HOW RMT COULD REDUCE HOSPITAL READMISSION RATES IN COPD PATIENTS

Chronic obstructive pulmonary disease (COPD) is an issue that affects millions of individuals worldwide. It's a chronic disease that causes inflammation in the lungs which, in turn, leads to obstructed airflow. This can cause significant quality of life issues for patients as well as directly impacting their health and happiness. Luckily, there are certain methods that can be used to control and manage the illness without the need for constant readmissions to the hospital. RMT used with the Breather 2, for example, is one such method. Let's take a look at the issue in great depth below!

Key Findings

- In the US, COPD is responsible for more than 1.5 million emergency room (ER) visits and 725,000 hospitalizations per year, amounting to healthcare costs of $60 billion.

- About 22.6% of discharged COPD patients will have an all-cause readmission within 30 days, with 18% higher costs than for first admission with COPD.

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Patient Impact

Remotely monitored RMT could therefore improve patient outcome, and reduce readmission rates and health care burden.

Is COPD common?

In the US, COPD is responsible for more than 1.5 million emergency room (ER) visits and 725,000 hospitalizations per year, amounting to healthcare costs of $60 billion. Predictions estimate that by 2030, the burden of inpatient care will increase by 182%, and the number of COPD-related hospitalizations by 210% (from 2010), driven by the ageing population. By 2030, 55% of the COPD patients will be 75 and older, and 92% of inpatients days will be contributed by patients 65 and older.

Once COPD patients are discharged, are they typically able to manage their condition at home? About 22.6% of discharged COPD patients will have an all-cause readmission within 30 days, which could qualify hospital for penalizations (1)(2). Costs for readmission with COPD as diagnosis are $8,400 on average; 18% higher than costs for first admission with COPD ($7,100). Costs for an all-cause readmission average at $11,100 (3). Factors contributing to increased hospital duration and readmission rates include disease severity (GOLD status 3 or above), number of comorbidities and marital status (4). Non-pharmacological reduction of acute exacerbations of COPD (AECOPD) – mediated readmissions is poor at the moment.

Does RMT have any effect on hospital readmissions?

Standard pulmonary rehabilitation without RMT has no impact on readmission rates, whereas individualized patient management including involvement of the patient's social environment and constant availability of medical advice showed some effect (5). Remote monitoring of computer analysis of respiratory sounds in COPD patients was able to predict 75.8% of AECOPD-mediated readmissions, indicating great potential for telemedicine to reduce readmissions of COPD patients, prevent AECOPD and to reduce healthcare costs (6).

The remote monitoring functionality of the Breather 2 will provide health care providers with direct access to patient's respiratory functions, compliance with respiratory muscle training (RMT) and the possibility to intervene and prevent AECOPD. These features of the Breather 2 aim to improve patient outcome, and reduce readmission rates and health care burden.

References

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