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Remote patient monitoring for long term conditions in West Wales

The challenge

One third of adults in Wales (an estimated 800,000) report having at least one long term condition.

Two thirds of people aged over 65 in Wales report having at least one long term condition, and one third have multiple long term conditions.[1]

People with long-term conditions account for about 50 per cent of all GP appointments, 64 per cent of all outpatient appointments and over 70 per cent of all inpatient bed days. Building upon its successful CONNECT proactive technology enabled care (TEC) programme, Delta Wellbeing is working with the Hywel Dda local health board to support this cohort of patients in a community setting using telehealth.

> As a health board, we have had to adapt the way we evaluate and care for patients using methods that do not rely on traditional in-person services. Telehealth technology has proved to be successful in providing necessary care to patients to ensure their well-being has continued to be monitored regularly.

Jill Paterson, Director of Primary Care, Community and Long Term Care, Hywel Dda University Health Board

About Delta CONNECT

Delta CONNECT is a pioneering national programme funded under the Welsh Government's Transformation Fund through the West Wales Care Partnership Board. Incremental delivery across the region began in 2020. The programme focuses on supporting prevention and wellbeing through a technological and digital approach, and combines bespoke TEC equipment with wellbeing calls, access to a 24/7 community response and digital support.

The programme has been acknowledged as an exemplar in the UK, providing a good practice example of working across sectoral boundaries to deliver a radical, person-centred approach to wellbeing, care and support. The initiative transforms the way social care is delivered, implementing a new model of self-help and pro-active care, utilising TEC to improve wellbeing, helping people to stay independent for longer and reduce demands on long-term or acute care.

[1] (https://cavuhb.nhs.wales/about-us/our-mission-vision/background-to-the-strategy/where-we-began/long-term-conditions/#:~:text=One%20third%20of%20adults%20in,have%20 multiple%20long%20term%20conditions.)

[2] https://www.kingsfund.org.uk/projects/time-think-differently/trends-disease-and-disability-long-term-conditions-multi-morbidity

Photo posed by model

What we did

CONNECT is working with Hywel Dda University Health Board and Tunstall Healthcare using technology to deliver a telehealth service to support patients across Carmarthenshire, Ceredigion and Pembrokeshire.

The initial focus was on encouraging people with long term conditions such as cardiac, lung and chronic disease to self-manage by supporting them in their own homes. Since then, the service has been expanded to include Orthopaedic Prehab and Heart Failure One Stop Clinics managed by Senior Community Pharmacists and specialist nurses, with other programmes under consideration.

Patients receive equipment to take vital signs readings, including a blood pressure cuff, weighing scales and a pulse oximeter. This information is then transmitted to the **myMobile app** on their smart phone. The patient then answers a series of questions about their symptoms, specific to their condition, on their phone, and all the information can then be viewed remotely by clinicians. The software provides a dashboard, which prioritises patients most in need of care, and allows specialist nurses and primary care to remotely monitor each patient's symptoms and progress. Areas of concern will generate an email or text message to clinicians, enabling them to be addressed promptly. The technology also allows patients to have consultations by video helping to avoid unnecessary visits to clinics or hospitals. When required face to face appointments will be arranged for further treatment and consultation (either in primary care of at hospital).

Patient feedback

Speaking about the benefits of home monitoring, 79-year-old cardiac patient Pat said:

> My heart nurse asked me if I would try this new technology that they were bringing in and that it would be very easy to use and helpful to her. It was really simple and I have been more than happy to use it. I've had absolutely no problems what-so-ever. It's no more difficult than going into a GP surgery and having the nurse put a cuff on your arm, oximeter on your finger and there's a pair of scales and it's all connected to the iPad I have been given which then goes straight through to the heart clinic. It's so easy! You can do everything from your own armchair no problem at all.

Results

The telehealth service means changes to a patient's health, or any response to medication, can be monitored in real time, ensuring help can be provided at the earliest opportunity, in many cases avoiding the need for more complex interventions.

From a service perspective, telehealth means that patients can remain in their own homes, with the reduced need to travel to appointments, and decreasing the need for staff to see patients who can be supported remotely.

This in turn reduces stress and expense, and also minimises the risk of cross infection whilst COVID remains a concern. All of this improves the quality of life for patients and their families. The service also empowers patients to manage their own condition, as they learn more about what impacts upon their health and increases their confidence in recognising their symptoms. The service builds upon the principles of shared decision making and co-production in healthcare, delivering improved outcomes.

Previous remote patient monitoring services have found it to be effective for:

- Protecting the wellbeing of vulnerable patients without the need for face-to-face contact with primary or secondary care teams.
- Improving outcomes in patients with long term conditions, empowering them to take responsibility for managing their care and reducing the risk of emergency hospitalisations.
- Monitoring at-risk patients in the community for physical or mental health issues.
- Enabling faster discharge of patients from hospital and reducing the risk of readmission by providing continued monitoring and management in the community.
- Providing personalised monitoring of complex comorbidities.

