

Blood Pressure @Home

Surrey Heartlands (ICS)

The challenge

- High blood pressure is the largest single known risk factor for strokes and heart attacks. It affects one in four adults in England.
- The population of Surrey Heartlands ICS is 1.1 million, and 142.7k people are living with hypertension. It is estimated that up to a third of these people have poorly controlled hypertension and so are at higher risk of associated health problems.
- Studies have shown that the white coat effect is real – where the thought of a clinician measuring your blood pressure, even though you know you have raised blood pressure and may even be on treatment, will raise it further. This can mean that blood pressure measurements taken by a doctor are fifty per cent less accurate than when taken at home.
- Whilst many Surrey Heartlands patients are taking readings at home, clinicians currently need to contact them personally to remind them to take readings and provide advice. This means that practices are not able to support as many patients as they would like, because of already stretched resources.
- For those patients who are not taking readings at home, irregular, “one-off” testing may not identify any increase in blood pressure in such a timely way which could increase the risk of cardiovascular disease, increase A&E admissions and attendances, and create more GP appointments.
- Many patients have been unable or unwilling to visit their GPs to take readings during the pandemic.

The solution

Following a successful pilot, Inhealthcare worked with Surrey Heartlands Integrated Care System to launch a new remote monitoring BP@Home service for NHS patients to manage high blood pressure at home.

- Using a simple device provided by the NHS, patients record their blood pressure and heart rate readings on a twice-daily basis for four consecutive days.
- Patients submit these for clinical review in a way that suits them best either by email, SMS text message, app or direct telephone contact, making the service fully inclusive.
- Inhealthcare analyses the readings, calculates averages, alerts healthcare professionals if thresholds are breached and uploads readings onto GP systems.
- It sends feedback and helpful information to patients, asks them to test themselves again if necessary or contact their clinical teams or NHS 111.
- The service allows patients to monitor their condition on an on-going, long-term basis rather than as a “one-off”.
- The service connects patients with clinicians and enables safe and secure sharing of health data.

The results

- An **NHS evaluation** found that of the 2,100 patients from high-risk cohorts who engaged with the service between October 2021 and December 2022, nearly half are now being treated to target. This means they are providing green category readings for both systolic and diastolic blood pressure.
- **56%** of these achieved this through adopting lifestyle changes such as increasing exercise or changing their diet.
- Surrey Heartlands ICS believes that expanding the service could help thousands of patients to manage their conditions, improve their health, reduce the incidence of clinical events such as death, heart attack or stroke, over five years and save millions of pounds in reduced use of NHS services.
- The new service is expected to save many hours of administrative work by automating tasks and allowing staff to concentrate on supporting patients.
- This will also create cost savings.



Joining the BP@Home service has been very helpful to me. It means I can monitor my blood pressure without having to go to see my GP every two or three days and I have become more aware of what the blood pressure readings mean.

As a result of monitoring and submitting my results, my medication has been changed, and I have also made some lifestyle changes to help manage my blood pressure better.

The BP@Home team is really helpful, I feel supported and encouraged to make the right decisions, and I know that there's help at the end of the phone if I need it.

Mr Gurmit Bhamra,
Surrey Heartlands patient.



I'm delighted with the results of our pilot. We have demonstrated that patients are happy to monitor their conditions from home, and when they do, they not only develop a better understanding of their condition, but feel empowered to manage it better through remembering to take their medication and making lifestyle choices.

This will lead to better preventative care for our patients, and also reduce the burden on GP practices as we will receive the patient's results electronically rather than having to see them each time.

This should result in better health for our patients, fewer patients needing emergency care, and it frees up valuable appointments for more acute patients. We are now moving ahead with rolling out the BP@Home service across a greater number of practices in Surrey Heartlands with support from NHSX.

Dr Jagjit Rai, Partner at St David's Family Practice, Stanwell

