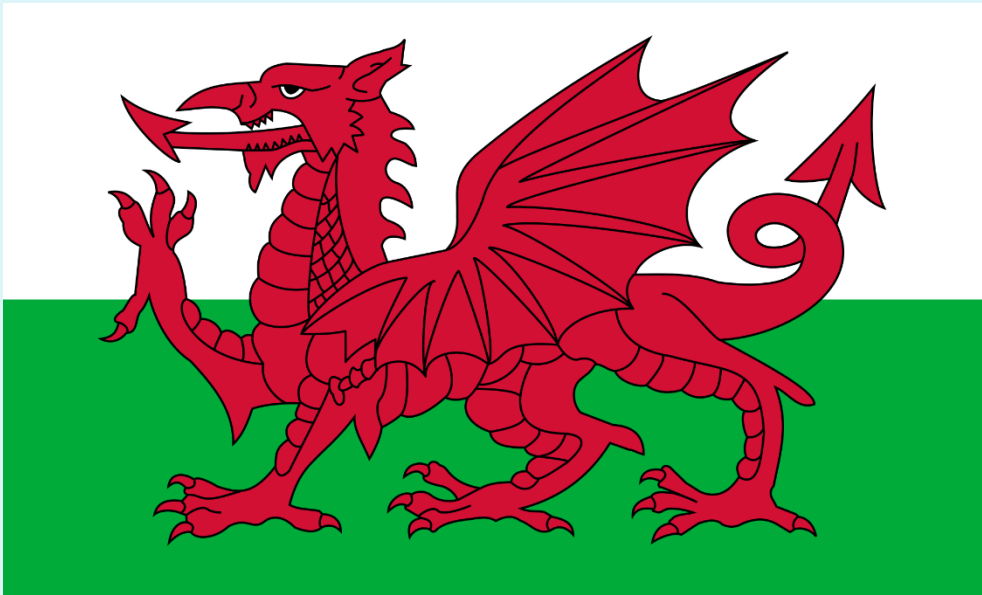


# The Development of a Nurse Led Thromboprophylaxis Re-Assessment Tool to Aid the Uptake of Thromboprophylaxis Risk Assessment



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# Background

- Venous Thromboembolism (VTE), the collective term for deep vein thrombosis (DVT) and pulmonary embolism (PE), is a major cause of death in the UK.
- A report by the House of Commons Health Committee in 2005 cited that between 25,000 and 32,000 deaths occur each year in the UK as a result of PE following a DVT in hospitalised patients, it is the immediate cause of death in 10 per cent of all patients who die in hospital.

# Background

Due to the high number of hospital deaths from PE and the risk patients were placed in when admitted to hospital a solution need to be found to reduce the risk and provide safer patient care.

# Background

- Supported by the Medical Director NHS England and the All Party Parliamentary Thrombosis Group English Hospital Trusts attached a CQUIN payment to the VTE Risk Assessment across the country to achieve a 95% uptake.
- This method proved very successful

# The situation in Wales

- Evidence provided to the Welsh Assembly Government Health and Social Care Committee by Lifeblood, the thrombosis charity, in the one day enquiry into Hospital Acquired Thrombosis in May 2012 stated that, in 2010, approximately 900 deaths in Wales were either due to or associated with hospital acquired thrombosis.
- The Committee was told that the majority of cases of hospital acquired thrombosis (HAT), as many as 70%, could be avoided if appropriate preventative measures were put in place.

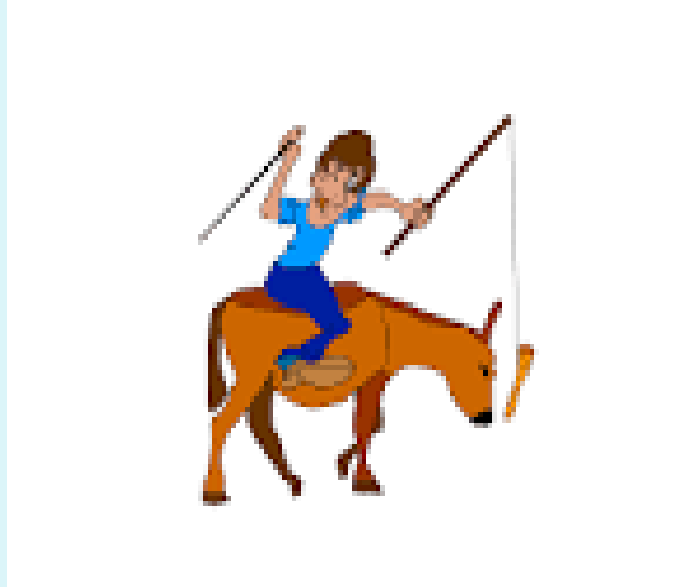
# The Situation

In 2010, approximately 900 deaths in Wales were either due to or associated with hospital acquired thrombosis.

