

Thromboprophylaxis Policy (based on the All Wales Policy)

THIS IS THE HYWEL DDA HEALTH BOARD THROMBOPROPHYLAXIS POLICY ENDORSED BY THE THROMBOSIS COMMITTEE. THIS POLICY IS BASED ON THE ALL WALES POLICY.

Approved Hywel Dda University Health Board policies can be found on the [Policies and Procedures Approved section of the intranet](#)

Policy information

Policy number: **1120**

Classification: Clinical

Supersedes: 940

Version number: 1

Date of Equality Impact Assessment: 10/08/2023

Approval information

Approved by: Clinical Written Control Documentation Group

Date of approval: 21.8.2023 - *revised VTE form 11.2.2025*

Date made active 7.9.2023 – uploaded 11.2.2025

Review date: 21/08/2026

Summary of document:

This policy is based on [National Institute for Health and Care Excellence \(NICE\) Clinical Guideline \(NG\) 89](#) providing clear guidance regarding National Standards. The guideline forms the foundation for thromboprophylaxis risk assessment tools for use in all patient groups in Welsh Hospitals.

Scope:

All patients aged 16 years and over admitted into hospital are at risk of VTE. This includes patients discharged from hospital, including from Accident & Emergency and trauma clinics with lower limb devices, such as plaster casts or braces. Pregnant women admitted to hospital or a midwife-led unit including up to 6 weeks after giving birth. Also patients at high risk of VTE attending hospital for day case procedures including cancer treatment and surgery.

To be read in conjunction with:

[NICE Guidance 89 \(NG89\) – Venous thromboembolism in over 16s: reducing the risk of hospital-acquired deep vein thrombosis or pulmonary embolism](#) .(opens in a new tab).

NICE NG89 Treatment Intervention links:

[NICE has recommendations for specific conditions](#)

[Venous thromboembolism in over 16s: reducing the risk of hospital-acquired deep vein thrombosis or pulmonary embolism \(NG 89\)](#) .(opens in a new tab).

- [Risk assessment](#) .(opens in a new tab).
- [Giving information and planning for discharge](#) .(opens in a new tab).
- [All patients](#) .(opens in a new tab).
- [Interventions for people with acute coronary syndromes or acute stroke or for acutely ill patients](#) .(opens in a new tab).
- [Interventions for people with renal impairment](#) .(opens in a new tab).
- [Interventions for people with cancer](#) .(opens in a new tab).
- [Interventions for people having palliative care](#) .(opens in a new tab).
- [Interventions for people admitted to critical care](#) .(opens in a new tab).
- [Interventions for people with psychiatric illness](#) .(opens in a new tab).
- [Interventions when using anaesthesia](#) .(opens in a new tab).
- [Interventions for people having orthopaedic surgery](#) .(opens in a new tab).
- [Interventions for people having elective spinal surgery or cranial surgery or people with spinal injury](#) .(opens in a new tab).
- [Interventions for people with major trauma](#) .(opens in a new tab).
- [Interventions for people having abdominal, thoracic or head and neck surgery](#) .(opens in a new tab).
- [Interventions for people having cardiac or vascular surgery](#) .(opens in a new tab).
- [Interventions for pregnant women and women who gave birth or had a miscarriage or termination of pregnancy in the past 6 weeks](#) .(opens in a new tab).

Patient information:

[Lowering Your Risk of Blood Clots \(Thrombosis UK 2019\)](#) .(opens in a new tab).

[EIDO Patient Information Library](#) .(opens in a new tab).

Owning group:

Thrombosis Group 13/07/2022

Executive Director job title:

Phil Kloer - Medical Director and Deputy CEO

Reviews and updates:

1 – new policy (replaces 940)

2 – updated MCP risk assessment form 5.2.2025 and removal of the Covid VTE Risk assessment as no longer required 11.2.2025

Keywords

All Wales Thromboprophylaxis Policy, Venous Thromboembolism, risk assessment

Glossary of terms

NICE

National Institute for Health and care Excellence

NG
VTE
RCA
HAT

National Institute for Health and care Excellence (NICE) Guidance
Venous Thromboembolism
Root Cause Analysis
Hospital Acquired Thrombosis



All Wales Thromboprophylaxis Policy

This policy is based on [National Institute for Health and Care Excellence \(NICE\) Clinical Guideline \(NG\) 89](#) .(opens in a new tab). providing clear guidance regarding National Standards. The guideline forms the foundation for thromboprophylaxis risk assessment tools for use in all patient groups in Welsh Hospitals.

