Case Study: Intermittent Pneumatic Compression in focus

Why are so few patients still not receiving effective Deep Vein Thrombosis (DVT) prophylaxis after stroke?


Further information can be found on the study webpage at [link](http://www.dcn.ed.ac.uk/clots/)

Venous thromboembolism (VTE), including DVT and pulmonary embolism (PE), is a major cause of avoidable death amongst hospitalised patients. One in three patients with stroke who are immobile will develop a DVT or PE and a third of those dying in hospital will die because of VTE. Although it is unclear whether heparin, or low molecular heparin is useful after stroke, there is now unequivocal evidence from the CLOTS 3 trial published in 2013 that Intermittent Pneumatic Compression (IPC) applied to patients’ legs reduces the risk of DVT, and moreover reduces their risk of dying. In 2015 NICE (The National Institute for Health and Care Excellence) recommended that immobile patients with stroke should be offered IPC. Despite this evidence and guidance, the latest data from SSNAP suggest that only a small minority of hospitals in England have effectively implemented this potentially lifesaving treatment. This minority have shown that it is possible to deliver this treatment to a large proportion of immobile patients. Royal Devon and Exeter Hospital are one such example who applied IPC to 64.9% of their patients in Jan-Mar 2016 reporting period.

“We discussed the evidence from CLOTS3 and the NICE guidance in our stroke governance group and decided that it needed consistent implementation within our stroke service. This was greatly helped by the pump-priming support from NHS England, which helped us to make a positive start with changing the culture and expectations for VTE prevention among the medical and nursing staff.

We now regard any VTE on the stroke unit as a rare and unexpected adverse event, which is a great change from the days when we had no evidence about what to do to prevent VTE, and when there was such variation in practice. When the evidence is there, it needs to be promptly implemented.”

- Dr Martin James - Consultant Stroke Physician, Royal Devon and Exeter Hospital -

What are the challenges to IPC implementation?

- Lack of availability of equipment in some Trusts – but it is not expensive!
- Lack of awareness amongst healthcare staff of its benefits
- Lack of clearly defined processes/pathways to identify patients who may benefit and to ensure that IPC is fitted, and applied promptly
- Lack of training of healthcare staff in the use of IPC – but this is freely available on line at [link](http://www.stroketraining.org)
• A false perception amongst some staff that IPC is uncomfortable – staff should try wearing the sleeves themselves. Patients sometimes describe the sensation as being like a massage.

With the emphasis generally being placed on improving the safety of our hospitals, and specifically on reducing the risk of VTE, it is puzzling why implementation of IPC, an inexpensive and safe treatment, is so patchy across the UK.