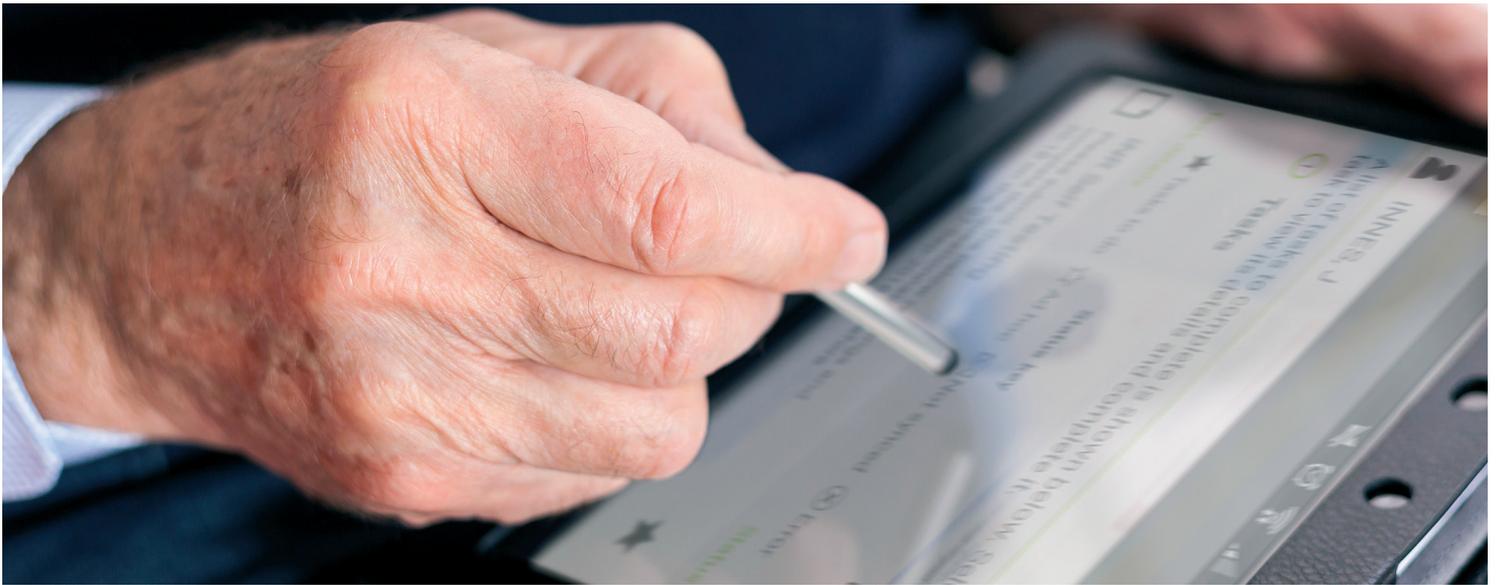


# Self-testing tech improves therapy for heart patients in Manchester



Working alongside NHS Manchester Health and Care Commissioning (MHCC), Pennine Acute Hospitals NHS Trust and Health Innovation Manchester, Inhealthcare created a self-testing digital pathway for patients receiving treatment for long-term heart conditions in north Manchester that significantly increased the quality of patient's therapy.

### ABOUT THE SERVICE

The self-testing pathway was developed for patients diagnosed with atrial fibrillation, deep vein thrombosis, pulmonary embolism or with a mechanical heart valve and who are prescribed the anti-coagulant drug warfarin. Previously, these patients would have to attend a community or hospital clinic on a regular

basis for blood tests to determine their correct dosage. This often means taking time out of work to attend appointments and paying transport costs to get there.

This service allows patients to test themselves at home via a portable device which requires only a pinprick drop of blood. The patient then sends their results via an app, web portal or an automated telephone call and their dosage information and next test date are sent back to them.

Pennine's community anticoagulation monitoring service delivered the pathway and supported patients with training and Health Innovation Manchester led the evaluation of the service.

Patients were selected according to criteria including good eyesight, mobility and dexterity to ensure responsiveness to the technology. Carers or family members were also trained to carry out the blood test if a patient was unable to do so.

## Key aims of the project

- To make patient care more proactive
- To increase the caseload capacity of the nursing team
- To improve the overall well-being of patients and their carers
- To reduce hospital admissions

## CASE STUDY

### EVALUATION RESULTS

75%  
TTR increase

At the start of the project, the average time spent in therapeutic range (TTR) for the participating patients was 68%, which rose to 75% by the end of the evaluation.

5

strokes prevented

The evaluation found that the pilot study **reduced the chance of blood clotting** and **prevented at least five potential strokes** among the group of 198 users.

3,000  
appointments  
saved

It also demonstrated the potential to **save more than 3,000 community outpatient appointment slots** between May 2017 and October 2018.

"I have the scope to check my own health and I have grown in confidence in my use of technology.

This would have been great during my working life."

Patient Kathryn McDougall, a 70-year-old retired public sector manager from North Manchester.

### WHAT PEOPLE SAID ABOUT THE SERVICE

Dr Peter Elton, Clinical Director of the Greater Manchester, Lancashire and South Cumbria Strategy Clinical Network, said the results were "very heartening". He added: "The most effective form of anticoagulation is self-management, much more than novel anticoagulants on average. It is thought this is because of an improvement in TTR percentage. So any higher percentage leads to a greater reduction in blood-clotting events."

Ben Bridgewater, Chief Executive of Health Innovation Manchester, said: "Our evaluation has demonstrated the effectiveness of this innovative self-testing service and highlighted the opportunity for it to be spread across Greater Manchester for the benefit of patients and clinicians. This powerful collaboration between the NHS, industry and academia shows how Greater Manchester is leading the way in the digitally-enabled delivery of health and social care."

Bryn Sage, Chief Executive at Inhealthcare, said: "Our technology allows people with long-term heart conditions to stay on top of their health without the hassle of inconvenient and time-consuming hospital or clinic appointments. This is exactly the sort of service that can reduce pressure on busy NHS clinics and allow staff to spend more time with patients who need care the most. We have rolled out similar services across England, Northern Ireland and Scotland and are delighted with the results of this evaluation in Manchester. The use of digital technology to provide convenient ways for patients to access advice and care is a central part of the NHS Long Term Plan."