

Elimination of Avoidable Hospital Admissions 75 year old lady with COPD

This 75 year old lady has been living alone for a number of years since the death of her husband and has been receiving home oxygen therapy since 1997. She received education to primary school level only and worked for most of her life as a manual labourer in various local industries. Her living accommodation is owned by her but is old and considered less than adequate by the local authorities who have arranged for her to receive occasional carer support. Her home is in an outer city location some distance from her hospital and community clinic. She has a degree of learning difficulty finding it difficult to understand and take on board new ideas.

Clinical status

This patient has been diagnosed as having chronic respiratory disease with a primary diagnosis of Kyphoscoliosis, presenting as lateral and posterior curvature of the spine which in association with her restrictive respiratory function caused breathlessness at rest and on minimal effort.

She has a height of 1.35 meters, a body weight of 43 kilos with a BMI of 23.59. Over the 12 month period prior to receiving home she had shown progressive decline in health status and was admitted to hospital on two occasions. Each time she was admitted for two days of bed occupancy whilst the clinical team sought to stabilise her condition and to reduce the rate of decline. Baseline SpO2 was considered the best indicator of her health status and intensive oxygen therapy during the admission periods was the treatment deployed to reduce the breathlessness. The patient had a declining health status with a history of two previous hospital admissions in the previous twelve month period during which it was possible to stabilise the patient.

Method

On contacting the hospital regarding a continuing decline in health the patient attended an outpatient clinic. The clinical nurse specialist recorded a Peak Expiratory Flow of 150 alongside an SpO2 value of 93 %. Following a full clinical assessment, the patient was approached to be enrolled to the home monitoring programme. The programme was outlined and explained further. Particular emphasis was placed on the need for patients requiring regular monitoring regimes to self-assess and self-manage their condition.

She agreed to enter the home monitoring programme and was monitored on a daily basis by the clinical sup-

port team using the telehealth <DOC@HOME®> system. The use of telehealth has supported the patient to learn more about their condition

Key objectives

The stabilisation of her condition to avoid an exacerbation and further hospital admissions. Clinical evidence showed that it was possible to achieve this by systematic Oxygen therapy alongside clinical support. The main objective was to reduce hospital admissions and bed occupancy days by 50%.

Outcome

The patient self-monitored every day and received occasional home visits at which time SpO2 readings were taken. The patient indicated response to respiratory question sets specified by her specialist clinician. These were monitored on a daily basis and feedback was provided in the form of messages and telephone calls.

The baseline oxygen levels improved steadily over several months from a starting value of 93% reaching a steady 95% at the 5 month period. Improvement continued reaching a sustainable stabilised value of 97% at month seven through to the end of the monitoring period.

Conclusions

It proved possible to manage this patient at home. Decline in health status was halted and clinical stability achieved following which a steady progressive improvement in baseline SpO2 was attained. Hospital admissions and occupied bed days were completely eliminated achieving twice the planned level of improvement and contributing a significant reduction in use of resources.