Table of Contents

1.	Overview	5
2.	Background	5
3.	Policy Statements	6
4.	Principles	7
5.	Scope of Policy	7
6.	Policy Review	8
7.	Duties and Responsibilities	8
a.	Overarching Managerial Responsibility	8
b.	Admitting Doctor / Clinician	8
c.	Nurses.....	7
d.	Obstetrician / Midwife	9
e.	Pharmacists	8
8.	Education	8
9.	Audit	8
10.	Tools and Documents	10
11.	Epidural	9
12.	NICE NG89 Treatment Intervention links:	10
13.	Other Links	11
14.	Links to NG 89 – Miscellaneous information	11
15.	Website Links	11
16.	Appendix (Patient information).....	12

Overview

This guideline covers assessing and reducing the risk of Venous Thromboembolism (VTE) in people aged 16 and over in Welsh hospitals. It aims to help healthcare professionals identify people most at risk and describes treatments and interventions that can be used to reduce the risk of VTE utilising [NICE Guidance 89 \(NG89\) – Venous thromboembolism in over 16s: reducing the risk of hospital-acquired deep vein thrombosis or pulmonary embolism](#) (opens in a new tab).

Who is it this policy for?

- Healthcare professionals

Who does this policy cover?

- All patients aged 16 years and over admitted into hospital are at risk of VTE. This includes patients discharged from hospital, including from Accident & Emergency and trauma clinics with lower limb devices, such as plaster casts or braces. Pregnant women admitted to hospital or a midwife-led unit including up to 6 weeks after giving birth. Also patients at high risk of VTE attending hospital for day case procedures including cancer treatment and surgery.

Background

Up to 60% of all VTEs are hospital-acquired, accounting for 10% of all hospital deaths and is the number one cause of preventable hospital mortality (thrombosisuk.org/thrombosis-statistics.php) (opens in a new tab). Many deaths are preventable if patients are offered a VTE risk assessment on admission to hospital and when required appropriate thromboprophylaxis. The House of Commons Select Committee Report on the Prevention of Venous Thromboembolism in hospitalised patients first addressed the situation in February 2005. In May 2012, the [Welsh Assembly Government Health and Social Care committee held a one-day enquiry into Venous Thrombo-embolism Prevention in Welsh hospitals](#)[http://www.senedd.assembly.wales/documents/s10561/Venous thromboembolism prevention in hospitalised patients in Wales - Report - October 2012.pdf](http://www.senedd.assembly.wales/documents/s10561/Venous%20thromboembolism%20prevention%20in%20hospitalised%20patients%20in%20Wales%20-%20Report%20-%20October%202012.pdf) (opens in a new tab). The All Wales Thrombosis Group manages the implementation of the [NICE NG89](#) (opens in a new tab) clinical guidance, and Health boards are expected to internally review and report all Hospital Acquired Thrombosis (HAT) through a means of continuous Root Cause Analysis (RCA).

Five recommendations were made following the one-day enquiry in May 2012:

Recommendation 1: Compliance with relevant NICE guidance.

Recommendation 2: Clinicians are mandated to carry out VTE risk assessment for all hospitalised patients and prescribe thromboprophylaxis as appropriate.

Recommendation 3: Health boards will develop a standardised method of demonstrating their HAT rate.

Recommendation 4: An investigation will be undertaken for all patients who develop a VTE during their hospital stay or within 90 days following discharge to establish if the event is hospital acquired.

Recommendation 5: Health boards work together to raise awareness amongst patients and clinicians of the risks of developing HAT.

[NICE NG89 \(updated August 2019\)](#) (opens in a new tab) was released in 2018 providing clear guidance regarding National Standards. The guideline forms the foundation for thromboprophylaxis risk assessment tools for all patient groups.

Policy Statements

All patients aged 16 years and over admitted to Welsh hospitals must be fully assessed for their risk of VTE. The risk assessment should not only consider the individuals risk of VTE but also their risk of bleeding and any other conditions which may affect the appropriateness of administering thromboprophylaxis.

- All patients admitted the Health Board will have their risk of developing a VTE assessed on admission:

Using a tool published by a national UK body, professional network or peer reviewed journal as a reference and / or as a clinical document.

Hywel Dda has formally approved Risk Assessment form:

[HDUHB VTE Risk Assessment](#) .(opens in a new tab).

Following assessment the Clinician needs to refer to the appropriate treatment intervention as per [NICE NG89](#) .(opens in a new tab). and prescribe pharmacological and/or mechanical prophylaxis as appropriate in accordance with local formulary.

