

**Audit of risk
assessment for
venous
thromboembolism
nursing essay**



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In 2005, the Department of Health reported that in England, an estimated 25, 000 (approx 10%) of hospitalised patients die each year from venous thromboembolism (VTE) some of which could have been avoidable (1).

VTE is the blockage of a blood vessel by a blood clot (thrombus, formed in the vein, hence venous) which has dislodged from its site of origin (2). It includes deep vein thrombosis (DVT) and pulmonary embolism (PE). Most clots (thrombi) are formed in the deep veins of the leg (DVT) which travel to the lung to cause PE which can be fatal.

VTE causes twenty five times more deaths per year than MRSA and more deaths than road traffic accidents, breast cancer and AIDS combined.(3) Of those who do not die, around 30% go on to develop post-thrombotic syndrome which is associated with chronic swelling and ulceration as a result of VTE. People who survive a PE may require intensive care support, recovery could take weeks to months placing a substantial morbidity and burden of cost to an already stretched National Health Service.(4)

The cost of managing VTE in the UK both directly and indirectly was estimated at £640 million in 2005 and it is likely to be more, in an aging society. (5)

In March 2010, the government declared VTE to be an important patient safety issue in its letter to all NHS trusts. (6) In its attempt to embed the practice of requiring all patients admitted to hospital for treatment to be risk assessed for VTE, mandatory data collection has now been imposed on acute hospital trusts as from June 1st 2010 and is linked with payment for

performance under the Commissioning and Innovation (CQUIN) payment schemes for 2010/2011. (6, 7)

INTRODUCTION

The implementation of VTE prevention and risk assessment tool has been focussed primarily in acute trusts and not in community hospitals. Acute hospital admissions avoidance strategy has been shown to be cost saving as well as maintaining patient independence as demonstrated in the 2001 trial carried out in the Accidents and Emergency department to assist early discharge of patients into primary care. (8)

One community hospital ward (A) was changed three years ago to adopt this scheme, becoming an acute hospital admission avoidance ward, under the ‘Transforming of Community Services’ strategy of managing long term chronic conditions in the elderly population. (9) With changes being made to move care away from the acute trust and into the community, the question that arise is, will VTE risks apply to patients who are admitted to community hospitals from home?

The aim of this audit is to provide a baseline of VTE risk assessment of older people admitted for inpatient stay in community hospital wards and to discuss whether the NICE guidance for VTE risk assessment should be adopted in these wards.

METHOD

An audit was carried out over a two week period in people aged over sixty who were admitted to three community hospital wards for inpatient hospital

stay, using the NICE audit tool which was adapted for this study (see Appendix A) (10). Since the aim of this audit is to see whether community hospital admissions follow the VTE risk assessment criteria, it seemed appropriate to use this as a baseline measurement of current practice. (10)

Data were collected on patients who were admitted during the two week period to each ward. All three wards have twenty bed capacities. Older people are admitted from home because they are unwell but not sufficiently ill enough to require acute hospital care or have been transferred from the acute trust for continuing rehabilitation. Information was obtained from medical, nursing and admission records, care plans and the patient's global health summary. Inpatient prescription charts were also assessed to check for evidence of prescribing of pharmacological VTE prophylactic agents. Enoxaparin is the low molecular heparin of choice used in this area. The prophylactic dose employed is dictated by the patient's renal function and is usually 40mg daily unless their creatinine clearance fall below 30ml/min in which case the dose is reduced to 20mg daily, and below 20ml/min, unfractionated heparin is used. (11)

Information was gathered on the age, gender, mobility before (where known) and during inpatient stay, significant co-morbidities, assessment of bleeding risks as well as whether VTE risks were carried out.

Data collection tool was tailored for medical admissions which make up the majority of patients who are admitted for inpatient hospital stay.

