Case study: Connected Health

Tunstall

Improving patient care and making efficient use of resources using telehealth

The challenge

Healthcare is facing significant demographic change, and an increasing prevalence of long-term conditions. Within the climate of finite resources, there is an ever increasing emphasis on providing patients with the support and skills to self-manage, and for healthcare services to provide timely interventions that promote well-being, reduce morbidity and more efficient use of healthcare resources.

Could investing in the remote monitoring of patients using telehealth, as part of the Long Term Conditions QIPP programme, result in improved clinical outcomes and reduced healthcare costs including:

- Fewer unplanned hospital admissions and reduceddemand on unscheduled care
- Efficiency gains from reduced visits and increasedcapacity for case managers
- Improved medication compliance
- Support the delivery of high quality of care to patients with long-term conditions?

What we did

Tunstall has worked in partnership with Tameside and Glossop Clinical Commissioning Group (CCG), Tameside Metropolitan Council (TMBC) and Tameside and Glossop Community Healthcare to deliver a telehealth service since 2010. The initial deployment saw a total of 60 patients using Tunstall's mymedic and icp triagemanager solutions, supported by a dedicated team of nurses from Tameside and Glossop Community Healthcare, the Long Term Conditions Management Team (LTCMT). Over 250 patients are currently being supported.

Key statistics

The service has resulted in:

- Hospital admissions for 221 patients reduced from 122 pre-telehealth to 75 post-telehealth over 12 months
- 75 patients discharged earlier than average bed stay
- Reduced frequency of some home visits by the LTCMT
- Inappropriate home visits by the LTCMT reduced
- Earlier intervention enabled, avoiding more complex care

> "Telehealth enables individuals to manage their own long-term condition effectively at home and can result in early diagnosis of unforeseeable health related problems as well as empowering patients to take a more active role in their care."

Joanne Denny, Telehealth Triage Nurse, Tameside & Glossop Community Healthcare

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How the service works

The mymedic unit allows patients to monitor their blood pressure, oxygen levels, weight and temperature, and also asks a series of health-related questions. Results are automatically transmitted to the icp triagemanager software for technical triage by the Local Council's Community Response Service (CRS). If the patient's readings are outside their normal limits the CRS will contact the patient to ask them to re-test. If the readings remain outside their normal limits they will be reviewed by the clinician from the LTCMT who will contact the patient to assess their need for support. The patient may be contacted and if so will be triaged over the telephone. Advice may be offered by the clinician and/or the patient will be discussed with the on call advanced nurse practitioner and a visit arranged if needed to review the patient in the community.

The team have developed the service since it was first implemented, to introduce and ensure standards of monitoring are high and that guidelines are in place to support both the CRS and the clinicians within the LTC Team. Referrals are received via the team and the Council arrange to install the equipment if patients meet the criteria for monitoring. Initially patients are monitored daily for 2 weeks to help the patient get used to the equipment and to enable clinicians to monitor their trends before setting the limits on the system. After this period of 'blind testing' the patient will have a visit from one of the LTCMT's Assistant Practitioners to discuss any issues and reiterate the need to follow their instructions that they received at installation. Patients will then be monitored for a minimum of 2-7 days a week which can be reviewed and increased/decreased as and when the patient is stable or unstable. The team will initially monitor the patient for 3 months before being reviewed. During this time the Advanced Nurse Practitioner supports the patient in the community, and will then decide whether to continue monitoring for a further 3 months up to a maximum of 12 months in total.

Key to the project's success has been the collaborative effort of the CCG, the Trust, the local Council and Tunstall to deliver a fully-managed service which meets the needs of its users and integrates with social care. The community health provider and commissioning teams incorporated telehealth into local COPD management pathways, working with clinical teams to put in place operational processes such as patient recruitment, assessment, service redesign and technical/clinical triage. This collaborative process began with an intensive period of engagement with local stakeholders and has resulted in telehealth being embedded into everyday working practices of local clinicians.

> "It tells the nurses more accurately what the problem is, and it gives us such confidence. We just feel that with telehealth we're not alone."
>
> **Sandra, wife of COPD patient**

Patient experience

Tom has had COPD for five years. He lives at home with his wife Maureen, where their four children and many grandchildren visit them regularly. He's been using telehealth for over a year. Tom says:

"The service is fantastic, I don't know what we'd do without it. It's so much better than a hospital. You have specialist treatment in the comfort of your own home. The nurses all know what they're talking about and they all know me and understand my condition. It's such a relief for me and for the family, they don't worry as much about me. It's so good to know the nurses are there; I take my pressure and things twice a week and within half an hour if there's anything wrong someone's in touch with me. The service is a fantastic support in all sorts of ways. I was quite depressed for a time, but being able to talk to the nurses really helped; they go above and beyond. I don't know who invented telehealth but they deserve a medal".

Geoff has COPD and unfortunately his condition has progressed to the point where he is using oxygen at home. He is cared for by his wife Sandra and has been using telehealth for just over 12 months, taking his readings on a Tuesday and Friday. Sandra says of the telehealth service:

"It's absolutely brilliant, a real life line for us. The nurses are so friendly but so professional, and the service gives us real continuity of care; the nurses all know Geoff inside out. The system is really easy to use, Geoff does it himself, and the rest of the time we don't notice it's there, it's not intrusive at all. Nurses will ring us if anything is out of parameters and tell him to take some steroids or something, or we can ring them anytime if we're worried. It tells them more accurately what the problem is, and it gives us such confidence. We just feel that with telehealth there's someone there for us all the time; we're not alone. If I had to rate it out of 10 I'd say at least 20. It's priceless to us".

