

Training patients with acute exacerbation of COPD to recognise and treat their symptoms early.

As COPD is predicted to be the third largest killer worldwide by 2020 it is vital that processes are developed to manage the condition effectively. Lord Darzi suggested that care should be provided closer to home, with innovative use of technology; in order to care for and promote self-care in an aging population. The British Lung Foundation (BLF) identified Southampton as a hotspot for COPD. The main challenge is to reduce the impact of COPD on health care resources whilst maintaining the highest standard of care for patients. To date telehealth has been used to aid the clinician to case manage. This study aims to help patients to take more responsibility for their condition using telehealth with specialist support to train them to identify and self manage acute exacerbations. Training patients with acute exacerbation of COPD to recognise and treat their symptoms early.

The project aim

- ◆ is to increase the use of telehealth within the Community Chronic Obstructive Pulmonary Disease (COPD) Team
- ◆ to explore how the team could work differently to provide an effective service for an increasing number of patients with this condition.
- ◆ to measure the efficacy, benefits and cost effectiveness of the technology in supporting patients with COPD
- ◆ to examine the impact of telehealth on patient experience and quality of life and review whether the technology improves the ability of the patient to self manage.

Initial Key findings

Since the project started the Community COPD team have reported 192 avoided admissions to the acute sector (Oct 09 to Dec 10). The remote monitoring provides the team with a richness of data and a greater understanding of a patient's condition enabling earlier intervention of exacerbations of illness.

Conclusions

The use of the technology has enabled the Community COPD team to offer an enhanced service to patients without increasing the number of clinical staff on the team. Additionally an unexpected outcome has been an improved seamless pathway with allied community staff and general practice, to provide a more sustain-

able service.

The first wave of evaluation shows that, by implementing telehealth, the team have added to the patient's experience of the service. In turn, patients are reporting an increased quality of life for both themselves and their carers. Many patients have indicated that they never want to lose the <HEALTHHUB®> and feel it has made them feel more supported and connected with the team.

The use of telehealth has supported the patient to learn more about their condition

Patient quotes:

"Definitely it has been a god send"

Southampton telehealth user (COPD), April 2010

"It is really good for passing on information, and gaining a quick response to problems. I am very satisfied"

Telehealth User (COPD) May 2010

"I used to joke about taking a bed to the GP surgery as I was there so often, I now have access to more information and reassurance to stay at home"

Southampton telehealth user (COPD), February 2010

"Fantastic product, reassurance in the home, starting to use the computer and TV as less afraid of technology"

Southampton telehealth user (COPD), February 2010

"(I am) much more comfortable at home, generally less anxious. Have piece of mind."

Carer, February 2010



evidence based telehealth

Comments

• Care homes and families involved with the pilot

'Useful in early detection and improved residents receiving treatments and improved recovery.'

'I cannot stress how fantastic this has been for our residents and the number of potential admissions that we have avoided. This is so important to us given that we are a dementia home and our residents respond better in their own home.'

'It has been useful as now the staff are aware of the early signs that something is changing.'

'Mum was having problems with her blood pressure and the matron arranged for a 24hr tape. Mum's medication was altered accordingly, all done within the home.'

• Matrons Feedback

"Gave the homes more confidence in assessing their patients condition"

"Exacerbations/deteriorations were identified sooner avoiding admissions"

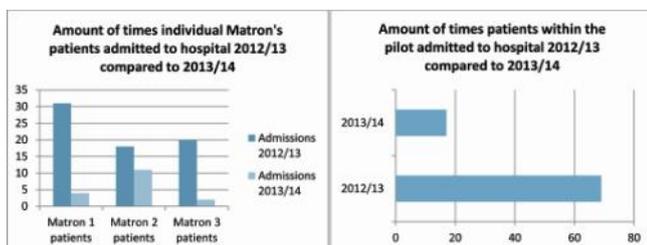
"Homes discussed issues, leading to advice and support given, resulting in reduced GP visits"

"Families of the patients welcomed the pilot and were very excited by it"

• Care Quality Commission Feedback

CQC happened to make a visit to one of the homes involved in the pilot and commented

'They felt it was a positive action for the home and really liked it.'



Comparative hospital admission data

Alert handling

All 4 matrons received alerts for their patients. Overall Heart Failure was the top primary diagnosis for the alerts with a total of 252 with COPD second at 181. However, when reviewing the primary diagnosis group on average alerts raised per patient were 23 for COPD and 18 for HF. The response to the alert depended on what the home told the Matron. Each alert would result in a telephone call which would lead to:

- ◆ advice given over the phone
- ◆ visit made to the patient
- ◆ new diagnosis with a new treatment plan to follow prescription
- ◆ The matrons did not admit any of their patients apart from one who was in Type 2 respiratory failure and was toxic from their medication.

Diagnosis	Patients	Patients alerting	Total alerts
CHF	19	14	252
COPD	12	8	181
UTI	18	9	36
Diabetes	25	9	20
Unrecorded	18	6	24

Conclusion

This pilot shows that using low intensity Telehealth is a cost effective approach to admission avoidance at a cost of £0.90 per day per patient and for the period of this pilot there was a 75% reduction for admission across the patients involved compared to the same period the year previously and 49% had no admissions at all compared to the previous year.

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