HEALTH MANAGEMENT IN THE COPD POPULATION
PROGRAM DESCRIPTION
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Executive Summary

Boehringer Ingelheim Pharmaceuticals, Inc. (BIPI) is a leading source among pharmaceutical manufacturers of chronic care resources and tools that support and enhance health and disease management initiatives within managed care organizations, government-sponsored programs, medical groups, employers, and healthcare coalitions. BIPI’s Strategies for Chronic Care® platform focuses on 5 key strategies:

1. Elevating awareness of disease burden and prevalence
2. Increasing earlier and appropriate diagnosis
3. Driving adoption of evidence-based treatment and management
4. Reinforcing the benefits of adherence
5. Meeting customer accreditation and quality improvement requirements (e.g., the Healthcare Effectiveness Data and Information Set [HEDIS] performance measures developed by the National Committee for Quality Assurance)

The BIPI Strategies for Chronic Care® – COPD (SCC-COPD) program includes a suite of evidence-based resources and tools that support the improvement of care for patients with chronic obstructive pulmonary disease (COPD). The materials have been developed to be used within various functional departments, including case/disease management, quality management/medical informatics, pharmacy, and health/wellness, as well as across multiple points of patient care. End users include healthcare practitioners, pharmacy networks, members, employees, and caregivers.

The impact of COPD deserves heightened attention within the healthcare community. Data from 2006 show that COPD mortality in the United States has increased with age among all racial and gender groups. Among industrialized countries, the United States has the second highest COPD mortality rate in the world. Overall, pulmonary diseases represent by far the most prevalent chronic conditions among Americans—17.4% of the population—compared with hypertension (13.0%), heart disease (6.8%), diabetes (4.9%), and cancers (3.7%).

The economic burden of COPD is also significant. According to the National Heart, Lung and Blood Institute (NHLBI), the US projected annual cost for COPD in 2010 was $49.9 billion. This comprises $29.5 billion in direct healthcare expenditures, $8.0 billion in indirect morbidity costs, and $12.4 billion in indirect mortality costs.

The SCC-COPD program was developed to provide organizations with important educational tools to enhance patient self-management of COPD and support providers in adhering to evidence-based clinical guidelines. There is no known cure for COPD, but treatment is directed toward relieving symptoms and improving quality of life. The SCC-COPD program utilizes the Global Initiative for Chronic Obstructive Lung Disease (GOLD) guidelines as its clinical foundation, along with current scientific literature, expert opinions, and practitioner and patient
input to develop the program content and design.

The foundation of successful COPD disease management is a comprehensive plan that emphasizes accurate diagnosis, spirometry, patient self-management, appropriate medication use, and ongoing monitoring over the course of this lifelong disease. It is also important to address the comorbidities, health behaviors, and psychosocial issues that can be barriers to effective care.

BIPI is dedicated to helping improve COPD disease management. The SCC-COPD Program Description, which was developed to provide a helpful guide to implementing the program, includes descriptions of all resources and tools to support a robust COPD disease management program.
Section I: The Importance of COPD Disease Management

Why a COPD program?

- COPD is important in a managed care setting because of its prevalence and impact on utilization and cost
- The landmark GOLD clinical practice guidelines, *Global Strategy for the Diagnosis, Management, and Prevention of Chronic Obstructive Pulmonary Disease*, first published a decade ago, are not being utilized by many physicians
- Opportunities exist to educate physicians and patients with COPD about appropriate medical management and preventive care
- The adoption and dissemination of the GOLD guidelines, as well as the implementation of supporting physician and patient education, can begin to address these opportunities and to improve outcomes

COPD prevalence

- An estimated 12.1 million US adults aged 18 years and older have a diagnosis of COPD; another 12 million adults show evidence of impaired lung function, indicating an underdiagnosis of the disease
- From 1997 through 2007, the prevalence of physician-diagnosed COPD decreased slightly for all age groups
- In 2007, the prevalence of COPD was higher in women than in men for all racial groups. Among those aged 65 years and older, the rates were similar for men and women

COPD impact

COPD is the fourth leading cause of death for individuals 65 years of age and older, after heart disease, cancer, and stroke. It is the sixth leading cause of death for individuals aged 45 to 64. The impact of this disease on mortality may be increasing, as a recent report from the Centers for Disease Control and Prevention (CDC) ranked chronic lower respiratory diseases as the third leading cause of death in 2008.