Dorothy lives at home with her husband and due to COPD is now on permanent oxygen. She has had COPD for about 7 years, and has been using the telehealth system for almost a year. Dorothy says:

"It's a marvellous service. I take my readings every Tuesday and Thursday and I actually look forward to it as I know someone will check them and be straight onto it if there's anything wrong. The nurses are all so caring, and you can get in touch with them anytime. It's so easy to use and it just feels like someone's keeping an eye on you all the time, like you've got your own nurse at home".

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Results

The service has enhanced care provision for patients with Long Term Conditions and helped the Trust meet QIPP targets.

Using telehealth has enabled a higher level of support to be provided to patients with chronic conditions in their own homes. By empowering them to monitor their own condition and encouraging them to be more proactive in managing their own health, patients can lead a better quality of life, feel more confident that their condition is under control and avoid frequent stays in hospital.

The service has resulted in:

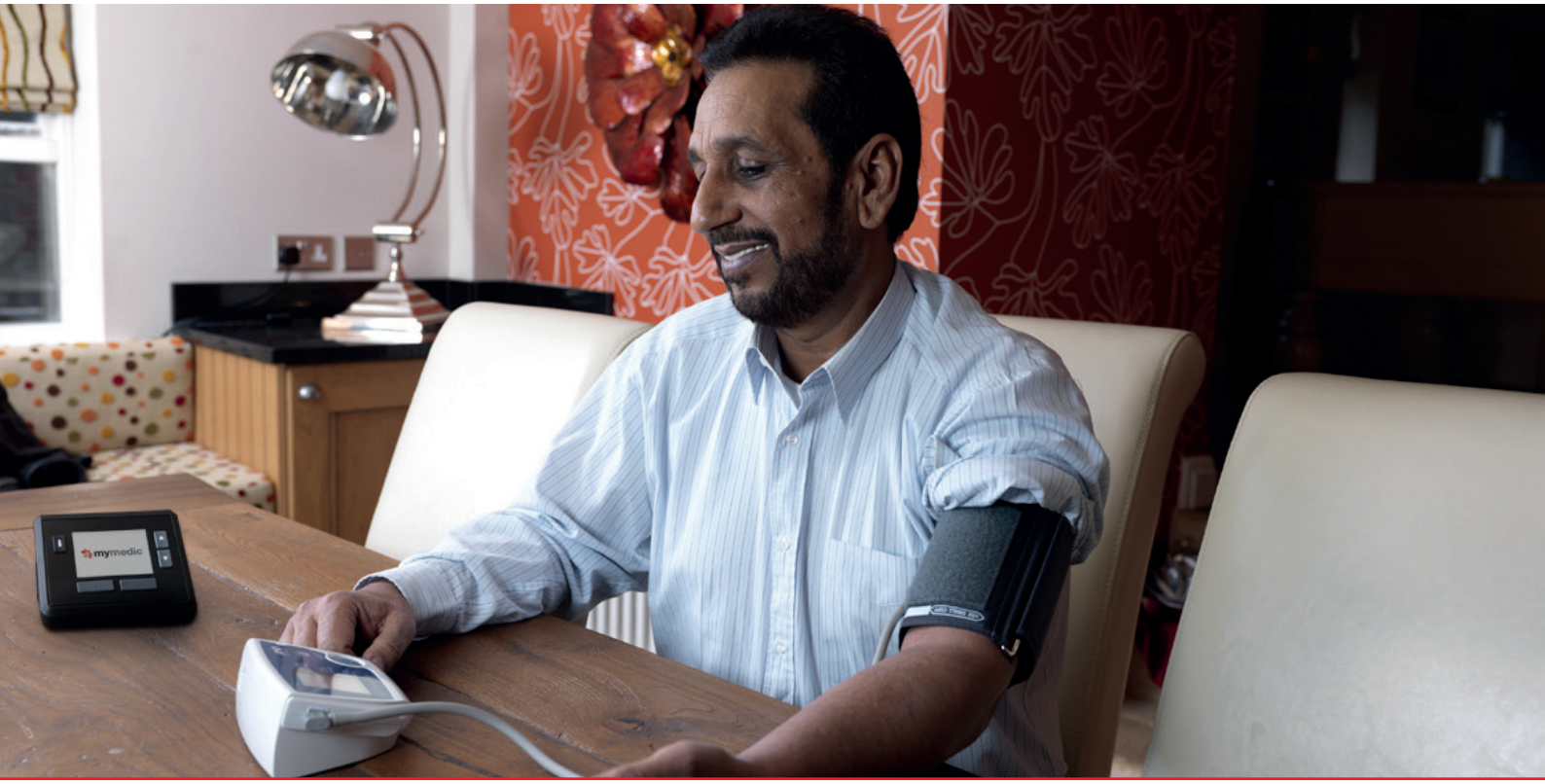
- Reduced frequency of some home visits by the LTCMT
- Reduced inappropriate home visits
- Frequent patient monitoring has identified subtle deteriorations in clinical parameters which has prompted an earlier intervention, avoiding more complex care being required
- Undiagnosed pathology has been managed and/or referred to the appropriate clinician
- Remedial treatments such as changes to medication have benefitted patients enrolled.

> The service is fantastic, you have specialist treatment in the comfort of your own home. It's such a relief for me and my family.
>
> **Tom, telehealth patient**

Data from April 2014, based on 221 telehealth patients over 12 months, showed:

- 22 hospital admissions (55%) for these patients up to 6 months prior to their telehealth installation, which reduced to 75 admissions (34%) following the introduction of telehealth
- Of the 75 patients who have been admitted post installation, 38 were not admitted in the first 2 years of installation
- •All 75 patients admitted were discharged earlier than the average bed stay for the condition
- Only 1 patient was admitted to hospital within the first 12 months of installation

(Note: Length of use of telehealth for these patients varies as data is cumulative. Data source Tameside and Glossop Community Healthcare).



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