Neurosurgery Team Audit

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Audit Topics – Neurosurgery Department

- Medicine reconciliation documentation
- Venous thromboembolism prophylaxis assessment & prescribing
- Documentation of long-term anticoagulant / antiplatelet guidance for patients in discharge summary

  - Duration First cycle: 15.01.24 – 28.01.24
  - Number of patients: 44

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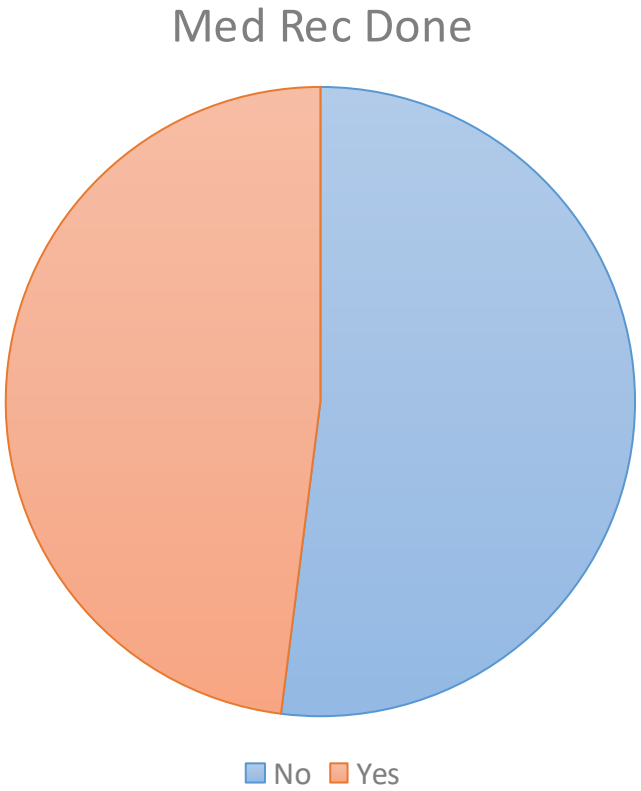
Medicine Reconciliation

- “Med Rec” forms are a list of medications patients were taking immediately prior to hospital admissions, used to guide inpatient care and discharge amendments.
- This audit sought to check how many patient's med recs were being completed on HEPMA as a standard clerking practise
- **Findings:** For 23 patients (out of 44) – 52% - did not have med rec done.



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Venous thromboembolism prophylaxis assessment and prescription

SURGICAL
Risk Assessment for Venous Thromboembolism (VTE)
COMPLETE WITHIN 24HRS OF ADMISSION

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Pt Addressograph SURGICAL	Date of admission: Date of first assessment: Assessed by: Designation: Provide all patients with VTE information leaflet

Is the patient known, or expected to have, significantly reduced mobility relative to normal state? (≥ than 3 days)	Yes	No
Does the patient have active cancer / receiving cancer treatment?	Yes	No
Does local or national policy exist that dictates the use of chemoprophylaxis?	Yes	No

If NO to all of above, risk assessment is complete and no chemoprophylaxis is required at present
Assess patient for anti embolism stockings
Continue to review every 48hrs or sooner if condition changes. ❒

YES TO ANY OF THE ABOVE, COMPLETE RISK ASSESSMENT BELOW
DOES THE PATIENT HAVE ANY RISK FACTORS FOR THROMBOSIS?
↓TICK ALL THAT APPLY↓

	Immobility known or predicted for ≥ 3 days		Use of oestrogen-containing contraception, hormone replacement therapy, or assisted reproduction therapy
	Significant medical co-morbidities e.g. heart disease, metabolic, endocrine or respiratory disorders, acute infection, inflammatory condition, sickle cell anaemia.		Personal history of VTE or a first degree relative with a history of unprovoked VTE
	Active cancer or receiving cancer treatment.		Pregnancy or < 6 weeks post partum
	Dehydration		Varicose veins with a history of phlebitis
	Known thrombophilia*		Hip fracture or hip or knee replacement
	Obesity (BMI>30 kg/m^2)		Total anaesthetic time > 90 mins
	Critical care admission e.g. HDU/ITU		Surgery involving pelvis or lower limb with a total anaesthetic + surgical time > 60 mins.
	Age >60 years		Acute surgical admission with inflammatory or intra abdominal condition.