Nobel S (2012) Health and Social Care Committee: One-day Welsh Assembly Government inquiry into venous thrombo-embolism prevention

# The way it is in Wales!!

## No CQUIN...Just a Carrot and a Stick



# Welsh Assembly Government

Welsh Assembly Government: Health and Social Care Committee - One day enquiry – 24<sup>th</sup> May 2012

5 Recommendations made:

- **1.** Compliance with NICE guidance made Tier 1 priority in Welsh HB's against which they will be performance managed
- **2.** Mandatory RA and consider prescribing appropriate TP
- **3.** Develop a standardised method to demonstrate a HAT rate for each hospital in Wales and at a national all Wales level
- **4.** A RCA should be undertaken on each case of venous thromboembolism (VTE) at Welsh hospitals during admission or within 3 months of discharge to establish whether they were hospital acquired or not, to commence in April 2014
- **5.** Raise awareness of the problem in the form of a public education campaign



# Challenge

- How do we ensure All patients are Risk Assessed and Re-assessed during their admission?
- How do we measure compliance across the HB?
- How do we sustain the service?
- How do we measure and report all HAT's

## **Abertawe Bro Morgannwg University HB Policy:**


- ALL Patients are Risk Assessed on admission to identify those at risk of developing a clot
- ALL Patients identified are offered appropriate treatment
- ALL admitted Patients will be Re-assessed daily or as their condition changes

# Strategy – Cross organisation & Multi-disciplinary representation

- Thrombosis & Anticoagulation Committee
- HAT Collaborative formed in 2010
- ABMUHB Thromboprophylaxis Policy
  
- VTE Guidance:
  - NICE CG 92 (2010)
  - 1000 Lives
  - Green top Guide (2015)
  
- Development of VTE Risk assessment tools

# VTE Risk Assessment Tool

Tool was designed utilising the NICE CG 92 Guidelines (2010) as adopted by the Welsh assembly Government



Bwrdd Iechyd Prifysgol  
Abertawe Bro Morgannwg  
University Health Board

IDENTIFY PATIENTS AT RISK OF VTE  
 PRESCRIBE PROPHYLAXIS ON  
 IN-PATIENT MEDICATION CHART **OR**  
 DOCUMENT REASON WHEN NO  
 THROMBOPROPHYLAXIS IS REQUIRED

THROMBOPROPHYLAXIS FOR ACUTE ADMISSIONS

Is the patient immobile or is mobility expected to be significantly reduced for >3 days?

**Yes**

↓

**Is patient aged 60 or over?**

↓ **Yes**

RISK FACTORS

Is patient under 60 with one of the following?

- Acute or exacerbation of heart failure
- Acute infection including pneumonia
- Active cancer or cancer treatment
- Dehydration
- Known thrombophilia
- Obesity (BMI > 30 kg/m<sup>2</sup>)
- Personal or family history of VTE
- Pregnancy or ≤ 6 weeks post partum\*
- \* (Discuss with Obs & Gynaec)
- Use of hormone replacement therapy
- Use of oestrogen-containing contraceptive therapy
- Varicose veins with phlebitis
- One or more significant medical co morbidities (i.e. Heart Disease, metabolic / respiratory pathologies, Inflammatory Disease)

**No**

↓

**Re-assess in 24 hours OR as the patient's condition dictates**

Does patient have contraindication to pharmacological thromboprophylaxis?

Pharmacological Methods

Prescribe **one** of the following according to local formulary

- Low Molecular Weight Heparin at prophylaxis dose (Enoxaparin is formulary choice except for cardiology where enoxaparin is formulary choice)
- For patients with contraindications to heparins (see below) consider Fondaparinux sodium (Arixtra) 2.5mg s/c od

Pharmacological considerations

- Consider decreased dose if creatinine clearance <30ml/min or consider unfractionated heparin
- Consider dose reduction in patients < 50kg

Consider offering mechanical VTE prophylaxis  
Anti-embolism stockings (thigh or knee length)

Contraindications to mechanical methods

- Suspected / proven peripheral arterial disease
- Peripheral arterial bypass grafting
- Cutaneous infections
- Peripheral neuropathy / sensor impairment
- Recent skin graft
- Known allergy to stocking materials
- Cardiac failure
- Severe leg or pulmonary oedema from CCF
- Unusual leg size, leg shape or deformity
- Skin conditions where stockings may cause damage i.e. fragile skin, dermatitis

