SEQOL – using telehealth to support self-care for people with long-term conditions and learning disabilities

> I can't thank the SEQOL team enough. John's quality of life has improved so much; he's back to how he was 18 months ago. Telehealth has basically given me my son back.
>
> **John's Mum**

The challenge

SEQOL was established as a Social Enterprise (Community Interest Company) in 2011, and is responsible for delivering health and social care in the Swindon area. The organisation works on behalf of GPs, the NHS and local authorities to deliver a wide range of services, including occupational therapy, community nursing, podiatry clinics, assessments of care needs for adults, reablement and support for those with physical and learning disabilities.

How is SEQOL using telehealth to support the delivery of integrated services, and enable people with chronic conditions or learning disabilities to be supported in the community?

What we did

NHS Swindon first introduced telehealth in 2007 to support patients with long-term conditions, in particular Chronic Obstructive Pulmonary Disease. The aim was to improve patients' quality of life by supporting them to self-care, providing better information to primary care professionals and reducing admissions to hospital.

With the creation of SEQOL, the telehealth service was continued and expanded to support a wider range of conditions, including heart failure, learning disabilities, end of life, cancer and pre-cancer. As telehealth has now been embedded into pathways for several years, awareness of the service is high and referrals are taken from a wide range of health and social care professionals.

Telehealth is used as a self-management tool that enables people to better understand the impact of their condition on them. Working with their community teams and GPs, they learn strategies to focus on the things they can do rather than focus on what their illness stops them doing. This improves their quality of life, which in turn gives them the impetus to do more for themselves.

Patients use the telehealth system to monitor their vital signs and symptoms in their own homes, with their daily readings reviewed by the SPA (Single Point of Access) response team enabling community matrons and specialist nurses to contact patients the same day if required. If any readings fall outside the parameters set for that individual patient, they are flagged as 'red' on the colour-coded alert system, and a clinician is contacted. The appropriate response to the red alerts by the lead clinician alongside both the clinical and self-management plans is key in avoiding unnecessary admissions.

Highlights

- Complex and unusual cases can be supported in the community
- Supports integrated health and social care services
- Enables tailored care plans to be delivered
- Clinicians have improved information to support decision making
- Trends and exacerbations can be identified enabling early intervention
- Hospital admissions reduced from 50 to zero for one patient
- Patients are better able to self-manage
- Improves access to health and care services for people with learning disabilities
- Supports carers

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Case studies

Len's story

Len is 62, and in 2001 he contracted a virus which left him with cardiomyopathy. As a result, his heart swelled to twice its normal size, and Len was admitted to the Great Western Hospital no less than 143 times in nine years; more than once a month. The approximate overall cost of these admissions was £357,500. Len has had a pacemaker fitted as well as an internal defibrillator as his heart regularly goes out of rhythm. Len's condition means he retains excess fluid in his body, which has to be regularly managed to avoid further loss of heart function and overall physical condition. To help manage Len's fluid overload, he visits SEQOL's Swindon Intermediate Care Centre (SWICC) for three days as a day case when intravenous diuretics are required to reduce the excess fluid from his body.

In 2010 the SEQOL team provided Len with a telehealth system to monitor his symptoms at home, in particular his blood pressure, which is often low, and his weight, an increase in which is an indicator that he is retaining fluid. Len usually takes his readings by 5.00am, but may take them several times a day depending on his symptoms, and his Community Matron responds to the red alerts which are being read by the SPA Team.

Telehealth has enabled Len to become much more knowledgeable about his condition, and better able to manage it. If his weight increases he can take additional diuretics in accordance with his self-management plan, and he knows the signs when his renal function is good or bad.

Use of the system has also helped Len to reduce his weight to the point where he has recently been deemed clinically fit to go onto the heart transplant waiting list.

Since telehealth has helped the Community Matron to stabilise Len's condition, he has had no unplanned admissions to hospital. The cost of his care has also significantly reduced since 2010 with only planned day case management and more recently Len has not required day case management for over 4 months. The self-management and clinical management plans alongside telehealth have achieved individual management, stabilisation and improved quality of life for Len and his wife.

> We used to have a bag permanently packed ready to go off to hospital at short notice. We were so worried all the time, and I used to need a lot of time off work. The system means we understand much more of what's going on and can manage things at home rather than calling for an ambulance.
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> **Jackie, Len's wife and carer.**

Since the SEQOL team provided Len with telehealth, the recurrent cost savings to the NHS is £250,000 per year.

Photo posed by model

> Telehealth is tremendous. I now feel in control of my condition, I can see the information and make changes to meds and things to make sure I keep well. Since I've had telehealth I haven't been admitted to hospital as an emergency at all, just for routine appointments, and it's helped me to manage my weight to the point where I can go on the transplant list.
>
> **Len**

John's story

John is a 21 year old man, with complex needs including profound learning and physical disabilities, and asthma. John is a wheelchair user and is fed via a PEG tube. He lives in a five bedroom supported environment with four other young males.