Documenting treatment choice on the VTE prophylaxis section found within the [All Wales In-Patient Medication Administration Record](#). (opens in a new tab).

- Where thromboprophylaxis, chemical or mechanical, is **not** required or is contraindicated this **MUST** be clearly documented on the VTE prophylaxis section found within the prescription chart and documented in the patient's medical notes.
- Reassess all appropriate inpatients for risk of VTE and bleeding at the point of senior medical review or if their clinical condition changes. See recommendations [1.1.8 Re Assessment of Risk of VTE and bleeding \(NICE NG89\)](#)
- The clinical notes of all patients who develop a VTE during their current inpatient admission (length of stay to be greater than 24 hours of being admitted) or having had a hospital inpatient admission (length of stay to be greater than 24 hours) in the health board within the previous 90 days following discharge will be reviewed to establish whether:
 - A thromboprophylaxis risk assessment has been completed on admission as per Health Board policy.
 - Appropriate treatment has been offered.

Where the answer to either of these questions is 'No' a proportionate investigation will be undertaken to establish if the HAT was potentially preventable.

- The number of suspected HAT cases related to a hospital stay are collated by the Health Board monthly and the proportionate Investigation with associated actions are reported to local governance meetings.

Principles

Consultants and relevant clinicians within their teams, supported by nursing and pharmacy staff, are responsible for the uptake of thromboprophylaxis risk assessment for all patients on admission and for re-assessment during the hospital stay.

All patients receiving thromboprophylaxis will be given a full explanation of the need for treatment, as per [NICE NG89](#). (opens in a new tab). , supported by an appropriate patient information leaflet, such as [Lowering Your Risk of Blood Clots \(Thrombosis UK 2019\)](#). (opens in a new tab). _or EIDO: Reducing your risk of developing a blood clot (DP01) or a locally developed patient information leaflet professionally or peer reviewed.

Scope of Policy

This policy applies to all patients 16 years and over admitted to hospital.

Policy Review

The Health Board's Thrombosis Group, are responsible for facilitating, reviewing and ratifying this policy, clinical guidelines and risk assessments 3 yearly or earlier if required.

Duties and Responsibilities

Overarching Managerial Responsibility

Clinical Directors / Heads of Nursing / Heads of Midwifery / Heads of Pharmacy are responsible for ensuring that this policy and associated clinical guidance, procedures and risk assessments are available for the relevant staff within their clinical area.

Admitting Doctor / Clinician

It is the responsibility of the clinician:

- To assess each patient as soon as possible within 14 hours after admission to hospital or by the time of the first senior medical review using the risk assessment appropriate to the speciality as a clinical document and prescribe appropriate treatment on the [All Wales In-Patient Medication Administration Record](#) .(opens in a new tab)..
- To balance the person's individual risk of VTE against their risk of bleeding when deciding whether to offer pharmacological thromboprophylaxis to all inpatients.
- If using pharmacological VTE prophylaxis for medical, mental health, gynaecological and maternity patients, start it as soon as possible and within 14 hours of admission, unless otherwise stated in the population-specific recommendations (see [NG89 sections 1.4 to 1.9](#)) .(opens in a new tab)..
- If using pharmacological VTE prophylaxis for surgical and trauma patients, start it as soon as possible and within 14 hours of admission, unless otherwise stated in the population-specific recommendations (see [NG89 sections 1.10 to 1.15](#)) .(opens in a new tab)..
- To **document** any decision not to treat or any deviation from the guidelines in the patient case notes.
- To re-assess all hospitalised patients for their risk of VTE at the point of senior medical review and/or if their clinical condition changes.
- To inform patients why they are having thromboprophylaxis treatment.

Nurses

It is the responsibility of the qualified nurse to:

- Prompt the responsible clinician to ensure all patients are risk assessed as soon as possible after admission to hospital or by the time of the first senior medical review and then prompt reassessment as their clinical condition changes.
- Ensure the prescribed thromboprophylaxis is administered as required and documented on the [All Wales InPatient Medication Administration Record](#) .(opens in a new tab)..
- Support the clinician in informing the patient why they are having or not having thromboprophylaxis treatment.
- Supply each patient on admission or in pre-assessment clinic with a VTE patient information leaflet explaining need for risk assessment on admission, thromboprophylaxis during their hospital stay and VTE prevention advice on discharge from hospital.