YES TO ONE OR MORE RISK FACTORS, NOW ASSESS BLEEDING RISK
AND CONTRAINDICATIONS TO PHARMACOLOGICAL PROPHYLAXIS?
↓TICK ALL THAT APPLY↓

	Active bleeding		Thrombocytopenia (<75,000/ul)
	Acquired or suspected bleeding disorder (e.g. liver failure)		Untreated inherited bleeding disorder (e.g. haemophilia or von Willebrand disease)
	Concurrent therapeutic use of anticoagulants such as warfarin, rivaroxaban, apixaban and dabigatran		Planned or recent surgery or intervention with high bleeding risk. Seek expert advice.
	On acute coronary syndrome (ACS) protocol, treatment dose of Dalteparin or Fondaparinux, while waiting for results of Troponin, VQ and/or Doppler		Lumbar puncture, epidural/spinal procedure expected within the next 12 hours or carried out in the previous 4 hours.
	Uncontrolled hypertension (≥ 230/120 mmHg)		Heparin induced thrombocytopenia
	Acute stroke		

SEE OVER FOR PHARMACOLOGICAL PROPHYLAXIS.

RE-ASSESSMENT OVERLEAF.

ACTION BOX
NO CONTRAINDICATIONS TO PHARMACOLOGICAL PROPHYLAXIS

RISK LEVEL	IDENTIFIED RISKS	CHEMOPROPHYLAXIS	MECHANICAL PROPHYLAXIS UNLESS CONTRAINDICATED	
Low Risk	No Risk Factors	No Prophylaxis	Yes	No
Intermediate Risk	1 Risk Factor + BMI < 30	Dalteparin 2,500 units daily	Yes	No
	Medical Risk Factor Present - not for surgery	Dalteparin 5000 units daily	Yes	No
High Risk	1 Risk Factor + BMI > 30	Dalteparin 5000 units 12 hours pre op then daily @ 1800 hours	Yes	No
	eGFR < 20mls/min + 1 Risk Factor	Unfractionated heparin 5000 units twice daily	Yes	No
CONTRAINDICATIONS TO PHARMACOLOGICAL THROMBOPROPHYLAXIS				
All Risk Levels	All	No	Yes	No

SURGERY – EXCLUDING ORTHOPAEDICS

- Risk assessment should be completed for **ALL** patients on admission to hospital.
- Risk assessment to be completed by designated health care practitioner.
- If medical risk factors are present and patient is not for operation, then apply medical dosing schedule.
- If a patient is admitted after 1800hrs and requires thromboprophylaxis then prescription of a one-off dose is required.
- Ensure nursing staff are notified once prophylaxis is prescribed.
- If low molecular weight heparin is contraindicated speak to senior staff for advice.
- Anti embolism stockings should be considered for all patients on admission. Stockings should be worn until normal pre-admission level of mobility is restored.

CONTRAINDICATIONS TO ANTI EMBOLISM STOCKINGS

- MASSIVE LEG OEDEMA
- PULMONARY OEDEMA
- PERIPHERAL ARTERIAL DISEASE OR NEUROPATHY
- MAJOR LEG DEFORMITY
- DERMATITIS

- Use of pneumatic compression boots should be considered in all cases but may be omitted in local anaesthetic cases or for patients in Trendelenburg position (consideration during surgical brief / pause is advised).
- Reasons for the use or omission of prophylaxis out with this guidance must be documented in the case record.
- Post discharge prophylaxis may be required. Specify the modality, dose and duration
- Incorporation of discussion regarding risk assessment and VTE prophylaxis into "standard business" (i.e. ward rounds and / or surgical briefing/ pause) is recommended.
- Place Risk Assessment Form in Drug Kardex for follow-up and re-assessment.

***THROMBOPHILIAS:** Anti-thrombin deficiency; Protein C deficiency; Protein S deficiency; Factor V Leiden; Prothrombin gene variant; Antiphospholipid syndrome.

VTE RE-ASSESSMENT
Re-assess patient every 48hrs until condition changes or discharged.
Re-assessment required every 24hrs if patient is on ACS Protocol.

