

Volume 13, 20 November 2013

Publisher: Igitur publishing

URL: <http://www.ijic.org>

Cite this as: Int J Integr Care 2013; T&T Conf Suppl; URN: [URN:NBN:NL:UI:10-1-115682](https://nbn-resolving.org/urn:nbn:nl:ui:10-1-115682)

Copyright: 

---

Conference Abstract

## The effects of real-time telemedicine consultations between hospital-based nurses and severe COPD patients discharged after exacerbation admissions

*Anne Dichmann Sorknaes, Odense University Hospital and Svendborg Hospital, Denmark, University of Southern Denmark, Odense Denmark*

*Mickael Bech, University of Southern Denmark, Odense, Denmark*

*Peder Jest, Odense University Hospital and Svendborg Hospital, Denmark*

*Lise Hounsgaard, University of Southern Denmark, Odense, Denmark*

*Finn Olesen, Aarhus University, Aarhus, Denmark*

*Birte Oestergaard, University of Southern Denmark, Odense, Denmark*

Correspondence to: **Anne Dichmann Sorknaes**, Odense University Hospital and Svendborg Hospital, Denmark, University of Southern Denmark, Odense Denmark, E-mail: [anne@sorknaes.dk](mailto:anne@sorknaes.dk)

---

### Abstract

**Introduction:** Hospitalisation with acute exacerbation of chronic obstructive pulmonary disease (AECOPD) causes a major burden for the COPD patients and is a common cause for admissions and readmissions to medical wards.

**Objectives:** To investigate the effect of one week of daily real-time telemedicine video consultations (teleconsultation) between hospital-based nurses specialised in respiratory diseases (telenurses) and patients with severe COPD discharged after AECOPD in addition to conventional treatment compared to the effect of conventional treatment.

**Methods:** Patients admitted with AECOPD at two different locations were recruited at hospital discharge. They were randomly assigned (1:1) to either daily teleconsultation for one week in addition to conventional treatment, the TVC group or to conventional treatment, the CT group. The telemedicine equipment consisted of a briefcase with built-in computer including a web camera, microphone and measurement equipment. The primary outcome was the total number of readmissions within 26 weeks after discharge.

**Results:** A total of 266 patients (mean age 71.5 years, SD 9.5 years) were allocated to either TVC (n=132) or CT (n=134). The unconditional mean number of readmissions after 26 weeks was 1.42 (SD 2.07) in the TVC group and 1.56 (SD 2.40) in the CT group. No significant difference was noted between the groups ( $p = 0.62$ ). Secondary analysis revealed no significant difference between the two groups in mortality, readmission with AECOPD or readmission days after four, eight, twelve and twenty-six weeks.

**Discussion:** For location 2 there seemed to be a strong tendency of an effect of teleconsultations reducing the readmission rate, readmissions days and time to first readmission after four, eight, twelve and twenty-six weeks. In contrary, location 1 only showed no reduced readmission and readmission days were only reduced after twelve and twenty-six weeks. That might be explained by a longer experience with teleconsultation by location 2 and by cultural differences.

**Conclusion:** In conclusion, one week of teleconsultations between hospital-based telenurses and patients with severe COPD discharged after hospitalisation with AECOPD does not significantly reduce readmissions.

**Keywords:**

**videoconsultation, nurse tele-intervention, copd patients, home telecare**

---

**Presentation** available at: <http://www.kingsfund.org.uk/events/third-annual-international-congress-telehealth-and-telecare>