Telehealth in Practice

Kristiansand, Southern Norway - COPD

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Ambition

The aim of the telehealth service for patients living with COPD is to support self-management through the provison of an appropriate level of telemonitoring that is flexible and can respond with fluctuations in their health status and thus avoid future emergency hospital admissions due to a COPD exacerbation. In addition, telehealth is being considered as one possible solution which will help meet the challenge of a lack of medical staff within the healthcare system in Southern Norway.

COPD **ROUTINE** CARE SERVICE MODEL

Level 1 : Self-management
Patient and Carer.

Level 2 : Supported Self-management
Patient, Carer, GP Practice, Home-visiting nursing service from Municipality as appropriate.

Level 3 : Specialist Supported Self-management
Patient, Carer, GP electronic referral and discharge communication to GP and Municipal Assignment office if relevant, Hospital-based respiratory specialist doctors and nurses .

COPD **TELEHEALTH** ENABLED CARE MODEL

Level 1 : Self-management
Patient/carer trained in the use of telehealth and self-management.

Level 2 : Supported Self-management
GP has no access to the telehealth web portal but is notified of patients on telehealth.

Level 3 : Specialist Supported Self-management
Telemedical Centre nurses who delivers care via VC, remote monitoring, alert response, telephone/text messaging. Hospital respiratory specialist and GP as necessary.

COPD Care Management – routine care
The diagnosis and treatment of COPD in secondary and primary care in Agder counties is delivered according to locally adapted guidelines on prevention, symptoms, diagnosis, treatment, rehabilitation and follow-up, and mostly adhering to the GOLD guidelines as published in 2013. This guidance offers all patients with COPD support for self-management (Green), single dose pneumonia vaccinations, flu vaccinations, inhaler technique instruction, spirometry, and quality of life assessment according to the CAT questionnaire, pulmonary rehabilitation, COPD educational self-management programmes, non-invasive ventilation, and home oxygen.

If a patient has an emergency admission to hospital they may be referred to the home healthcare service on discharge. In addition, they may need to be reviewed by their GP (Amber) and/or be followed-up in a hospital outpatient consultation with either a respiratory specialist nurse or doctor (Pink). If a patient's health and social care status indicates, they can be discharged to a short-stay nursing care institution in the municipality.

U4H Telehealth Enabled COPD Care Management
A member of the hospital specialist services team trains the patient in the use of the telehealth solution (tablet) before they are discharged following an exacerbation of their COPD. Each day for approximately 14 days post-discharge, the patient undertakes daily measurements of their oxygen saturation and pulse through a wireless oximeter and completes symptom questions (Green). The data is recorded on the tablet and uploaded via the secure Norwegian Health Network to one of three Telemedical Centrals which cover 30 municipalities. Once the data has been received, a nurse trained to respond to the COPD telehealth service has a video conference with the patient during which any changes to their care plan are discussed and agreed, involving the patient's GP or hospital specialist if necessary (Amber/Pink). After the initial high intensity period, the patient continues to measure their oxygen saturation and pulse and enter the results into their electronic personal journal held in the Norwegian Health Network, by answering simple questions for approximately another 14 days with the option of a video consultation with a nurse at the Telemedical Central if their condition deteriorates (Green/Amber/Pink).

When the patient has recovered from the initial exacerbation they will continue self-managing by recording their symptoms on paper and make telephone contact with a nurse at the Telemedical Central if they experience any worsening symptoms (Amber/Pink). The patient's GP is sent an electronic message from the Telemedical Central to inform that that they are on telehealth and the nurse may liaise with the GP following any patient contact as needed. During the U4H project GPs were unable to have access to the telemonitoring information. In the future GPs will be provided with access to the telehealth system.