Preliminary results of a telemonitoring study: COPD and heart failure patients exhibit great difference in their need of health care

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Background: Growing populations of elderly patients with advanced stages of COPD or heart failure (HF) urge the need for specialized health care in the patients’ home. A telemonitoring study was initiated in November 2013 including patients using digital pens. Health care is provided by the specialized home care unit at a university hospital. Through an IT system the staff check all daily patient reports. We hypothesize that the two groups of patients, advanced COPD or HF, will exhibit differences regarding exacerbations and the need of health care. The study is expected to end in December 2017.

Objective: To study exacerbations of COPD or HF, and patient health care consumption.

Methods: A tele-monitoring system, the Health Diary, based on digital pen technology, was employed. Exacerbations are identified using information provided through the telemonitoring system. Consumed health care is assessed as the number of patient contacts (home visits or telephone consultations).

Preliminary results: Presently, 47 patients with advanced disease are enrolled (18 COPD and 29 HF patients) of which 25 patients (10 COPD and 15 HF patients) have completed the 1-yr study period or have died during the study period (6 COPD and 6 HF patients). Exacerbations were 3.4 and 0.8 and patient contacts were 108 and 56 per COPD and HF patient, respectively. While HF patients were significantly older than COPD patients, the two groups demonstrated no difference regarding gender distribution and comorbidity.

Conclusions: COPD patients exhibit exacerbations more frequently and demand much more home health care than patients with HF do. It seems that this difference of health care consumption is mainly due to disease characteristics.