- The burden of illness is great for patients, as well as for managed care organizations and other payers
- COPD is associated with high utilization of healthcare services
- Treatment is costly, with inpatient utilization representing the biggest cost driver. In one study, COPD patients were more likely to utilize healthcare services and had excess total
healthcare costs about $20,500 higher than patients without COPD (matched for age, sex, enrollment months, and Medicare plan)\textsuperscript{8}

- Treatment for exacerbations—sudden bouts of worsening symptoms—is associated with an escalated use of medical resources and greater medical costs\textsuperscript{6}
- Costs for COPD exacerbations rise as intensity of care increases\textsuperscript{9}

**Opportunities for improved COPD management and outcomes**

- Although there is no cure for COPD, proper management improves patient outcomes and reduces cost\textsuperscript{10}
- Treatment guidelines for managing COPD exist\textsuperscript{10,11}
- An important goal of treatment is to delay disease progression and prevent exacerbations, which often lead to hospitalizations\textsuperscript{10}
- Smoking cessation can prevent COPD and affect disease progression\textsuperscript{10}
- Also important to COPD preventive care is vaccination for influenza and pneumonia
  - Influenza vaccination is proven to reduce COPD exacerbations\textsuperscript{11}
  - Influenza vaccination has been shown to reduce mortality in COPD patients\textsuperscript{12}
  - Pneumococcal vaccination is recommended for patients with COPD who are aged 65 and older, or for patients younger than 65 with a forced expiratory volume in 1 second (FEV1) less than 40% predicted.\textsuperscript{10} A combination of influenza and pneumococcal vaccination may have an additive effect in reducing COPD exacerbations. However, data on the efficacy of pneumococcal vaccination alone in patients with COPD are limited\textsuperscript{13}
Better outcomes begin with following established guidelines

- Despite consistent recommendations from COPD guidelines, appropriate use of pharmacotherapy remains inadequate\(^3\)

- Bronchodilators are central to symptomatic management of stable COPD, but are underutilized by physicians. In a large, managed care population\(^3\):
  - Only 36% of physicians chose a long-acting bronchodilator when a short-acting agent had failed
  - Many patients received an inhaled corticosteroid as their only treatment

- Significant opportunities exist to educate physicians and provide tools to increase appropriate use of medication and improve other aspects of preventive care for patients with COPD

- Adoption and dissemination of COPD clinical practice guidelines are important first steps in this education process

Patient adherence is key

- An important issue is patient deviation from treatment recommendations

- Patient education programs may increase understanding of COPD and its treatment, reinforce proper technique for inhaler use, and improve adherence to treatment recommendations
Section II: Key Program Components

BIPI provides a complete set of COPD patient and provider educational tools and resources to promote a coordinated approach to disease management implementation. This includes the following program benefits:

**Evidence-Based Clinical Guidelines**—The GOLD guidelines serve as the foundation of the BIPI SCC-COPD program, and the recommendations of the guidelines are integrated into the program materials provided to patients and providers.

**Data Analytics**—Tools and instructions that are used to identify members with COPD and to risk stratify them so that they can be targeted for prioritized interventions.

**Patient-Focused Tools**—Interventions designed to improve self-management skills, promote medication adherence, and strengthen the patient-provider partnership to slow COPD progression and reduce exacerbations, hospitalizations, and emergency department (ED) visits.

**Provider-Focused Tools**—Interventions designed to educate healthcare providers about the latest evidence-based clinical guidelines to improve the management of COPD.

