Trust Guideline for Thromboprophylaxis in Adult Medical Inpatients >16 years of age

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	All wards with medical inpatients		
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V1.0	Dec-2011	Dr Peter Woodhouse	To originate document
V6.0	Nov-2014	Dr Ajay Kamath	Minor amendments made
V7.0	May-2019	Dr Ajay Kamath	Full review
V8.0	Nov-2019	Dr Ajay Kamath	Guidance on Neurological Injury (excluding stroke) and Patients Repatriated following Neurosurgery added.
V9.0	January 2024	Dr Hamish Lyall Dr Nicola Gray	Updated to comply with NICE guidance and tranferred to new template.

Previous Titles for this Document:

Previous Title/Amalgamated Titles	Date Revised
None	Not applicable

Distribution Control

Printed copies of this document should be considered out of date. The most up to date version is available from the Trust Intranet.

Consultation

The original guideline was written by Dr. Peter Woodhouse on behalf of the then Haemostasis and Thrombosis Committee who approved its content. It was subsequently distributed in draft form to all consultant physicians for comments. Suggested amendments were incorporated. The document was revised in May 2007 in the light of the report from the DOH working group on thromboprophylaxis and again, in June 2010 following the publication of NICE guideline 92. The guideline has been re-worked to comply with the Department of Health's latest version of their risk assessment tool for venous thromboembolism. A minor edit to the audit standards was carried out in October 2010. Version 6 was approved by the Thrombosis and Thromboprophylaxis Committee in November 2014. The guideline was updated by Dr Ajay Kamath to align with updated NICE Guidance published in March 2018 and Version 7 was supported by the Thrombosis and Thromboprophylaxis Committee in May 2019. Version 8 was supported by the Thrombosis and Thromboprophylaxis Committee in November 2019. The current version (version 9) was reviewed and updated by Dr Hamish Lyall, Consultant Haematologist, and Dr Nicola Gray, Consultant in Respiratory Medicines, and was supported by the Thrombosis and Thromboprophylaxis Committee in January 2024.

Monitoring and Review of Procedural Document

The document owner is responsible for monitoring and reviewing the effectiveness of this Procedural Document. This review is continuous however as a minimum will be achieved at the point this procedural document requires a review e.g. changes in legislation, findings from incidents or document expiry.

Relationship of this document to other procedural documents

This document is a clinical guideline applicable to the Norfolk & Norwich University Hospital NHS Foundation Trust (NNUHFT); please refer to local Trust's procedural documents for further guidance, as noted in Section 4.

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1. Introduction

1.1. Rationale

Venous thromboembolism (VTE) is a recognised cause of morbidity and mortality in acutely ill medical patients admiited to hospital. Thromboprophylaxis can reduce the risk.

It is a national requirement that thrombosis risk assessments are performed on all patients admitted to hospital and that thromboprophylaxis is offered where indicated.

Guidelines for VTE risk assessment and Thrombosis prevention are set out in guidance from the National Institute for Health and Social Care Excellence (NICE).

1.2. Objective

The objective of the clinical guideline is to ensure that the risk of venous thromboembolism (VTE) is minimised in hospitalised medical patients.

This guideline should be read in conjunction with General Principles of the Prevention of Venothromboembolism (VTE) in Adult Patients Trustdocs Id: 7539

1.3. Scope

This guideline covers thromboprophylaxis for adult medical inpatients.

1.4. Glossary

The following terms and abbreviations have been used within this document:

Term	Definition
AES	Anti-embolism stockings
DVT	Deep Vein Thrombosis
EPMA	Electronic Prescribing and Medicines Administration
FBC	Full blood count
HIT	Heparin Induced Thrombocytopaenia
LMWH	Low Molecular Weight Heparin
NICE	National Institute for Health and Social Care Excellence
NNUH	Norfolk & Norwich University Hospital NHS Foundation Trust
PE	Pulmonary Embolism
T&T	Thrombosis & Thromboprophylaxis Committee
TRA	Thrombosis Risk Assessment
VTE	Venous thromboembolism

2. Responsibilities

- The Thrombosis and Thromboprophylaxis Committee is responsible for reviewing and updating this guideline.
- All staff who provide thromboprophylaxis for adult medical inpatients at NNUHFT should ensure they remain up to date with this guideline.

