COPD: Improving Practice to Meet National Quality Measures

EXECUTIVE SUMMARY

Chronic obstructive pulmonary disease (COPD) is the fourth leading cause of death in the United States\(^1\) and, despite the toll it takes upon Americans’ lives, primary care clinician practice gaps in the assessment, diagnosis, monitoring and treatment are all too apparent. Five major practice gaps and their associated needs have been identified (Table 2) from the following data sources: peer-reviewed published articles, the National Committee for Quality Assurance, the National Health Interview Survey and chart audits of primary care clinicians participating in a recent performance improvement activity on COPD offered by the Boston University School of Medicine (BUSM) Continuing Medical Education (CME) office.

The data show that clinicians require an educational intervention which focuses on knowledge enhancement, competency development and performance improvement. To address these issues, BUSM CME proposes the development of a performance improvement initiative that includes the key elements described in Table 1 that will focus on the practice gaps, needs, competencies and outcomes described in Table 2.

Table 1: Audience, Initiative Goal, Activity Elements, Educational Objectives

<table>
<thead>
<tr>
<th>TARGET AUDIENCE</th>
<th>INITIATIVE GOAL</th>
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<tr>
<td>Primary care clinicians (PCPs) who have an interest in the treatment of COPD including:</td>
<td>Initiate practice changes in the diagnosis and management of patients with chronic obstructive pulmonary disease (COPD) in primary care practices so as to improve quality of life for these patients while minimizing exacerbations.</td>
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<td>• Primary care physicians</td>
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<td>• Nurse practitioners</td>
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<td>• Physician assistants</td>
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<td>(Reach = Five (5) healthcare sites – optimally 15-20 clinicians per site)</td>
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## ACTIVITY ELEMENTS

**Local MENTOR QI℠ Performance Improvement** CME programs work on-site with practices in New England to guide participants through the Performance Improvement process. The program includes:
- 4-8 grand-rounds meetings
- 2 sets of chart reviews
- Development of Individual Action Plans
- Conducted at each of five (5) health care sites

## EDUCATIONAL OBJECTIVES

As a result of this activity, participants will:
- Assess and improve their practice regarding the diagnosis and treatment of patients with potential COPD against national quality measures
- Identify their knowledge gaps and barriers to practice regarding the diagnosis and treatment of patients with COPD
- Develop and implement an Action Plan designed to improve their practice in the diagnosis and treatment of patients with COPD
- Evaluate the results of their Action Plans and reflect on future opportunities for change
<table>
<thead>
<tr>
<th>GAPS</th>
<th>NEEDS</th>
<th>COMPETENCIES</th>
<th>OUTCOMES/MEASURES</th>
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| **Knowledge, Competence & Performance:** Lack of use and/or documentation of spirometry testing in diagnosing patients with COPD as well as repeat testing in patients diagnosed with COPD | Clinicians need greater awareness of and familiarity with COPD diagnosis and monitoring guidelines and an understanding of their practice compared to guidelines | • Medical knowledge  
• Employ evidence-based practice  
• Practice-based learning and improvement | • Increase in the use and documentation of spirometry testing in the diagnosis of patients with COPD²  
• Increase in the percentage of patients with repeat spirometry testing³ |
| **Competence & Performance:** Lack of inquiry regarding patient smoking status and subsequent lack of smoking cessation interventions for smokers | Clinicians need increased self-efficacy in COPD assessment techniques and how to communicate with patients to integrate smoking cessation programs into patient care | • Medical knowledge  
• Employ evidence-based practice  
• Practice-based learning and improvement  
• Interpersonal and communication skills  
• Systems-based practice | • Increase in the number of patients with COPD who are queried about smoking at least annually  
• For those patients identified as smokers increase in the percentage of patients who receive a smoking cessation intervention at least annually⁴ |
| **Knowledge, Competence & Performance:** Lack of exercise training recommendations to improve exercise tolerance and decrease dyspnea symptoms | Clinicians must be familiar with the importance of and outcomes associated with exercise training on patient quality of life and be able to effectively communicate the need for this treatment to patients | • Medical knowledge  
• Employ evidence-based practice  
• Practice-based learning and improvement  
• Interpersonal and communication skills  
• Systems-based practice | • Increase in appropriate recommendations for exercise training so as to improve exercise tolerance and decrease symptoms of dyspnea⁴ |
| **Knowledge, Competence & Performance:** Lack of prescribing of appropriate pharmacotherapy for patients with COPD | Clinicians need education and workflow strategies to aid in providing evidence-based treatment that will lead to improved quality of life for patients | • Medical knowledge  
• Employ evidence-based practice  
• Practice-based learning and improvement | • Increase in the appropriate use of pharmacotherapy prescribed for patients with COPD⁴ |
| **Performance:** Lack of influenza and pneumococcal vaccination for patients with COPD | Clinicians must actively advocate the need for these vaccines and work with office staff to recommend them to patients and overcome any external barriers to vaccination | • Medical knowledge  
• Employ evidence-based practice  
• Practice-based learning and improvement  
• Interpersonal and communication skills  
• Systems-based practice | • Increase in the number of patients with COPD having received pneumococcal and current influenza immunizations⁴ |
BUSM CME has considerable experience in developing and producing successful performance improvement (PI) activities. In our recent nationally-focused COPD PI activity entitled *COPD: Strategies for Diagnosis and Effective Management Performance Improvement Initiative* participants showed major improvement in 7 of the 9 areas assessed with the most improvements seen in initial spirometry to confirm diagnosis and repeat spirometry to track disease progression after exacerbations or other significant changes in health. Table 3 shows the data from the program to date:

Table 3: Improvement in Practice of Current COPD Performance Improvement Program

<table>
<thead>
<tr>
<th>Measures</th>
<th>Improvement</th>
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<tr>
<td>Initial Spirometry</td>
<td>20%</td>
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<tr>
<td>Repeat Spirometry</td>
<td>50%</td>
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<tr>
<td>Queried about Smoking</td>
<td>15%</td>
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<tr>
<td>Smoking Intervention</td>
<td>15%</td>
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<tr>
<td>Oxygen Saturation Assessed</td>
<td>21%</td>
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<tr>
<td>Inhaled Bronchodilators Prescribed</td>
<td>3.1%</td>
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<tr>
<td>Influenza Vaccination</td>
<td>7%</td>
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In addition to the improvements in performance in the national program as determined through gains in the assessed measures, providers have also implemented sustainable and systematic changes in their practices. In particular, the local practices that have participated in the program as a group have made lasting changes that have had a dramatic effect on not only patients with COPD, but also other patients, like those with Asthma or those who smoke. Using the data generated through Stage A of the PI activity, one group was able to negotiate with their administrators the purchase of spirometers for their group and for the family medicine department, pediatrics department, and their chronic disease management group. In addition, they created a comprehensive smoking cessation program on site. These improvements have changed the basic infrastructure that supports the management of care for patients with COPD, Asthma, and those who smoke. No longer do patients need to go to another site for spirometry evaluation or to find a smoking cessation program in their area; these services are available right at the site.

Given the identified performance gaps and BUSM CME’s experience in providing PI activities, BUSM is requesting support for the development and production of a series of local MENTOR QI℠ performance improvement initiatives entitled COPD: Improving Practice to Meet National Quality Measures to improve PCPs’ performance in complying with accepted guidelines for diagnosing and treating COPD. With support from the initiative’s faculty, participants will implement practical strategies for providing optimal care for COPD patients with the goals of increasing compliance with existing diagnostic criteria and clinical practice guidelines. The goal of the initiative is to improve the quality of care for patients with COPD.

For this PI activity, Boston University School of Medicine will work on-site with five health centers in the greater Boston area. All activities for the initiative will happen during the sites’ regularly-scheduled educational meetings, allowing participants to complete each component of the activity during time already set aside for education. All participating clinicians will perform an initial chart review, develop an Action Plan detailing the interventions that will be implemented and conduct a final chart review to assess the effectiveness of the interventions. In addition, this PI initiative will include multiple live educational sessions directed by faculty who are experts in the management of COPD and quality improvement. Through the data collected from the chart review, each session will be tailored to meet the exact educational needs of the program participants and will address...
clinical content as well as systems barriers and interventions to overcome those barriers. Since the experts will be available on-site, they will witness barriers to treatment first-hand and will be able to work with the practices to help them implement the interventions most appropriate to their practices.

Continuing Medical Education of up to 25 *AMA PRA Category 1 Credits™* and Continuing Nursing Education of up to 25 contact hours will be provided by Boston University School of Medicine. Since each credit is equivalent to about one hour of interaction with the participants, the participants will be focusing on learning and improving their practice in management of COPD over an extended period of time. Unlike a single meeting or enduring material, PI CME has, at its core, the expectation of multiple interactions with the educational material and faculty supporting the provider throughout this path of learning and change.
REFERENCES