Improving Outcomes for Patients with Chronic Obstructive Pulmonary Disorder (COPD): Use of the COPD Rescue Pack

To impact the chronic obstructive pulmonary disease (COPD) burden in the tristate area of Arkansas, Missouri and Oklahoma, the TMF Quality Innovation Network Quality Improvement Organization (QIN-QIO), under contract with the Centers for Medicare & Medicaid Services (CMS), implemented a Special Innovation Project (SIP) to empower patients to use a COPD Rescue Pack when experiencing a COPD exacerbation. The aim of this project was to reduce COPD emergency department (ED) use and subsequent inpatient admissions, while empowering patients to manage their condition by using a COPD Rescue Pack.

Project Overview

Using the COPD Rescue Pack, this two-year SIP provided a standardized approach to managing COPD and offered care teams the ability to implement best practice self-management interventions that empowered both patients and providers to better manage their COPD care. This intervention uses clinical protocols to promote the early identification of COPD patients by developing a team-based workflow to systematically flag patients appropriate for the intervention, providing one-on-one self-management support to patients who are appropriate for the intervention and providing ongoing support for those patients using the intervention.

The TMF QIN-QIO staff held project kickoff meetings with providers and care teams for project introduction and provision of materials. In addition, one-on-one technical assistance for project support ensued monthly. Provider technical assistance and support included the following components:

- A workflow that supports the intervention, including one-on-one support from the clinical guidance nurse
- Four webinars to promote sharing between care teams to identify best practices, successes, challenges and barriers
- The COPD Rescue Pack, which includes a patient education packet, prescriptions for antibiotics and steroids (identified by the care team), a medical information card, the American Lung Association Classification List, a personalized action plan and clinical guidance and the nurse’s contact information from the care team.
Outcomes

The TMF QIN-QIO engaged 189 providers throughout the tristate region. Outcome measures for this two-year SIP were based on Medicare fee-for-service (FFS) claims for beneficiaries with COPD. The TMF QIN-QIO exceeded the 10% goal to reduce both hospital admissions and ED visits for acute COPD exacerbations per 1,000 beneficiaries among participating practice patients (see Figure 1 below).

![Aggregate RIR in Inpatient Admissions and ED visits related to acute COPD exacerbations (goal=10%) in QIN region](image)

**Figure 1.** Aggregate Relative Improvement Rate (RIR) of inpatient admissions and ED visits related to acute COPD exacerbations, January 2018-March 2019. There is an overlap between the project time period intervals because of a delay in incoming claims data. Therefore, to have complete data, there is an overlap in reporting periods.

In addition to the outcome measures, TMF QIN-QIO also tracked the number of patients prescribed a COPD Rescue Pack; the number of COPD Rescue Pack used by patients (who notify the provider office of start of the rescue pack); and the reported number of times patients would have used the ED but instead used the COPD Rescue Pack. These reported outcomes were self-reported by providers.

There were 656 rescue packs and refills prescribed. There were 284 reported uses of the COPD rescue pack. Of those reported uses, there were 134 reported times patients would have used the ED instead of using the COPD rescue pack. Overall, a 43.2% use rate of COPD Rescue Packs prescribed was seen over the two year project timeframe. Forty-seven percent (47%) of rescue pack usage resulted in avoiding an ED visit and subsequent hospitalization.

Lessons Learned

The innovative intervention of empowering patient self-management through use of a COPD rescue pack when experiencing a COPD exacerbation was key to impacting the COPD burden in the tristate area of Arkansas, Missouri and Oklahoma. The TMF QIN-QIO team gained several lessons learned from
this SIP including 1) identifying chronic care managers as key personnel and drivers is essential to moving the COPD project forward and 2) identifying a physician clinic champion is helpful for engaging physicians. In addition, several protocol implementation lessons were learned, including:

1. Providing group kickoff calls to introduce the project and materials
2. Having practices host group COPD education classes to improve efficiency
3. Providing premade rescue packs to save provider time
4. Identifying additional TMF QIN-QIO staff to aid with kickoff meetings to ameliorate the effects of internal staff turnover

Corporations with large numbers of providers throughout multiple clinics have slower protocol implementation because of the nature of multi-clinic management, multi-layer quality department approval process, staff turnover, and staff vacations. Provider staff made comments about feeling overwhelmed by multiple reporting requirements and improvement projects and because of competing priorities, providers said they were unable to focus on specific areas.

TMF staff continued to provide ongoing one-to-one technical assistance and resources to care coordinators to help them stay focused and engaged. TMF staff offered to provide patient education for the clinics and helped with group classes. Providers reported that their patients increased their ability to proactively manage their symptoms with the use of the rescue pack. Clinics also reported their patients increased satisfaction with being part of the decision process and having the option not to visit the ED. Patients also reported feeling more in control of their disease.