Assessing the uptake of Intermittent Pneumatic Compression (IPC) in acute stroke following the publication of the CLOTS3 trial

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RESULTS
IPC use has increased over time; from 3.7% (563) in April-June 2014, to 13.7% (2710) a year later, and is currently at 17.7% (3611) nationally (October-December 2015), see Figure 1. The percentage of hospitals applying IPC to any of their patients has increased from 26% in April-June 2014 to 76% in Oct-Dec 2015, see Figure 2. The geographical spread of IPC use is shown in Figure 3. There is wide variation between hospitals; from 0% to 64% of patients with IPC applied. 36/149 (24%) hospitals did not use IPC.

In hospitals treating at least 40% of their patients with IPC, IPC patients had suffered more severe strokes (median NIHSS 7 vs 3, p<0.001) and were older (median 80 vs 76 years, p<0.001). Other patient characteristics are given in Tables 1 and 2.

CONCLUSION
Despite the evidence base for IPC as an effective method of reducing DVT risk and possibly improving survival after stroke, uptake remains far lower than expected from primary research. This should be a priority area for quality improvement in stroke care.

Background
The CLOTS3 trial established that IPC reduces the risk of deep vein thrombosis (DVT) in immobile patients with acute stroke. In August 2013 NHS England and NHS Improving Quality (NHS IQ) put forward a bid to supply approximately six months’ worth of IPC sleeves to all stroke units in an effort to realise the benefits in every day practice. We describe the uptake of IPC application in acute hospitals in England, Wales, and Northern Ireland over time, and investigate the characteristics of patients treated with IPC.

Method
Data were extracted from the Sentinel Stroke National Audit Programme (SSNAP), the national register of stroke care. Data collection on IPC usage has been reported quarterly from 1 April 2014. We analysed the percentage of hospitals applying IPC to their patients, and the characteristics of patients (N=7480) either receiving or not receiving IPC in hospitals treating at least 40% of their patients with IPC.

Table 1. Baseline patient characteristics of patients in hospitals treating at least 40% of patients with IPC

Table 2. Patient characteristics of patients in hospital treating at least 40% of patients with IPC