Performance of activities of daily living as a predictor of rehospitalization for patients following an exacerbation of COPD

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Purpose: To evaluate the rehospitalization rates for patients with COPD using performance of activities of daily living (ADLs) as a metric marker. Method: The Discharge, Assessment, and Summary @ Home (D.A.S.H., Klingensmith HealthCare, Ford City, Pennsylvania) program is a respiratory therapist driven home care based program for patients with COPD who are using supplemental oxygen following discharge from the hospital following a COPD exacerbation. The program includes the performance of four patient selected ADLs (e.g. walking the four points of the home, loading the dishwasher) on days #1, #7, and #30 post-hospitalization. Oxygen saturation is maintained above 90% using a SmartDose Oxygen delivery system. Each ADL is measured as either fully completed or not. Results: A total of 229 patients were entered into the study and had four ADLs performed at each of the three visits. 9% (23/229) of the patients were readmitted to the hospital within a 30 day period. Of those, 8 (3.5%) were readmitted with a COPD exacerbation and 15 (6.6%) were readmitted for other reasons. For those patients who performed 1 or less of 4 ADLs (n=42) to completion by day #7 of the program, 8 (19%) were readmitted while for those patients who could perform 2 or more ADLs (n=187) to completion, 15 (8%) readmitted. Conclusions: Those patients with COPD who were oxygen dependent following hospital discharge for an exacerbation of COPD who could perform one or less ADLs to completion by 7 days following discharge have a higher 30 day readmission rate to the hospital than those who could perform 2 or more ADLs to completion.