Document Control

Title

VTE Prophylaxis for Elective Orthopaedic Surgery Policy

Author	**Author's job title** Pharmacist
Directorate Surgery & Theatres	**Department** Orthopaedics

Version	Date Issued	Status	Comment / Changes / Approval
0.1	Apr 2016	Draft	Initial version for consultation
1.0	Feb 2017	Final	Approved by DTG and Executive Group of NEW Devon CCG
2.0	June 2018	Final	Changes made to prophylaxis strategies in line with NICE guideline

Main Contact	**Tel: Direct Dial** **Tel:** **Email:**

Lead Director
Associate medical director for planned care

Superseded Documents
None

Issue Date	**Review Date**	**Review Cycle**
June 2018	June 2021	Three years

Consulted with the following stakeholders:

- Orthopaedic Consultants
- Drug and Therapeutics Group
- Pharmacy

Approval and Review Process

- DTG
- Executive Group of NEW Devon CCG

Local Archive Reference
G:\Compliance\Policies and procedures\Published policies\Orthopaedics

Local Path
Orthopaedic folder

Filename
VTE Prophylaxis for Elective Orthopaedic Surgery Policy

Policy categories for Trust's internal website (Bob)	**Tags for Trust's internal website (Bob)**
Orthopaedics, Surgery & Theatres	Hip replacement, Knee replacement, VTE prophylaxis

CONTENTS

Document Control ... 1
1. Purpose ... 3
2. Definitions ... 3
3. Responsibilities ... 3
4. VTE prophylaxis recommendations: ... 4
5. Monitoring Compliance with and the Effectiveness of the Policy ... 7
6. Equality Impact Assessment ... 7
7. References ... 8
8. Associated Documentation ... 9

1. Purpose

1.1. The purpose of this document is to detail the process for preventing venous thromboembolic events post operatively in elective orthopaedic surgery.

1.2. The policy applies to all trust staff involved.

1.3. Implementation of this policy will ensure that:

- Appropriate VTE prophylaxis is provided during admission and discharge

2. Definitions

2.1. VTE – Venous thromboembolism – blood clot in the deep veins

2.2. THR – total hip replacement

2.3. TKR – total knee replacement

2.4. OD – Once daily

3. Responsibilities

3.1. Orthopaedic surgeons – ensure appropriate VTE prophylaxis is documented on the operation note in accordance with current guidance and ensure that deviation from NICE guidance is discussed with the patient and documented appropriately in the notes.

3.2. Junior doctors – Ensure VTE prophylaxis is appropriately prescribed during admission and on discharge and ensure that a discussion has taken place with the patient where NICE guidance is not followed.

3.3. Nursing staff – ensure VTE prophylaxis is prescribed by doctor post operatively and check against operation note.

3.4. Pharmacists – Ensure VTE prophylaxis is appropriately prescribed during admission and discharge.

4. VTE prophylaxis recommendations:

Elective Hip replacement

Standard Risk	• Foot pumps until mobile • **Enoxaparin** (Clexane) –subcutaneously OD. Starting 8 hours post-operatively for 10 days. 40mg if eGFR>= 30ml/min 20mg if eGFR<30ml/min • Then **aspirin** 150mg orally, OD for 28 days after enoxaparin course complete • **Lansoprazole** 30mg OD while patient taking aspirin
High Risk Previous PE/DVT, Clotting disorder, history of malignancy Allergy to aspirin	• Use Standard risk protocol as default • Selected patients should be offered **rivaroxaban** instead of enoxaparin and aspirin in line with NICE guidance. • 10mg OD started 6-10 hours after surgery for 35 days. • Rivaroxaban has shown a lower incidence of VTE in trials, but is associated with a higher bleeding risk than Enoxaparin/aspirin.
Other options	• Patients who are not suitable for the above may be offered: • Enoxaparin daily for 28 days post operatively • Apixaban within its licensed indications Patients on direct oral anticoagulants prior to admission for non-orthopaedic indications will generally be on higher doses than the licensed Orthopaedic VTE prevention doses. As such a clinical decision should be made regarding whether to continue on their normal anticoagulation or adjust their dose in line with orthopaedic licensing.

Elective knee replacement

Standard Risk	• **Aspirin** – 150mg orally, OD for 14 days post-operatively • **Lansoprazole** 30mg OD while patient taking aspirin
High Risk Previous PE/DVT, Clotting disorder, history of malignancy Allergy to aspirin	• Use Standard risk protocol as default • Selected patients should be offered **rivaroxaban** in line with NICE guidance. • 10mg started 6-10 hours after surgery OD for 14 days. • Rivaroxaban has shown a lower incidence of VTE in trials, but is associated with a higher bleeding risk than Enoxaparin/aspirin. **Or – if eGFR<30** • Anti-embolism Stockings until discharge • **Enoxaparin** (Clexane) –subcutaneously OD. Starting 8 hours post-operatively for 14 days. 40mg if eGFR>= 30ml/min 20mg if eGFR<30ml/min
Other options	• Patients who are not suitable for the above may be offered: • Enoxaparin daily for 14 days post operatively • Apixaban within its licensed indications Patients on direct oral anticoagulants prior to admission for non-orthopaedic indications will generally be on higher doses than the licensed Orthopaedic VTE prevention doses. As such a clinical decision should be made regarding whether to continue on their normal anticoagulation or adjust their dose in line with orthopaedic licensing.

Other Surgery

Elective Non-arthroplasty orthopaedic knee surgery	For high risk patients and total anaesthesia time greater than 90 minutes offer VTE prophylaxis if VTE risk outweighs bleeding risk **Enoxaparin** (Clexane) – 8 hours after surgery for 14 days.
Foot and Ankle orthopaedic surgery	Consider pharmacological prophylaxis for patients that meet one of the following criteria: • Patients requires immobilisation – Consider stopping prophylaxis if immobilisation continues beyond 42 days • Total anaesthesia time greater than 90 minutes • Patient VTE risk outweighs risk of bleeding For these patients consider the use of **enoxaparin** while at elevated VTE risk
Elective spinal surgery	Offer mechanical prophylaxis • Anti-embolism stockings until discharge Consider **enoxaparin** for patients whose risk of VTE outweighs risk of bleeding. Start 14-48 hours postoperatively and continue until discharge

5. Monitoring Compliance with and the Effectiveness of the Policy

Standards/ Key Performance Indicators

5.1. Key performance indicators comprise:

- Nosocomial VTE numbers

Process for Implementation and Monitoring Compliance and Effectiveness

5.2. Orthopaedic teaching.

5.3. Detail here the monitoring process:

- Yearly audit

6. Equality Impact Assessment

6.1. The author must include the Equality Impact Assessment Table and identify whether the policy has a positive or negative impact on any of the groups listed. The Author must make comment on how the policy makes this impact.

Table 1: Equality impact Assessment

Group	Positive Impact	Negative Impact	No Impact	Comment
Age			x	
Disability			x	
Gender			x	
Gender Reassignment			x	
Human Rights (rights to privacy, dignity, liberty and non-degrading treatment)			x	
Marriage and civil partnership			x	
Pregnancy			x	
Maternity and Breastfeeding			x	
Race (ethnic origin)			x	
Religion (or belief)			x	
Sexual Orientation			x	

7. References

- NG89 - Venous thromboembolism in over 16s: reducing the risk of hospital-acquired deep vein thrombosis or pulmonary embolism [CG89] Published date: March 2018

8. Associated Documentation

- Trust Anticoagulation Policy
- Trust medicines policy