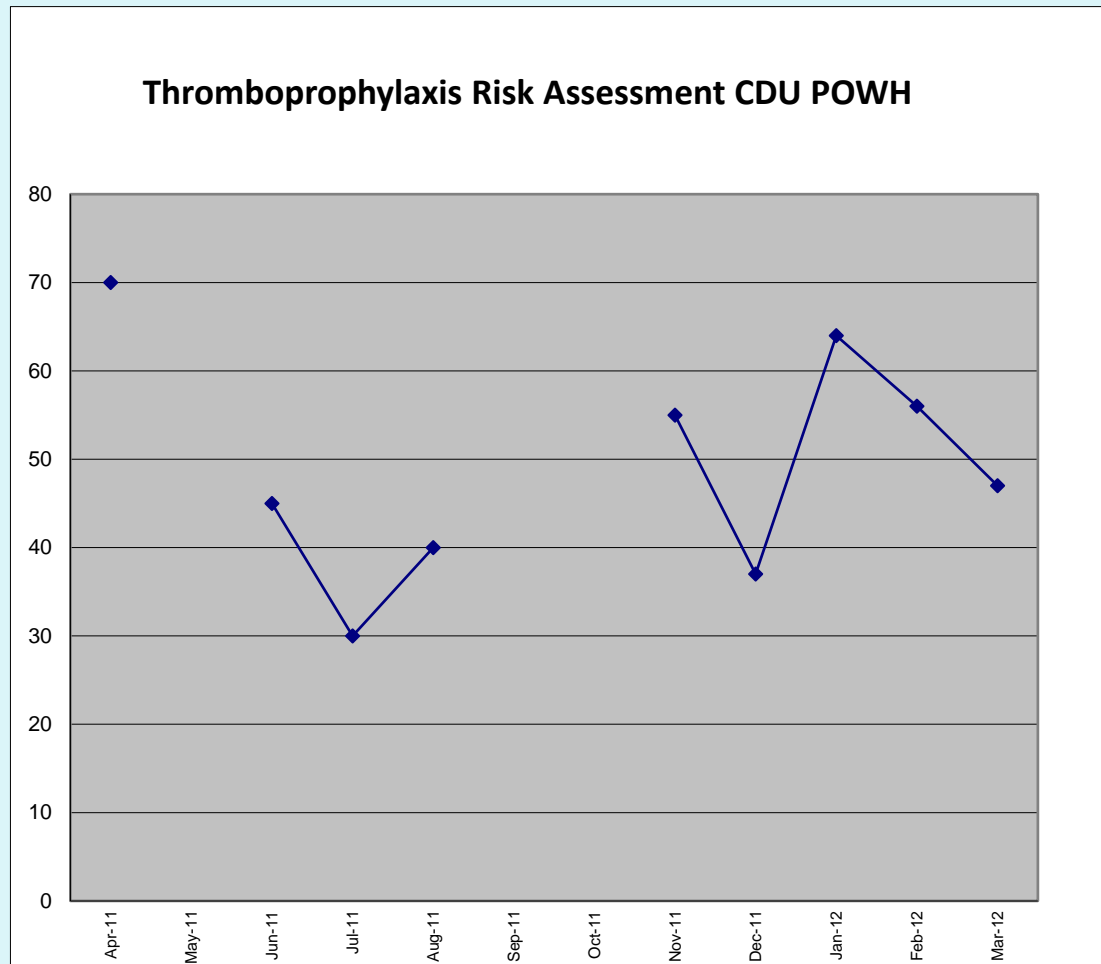
In acute stroke patients contact stroke specialist

Contraindications to pharmacological thromboprophylaxis

- Active bleeding or at risk of bleeding
- Already having therapeutic anticoagulation
- Uncontrolled systolic hypertension ≥180mmHg
- Bacterial endocarditis, pericarditis or thoracic aneurysm
- New-onset stroke or risk of central nervous system bleed e.g. head injury or previous SAH
- Severe liver disease
- Known bleeding disorder: discuss with haematologist
- Thrombocytopenia: platelet count < 70 x 10<sup>9</sup> /l
- Previous heparin induced thrombocytopenia (use Fondaparinux)
- Known heparin allergy (use Fondaparinux)
- Admitted for terminal care or on end of life pathway

TP Acute Admissions 25.11.13

# The Situation - POWH



# The Proposed Solution

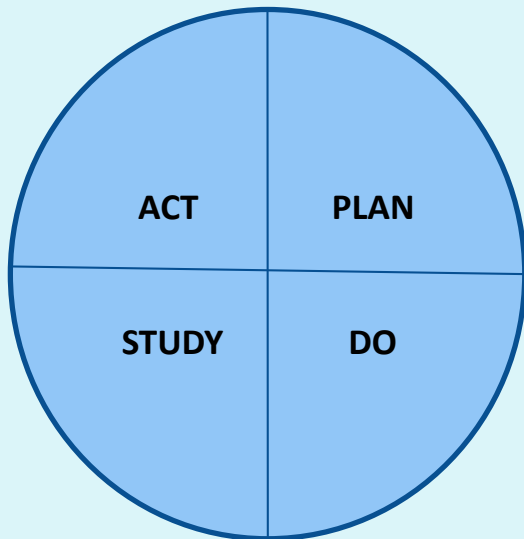
The purpose of the innovation was:

- Implement a Nurse led Thromboprophylaxis Re-assessment tool for use by ward based nurses
- Prompt clinicians to complete a Thromboprophylaxis Risk Assessment for **ALL** patients on admission as per HB policy
- The project involved all ward based nurses in the 3 areas. All Patients admitted into the care of ABMU HB are affected by the innovation.
- The tool was piloted on 3 wards utilising the Model for Improvement; in the Princess of Wales Hospital, Bridgend from March to July 2012.

