

---

Conference Abstract

**The use of remote telehealth in the management of Blood Pressure in people following stroke and TIA.**

*Hilary Sharon Thompson*

Correspondence to: *Hilary Sharon Thompson*, E-mail: [Hilary.thompson@southerntrust.hscni.net](mailto:Hilary.thompson@southerntrust.hscni.net)

---

**Abstract**

The burden of stroke disease on individuals, families and our health care system is significant. Each year in Northern Ireland approximately 4,000 people suffer a stroke. The author is a Stroke Specialist Nurse (SPN) in a rural part of Northern Ireland. Hypertension is a major causal factor of stroke with targets for secondary stroke prevention well documented. Driving restrictions placed on people post stroke along with work commitments of family members, make transport to GP Surgeries for Blood Pressure (BP) monitoring problematic. Home BP measurement is also recognised as being more accurate than clinic measurement.

In October 2008, the SPN's within the S.H.S.C.T. commenced Remote Telehealth Monitoring (RTM) as a means of measuring, monitoring and managing their patients' BP. Inclusion criteria was set, namely the person must have a diagnosis of stroke/Transient Ischaemic Attack, have an elevated BP, a telephone and be able to put on and remove BP cuff, or have a carer to do this. People who are significantly anxious and are at risk of worrying excessively if BP is elevated are excluded. Informed consent is necessary.

When the patient takes their BP at home, the SPN tracks the readings on their computer and examines trends. Communication and information sharing with the patient, families and carers, GP and Hospital Consultant is fundamental. BP readings presented in graphs and tables are emailed to the patient's GP and Hospital Consultant or sent in a letter.

In 2011, an audit of patients whose BP was monitored and managed using RTM was undertaken. Records for every 5th patient were selected. The sample number totalled 37 patients. Gender of the sample was 41% male and 59% female. Whilst a high proportion of the sample population were aged 65yr and under, a number of patients were over 76yr, with 4 patients being aged 81yr or older. Hence age does not exclude patients from using RTM. The mean length of days monitored was 69 with the median being 41 days.

White coat hypertension (WCH) risks inappropriate prescription of anti-hypertensive drugs. Notably 32% of the total sample required no pharmacological intervention as their BP fell to within the target over the track and trend period without intervention. When examining pharmacological interventions, 14 patients had the dosage of their existing anti-hypertensive medication increased, with 3 of these 14 patients requiring their medication to be further titrated up. A total of 7 patients were prescribed a new anti-hypertensive with further dose adjustment in 6 cases before achieving BP control. Entry BP measurement (initial reading on RTM) and exist BP measurement (final

reading on RTM) were examined. Mean systolic BP reduction was 19 mmHg; mean diastolic BP reduction was 8 mmHg.

Merits of RTM are significant. At the outset it removed the problem of WCH, and for those patients who required drug intervention, it enabled clinicians to see the effectiveness of that treatment. Patients found its use convenient and empowering. It was also seen to enhance concordance of both anti- hypertensive medication and lifestyle advice.

**Keywords:**

**telehealth, stroke, blood pressure, secondary prevention, compliance**

---

**Presentation** available at: <http://www.kingsfund.org.uk/events/third-annual-international-congress-telehealth-and-telecare>