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

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Body: 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. Primary outcome: consisted of the total number of readmissions within 26 weeks after discharge. Methods: Patients with severe COPD admitted with AECOPD at two different locations were randomly assigned (1:1) to daily teleconsultation between hospital-based respiratory nurses and discharged patients or conventional treatment. The tele-equipment consisted of a briefcase with built-in computer including a web camera, microphone and measurement equipment. 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). No significant difference 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 tendency of teleconsultations reducing the readmission rate, readmissions days and time to first readmission after four, eight, twelve and twenty-six weeks in contrary to location 1. Conclusion: One week of teleconsultations between hospital-based telenurses and patients with severe COPD discharged after hospitalisation with AECOPD does not significantly reduce readmissions.