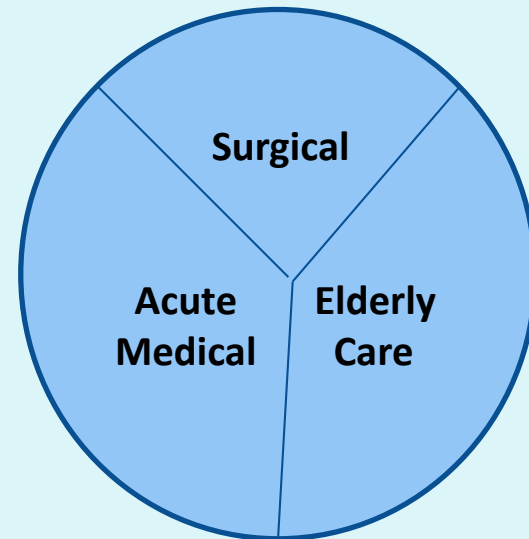


# Preparing for the Innovation

Between March and May 2012 the Model for Improvement was utilized and PDSA cycles were completed and evaluated on one ward to establish if the Thromboprophylaxis Re-assessment tool was fit for use



From April to July 2012 the new fit for purpose tool was piloted in two further wards in POWH Bridgend





# Preparing for the Innovation

August to November 2012 saw the re-design of the ward risk assessment pack which would now be home to the Thromboprophylaxis Re-assessment tool .

This pack is used on every ward throughout the HB

**GIG CYMRU NHS WALES** | Bwrdd Iechyd Prifysgol Abertawe Bro Morgannwg University Health Board

**ABMU HB Risk Assessment Forms**

ADDRESSOGRAPH

Ward

Hospital					
Ward					
Date					

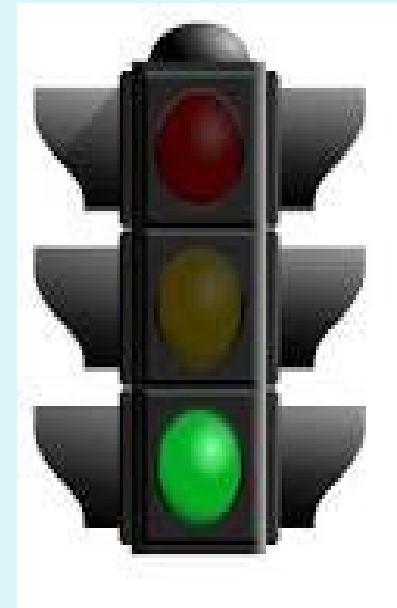
**CDU / SAU Manual Handling Assessment**  
**Patient Moving & Handling Assessment Form**  
**Pressure Ulcer Risk Assessment - Waterlow**  
**Skeletal Chart**  
**Thromboprophylaxis daily re-assessment**  
**Nutrition Risk Screening Tool**  
**Nutrition Risk assessment inpatient care plan**  
**Bed-rail Assessment**  
**Reducing Patient Falls - Flow Chart**  
**Patient Falls Risk Assessment Tool**  
**Patient Risk Management Plan (Falls)**  
**Unplanned Admission: Diarrhoea & Vomiting Check list**  
**Bristol Stool Chart**

All assessments to be undertaken on admission and updated weekly or as patients condition dictates.

\* Please note that an All Wales Manual Handling Assessment Form must also be completed on admission and the document must accompany the patient on all interdepartmental transfers.

# Getting The Green light

In November 2012 the ABMU HB Nurse and Midwifery Board granted permission to roll out the new Thromboprophylaxis Re-assessment tool and allowed it to be placed within the Welsh Care Metrics as a means of increasing the tools uptake and measuring quality of care at ward level.