**Program Evaluations**—Tools to assist client organizations in measuring program effectiveness and patient outcomes.

**Case Management Resources**—Tools to assist client organizations in determining the patient’s educational and support needs and developing the case management care plan.

**Patient Safety Resources**—Tools to assist client organizations in developing processes that may assist in identifying and collecting data relevant to potential patient safety issues.

**Implementation Support**—Tools to assist client organizations in developing and coordinating processes needed to support program design implementation.
Section III: Evidence-Based Clinical Guidelines

The design of the SCC-COPD program is based on evidence-based clinical guidelines. The Global Initiative for Chronic Obstructive Lung Disease (GOLD), *Global Strategy for the Diagnosis, Management, and Prevention of Chronic Obstructive Pulmonary Disease* serve as the foundation of the SCC-COPD program. Written for providers, these clinical practice guidelines aim to increase worldwide awareness of COPD and to reduce morbidity and mortality. The guideline recommendations are integrated into the program materials developed for patients and providers.

The 2010 GOLD guidelines recommend using several clinical measures, such as spirometric classification (e.g., FEV$_1$ and forced vital capacity [FVC]) to classify COPD severity into 4 stages: mild, moderate, severe, and very severe. Because most client organizations cannot obtain these clinical data, the SCC-COPD program recommends utilizing an administrative methodology as a proxy to identify and stratify eligible patients with COPD. The program stratifies the risk level of members (mild or moderate-severe) and targets interventions based on the number and type of COPD-related medical and pharmacy claims or encounters, rather than a clinical measure of severity. Patients in the very severe stage of COPD or who meet other exclusion criteria are excluded from the program, per client discretion.

The GOLD guidelines emphasize that while the ultimate goal is disease prevention, once COPD has been diagnosed, effective management should be directed toward the following goals: relieving symptoms, preventing disease progression, improving exercise tolerance, improving health status, preventing and treating complications and exacerbations, and reducing mortality.

Patient education can be effective in improving skills and the ability to cope with the disease and in improving health status. Education also improves patients’ response to exacerbations. Emphasis on patient knowledge and adherence, appropriate use of COPD medications, spirometry, influenza and pneumonia vaccinations, and smoking cessation tools are essential to help manage symptoms and achieve optimal health outcomes. These factors continue to play key roles in SCC-COPD program interventions.

The SCC-COPD program is based on 4 key GOLD recommendations for COPD management:

1. Assess and monitor disease (promote spirometry screening for diagnosis and appropriate management and identify comorbidities)
2. Reduce risk factors (smoking cessation and patient education about recognizing and reducing risks)
3. Manage stable COPD (patient strategies to help minimize dyspnea, pulmonary rehabilitation, education on self-management skills, use of medications)

4. Manage exacerbations (patient education on importance of symptom recognition, self-assessments)
Section IV: Process for Program Implementation

BIPI has developed the SCC-COPD program design and interventions for client organizations; it does not have any direct contact with patients participating in the program. BIPI Account Managers collaborate with client organizations in strategies and resources for patient and provider program design implementation; however, BIPI does not provide the fulfillment of the program interventions.

The design of the SCC-COPD program leads the client organizations through the 5 steps of the program implementation process:

1. Identify COPD patient population
2. Risk stratify for targeted interventions
3. Identify appropriate risk-stratified interventions
4. Deliver risk-stratified interventions
5. Evaluate program

An overview of this entire process is outlined in the Program Implementation Flowchart (Figure 1).

Step 1: Identify COPD patient population

This section describes the process of identifying patients with diagnosed COPD. These identified patients can then be targeted for prioritized interventions. Client organizations that require patients to designate a primary care physician (PCP) can link these identified members to their PCPs for targeted provider interventions. If there is no assigned PCP (or if the client prefers), the treating or prescribing practitioner can be identified through the claims analysis and be targeted for interventions.

