

case study



Sector: Chronic Disease Management

Client: ChesterCare and Western Cheshire Primary Care Trust

Application: Telehealth

the challenge

Chronic Obstructive Pulmonary Disease (COPD) is one of the most common respiratory diseases in the UK and it is estimated there are approximately 3 million people with the condition¹. The Countess of Chester Hospital alone has 65,000 yearly attendances to the Accident and Emergency Unit. Community nursing visits cost £2 million and NHS transport £18.4 million².

Western Cheshire Primary Care Trust (PCT) needed to develop a new approach to coping with long term chronic medical conditions and the PCT approached ChesterCare about developing a telehealth pilot. The PCT needed to be more proactive in their monitoring of patients, increase the efficiency of their Community Matrons and educate patients about their symptoms, which should all lead to a decrease in the number of emergency care visits and unplanned hospital admissions.

References

- 1 – British Lung Foundation Website 2008
- 2 – National COPD Audit 2004
Directory of Critical Care 2007



Western Cheshire
Primary Care Trust



All the reassurance you need





A range of medical devices can be linked to the Honeywell HomMed Genesis DM™ telehealth monitor.

the project

The six month pilot using telehealth technology was to support patients in their own homes with several chronic medical conditions including Congestive Heart Failure (CHF), chronic kidney failure, angina, hypertension/hypotension, Diabetes, and COPD.

Other project goals included:

- To reduce the number of emergency hospital admissions and hospital bed days and facilitate early discharge related to these patients.
- To provide rapid response and assist with effective triage by Community Matrons for patients who show a change in their condition.
- To empower patients with chronic medical conditions to take an active role to improve their health status, helping improve confidence, independence and quality of life and reduce acute exacerbations and unplanned hospital admissions.
- To demonstrate the flexibility of telecare and telehealth equipment with the changing needs of the patients.
- To deliver best practice and value for money.
- For patients, carers and staff to benefit by reducing time spent on hospital visits and the associated risk of hospital acquired infections and environmental impact of care.

the process

Establishing an integrated service

As a PASA approved supplier who had guided many Primary Care Trusts through the process of adopting telehealth, Tunstall was the preferred choice. In order to establish best practice a champion nurse was appointed to take the lead on the implementation. To create an effective service for patients, key members from a number of different organisations needed to be involved. These included Finance, Informatics and Technology, Commissioning, Support and Management staff from ChesterCare and Western Cheshire PCT, as well as Community Matrons and Social Services.

A central triage station at ChesterCare was created to receive confidential patient information from the telehealth monitors. The monitor allows patients to record their vital signs from the comfort of their own home, including heart rate, blood pressure, temperature, weight, blood glucose, oxygen saturation and peak flow. It also asks them a series of subjective disease specific questions related to their condition to further determine their current health status.

The data is then made available to all appropriate health professionals to promote regular communication between the PCT, ChesterCare and Social Services to create a more integrated approach. This has built up trust between organisations, which led to better teamwork, and a co-ordinated service for patients.

Telehealth training

Tunstall provided support to all parties to assist with the integration of telehealth into existing healthcare systems. This included training so that all relevant parties were familiar with the equipment and its capabilities. Health professionals from the PCT, including Community Matrons, were thoroughly trained on how to use the monitor so that they could in turn instruct new staff and demonstrate its functions to patients.

Co-ordinated patient assessment

Joint patient assessments were carried out by ChesterCare and Community Matrons from Western Cheshire PCT. As well as finding suitable patients for telehealth monitoring from the Community Matrons' caseload, it gave ChesterCare the opportunity to assess the patients for telecare. Patient data is transmitted over the telephone to the triage station where monitoring is carried out on a daily basis by ChesterCare. If a patient's vital signs fall outside preset parameters, an alert will immediately be raised and they will be referred to a Community Matron. Remote access to the data is also available to Community Matrons, allowing them to triage their patients from any location with internet access.