Obstetrician / Midwife / Nurse/ Gynaecologist

It is the responsibility of the obstetrician / midwife to:

- Assess all patients on admission to hospital or a midwife-led unit if they are pregnant or have given birth, had a miscarriage or had a termination of pregnancy in the past 6 weeks, to identify their risk of VTE and bleeding.

Use a tool published by a national UK body, professional network or peer-reviewed journal. The Royal College of Obstetricians and Gynaecologists Green-top Guideline No 37a – RCOG (2015), developed the most used risk assessment tool.

[HDUHB Obstetric VTE policy with risk assessment](#) .(opens in a new tab).

- Reassess risk of VTE and bleeding, and assess the need for thromboprophylaxis for all patients: within 6 hours of giving birth, having a miscarriage or a termination of pregnancy **or** if their clinical condition changes **and** they:
 - are pregnant **or**
- have given birth, had a miscarriage or had a termination of pregnancy within the past 6 weeks
- Inform the patient why they are having or not having thromboprophylaxis treatment.
- Ensure the prescribed thromboprophylaxis is administered as required and documented on the [All Wales InPatient Medication Administration Record](#) .(opens in a new tab).
- Supply each patient on admission or in ante-natal clinic with a VTE patient information leaflet explaining the need for a risk assessment on admission, thromboprophylaxis during their hospital stay and VTE prevention advice on discharge from hospital ([Appendix 1](#))

Epidural

Following insertion of epidural catheter – low molecular weight heparin (LMWH) eg. Enoxaparin or unfractionated heparin should not be administered for 4 hours. Rivaroxaban or apixaban should not be given for 6 hours

Before removing the catheter:

At least 12 hours should elapse between the removal of the epidural catheter and the last prophylactic dose of Low Molecular Weight Heparin (e.g. enoxaparin 20mg or 40mg) or 4 hours if unfractionated heparin is being used.

- If the patient is receiving a therapeutic dose of LMWH (e.g. enoxaparin >40mg daily) then 24 hours should elapse between the last dose given and the time that the epidural catheter is removed.
- The next dose of LMWH (eg enoxaparin, and unfractionated should not be administered

for at least 4 hours following the removal of the epidural catheter.

Epidural Analgesia Guideline (337)

Pharmacists

It is the responsibility of the pharmacist to:

Check that patients have appropriate thromboprophylaxis prescribed when reviewing the [All Wales In-Patient Medication Administration Record](#). (opens in a new tab).

- Support nurses and midwives in prompting the clinical teams to complete VTE risk assessments.
- Support the clinician in informing the patient why it is recommended or not that they are having thromboprophylaxis treatment.

Education

Ensure all clinicians responsible for undertaking VTE prophylaxis risk assessment or re-assessment have received the necessary competence to undertake their duties safely.

- Those staff caring for patients undertaking mechanical or chemical VTE prophylaxis treatment must have the necessary competences to undertake their duties safely.
- Completion of the NHS Wales Venous Clots Explained (part 1) E-learning module is recommended for all patient facing staff (Registrants and Non-Registrants). Completion of NHS Wales Venous Thromboembolism (VTE) (part 2) module is recommended for all patient facing staff (Registrants).
 - Accessible via the ESR platform. Enter Venous Clots Explained (part 1) and Venous thromboembolism (part 2)

Audit

- VTE cases associated with a hospital admission, known as HAT, are collated via radiology and informatics and reported and investigated by the Quality Improvement team. These cases are validated by a process of proportionate investigation to determine if they are potentially preventable HATs and reported quarterly to local governance meetings to establish the number of potentially preventable HAT's across the health board.
- The rate of patients receiving a VTE risk assessment on the All Wales Medication Administration Record on admission to hospital can be collected from the 'Hospital Thermometer' 6 monthly audit, specifically from the VTE prophylaxis section within the [All Wales In-Patient Medication Administration Record](#), (opens in a new tab). or similar locally agreed method of audit or audit tool.

Tools and Documents

- The Health Board is responsible for the creation of VTE Risk assessment tools and documents associated and complying with this policy.

Important Information

7-day pharmacological thromboprophylaxis in medical patients: The most recent NICE guidance ([NG89](#)) recommended that all medical patients receive at least 7 days of pharmacological thromboprophylaxis.

Duration of thromboprophylaxis will be determined on an individual's clinical condition by the medical team

Some health boards and trusts in the UK have recommended against the use of routine extended (i.e. beyond discharge) pharmacological thromboprophylaxis in medical patients. Reasons for this decision include concerns around cost vs benefit ratio, validity of the key studies in modern practice, safety of home LMWH administration.

