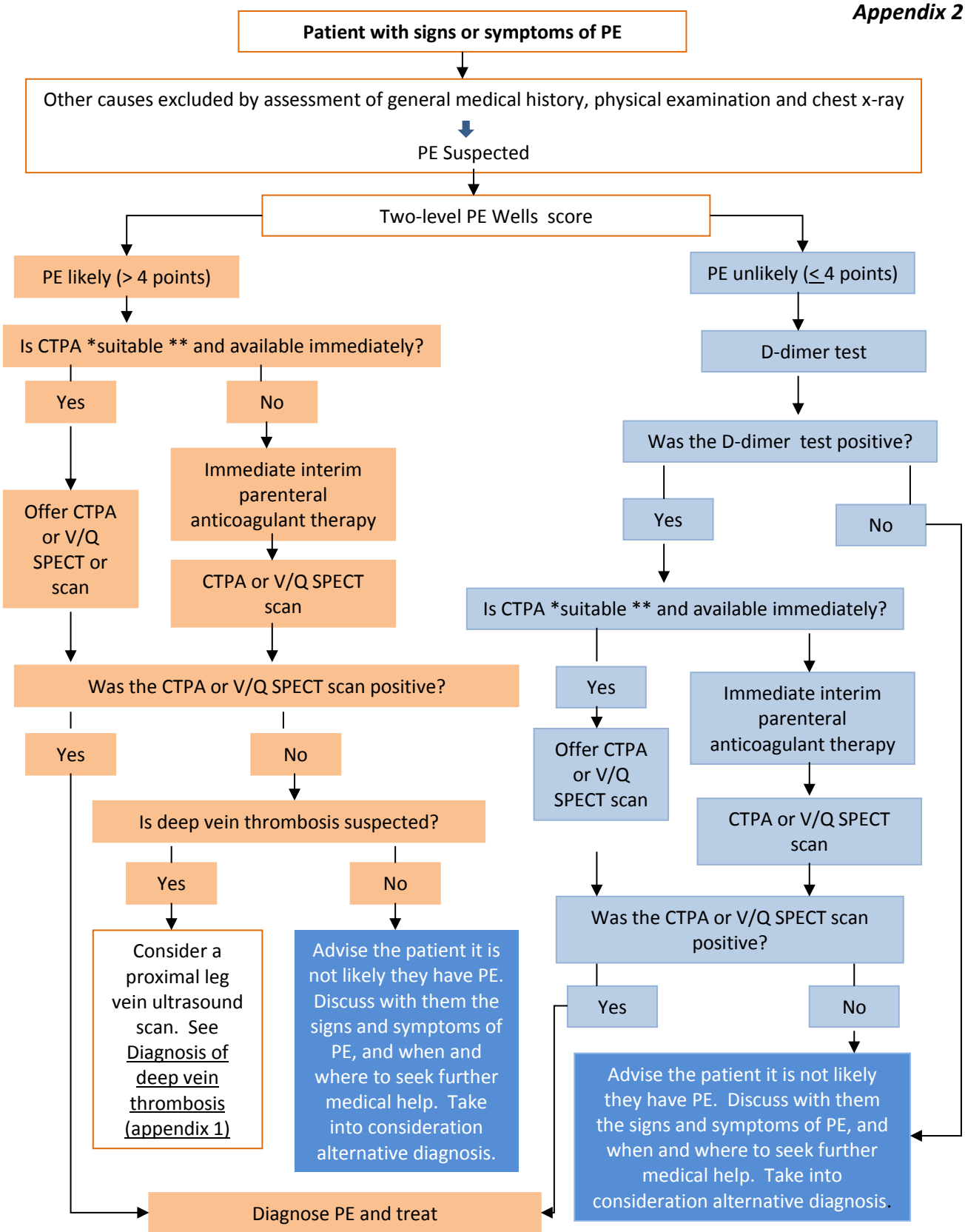
Step 6 – Completion and central collation

Once completed this Equality Analysis form must be attached to any documentation to which it relates and must be forwarded to Jillian Wilkins, Equality and Diversity Lead. jillian.wilkins@cddft.nhs.uk