DATE	COMMENT	SIGNATURE

Test of change: SPSP Quality Improvement Version 2.3 January 2013

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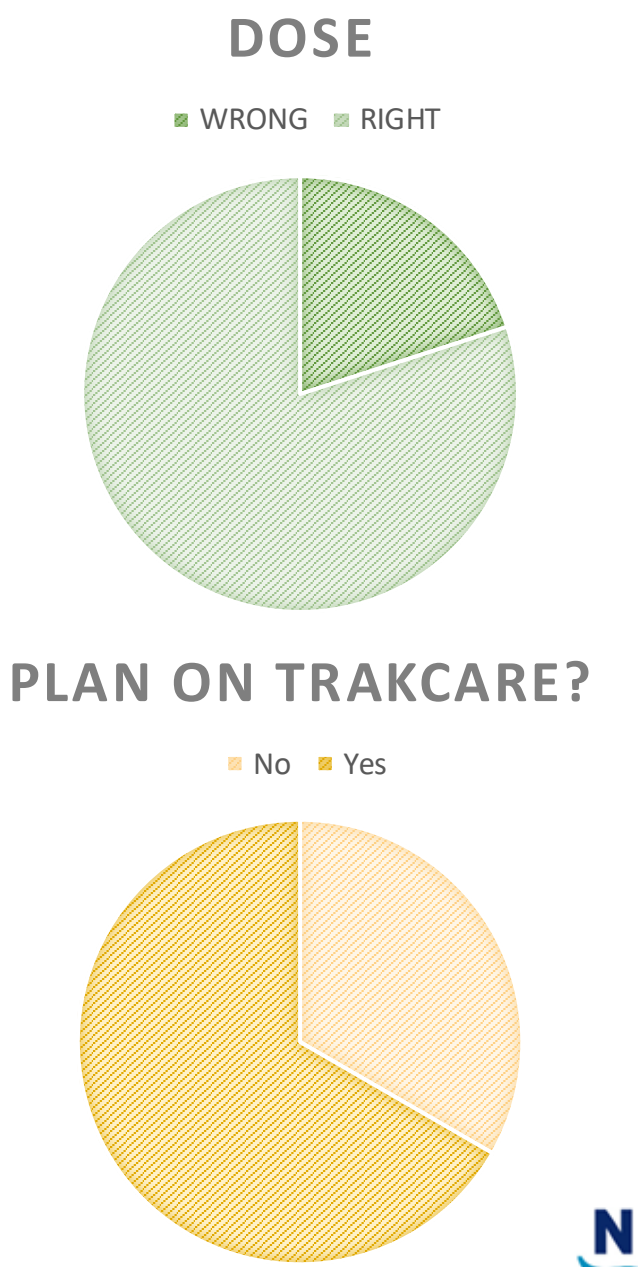
Findings

- VTEp Assessment is not documented on HEPMA except for pharmacy notes.
- Out of the 44 patients, 15 were prescribed VTEp.
  - 5 of which did not have a plan written on trakcare.
  - 3 were prescribed wrong dose (5000u) when BMI <30 or BMI not written.
  - 1 patient was written 2500u without BMI.
  - 6 patients stayed > 3days (average 7.7 days) and were not prescribed VTEp nor assessed.



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Documentation of long-term anticoagulant / antiplatelet guidance

- Out of the patients that had ACO before being admitted, we analysed whether they had an ACO plan or guidance for when, how and if to reassume their medication.
- Total amount of patients that came with clopidogrel / aspirin was 7 (out of 44) = 16%.
  - 3 patients left with a plan
  - 1 passed away
  - 2 Discharge letter was not able to be obtained
  - 1 End of life care

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Recommendations

- Medicine reconciliation documentation:
  - Complete med rec as a standard clerking practise.
- Venous thromboembolism prophylaxis assessment & prescribing:
  - Assess whether any patient in the ward needs VTEp by using NHS Grampian Guidelines, particularly immobilization > 3 days.
  - When VTEp is prescribed, please make sure there is a clear plan for it written in trakcare.
  - When VTEp is prescribed, **please make sure** the BMI is written in trakcare and VTEp dosage is calculated accordingly.
- Documentation of long-term anticoagulant / antiplatelet guidance for patients in discharge summary:
  - No recommendations made for this set of patients.

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Interventions

- Med rec, VTEp prescription and discharge letters (where ACO plans are written) are done by Junior Doctors. Therefore, we consider followings measures to be appropriate:
  - Presentation in the Neurosurgery department.
  - Work with Junior Doctors onsite to address the topics. We will convey the findings and recommendations via mail and in Doctors office as a reminder.

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What is next?

- Second cycle of audits between 24/6-7/7.
- Data analysis.
- Presentation of results in July.

- Thanks ☺