3. Processes to be followed

This guideline should be used in conjunction with General Principles of the Prevention of Venothromboembolism (VTE) in Adult Patients Trustdocs Id: 7539

3.1. Risk Assessment

1. All patients should have risk assessment as soon as possible after admission to hospital
2. Reassessment of risk of VTE and bleeding to be carried out at consultant review or if clinical condition changes.
3. Risk assessment should be documented on EPMA TRA.
4. The initial step in the TRA requires 'medical patient expected to have ongoing reduced mobility relative to normal state' to be assessed. The NICE definition of reduced mobility is 'patients who are bed bound, unable to walk unaided or likely to spend a substantial proportion of their day in bed or in chair'. Most medical patients will fulfil this definition and should have this box ticked, and the remainder of the assessment completed.

3.2 Thromboprophylaxis

When indicated, start pharmacological VTE prophylaxis as soon as possible after risk assessment has been completed and within 14 hours of admission.

Use LMWH as first-line treatment. If an alternative to LMWH is required, use fondaparinux sodium.

Check FBC before starting LMWH.

Do not routinely use anti-embolism stockings (AES) in acutely ill medical patients. NICE guidance states there is no evidence they are effective in this patient population.

3.1.1. Acute coronary syndromes:

Patients receiving anticoagulant drugs as part of their treatment for an acute coronary syndrome do not usually need additional VTE prophylaxis.

3.1.2. Acute stroke patients:

Refer to Acute Stroke and Transient Ischaemic Attack in Adults Trustdocs Id: 1367

3.1.3. Renal impairment

If using LMWH VTE prophylaxis for people with renal impairment, see Dosing Advice Sheet LMWH for guidance on dose reduction: Trustdocs Id: 1697.
For fondaparinux see drug summary of product characteristics (SmPC)

3.1.4. Palliative care

Consider pharmacological VTE prophylaxis for people who are having palliative care. Take into account temporary increases in thrombotic risk factors, risk of bleeding, likely life expectancy and the views of the person and their family members or carers (as appropriate):
Do not offer VTE prophylaxis to people in the last days of life. Review VTE prophylaxis daily for people who are having palliative care, taking into account the views of the person, their family members or carers (as appropriate) and the multidisciplinary team.

3.1.5. Patients admitted to Critical Care:

Reassess VTE and bleeding risk daily for people in critical care units.
TRA to be done on Metavision.

3.1.6. Neurological Injury (excluding stroke)

NG89 recommends for patients with spinal injury, thromboprophylaxis with LMWH should be given, starting 24 hours after admission (unless having surgery in next 24-48 hours) and continuing for 30 days or until the person is mobile or discharged, whichever is sooner. However, current practice in rehabilitation units is to recommend a longer duration (3 months).

NNUH guidance is to consider VTE prophylaxis for up to 12 weeks (including on discharge or transfer to other units) for patients with NEW neurological injury resulting in substantial immobility (paraparesis, wheelchair or bed bound, WHO performance status 3 or 4).

For patients with acute stroke please refer Acute Stroke and Transient Ischaemic Attack in Adults Trustdocs Id1367

3.1.7. Patients repatriated following neurosurgery

LMWH/fondaparinux for minimum 7 days (from surgery)
Anti-embolism Stockings for 30 days or until discharge – whichever is sooner

3.1.8. Additional notes on thromboprophylaxis

Dose of LMWH: See Trust dosing advice sheet for LMWH Trustdocs Id 1697

Monitoring of FBC on LMWH: Routine monitoring is not required but a platelet count should be performed if a patient develops evidence of bleeding or bruising, an allergic/anaphylactic reaction to heparin, a new thrombotic event (arterial or venous) or skin necrosis at injection sites in case heparin induced thrombocytopenia (HIT) has developed. HIT is rare in medical patients, incidence estimated at <1% - see guideline Heparin Induced Thrombocytopenia in Adults Trustdocs Id 1251. Discontinue LMWH if HIT is suspected and seek haematological advice.