# Roll Out

December 2012 –  
Thromboprophylaxis Re-  
assessment tool rolled out to ALL  
wards within the Health Board

March 2013 –  
Thromboprophylaxis Risk  
Assessment and Re-assessment go  
live on Welsh Care Metrics



# Compliance & Processes

- The reporting of Hospital Acquired Thrombosis (HAT) to the Welsh Assembly Government:
  - Chief execs informed of commencement of HAT reporting in all Welsh HB's
  - ABMUHB commenced HAT reporting in April 2014
  - HAT Reporting Guidance, Flowchart and template delivered to all HB's, revised September 2016

# Compliance & Processes

A RCA is undertaken in all reported VTE's found in hospitalised patients, or those within 90 days of discharge, if the case notes do not confirm that either one or both of the following actions have been implemented:

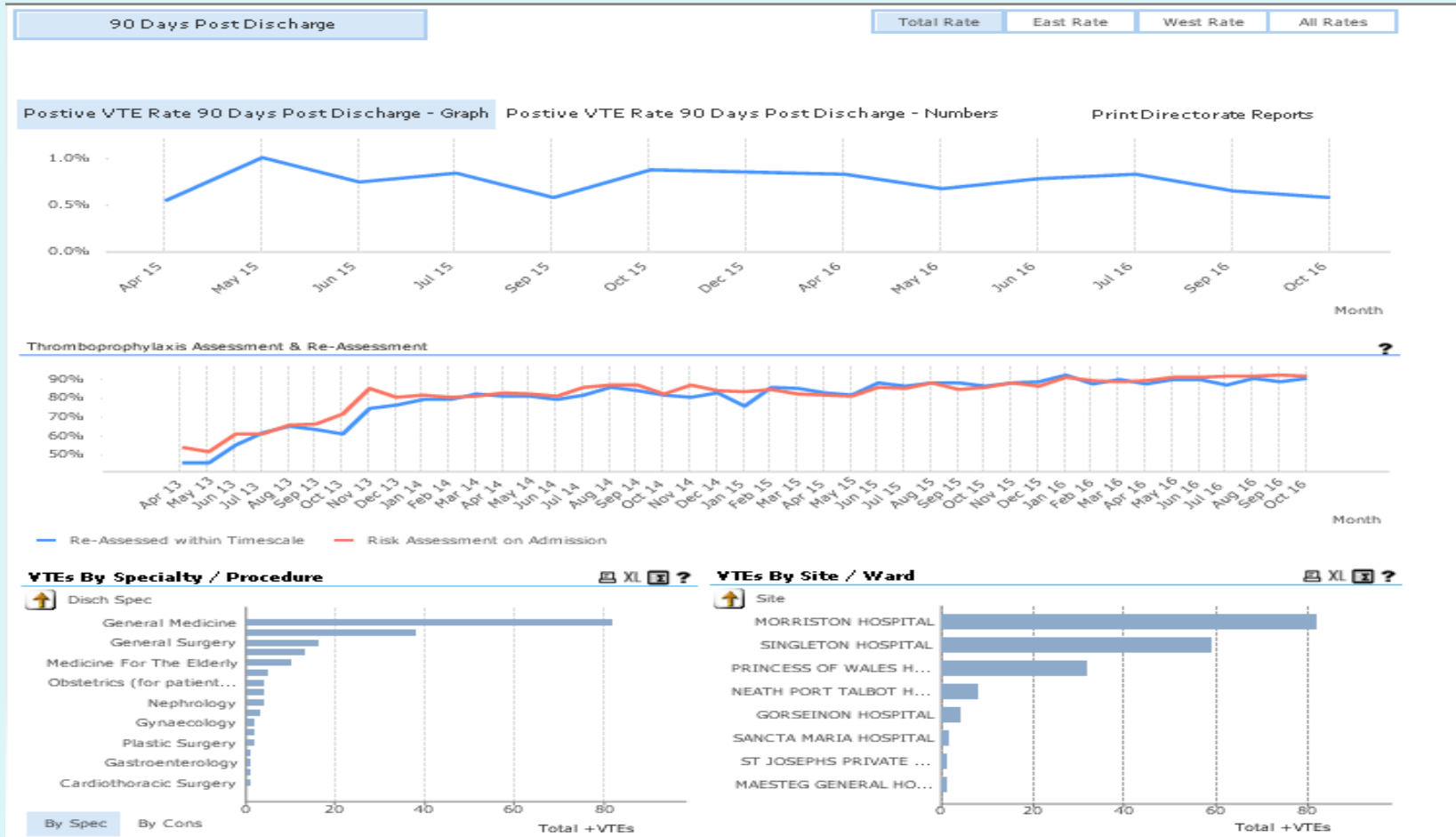
- A documented risk assessment performed
- The patient received appropriate thromboprophylaxis.

Following a RCA those patients found to be confirmed as having a HAT will be reported to the admitting consultant using the DATIX incident reporting system. This completes the investigation and provides feedback to improve future performance.

