

Technology Enabled Care Case Study

Digital dashboard helps Mrs A significantly reduce hospital admissions

The situation

Mrs A is in her 60's, lives with her husband and suffers from asthma and diabetes. Her condition varies in severity and can be difficult to control. During 2019, by November, Mrs A had over 100 days of non-elective hospital admissions including 8 admissions within a 12-week period. Her clinical management is led locally by Community Matrons the Specialist Respiratory Nurse, Heart and Lung Department. These teams regularly review Mrs A's condition in hospital and home visits and via telephone when Mrs A has increased symptoms.

NRS was asked to consider Mrs A with a view to whether a digital TEC solution would help her better self-manage her condition and reduce the need for hospital visits.

The solution

NRS identified a combination of a Cascade 3d digital Connected Care system with a Bluetooth Pulse Oximeter, Blood Glucose Monitor and Alexa Show to support Mrs A. Following installation in January 2020, Mrs A and the Community Matron were shown how to operate the devices and coached in interpreting the results given on a dashboard.

Mrs A can now manage her own health by regularly testing her oxygen saturations and blood sugar levels, creating a dashboard of results during the day. Mrs A can contact the nurses if her readings are out of the norm or symptoms are exasperated. the Community Matron can then video triage with a quick view of the readings remotely. The system can also alert if the readings are out.

Having an Amazon Alexa Show included with the Cascade3d enabled direct communication between the nursing team and Mrs A.

The Trust team went one step further and set up what they now call "The Alexa Room", a private dedicated room for consultations, demos and training in how to use the device for both the staff and patients.

The outcome

When gathering Mrs A's data after four months of using the technology, the team were not prepared for the immediate and impactful results when comparing the data to the previous four months. The results were dramatic – her days in hospital fell from 43 to just three.



Amazon Echo Show, Medical devices from Medisana.

Mrs A has also confirmed that since commencing with Cascade3d, her anxiety levels have reduced and she felt a sense of control over her condition.

The Community Matron can now, at the touch of a button, see and talk with Mrs A to provide advice and support without the need for a physical visit. Using the Alexa Show also means the Community Matron can actively watch inhaler techniques and understand the wider aspects of Mrs A's care at any time.

Cascade3d has saved time for the Community Matrons by prioritising focus on helping when there is real time data to show a need or potential issue. This, combined with the reduced need for home visits, eliminated hospital visits (saving approximately £13,000 over the first 4 months) and reduction in Mrs A's anxiety has led the team to look at other similar potential uses and cases where the Cascade dashboard can be used.

So far 40 other patients have had variations of the same solution installed. And the use of the Alexa Show has enabled greater support as people are connected via video to family and even taught how to online shop. It has allowed other social care practitioners to support and carry out wellbeing checks which would otherwise not have happened.

The success of this has come down to the hard work of the matrons who quickly saw the benefit and committed to trialling the equipment, and other dedicated members of the NRS and Trust team.

For more information about NRS Healthcare visit: <https://www.nrshealthcare.com/>
and for more on NRS TECs: [NRS Healthcare Transforming-use-of-TECs](#)

Cascade3d Connected Care is Cascade3d's flagship healthcare platform that integrates smart IoT sensors and Bluetooth medical devices to support elderly and vulnerable people in their own homes. Behavioural insights are shared with family, caregivers, professionals and call centres to alert changes in routine in real time. This promotes early intervention, which in turn leads to higher standards of proactive care and cost savings. Remote triage is also made possible through video chat devices including Amazon Echo Show.

Cascade3d is a data analytics company based in Cricklade, Wiltshire. Operating primarily in the healthcare and wellbeing sectors, its customer base spans the UK and includes local government, charities, academic establishments and the private sector. Cascade3d has a proven track record in providing solutions across a diverse range of customer requirements, including analytics, data validation and digital communication.

Cascade3d is a TEC Quality certified TSA member and a registered Crown Commercial Service supplier.