When John was referred to the Community Matron, he was assessed for telehealth and he was considered to be palliative, in critical condition, and end of life planning had taken place. He had a history of being a high intensity service user with multiple hospital admissions. For over a year John had been in a cycle of asthma exacerbations, which were often reported by care staff out of hours and as a result he was taken to hospital and given strong intravenous antibiotics, which in turn aggrevated his bowel condition. John then contracted C. Diff during his time in hospital which required further treatment.

During a meeting with John's mother and members of his care and support team, it was agreed that the introduction of the telehealth service may help to detect exacerbations at an earlier stage and enable them to be treated differently, helping to keep him out of hospital. Telehealth monitoring quickly identified that John's oxygen levels were fluctuating significantly, which prompted an assessment and led to John being put on a permanent oxygen concentrator to stabilise his condition. John's GP and the Community Matron developed clinical managements for the care staff to follow if John's telehealth readings indicated a change in his condition.

Telehealth, linked with these plans, has enabled his asthma to be controlled, as any drops in oxygen saturation are picked up early, and he can be treated with antibiotics and steroids at home rather than being admitted and requiring intravenous antibiotics. Management at home also reduced John's anxiety and distress at being in an unfamiliar environment. As telehealth enabled care staff to respond to the changes in condition by prompt management they have not only reduced multiple admissions and the use of intravenous antibiotics but John's quality of life has improved.

John's condition has improved enormously since the introduction of telehealth. He has had no further unplanned hospital admissions, and therefore no more hospital acquired infections. John is able to go for days out and enjoy weekend visits home.

Telehealth has resulted in:

- Reduced non-elective admissions from fifty, July 2011 – June 2012 to zero July 2012 – May 2013, a **cost avoidance to the CCG of £150,000**
- 1:1 overnight care no longer required, **reducing costs by £61,500**
- Reduced community nurse visits from daily to weekly; at £40 per visit this **releases £13,500 of efficiency**
- Reduced GP visits from 4 times weekly to once a week; at £100 per visit, **releasing £19,000 efficiency to the Practice**

> "Teleheath has supported the Community Matrons and Specialist COPD nurse to provide individualised management of a patient with long-term conditions. Telehealth has enabled improved management of long-term conditions in patients with learning disabilities and better access to health care.
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> We have always ensured that we provide the appropriate response to the red alerts which enables prompt management. Telehealth helps to empower patients to self-manage and be more independent.
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> Within SEQOL we are always looking at new ways of using telehealth in the management of long-term conditions. We are increasing the use of telehealth within learning disabilities and our next step is to develop the use of teleheath within dementia.
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> **Kim Hogan, Community Matron**

Photo posed by model

Results

The telehealth service has enabled clinicians to support more complex or unusual cases in the community than they would otherwise be able to. Particularly in the context of an integrated health and social care service, telehealth enables tailored, holistic management plans to be developed to support individuals, with input from all relevant stakeholders.

Daily readings provide clinicians with a snapshot of their patients' health every day, and this simply would not be possible without telehealth. As a result, the service provides high quality information to support clinical decision making. Not only does this support the work of specialist nurses, community matrons and case managers, but can also provide GPs and hospital staff with a comprehensive record of the patient's health since their last appointment.

The ability to create tailored reports on patients' readings over time also allows trends to be identified more easily, enabling early intervention and preventing hospital admission and associated costs.

An unanticipated benefit of the service has been that it supports the health of carers, as it gives clinician's an opportunity to suggest that they might benefit from a health check. As carers can be under great stress and often neglect their own health, this preventative approach can help to protect their wellbeing.

HSJ Efficiency Awards 2013

The SEQOL team receiving their HSJ Efficient Telehealth Solutions Winners Award

Judges comments: *"The early cost savings are high, both in the acute sector and across the whole system."*

The service has resulted in:

- Improved quality of life for patients - more choice, control and proactive prevention and management
- Access to mainstream services for people with learning disabilities who have long-term conditions
- Streamlined care and efficient use of resources e.g. reduced community nursing and GP call outs
- Cost avoidance from reduced inappropriate hospital admissions
- Improved timeliness in response to management of symptoms and prevention of exacerbation
- Increased ability for patients to self-manage their symptoms
- Support for carers and to care providers

Next steps

Although awareness of the service is high, supporting people with learning disabilities is a comparatively new area and a working group has been established to develop this further. Risk stratification work has commenced, focused on people with learning disabilities who also have respiratory difficulties. This cohort of patients, particularly if they are non-verbal, do not always benefit from easy access to services and many cases it is detrimental to their wellbeing to be moved from familiar environments into hospital. The telehealth service aims to help to address inequalities in access to health care, supporting people with learning disabilities at home, improving outcomes and creating a model that can be replicated in other areas.

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