Duration of Treatment: NICE recommends offering pharmacological VTE prophylaxis for a minimum of 7 days to acutely ill medical patients whose risk of VTE outweighs their risk of bleeding. For medical patients whose hospital stay is < 7 days NNUH guidance for acutely ill medical patients admitted to hospital is that post discharge prophylactic LMWH/fondaparinux is not routinely required (see exception for spinal injury patients above). Treatment should continue until patient is fully mobile without VTE risk factors or discharged (licensed duration of dalteparin is for up to 14 days but longer durations are routinely used if ongoing thromboprophylaxis is required).

4. Related Documents

- General Principles of the Prevention of Venothromboembolism (VTE) in Adult Patients Trustdocs Id: 7539
- Trust dosing advice sheet for LMWH Trustdocs Id 1697
- Acute Stroke and Transient Ischaemic Attack in Adults Trustdocs Id; 1367

- Heparin Induced Thrombocytopenia in Adults Trustdocs Id 1251

5. References

1. Department of Health. Risk assessment for venous thromboembolism (VTE). 2010. http://webarchive.nationalarchives.gov.uk/20130107105354/http:/dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_088215

2. Venous thromboembolism in over 16s: reducing the risk of hospital-acquired deep vein thrombosis or pulmonary embolism NICE guideline (NG89) 2018.

6. Monitoring Compliance

Compliance with the process will be monitored through the following:

Key elements	Process for Monitoring	By Whom (Individual / group /committee)	Responsible Governance Committee /dept	Frequency of monitoring
All medical patients should undergo a Thrombosis Risk Assessment (TRA) on admission to hospital.	Audit	Information Services	Thrombosis & Thromboprophylaxis Committee	Annual
Appropriate pharmacological thromboprophylaxis should be prescribed for patients in whom it is indicated (and not contraindicated) according to the TRA,.	Audit using data from EPMA	VTE Team	Thrombosis & Thromboprophylaxis Committee	Annual

The audit results are to be discussed at Thrombosis & Thromboprophylaxis Committee (T&T) to review the results and recommendations for further action. Reported to the Clinical Safety and Effectiveness Sub-Board and sent the Clinical Audit Department who will ensure that the actions and recommendations are suitable and sufficient.

7. Appendices

There are no appendices for this document.

8. Equality Impact Assessment (EIA)

Type of function or policy	Existing

Division	Medicine	**Department**	N/A
Name of person completing form	Dr H Lyall Dr N Gray	**Date**	January 2024

Equality Area	**Potential** **Negative Impact**	**Impact** **Positive Impact**	**Which groups are affected**	**Full Impact Assessment Required YES/NO**
Race				No
Pregnancy & Maternity				No
Disability				No
Religion and beliefs				No
Sex				No
Gender reassignment				No
Sexual Orientation				No
Age				No
Marriage & Civil Partnership				No
EDS2 – How does this change impact the Equality and Diversity Strategic plan (contact HR or see EDS2 plan)?	This policy does not discriminate			

- **A full assessment will only be required if: The impact is potentially discriminatory under the general equality duty**
- **Any groups of patients/staff/visitors or communities could be potentially disadvantaged by the policy or function/service**
- **The policy or function/service is assessed to be of high significance**

IF IN DOUBT A FULL IMPACT ASSESSMENT FORM IS REQUIRED

The review of the existing policy re-affirms the rights of all groups and clarifies the individual, managerial and organisational responsibilities in line with statutory and best practice guidance.