The SCC-COPD program is population based and, by definition, all eligible members with COPD may participate. Identified members who do not wish to participate will be instructed by the client organization on how to opt-out (see Section VII – Implementation Support).

Individuals with COPD may be identified 1 of 3 ways:

1. **Claims data analysis.** Members may be identified based on diagnosis of COPD, chronic bronchitis, or emphysema.
2. **Nonclaims,** via the COPD Population Screener™.
3. **Customer-developed identification method.**
Claims data analysis

Client organizations may choose to utilize internal or external resources to analyze medical claims or encounter data and identify patients based on diagnoses of COPD, chronic bronchitis, and emphysema. The claims data methodology is as follows:

1. Identify current patients with medical and pharmacy benefits aged 40 and older as of the first date of the specified claims data interval. The claims data interval may be based on the previous 12-month claims period, or it may be determined based upon the client organization’s specific data resources and capabilities. For example, if clients report HEDIS data, they may choose to utilize the eligible population as defined by HEDIS Effectiveness of Care technical specifications for selected COPD measures.

2. If pharmacy data are to be utilized as part of the claims data analysis, the client organization must refer to the GOLD 2010 guidelines for a list of the recommended COPD medications and may consult with other resources (such as HEDIS) to determine and apply an appropriate pharmacy claims data methodology for identifying and risk-stratifying COPD patients.

3. Identify patients having one or more professional claims or encounters carrying the appropriate International Classification of Diseases, 9th Revision, Clinical Modification (ICD-9-CM) codes for COPD (Table 1) during the designated analysis period.

<table>
<thead>
<tr>
<th>Description</th>
<th>ICD-9-CM Diagnosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chronic bronchitis</td>
<td>491.xx</td>
</tr>
<tr>
<td>Emphysema</td>
<td>492.xx</td>
</tr>
<tr>
<td>COPD</td>
<td>496.xx</td>
</tr>
</tbody>
</table>

4. For patient identification, an affirmative finding is flagged by the presence of a relevant code in any position on the claim (e.g., primary, secondary, or tertiary diagnosis).

5. Capture each COPD member’s date of birth and gender to assist in further assessing needs and risks and detecting any potential patient safety issues (see Section VI: Patient Safety Resources).

6. Identify the primary treating practitioner for each identified patient. Client organizations that require patients to designate a PCP can link these identified members to their PCPs for targeted provider interventions. If there is no assigned PCP, the most recent treating or prescribing practitioner can be identified through the claims analysis and be targeted for interventions.
**Nonclaims—COPD Population Screener™**

BIPI has developed a COPD Population Screener—a brief, 5-question general population screener for adults 35 years of age and older to identify risk for COPD. The survey asks questions about the patient, his or her breathing, and what he or she is able to do. Patients with scores of 0 to 4 are considered at lower risk for COPD; scores of 5 to 10 suggest a higher risk. Patients may complete the survey online or through other means, such as at health fairs, through employee wellness programs, or within the provider setting.

The patient is encouraged to share the completed survey with his or her provider (refer to the COPD Population Screener for additional details). If the patient is diagnosed with COPD, the patient may be enrolled in the SCC-COPD program at that time. This may be a process for ongoing or prospective enrollment. **The screener can be found online at:** www.copdscreener.com.

Treating practitioners may be identified through patient self-reported information. The client organization must define the process for referring high-risk patients for COPD to their treating practitioner for further evaluation and potential enrollment in the program.

**Customer-developed identification method**

The customer organization may also identify members through claims or nonclaims–based methods that they have developed and implemented, such as a proprietary COPD predictive model, a health-risk assessment, or identification via individualized case management.