There was a major clinical change from providing reactive to proactive care through telehealth and the Community Matrons embraced this new concept of innovative working practice.

the results

The results from the telehealth pilot have been very encouraging in terms of both supporting patients and possible cost savings for the Primary Care Trust. Community Matrons in Cheshire manage a group of around 50 to 80 patients and they can visit approximately three patients per day. It takes ChesterCare staff approximately 1.5 hours a day to collate the results from 10 patients, which includes retests. One Community Matron said *“telehealth helped to reduce the length of visits as all the observations were already done.”*

Telehealth provides Community Matrons with a number of benefits:

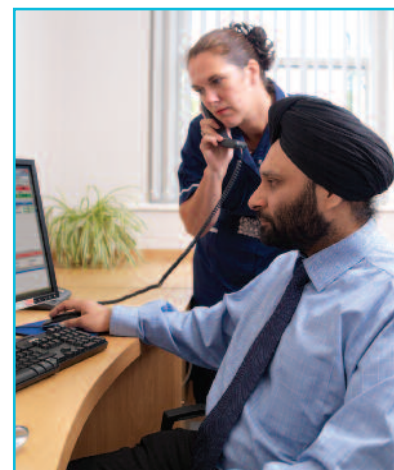
- The ability to effectively triage more patients on a daily basis.
- To prioritise their workload which improves their productivity.
- Daily monitoring prevents exacerbation of the patients' condition which reduces the number of emergency hospital admissions.

Patient feedback

ChesterCare and the Community Matrons created a survey to gather feedback from patients about telehealth monitoring. Overall patients were very satisfied with the service and felt as if they and their family had benefited from telehealth. They were more in control of their medical condition and felt as if monitoring had made a real difference. Patients and their carers felt they had peace of mind. *“I like the reassurance of knowing early signs of a problem could be identified and appropriate action could be taken,”* said one patient.

Telehealth led to many patients taking more responsibility and they became increasingly aware of their symptoms. Some patients also benefited from having telecare installed in their home, which allowed them to raise an alarm if they felt unwell so that they could send another reading using their telehealth equipment.

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partnership working

As a result of the telehealth project there has been many advantages to the partnership working for both Primary Care Trust and ChesterCare. For example the new sharing of data between the two organisations has enabled the falls co-ordinator, who is also involved with both telecare and telehealth, to have up to date information on patients who have reoccurring falls which has enabled more preventive measures being put in place for this group of patients.

Another advantage has been that ChesterCare are now able to work closely with the Primary Care Trust commissioning manager responsible for developing Chronic Obstructive Pulmonary Disease services. The integrated working has allowed the sharing of reliable and up to date information on the weather forecast, which is used by care managers to inform their service users on more preventative measures.

The Community Matrons are now much more aware of the telecare packages and therefore will initiate the telehealth package for their patients.

In the conclusion of the Lord Darzi report dated June 2008 he states that *"the focus on prevention, improved quality and innovation will support the NHS in its drive to ensure the best possible value for money for taxpayers"* and that *"assistive technology allows patients to become empowered to take greater responsibility of their own health and to dictate their own time, effort and energy to solve their health problems"*.

the future

A card reader system has been installed at Sutton Beaches, a respite and residential care unit, which allows up to 250 patients to use one telehealth monitor. A swipe card configures the monitor for individual patients, asking them to record vital signs and answer a unique set of subjective questions tailored to their condition. This card system has the potential to show a reduction in district nurse home visits as this group of patients can now have their vital signs monitored at their convenience.

Following an evaluation of the pilot, a decision will be made by ChesterCare and Western Cheshire PCT about the possibility of mainstreaming telehealth to make it as widely used as telecare. The next stage is to make arrangements for more telehealth monitors to be used by other nursing teams which will benefit more patients in the area.

With an ageing population and an increasing number of patients with severe medical conditions, the future effective, efficient management of these patients is paramount and telehealth would appear to be the way forward.

Tunstall

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Tunstall is a founder member of the Continua Health Alliance

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