These concerns are in line with the [British Society of Haematology's](#) recent rebuttal to the NICE guidance.

Extended thromboprophylaxis in medical patients is currently not recommended within the American College of Chest Physicians ([ACCP 2012](#)) guidelines. Pharmacological thromboprophylaxis should be regularly reviewed. On discharge, post admission with an acute medical illness, if the patient's risk of VTE outweighs the risk of bleeding, NICE recommends considering continuing pharmacological thromboprophylaxis for a minimum of 7 days. If this is deemed necessary, it must be ensured that people who are discharged with pharmacological VTE prophylaxis are able to use it correctly, or have arrangements made for someone to be available who will be able to help them.

Dosing of pharmacological thromboprophylaxis:

[Dosing instructions for LMWH sit within the risk assessment tool.](#)

Prescribing mechanical thromboprophylaxis: When prescribing mechanical thromboprophylaxis only **one** device is to be prescribed and fitted at a time – there is no evidence to support the use of more than one mechanical device at the same time.

Prescribing unlicensed medications: At the time of publication ([NG89](#) - March 2018), Low Molecular Weight Heparin (LMWH), Fondaparinux, Apixaban, Dabigatran or Rivaroxaban did not have a UK marketing authorisation for use in patients 18 years and younger for use as thromboprophylaxis medication.

Aspirin does not have a UK marketing authorisation for use as thromboprophylaxis medication. However, it is NICE [NG89](#) approved for use as thromboprophylaxis in patients who have had a total hip replacement or total knee replacement. Within this patient group, the prescriber should follow relevant professional guidance, taking full responsibility for the decision. See the [General Medical Council's Prescribing guidance: prescribing unlicensed medicines](#) for further information.

Religious, social and cultural beliefs: Be aware that heparins are of animal origin and this may be of concern to some patients. Discuss the alternatives with patients who have

concerns about using animal products, after discussing their suitability, advantages and disadvantages with the person. The prescriber should seek advice from Pharmacy regarding an appropriate alternative. See [Religion or belief: a practical guide for the NHS](#).

Hywel Dda UHB has approved the following risk assessment tools:

[HDUHB VTE Risk Assessment](#) .(opens in a new tab).

[HDUHB VTE Risk Assessment Covid-19](#) .(opens in a new tab).

Or available via Welsh Clinical Portal:

[HDUHB Obstetric VTE policy with risk assessment](#) .(opens in a new tab).

Other Links:

[All Wales In-Patient Medication Administration Record](#) (opens in a new tab).

[TUK - Lowering Your Risk of Blood Clots: Patient information leaflet](#) (opens in a new tab).

[All Wales tissue viability Anti Embolism Stocking \(AES\) guidance](#) (opens in a new tab).

[525 Prescribing and Monitoring Low Molecular Weight Heparin Guidance](#)(opens in a new tab).

[484 Thromboprophylaxis Management of Patients with Temporary Lower Limb Immobilisation](#)

[620 Thromboprophylaxis in Pregnancy](#)(opens in a new tab).

[426 Direct Oral Anti-Coagulants \(DOAC's\) in Patients Undergoing Elective Surgery or Procedures Procedure](#)(opens in a new tab).

337 Epidural Analgesia Guideline

Links to NG 89 – Miscellaneous information

[Terms used in this guideline \(NG89\)](#) (opens in a new tab).

[Putting this guideline into practice](#) (opens in a new tab).

[Context](#)

[More information](#) (opens in a new tab).

[Recommendations for research](#) (opens in a new tab).

- [1 Risk assessment](#) (opens in a new tab).
- [2 Dose strategies for people who are obese](#) (opens in a new tab).

- [3 Direct oral anticoagulants for people with lower limb immobilisation](#) (opens in a new tab).
- [4 Aspirin prophylaxis for people with fragility fractures of the pelvis, hip or proximal femur](#) (opens in a new tab).
- [5 Duration of prophylaxis for elective total hip replacement surgery](#) [Update information](#)
[Recommendations that have been changed](#) (opens in a new tab).

Website Links

[Thrombosis UK](#) [Anticoagulation UK](#) [e-VTE](#) (opens in a new tab).

Appendix 1: Patient Information

[Preventing blood clots in pregnancy after birth](#) (opens in a new tab)

[EIDO Patient Information Library](#) (opens in a new tab).

[Lowering Your Risk of Blood Clots \(Thrombosis UK 2019\)](#) (opens in a new tab).