Appendix 1


Patient with signs or symptoms of DVT
Other causes excluded by assessment of general medical history, physical examination and chest x-ray
DVT Suspected
Two-level PE Wells score
DVT likely (≥ 2 points)
DVT unlikely (≤1 point)
Is a proximal leg vein ultrasound scan available within 4 hours of being requested?
Yes
No
Proximal leg vein ultrasound scan
Was the proximal leg vein ultrasound positive?
Yes
No
Diagnose DVT and treat
D-dimer test
Was the D-dimer test positive?
Yes
No
Repeat proximal leg vein ultrasound scan 6-8 days later
Was the proximal leg vein ultrasound positive?
Yes
No
D-dimer test
Interim 24-hour dose of parenteral anticoagulant
Proximal leg vein ultrasound scan within 24 hours of being requested
Was the proximal leg vein ultrasound positive?
No
Yes
Diagnose DVT and treat
D-dimer test
Was the D-dimer test positive?
Yes
No
Is a proximal leg vein ultrasound scan available within 4 hours of being requested?
Yes
No
Offer proximal leg vein ultrasound scan
Interim 24-hour dose of parenteral anticoagulant
Proximal leg vein ultrasound scan within 24 hours of being requested
Was the proximal leg vein ultrasound positive?
Yes
No
Diagnose DVT and treat
Advise the patient 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. Take into consideration alternative diagnosis.

Appendix 2



* Computed tomography pulmonary angiogram

**For patients who have an allergy to contrast media, or who have renal impairment, or whose risk from irradiation is high, assess the suitability of V/Q SPECT, or if not available, V/Q planar scan, as an alternative to CTPA

Appendix 3 DVT Treatment proformas for Urgent Care/ GP

DVT Investigation Proforma – Enoxaparin

Please use In conjunction with GP Summary of Change document

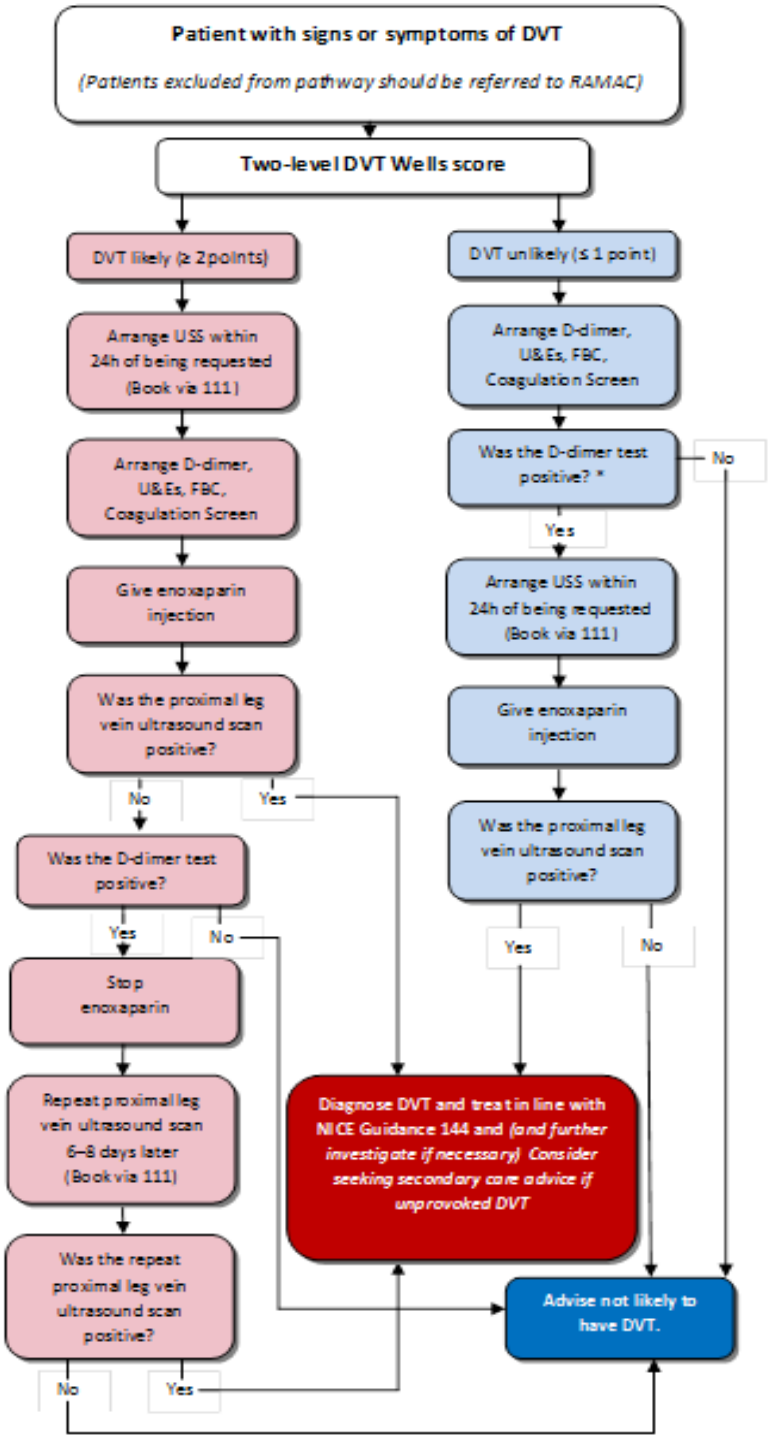
GP:

Patient name: Date of birth: Tel No:

NHS Number:

Two-level DVT Wells score		
Active cancer (treatment ongoing, within 6 months, or palliative)	1	☐
Paralysis, paresis or recent plaster immobilisation of the lower extremities	1	☐
Recently bedridden for 3 days or more or major surgery within 12 weeks requiring general or regional anaesthesia	1	☐
Localised tenderness along the distribution of the deep venous system	1	☐
Entire leg swollen	1	☐
Calf swelling ≥ 3 cm larger than asymptomatic side	1	☐
Pitting oedema confined to the symptomatic leg	1	☐
Collateral superficial veins (non-varicose)	1	☐
Previously documented DVT	1	☐
An alternative diagnosis is at least as likely as DVT	-2	☐
DVT likely - 2 points or more **DVT unlikely - 1 point or less**		

Suitable for primary care Rx with enoxaparin?	
☐ **NO, because of one or more of the reasons below**	
Pregnancy or breastfeeding/post-partum	☐
Age <18 years	☐
Currently on warfarin or low molecular weight heparin	☐
Symptoms of PE	☐
Systolic BP >180 or diastolic >115	☐
Anticipated compliance problems even with support (e.g. mental illness or alcohol or drug misuse, inability to follow instructions)	☐
Severe renal impairment (CKD stage 5) eGFR < 15ml/min/1.73m^2	☐
Known liver failure	☐
Potential bleeding lesions e.g.GI, GU, or intracranial bleed <4/52 ago	☐
Congenital or acquired bleeding disorders or platelets <90 x 10^9/L	☐
☐ **YES , as none of the above**	



Please note LMWH usual choice for patients with active cancer but please read GP Summary of Change document

*D-dimer result should be asked for urgently. In the situation where the d-dimer result in a DVT unlikely patient 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 or enoxaparin, and if this ok then it may be appropriate to give an interim dose whilst waiting for the result.

