A Resident-Driven Quality Improvement Initiative to Increase Primary Care Follow Up and Pulmonary Function Testing after Chronic Obstructive Pulmonary Disease Exacerbation

Lea Monday PharmD, MD, Paul Nguyen MD, Omid Yazdanpanah MD, Joseph Sebastian MD, Kareem Bazzy MD

1Henry Ford Hospital, Detroit, USA. 2Detroit Medical Center, Detroit, USA. 3John D Dingel Veterans Affairs Medical Center, Detroit, USA

Abstract

Objectives:

Chronic Obstructive Pulmonary Disease (COPD) is a common cause of readmission to the hospital. Follow-up with primary care physicians (PCP) within 14-days of discharge may improve readmission rates. In patients admitted to our hospital with a COPD exacerbation, often spirometry was never done but is needed to confirm diagnosis and support management.

We present a resident-driven quality improvement (QI) initiative to increase follow-up and spirometry referral for Veterans with COPD exacerbation. Primary outcomes were percentage of PCP follow-up within 14-days, and median time to PCP follow-up.

Methods: This pre-post quasi-experimental cohort study evaluated concurrent interventions including focus groups to develop process maps of scheduling, monthly education, and a standardized scheduling order. A safety and quality award was given to the team with the highest rate appointments scheduled. Patient characteristics, scheduling data, and readmission rate were gathered for a 6-month historic period and 6-month intervention period. Odds Ratios and Wilcoxon Rank-Sum test evaluated the impact of these
interventions on primary and secondary outcomes between groups.

Results:

A total of 134 patients were discharged due to COPD exacerbation (65 in the historic group and 69 in the intervention group). Appointments within 14-days of discharge increased from 60% to 78.2% (p =0.022). Median (interquartile range (IQR)) time to PCP appointment dropped from 9 (6.5-22) days to 7 (4-10) days (p=0.001). Although more patients were provided with appointments, the number who attended did not differ (56.9% versus 53.6%, p=0.701). Spirometry orders on discharge did not differ (53.8 % versus 52.2%, p=0.846), however, more patients in the intervention group attended spirometry appointments (3% versus 20.3%, p=0.002). 30-day readmissions did not differ between groups (p=0.915).

Conclusions:

A standardized scheduling order, resident education, and a monthly award increased PCP follow-up within 14 days of COPD exacerbation. There was no difference in 30-day readmissions. This protocol is applicable to other institutions without robust transition of care services who are asked to meet similar quality metrics.