A new approach to blood clot prevention

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Many people going into hospital have concerns about contracting the hospital acquired infection - MRSA. Little do they realise that the risk of acquiring, and dying from, hospital-acquired, venous thromboembolism (VTE) is many times greater. In fact, hospital acquired VTE kills more people than breast cancer, road traffic accidents, HIV/AIDS and MRSA combined.

Poor public knowledge of VTE, largely confined to clots associated with air travel, is not surprising when the risk is also underestimated by hospitals, who continue in failing to provide appropriate clot preventing drugs. What is more surprising is the lack of appreciation of these risks amongst health care professionals.

VTE includes deep vein thrombosis (DVT) and pulmonary embolism (PE), and risk factors include; immobility, acute illness, major and orthopaedic surgery, malignancy, pregnancy, increasing age and obesity. A combination of these factors further increases the risk. Since the publication of clinical guidelines and recommendations by the National Institute for Health and Clinical Excellence (NICE) in 2007, all patients admitted to hospital in the UK should undergo a routine VTE risk assessment. The correct and uniform implementation of these guidelines across the UK is essential.

VTE is difficult to diagnose, often asymptomatic; the first sign of the disease can be a sudden fatal PE, and a lack of routine post-mortem examinations means it can remain unrecognised even at death. These factors suggest there may be a marked underestimate of VTE incidence. However, VTE is largely preventable. Routine risk assessment on hospital admission and the use of effective preventive strategies such as compression stockings and small doses of anticoagulants, including low molecular weight heparin (LMWH), can reduce the 32,000 deaths that occur each year from this condition and relieve the long-term debilitating burden created when veins become damaged by DVT.

The risk of VTE is greatest within the first 90 days after leaving hospital and remains high for up to 12 months. A VTE occurring within 90 days of a hospital discharge is classified as a hospital-acquired VTE. Primary healthcare professionals have little involvement in VTE aftercare and patients may self-administer thromboprophylaxis for up to 35 days, a procedure that may be potentially unreliable. Primary healthcare professionals often remain unaware if a patient experiences a VTE event or is re-admitted to hospital and thus a period of clinical void exists for the patient.

Led by the University of Birmingham, the ExPeKT study is examining and defining the role of primary care in thromboprophylaxis and exploring the information and care that high-risk patients receive prior to hospital admission or after discharge. The outcome will be to develop a pathway for the co-ordinated care and the integrated management of thromboprophylaxis between hospital and the community; in effect bridging the void for patient care.

The need for awareness and education across both secondary and primary care is evident. An informed patient requires understanding and knowledge of the VTE risks associated with hospitalisation, medical procedures and immobilisation in order to know which questions to ask when admitted to hospital. An effective intervention would educate a patient to recognise the symptoms of DVT and PE and instil the confidence to know who to approach if they suspect they are experiencing an event. Primary care could play a major role in this task, which will inevitably reduce the numbers of patients with hospital-acquired VTE and prevent large numbers of unnecessary deaths.

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