Ward A is set up as an acute hospital admissions avoidance unit purely for taking in patients from home, whereas wards B and C accept patients from <https://assignbuster.com/audit-of-risk-assessment-for-venous-thromboembolism-nursing-essay/>

home (step up) as well as from the acute hospital (step down). Therefore patient's location prior to entering the community hospital ward was specified in the audit as step down patients are more likely to have their VTE risks assessed and prescribed enoxaparin as appropriate.

Data was anonymized and analysed by me.

The standards used are from the National Institute for Health and Clinical Excellence (NICE) Audit Support. (10)

100% of patients to be assessed on admission to identify those who are at increased risk of VTE.

100% of patients to be assessed for risk of bleeding before offering pharmacological VTE prophylaxis.

100% of medical patients who are considered to be at increased risk of VTE offered pharmacological VTE prophylaxis.

The risk factors for VTE for each patient were also collected and the results analysed

The overall results for VTE risk assessment were then compared with the three NICE standards. Inter patient profiles were appraised for differences in VTE risks between those in ward A (acute hospital admissions), B and C.

RESULTS

Records for 31 patients (median age 85years, 61% female) were evaluated.

Three patients were already prescribed enoxaparin prior to transfer to the

community hospital. Two people were prescribed prophylactic pharmacological therapy when admitted from home to the ward. (See Appendix 3 for details of the results)

31 patients

Step down from acute trusts 9

STEP UP FROM HOME 22

Treatment not required

Patient taking warfarin. 1

bleeding tendency or transfused 2

End of Life 2

VT

Treated Untreated treated with enoxaparin 3

with enoxaparin 2 immobile 9 blood transfused 1

Figure 1. Flow chart to show patients who may be suitable for thromboprophylaxis

Figure 2. Graph showing the risk factors for VTE in 11 step up patients.

Nine patients who were untreated with thromboprophylaxis were immobile and a further two patients had reduced mobility and significant co-morbidities; one was obese with lymphoedema whilst the other had a previous history of DVT (patient 26). (See Figure 1 & 2.)

AUDIT OF RESULT AGAINST NICE CLINICAL STANDARD

NICE STANDARD

Overall

100% of patients risk assessed for VTE on admission

6%

100% assessed for risk of bleed before offering pharmacological prophylaxis

6%

100% of patients considered at risk of VTE offered pharmacological VTE prophylaxis

16%

Table 1. Comparison of results with NICE

Assessment of VTE risks in these patients were well below NICE clinical standards (Table 1). There was no evidence of any risk assessment tool being used as this would have been retained in the medical notes. This is despite the Department of Health's circular in March this year, requesting all hospitals to use the revised 2007 tool with immediate effect. (13) There was no documentation in the doctor's clerking of patients on admission evaluating the chance of developing VTE. Any conscious decision that such a risk exists is shown by the prescribing of prophylactic enoxaparin dose in the inpatient prescription chart. The results in table 2 below reflects this finding.

WARD

A

B

C

Total

%

Total no. Patients

11

11

9

31

100%

Age > 80

8

8

6

22

71%

step Up from home

11

7

4

22

71%

step down from acute hospital

0

4

5

9

29%

1. assessed for VTE risk

1

1

0

2

6%

2. assess for bleeding risk before Rx VTE

1

1

0

2

6%

3. VTE assessed <24hr

1

0

0

1

3%

5. 1 Has/expected to have signific reduced mobility > 3 days

10

7

6

23

74%

6. 2 Enoxaparin (LMWH) prescribed

1

2

2

5

16%

Table 2. Data for VTE risk assessment carried out for each ward.

Patients who were prescribed enoxaparin on the ward had their renal function checked to ensure the prophylactic dose was appropriate. No unfractionated heparin was prescribed.

One of the objectives of the audit was to see whether there were differences in patient profile between the wards A, B and C.

Figure 3. Comparison of patient profiles for each ward.