DVT Investigation Proforma – Rivaroxaban

Please use in conjunction with GP Summary of Change document

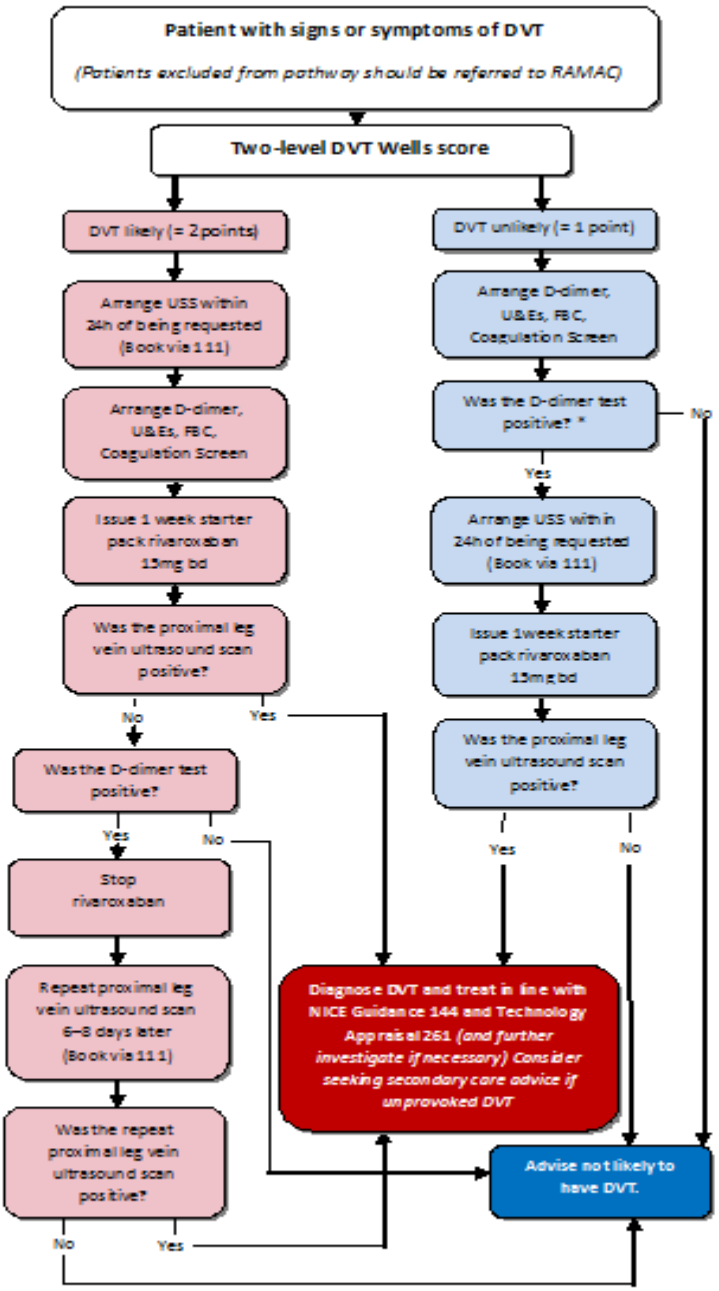
GP:

Patient name: Date of birth: Tel No:

NHS Number:

Two-level DVT Wells score		
Active cancer (treatment ongoing, within 6 months, or palliative)	1	☐
Paralysis, paresis or recent plaster immobilisation of the lower extremities	1	☐
Recently bedridden for 3 days or more or major surgery within 12 weeks requiring general or regional anaesthesia	1	☐
Localised tenderness along the distribution of the deep venous system	1	☐
Entire leg swollen	1	☐
Calf swelling = 3 cm larger than asymptomatic side	1	☐
Pitting oedema confined to the symptomatic leg	1	☐
Collateral superficial veins (non-varicose)	1	☐
Previously documented DVT	1	☐
An alternative diagnosis is at least as likely as DVT	-2	☐
DVT likely - 2 points or more **DVT unlikely - 1 point or less**		

Suitable for primary care Rx with rivaroxaban?	
☐ NO, because of one or more of the reasons below	
Pregnancy or breastfeeding/post-partum	☐
Age <18 years	☐
Currently on warfarin or low molecular weight heparin	☐
Symptoms of PE	☐
Systolic BP >180 or diastolic > 115	☐
Anticipated compliance problems even with support (e.g. mental illness or alcohol or drug misuse, inability to follow instructions)	☐
Severe renal impairment (CKD stage 5) eGFR < 15ml/min/1.73m^2	☐
Known liver failure	☐
Potential bleeding lesions e.g.GI, GU, or intracranial bleed <4/52 ago	☐
Congenital or acquired bleeding disorders or platelets <80 x 10^9/L	☐
On contra-indicated drugs (see notes)	☐
☐ YES, as none of the above	



Please note LMWH usual choice for patients with active cancer but please read GP Summary of Change document

D-dimer result should be asked for urgently. In the situation where the d-dimer result in a DVT unlikely patient 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 or enoxaparin, and if this ok then it may be appropriate to give an interim dose whilst waiting for the result