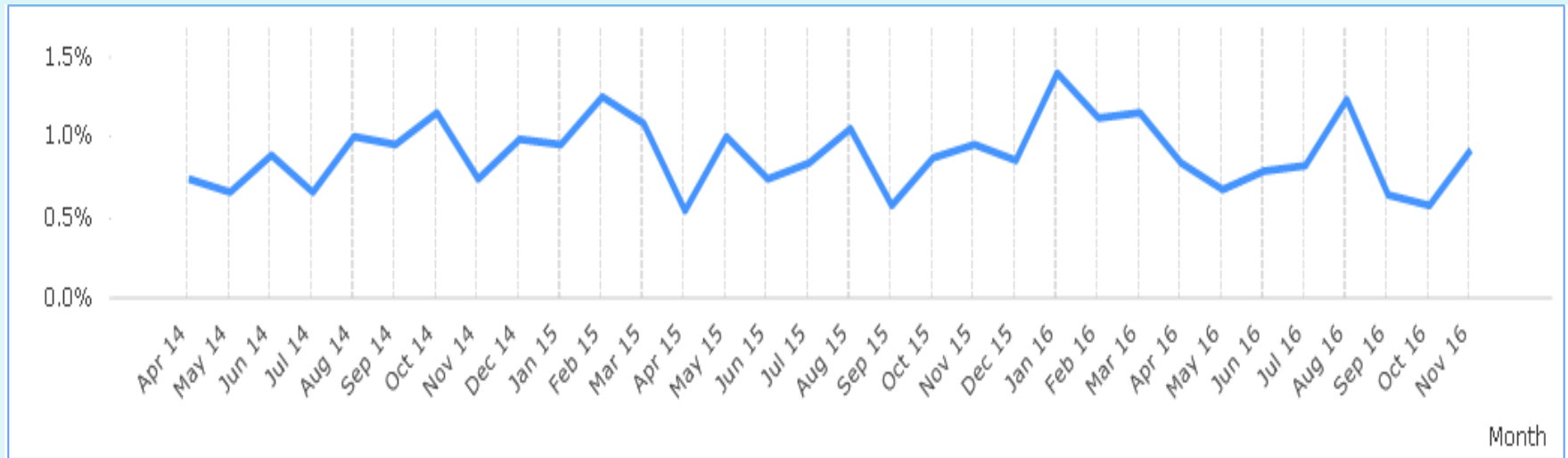
# Compliance & Processes

- **Governance arrangements** are overseen by the units quality and patients safety group
- **Incident reporting** is through the DATIX web management reporting system
- **Assurance** arrangements are overseen by the wider HB through monthly performance reviews and annual attendance at the quality and safety committee

