

CLOTS 3 Trial

Multicentre randomised trial to evaluate Intermittent Pneumatic Compression in patients with acute stroke



Prof. Martin Dennis and Carol Williams on behalf of the CLOTS Trial Collaboration

The CLOTS 3 trial was set up to test whether Intermittent Pneumatic Compression (IPC for short) reduces patients' risks of developing a blood clot (Deep Vein Thrombosis -DVT) in the veins of the leg after being hospitalised with a stroke.

105 hospitals in the UK, participated in the CLOTS 3 trials. There were 2876 patients with stroke recruited to the study. Half the patients were randomly allocated to receive IPC in addition to routine care, whilst the other half just received routine care.

The IPC was Kendall™ SCD Express Sequential **Compression System**

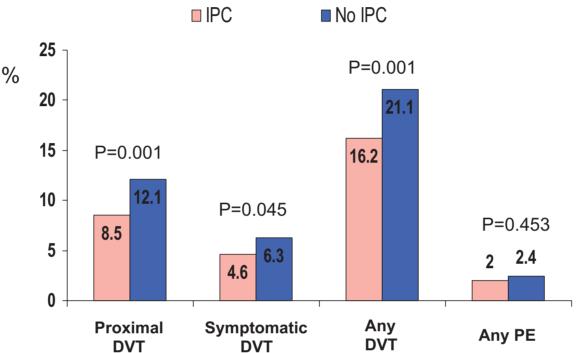
- Thigh-length
- Sequential & circumferential compression
- Venous refill technology
- Original & Comfort sleeves were used in the trial

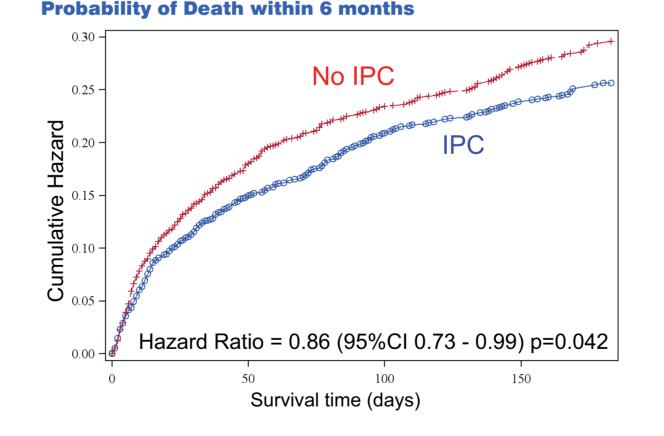
These were applied day & night, for up to 30 days till patients were discharged, dead or mobile.

Patients had an ultrasound scan of their legs at 7-10 days, and 25-30 days to screen for DVTs. There was excellent balance for all baseline variables & post enrolment anti-thrombotic medication

The risk of proximal DVT was 8.5% in those receiving IPC, and 12.1% in those receiving routine care only – a reduction of about 1/3. In addition patients treated with IPC were more likely to survive till 6 months.

CLOTS 3 - Efficacy 30 day VTE outcomes





2876 Enrolled

1438 allocated IPC

91.4% 1st Doppler

66.4% 2nd Doppler

99.9% Discharge forms

0.9% withdrawn 0.7% missing at 6 months 98.4% 6month follow up

1438 allocated No IPC

90.8% 1st Doppler

65.0% 2nd Doppler

100% Discharge forms

0.5% withdrawn 0.9% missing at 6 months 98.6% 6month follow up

The Conclusions from the trial are:

- IPC is feasible and safe
- IPC is an effective form of VTE prophylaxis NNT = 28 for proximal DVT
- It probably improves overall survival NNT~ 43 for death in 30 days
- Effective in ischaemic & haemorrhagic stroke

These results have been published in the Lancet (www.clotstrial.com). On the basis of these results we expect those responsible for developing guidelines for stroke to recommend that IPC should be routinely available to immobile stroke patients in hospital. This would apply to perhaps 60,000 patients each year in the UK.

Thanks to:

- Patients and their families
- All our collaborators
- Coordinating team in Edinburgh
- Members of UK Stroke Research Network







