

2

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, MD¹, Paul Nguyen MD², Omid Yazdanpanah MD², Joseph Sebastian MD², Kareem Bazy MD³

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.