

# Assessing venous thromboembolism risk Is there still room for improvement?

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## Introduction

Venous thromboembolism (VTE) remains one of the most common causes of preventable hospital deaths<sup>1</sup>. NICE recommend that all patients, on admission, should be assessed for their risk of VTE and bleeding<sup>2</sup>.

Based on the recommendations by NICE, the kardex within Greater Glasgow and Clyde has been restructured to include a 'thromboprophylaxis assessment' box in the parenteral drugs section in the kardex. The aim is by introducing this, doctors will be prompted to identify the risk factors for VTE and therefore prescribe pharmacological therapy appropriately.

The admission proforma at the Vale of Leven also includes an additional prompt for thromboprophylaxis prescription.

The aim of our audit was to assess the effectiveness of these two methods in the assessment and prescription of thromboprophylaxis and whether this could be improved.

## Method

The audit cycle was completed in March and July 2011 at the Vale of Leven Hospital. This is a District General Hospital where a high proportion of the patients admitted are elderly with mobility issues.

The data was collected from each patient's admission proforma and kardex, to assess whether the indication for thromboprophylaxis had been documented in either their proforma only, kardex only, both the kardex and proforma or not at all.

The results of Loop 1 were presented to staff who also viewed a creative multimedia presentation on VTE prevention.

## Results

There were 27 patients included in each cycle. The assessment of VTE prophylaxis for each of the loops can be seen in Figure 1 and 2 respectively.

There was an increase not only in the percentage of patients assessed for both VTE prophylaxis from 26% in Loop 1 to 69% in Loop 2 but also in the proportion of patients assessed in both their proforma and kardex from 4% in Loop 1 to 27% in Loop 2. In both cycles the assessment was more commonly recorded in the proforma. The percentage of patients prescribed thromboprophylaxis also rose from 37% to 45% in Loop 2.

Figure 1-VTE prophylaxis in Loop 1

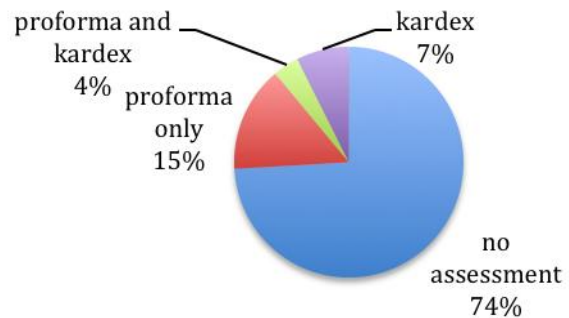
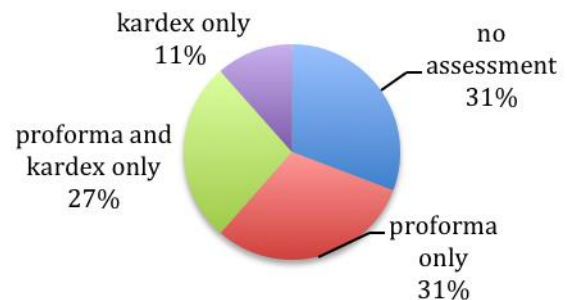


Figure 2-VTE prophylaxis in Loop 2



## Discussion

It can be seen that there has been a significant improvement both in the assessment for the risks of VTE and in its prescription of thromboprophylaxis between Loop 1 and Loop 2.

This may be partly attributed to the initial audit highlighting the inadequate documentation, which emphasised the need for education on the prevention of VTE. Interestingly, despite the restructuring of the kardex, the assessment continues to be more commonly done in the admission proforma. This may be due to the fact that the admission proforma is usually completed prior to the kardex and so it may be felt unnecessary to duplicate the assessment.

While the results of Loop 2 are in keeping with national statistics from the Department of Health, with 68% of admissions being assessed; this is still below the recommendations by NICE. A number of factors may be responsible for this, such as time constraints while admitting patients, lack of blood results being available and uncertainty regarding the guidelines for thromboprophylaxis prescription. While this was a small audit, it does highlight the need for all patients to be adequately assessed and prescribed thromboprophylaxis.

## Conclusion

VTE remains one of the most preventable deaths within hospital and its management depends upon adequate prevention through the prescription of thromboprophylaxis. While there have been significant improvements in the assessment and prescription of thromboprophylaxis in the admitting unit at the Vale of Leven, its improvement depends on continuing audit and education in this area.

## References

- <sup>1</sup>Lifeblood. The thrombosis charity. About thrombosis. [http://www.thrombosis-charity.org.uk/cms/index.php?option=com\\_content&task=section&id=9&Itemid=82](http://www.thrombosis-charity.org.uk/cms/index.php?option=com_content&task=section&id=9&Itemid=82)
- <sup>2</sup>NICE. January 2010. Venous thromboembolism: reducing the risk. Reducing the risk of venous thromboembolism (deep vein thrombosis and pulmonary embolism) in patients admitted to hospital. <http://www.nice.org.uk/nicemedia/live/12695/47195/47195.pdf>
- <sup>3</sup>Department of Health. Publication of statistics. VTE Risk Assessment Data Collection. October to December 2010. 4th March 2011. [http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsStatistics/DH\\_124658](http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsStatistics/DH_124658)