The patients were of similar age, the mean for each ward was 84 years old. All patients in ward A had significantly reduced mobility lasting three days or longer hence the reason for admission into hospital. There were no patients with known thrombophilias, varicose veins or phlebitis at the time data was collected. In general the three wards have similar patient profiles although patients in ward C tend to be more rehabilitation and respite care type.

DISCUSSION

The aim of this audit was to provide a baseline for assessment of venous thrombotic risk in elderly patients who are admitted into community hospital wards. Compliance with the national guideline is poor. Fewer than one sixth of patients received treatment despite evidence that the risks of VTE is higher in older people and this increases exponentially with age (1 in 100 for

over 80 years compared with 1 in 1000 for those aged between 60 -69 years). (12) Only 6% of patients had been prescribed thromboprophylaxis on admission. Acute illness requiring hospitalisation and immobility both have a tenfold rise in the chance of developing VTE. Couple this with age and other complex co-morbidities which older people are more likely to present with, this makes the population of the patients admitted to community hospital high risk candidates for venous thromboembolism.

The small sample size collected plus the design of the audit tool makes it difficult to show a difference in the type of patients that the admissions avoidance ward A admit compared with the other wards. In order to show any differences in the care setup, more detailed patient profiles will need to be collected and analysed which the audit tool was not designed to do. However, the study has demonstrated that inherent risk factors for VTE in these patients who require hospital care exist although the severity of the state of being ' acutely unwell' may be lower than those in the acute hospitals. These patients also require management of thrombotic risks as they are often more frail, less mobile, with more complex co-morbidities and are likely to need long term costly nursing care should they develop post-thrombotic syndromes.

The lack of VTE risk assessment being conducted in community hospitals reflects the fact that community hospitals have not been included in the push towards reducing thrombotic events in the past, unlike the acute hospital sector. The organisation has not subscribed to the CQUIN payment framework which pays acute trusts in accordance with the degree of compliance to national guidance in its audit report. (7).

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Doctors who care for patients on these wards are primary physicians who are not accustomed to using hospital guideline and often translate their style of managing patients at home on to the ward. This problem is further compounded by the huge size of the organisation which is still in its embryonic stage. The lack of VTE policy and guidance by the trust coupled with unfamiliarity with the hospital guideline by doctors have all contributed to the reasons why VTE risk assessments are not the norm in these community hospital wards. This problem was partly addressed when the inpatient prescription chart was re-designed by the lead care pharmacist at the end of last year. A risk assessment table was added to the prescription chart at my request to encourage General practitioners to carry out these checks. The chart will be in use in August to remind the doctors to start documenting VTE risks which will be supported by the nursing team. However this is a small stepping stone towards changing practice.

The chief pharmacist has started writing the VTE policy and this is an opportunity for ward pharmacist to influence and increase their input to facilitate implementation of the NICE guidance.

Pharmacist can play a vital role in implementing VTE prevention in community hospital wards as part of the admissions process as they are already involved in medicines reconciliation where medicines prescribed on admission are checked with those the patients were taking at home to ensure they correspond. (14) Examples include taking VTE and bleeding risks of patients on the wards, prescribing appropriate pharmacological prophylaxis after checking renal function and other factors, reviewing the need for thromboprophylaxis once the patient becomes more mobile as well

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as providing education, advice and leaflets on the prevention of VTE. (15) If robust protocols, staffing levels and guidelines are in place to enable pharmacists to carry out these roles, this would support GPs in their care of patients in the community hospitals, at the same time, fulfilling the national clinical standard and minimising further harm during the patient's stay in hospital.

Conclusion

The results of this audit clearly demonstrates the lack of VTE risk assessment being carried out in older people who are admitted for inpatient stay to community hospital wards despite the circulars, alerts and letters published by the Department of Health and the national patient safety agency since 2005. Pharmacists can have a key role to implement VTE guidance as part of the medicines reconciliation process on admission if this is supported by the organisational policy, protocols and guidelines.