

that 51% of these tests could be classified as 'unnecessary'. This represented a potential for saving £29,760 per year.

Following the interventions, the frequency of 'unnecessary' tests requested for the last sample of 30 patients reduced from 20 to seven, equivalent to a 70% reduction. The total cost of these tests was reduced from £186 to £51. These reductions can be extrapolated to represent a saving of approximately £21,427 per annum. This efficiency will be maintained by altering computerised requesting systems and ongoing education within the department including adding this guidance to our induction portfolio.

Conclusion

Educational intervention for this QIP achieved the aim of improving the efficiency of follow-up immunological test requesting. Clear guidelines and simple educational interventions lead to significant savings. These interventions are transferable to all areas of medicine and represent an easy way to make savings in the current economic climate. The adoption of these guidelines by other rheumatology, immunology and medical departments is recommended in order to improve efficiency. The adoption of these guidelines by other rheumatology, immunology and medical departments is recommended in order to improve efficiency, and a project to extend these local guidelines regionally is currently underway.

CHARLOTTE A SHARP

ST3 rheumatology, North Western Deanery and national clinical leadership fellow

IAN N BRUCE

Professor of rheumatology

NIHR Manchester Biomedical Research Centre, Central Manchester Foundation Trust

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An electronic prescribing system can ensure thromboprophylaxis is considered

According to National Institute for Health and Clinical Excellence (NICE) guidelines, all inpatients should have their risk of deep vein thrombosis assessed when they are admitted to hospital¹ but adherence to this recommendation is poor.² Electronic prescribing systems can dramatically reduce drug errors.³ This investigation explored whether these systems can effectively prompt consideration of thromboprophylaxis.

A retrospective audit of 18,326 consecutive acute medical admissions to Queen Elizabeth Hospital, Birmingham from March 2009 to September 2010, identified using the Birmingham Systems Prescribing Information and Communication System (PICS), was conducted. The PICS system mandates that the admitting doctor explicitly considers the need for pharmacologic thromboprophylaxis with low molecular weight heparin (LMWH) and records the decision this doctor has made, although this decision can be deferred. The audit criteria were that within 24 hours of admission all medical patients should be assessed for thromboprophylaxis. When there were no contraindications, LMWH should be prescribed within 24 hours and, when prescribed, it should be given within 24 hours. It was hoped that 90% adherence to this standard should be achieved. A previous audit carried out in 2008 by another group within the hospital at the inception of the PICS system showed 75% compliance with thrombosis assessment, with adherence rising rapidly with time.⁴

Of patients, 99.7% were assessed for venous thromboembolism risk within 24 hours of admission. Of those deemed to require thromboprophylaxis, 73.9% were prescribed LMWH within the same time period; 58.3% received their first dose within 24 hours of admission. Reasons for delay in the administration of LMWH appear to include the admitting doctor waiting for confirmation from more senior colleagues on the next ward round, and prescribing LMWH at a future date rather than immediately.

There are some constraints to this study. The audit focused on the timing of risk

assessment and delivery of thromboprophylaxis, rather than its necessity and appropriateness. A small number of admissions may not have been added to the PICS system, and hence would not have been included in the study. Finally, the time of admission of patients onto the PICS system may not correlate precisely with the time of true admission as a result of delays in patient clerking.

Large studies have demonstrated that the use of electronic systems to prompt the use of thromboprophylaxis can reduce the risk of thromboembolism by as much as 40%.⁵ This study has shown that an electronic prescribing system can ensure that pharmacologic thromboprophylaxis is considered in a very high proportion of patients in a timely manner. Further work is necessary to improve the administration of prophylaxis within the first 24 hours of admission.

ELA STACHOW

Foundation year 1, critical care

MICHAEL BERRY

Consultant in respiratory medicine and honorary senior lecturer

ANDY JOHNSTON

Consultant in respiratory medicine and critical care

Department of Medicine, Queen Elizabeth Hospital, Birmingham

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