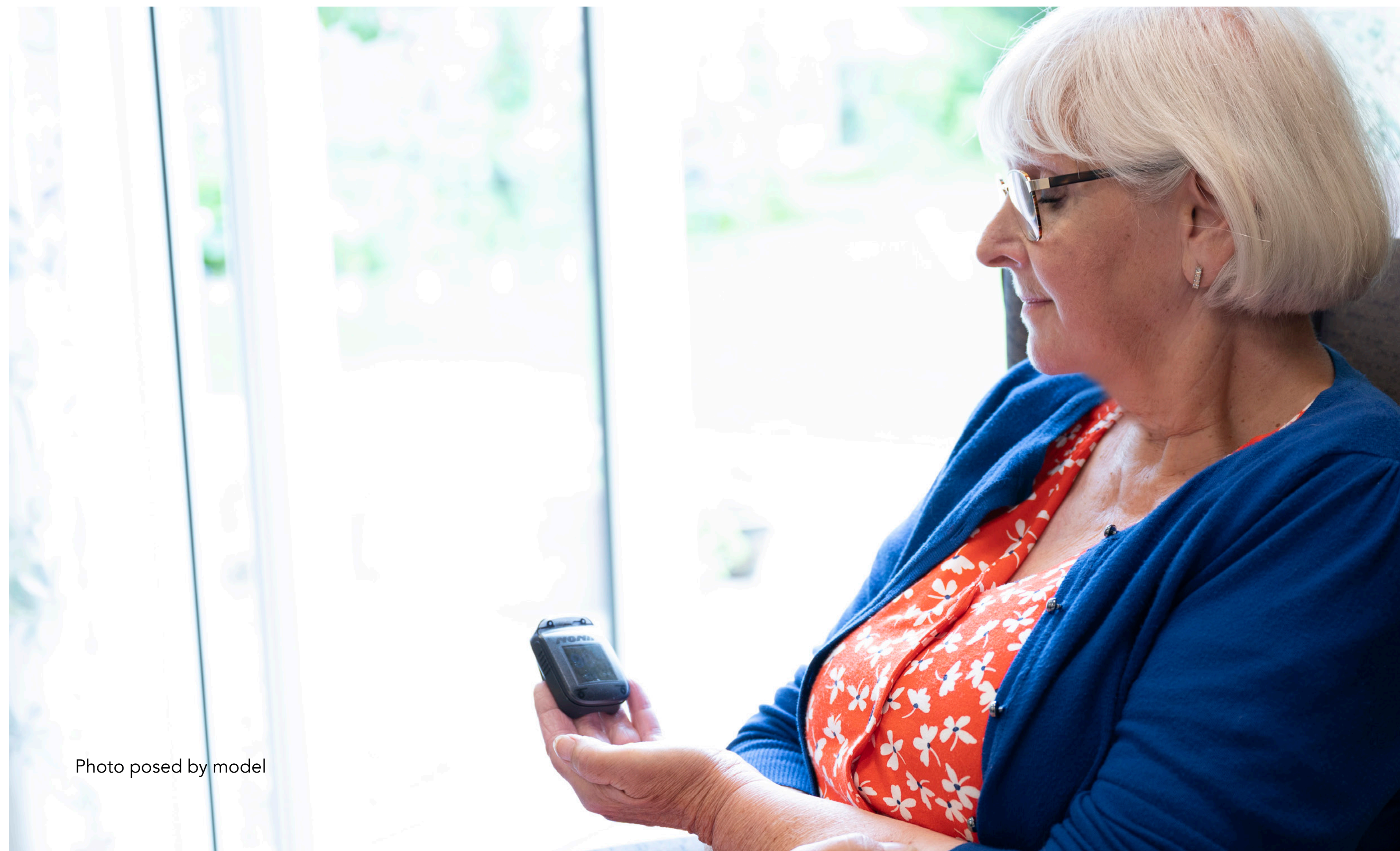
Photo posed by model

Clinician's feedback:

Speaking about how this revolutionary way of working has been supporting heart patients across west Wales, Clare Marshall, Heart Failure Nurse for Hywel Dda UHB, said:

Photo posed by model

" Telehealth equipment allows me to manage medication changes from a distance meaning the patient doesn't need to be exposed to a clinical area with the risk of Covid-19 in the current climate, which patients really like.

I have been able to prevent a hospital admission for a patient whose heart rate had decreased following a change of medication. I was able to advise him to reduce this medication, record his heart rate over the weekend which I would review using telehealth on the Monday. Due to this change, his heart rate had increased.

The patients on my case load absolutely love using remote monitoring. They feel safe. They know I'm going to be on the end of the phone if there's a concern with any of their readings. One gentleman, who we actually discharged from the service has been put back on for the next couple of weeks because he deteriorated. As we initiate remote monitoring while we're trialling medication, this means that we can do it safely, knowing that we can check on the readings.

Remote monitoring is something that my line manager and myself are passionate about. We made sure everybody had access to it. We've got people in rural locations who have no access to mobile phones or even internet and the nice thing about it is that you can use remote monitoring with a sim card if they have no internet so it's accessible for everybody.

I would strongly recommend it, especially for those that are doing virtual clinics and assessments anyway. It is really beneficial for that because you have access to the information that you might need to keep that patient safe in their own home and away from hospital. "

Clare Marshall, Heart Failure Nurse for Hywel Dda UHB

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