# Results – HAT Dashboard



# Results – Health Board VTE Rate

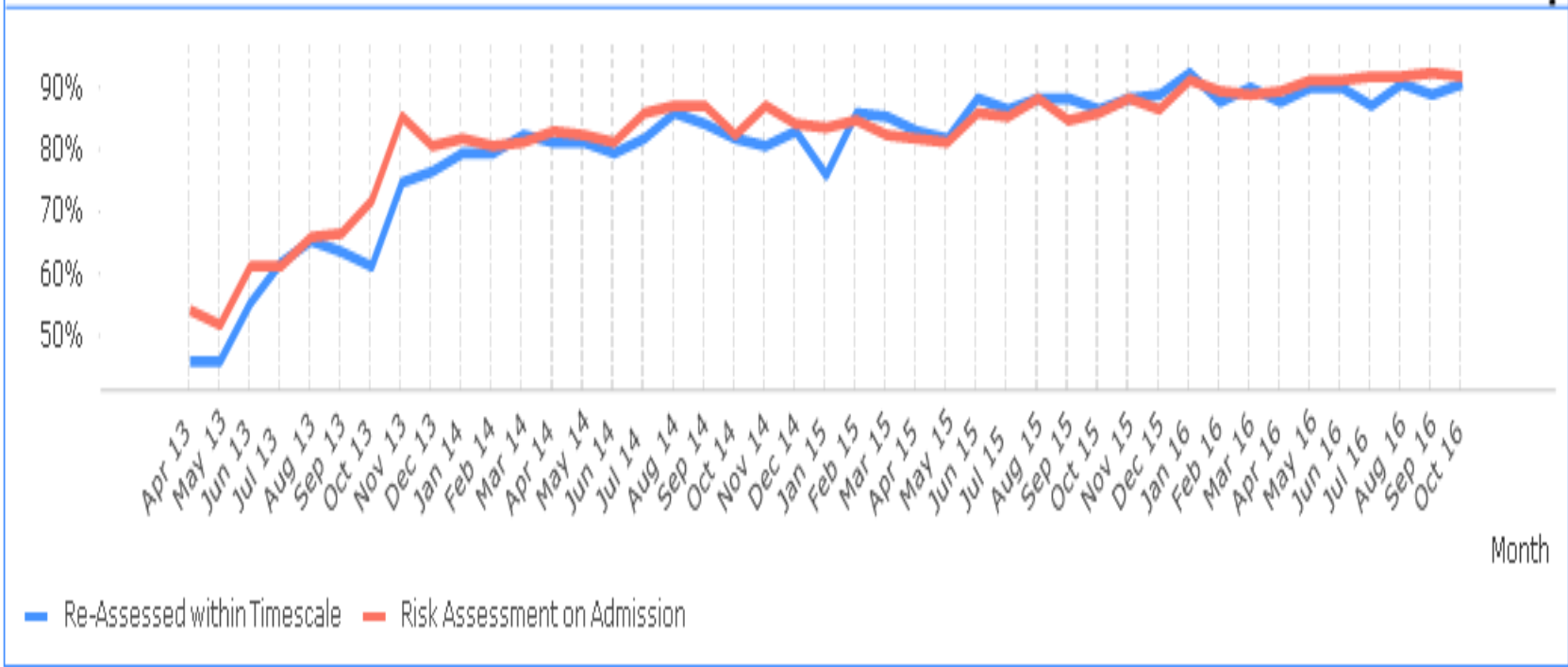




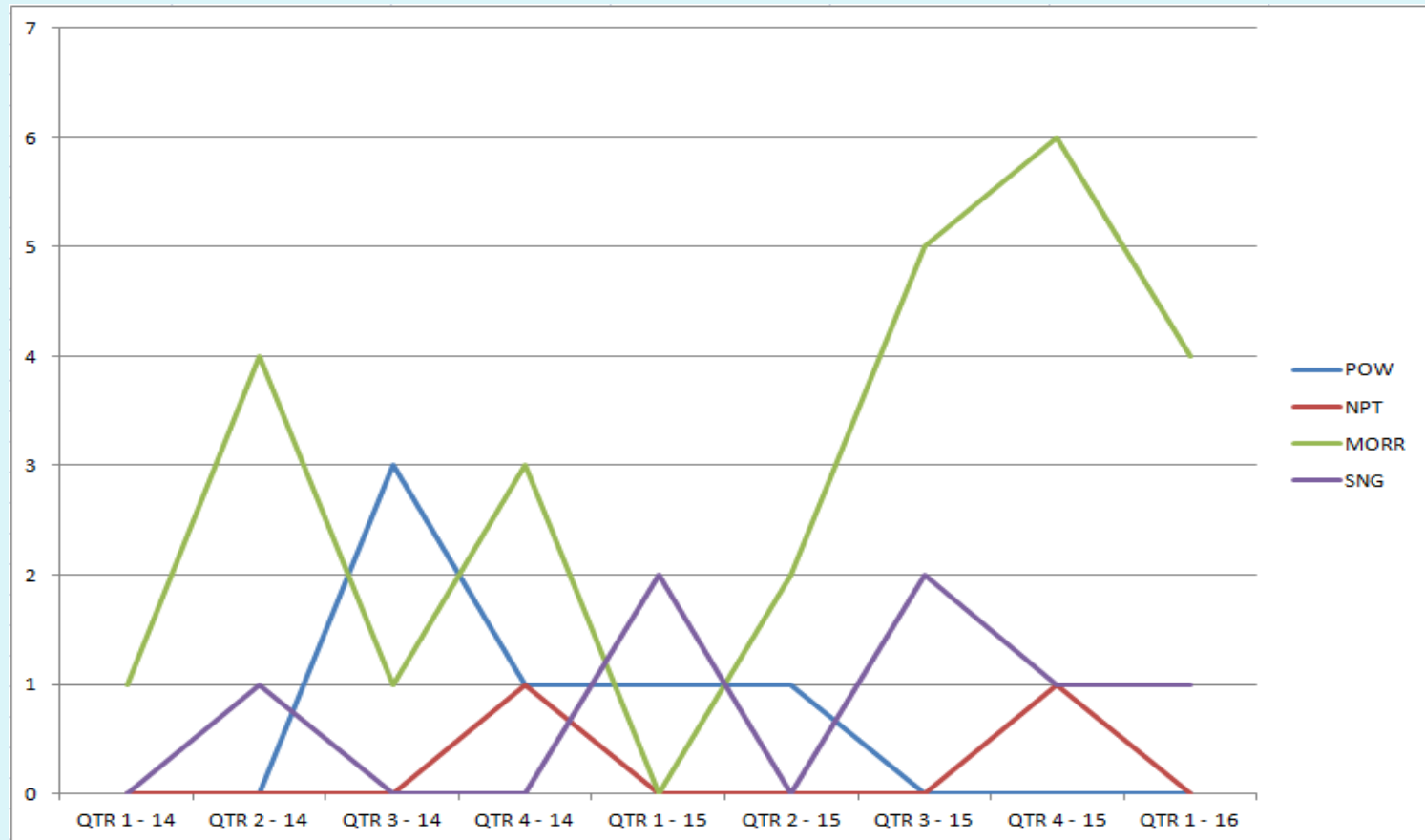
# Results – Risk Assessment & Re-Assessment

