

Abstract

Towards an Integrated Blood Pressure Self-Monitoring SolutioN for Stroke/TIA in Ireland: a mixed methods feasibility study for the TASMIN5S IRL randomised controlled trial

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Abstract

Background: Optimising Blood Pressure (BP) control is one of the most important modifiable risk factors in preventing subsequent stroke where the risk increases by one-third for every 10 mmHg rise in systolic BP. The aim of this study was to evaluate the feasibility and effects of BP self-monitoring in patients with a previous stroke or TIA in Ireland.

Methods: Patients with a history of stroke or TIA and sub-optimal BP control were identified from practice electronic medical records and invited to take part in the pilot study. Those with systolic BP >130 mmHg were randomised to a self-monitoring or usual care group. Self-monitoring involved monitoring BP twice a day for 3 days within a 7-day period every month, following text message reminders. Patients sent their BP readings by free-text to a digital platform. The monthly average BP was sent to the patient (traffic

light system) and to the patient's GP after each monitoring period. Treatment escalation was subsequently agreed by the patient and GP.

Results: Of those identified, 47% (32/68) attended for assessment. Of those assessed, 15 were eligible for recruitment and were consented and randomised to the intervention or control group on a 2:1 basis. Of those randomised, 93% (14/15) completed the study with no adverse events. Systolic BP was lower in the intervention group at 12 weeks.

Conclusions: TASMIN5S, an integrated blood pressure self-monitoring intervention in patients with a previous stroke or TIA, is feasible and safe to deliver in primary care. A pre-agreed three step medication titration plan was easily implemented, increased patient involvement in their care, and had no adverse effects.

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