Thromboprophylaxis Assessment & Re-Assessment

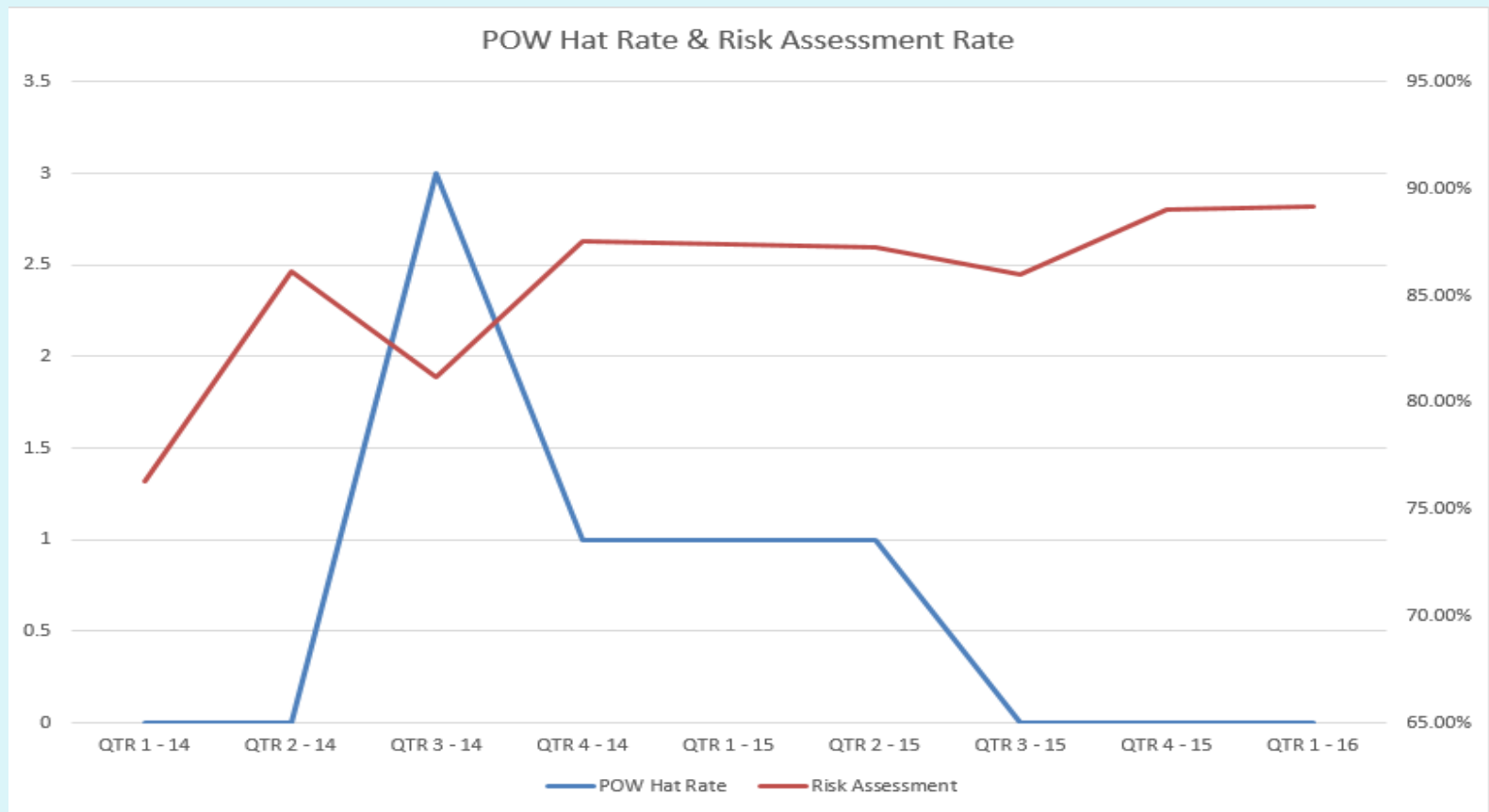
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# Results – HAT Rate, All Sites



# Results – TPRA rate - POW



# The Outcome

**The introduction of the Thromboprophylaxis Re-Assessment tool has resulted in an increase in Thromboprophylaxis Risk assessment and a clear decline in the number of Hospital Acquired Thrombosis. It has provided the provision of a quality service and safer patient care.**



# Acknowledgments

- HAT Collaborative Team
- Sr Tracey Goldsworthy - Medicine
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- Becca Humphries – Audit Department
- Tim Maher – Informatics
- Steve Griffiths - IT



Diolch yn fawr

Thank you