If the client organization chooses to utilize its own methodology for identifying members, it must ensure that its SCC-COPD disease management program implements the following program criteria as outlined in this Program Description:

- Risk-stratification process for targeted interventions (see Step 2: Risk stratify for targeted interventions)

- Exclusions from the program, as appropriate

**Exclusion criteria**

Members in the very severe stage of COPD would not generally benefit from a disease management program and should be excluded. This category includes patients who are on long-term oxygen therapy, who reside in a long-term care facility, or who have been diagnosed with a comorbid condition that has greater clinical priority than COPD (e.g., lung cancer, other active metastatic cancers, or end-stage renal disease). Specific implementation of the exclusion criteria may be on a case-by-case basis and is at the discretion of the client organization.
Step 2: Risk stratification for targeted interventions

COPD is a progressive disease that worsens over time. It may be diagnosed at any stage of the illness. Therefore, it is important that interventions be targeted based on the patient’s disease severity and particular health needs.

According to the GOLD guidelines, disease severity is determined by several factors, including airflow limitation (as measured by spirometry, FEV\textsubscript{1}), frequency and severity of exacerbations, respiratory insufficiency (dyspnea), comorbidity, and decreased general health status.\textsuperscript{10}

The GOLD guidelines’ 4 stages of COPD severity are based upon spirometric GOLD classification of disease severity (Table 2).\textsuperscript{10}

<table>
<thead>
<tr>
<th>Table 2. Spirometric Classification of COPD Severity\textsuperscript{10}</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Stage I: Mild</strong></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td><strong>Stage II: Moderate</strong></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td><strong>Stage III: Severe</strong></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td><strong>Stage IV: Very Severe</strong></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

* Respiratory failure: Arterial partial pressure of oxygen (PaO\textsubscript{2}) <8.0 kPa (60 mmHg) with or without arterial partial pressure of CO\textsubscript{2} (PaCO\textsubscript{2}) >6.7 kPa (50 mmHg) while breathing air at sea level.
GOLD also establishes the general pattern of symptom development at each stage of the disease (Table 3).

<table>
<thead>
<tr>
<th>Stage</th>
<th>Description</th>
<th>Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>I (Mild)</td>
<td>Symptoms of chronic cough and sputum production may be present, but not always.</td>
<td><em>This is the stage at which patients often go undiagnosed; patients may not see their physician (permitting a diagnosis to be made) until symptoms interfere with their daily activities.</em></td>
</tr>
<tr>
<td>II (Moderate)</td>
<td>Shortness of breath typically developing on exertion and cough and sputum production sometimes also present; may interfere with daily activities.</td>
<td><em>This is the stage at which patients typically seek medical attention because of chronic respiratory symptoms or an exacerbation of their disease.</em></td>
</tr>
<tr>
<td>III (Severe)</td>
<td>Greater shortness of breath, reduced exercise capacity, fatigue, and repeated exacerbations.</td>
<td><em>This is the stage that almost always has an impact on patients’ quality of life.</em></td>
</tr>
<tr>
<td>IV (Very Severe)</td>
<td>Presence of chronic respiratory failure.</td>
<td><em>At this stage, quality of life is extremely impaired, and exacerbations may be life threatening.</em></td>
</tr>
</tbody>
</table>

In the absence of spirometry values or symptom history, COPD-attributable utilization can be used as a proxy for disease severity. Within managed care, patients with ED visit(s) and/or inpatient hospitalization(s) (IPs) would most likely benefit from targeted management programs. The SCC-COPD program has outlined a process for risk-stratification using the following approaches:

- Claims-based data analysis for risk stratification
- Nonclaims–based data analysis for risk stratification

**Claims-based data analysis for risk stratification**

Once the ongoing identification process has been established and implemented, organizations can proceed to stratify the COPD population based on administrative data. These risk-stratified members can then be addressed for prioritized interventions.

To risk stratify the population in the absence of spirometry or access to symptom history and medical records, COPD-attributable utilization or pharmacy data can be used as a proxy for disease severity.
Each member identified with a COPD diagnosis is assigned to 1 of 2 intervention intensity levels: mild or moderate-severe. The intervention intensity level is based on claims for ED visit(s), IP(s), and/or the presence of comorbidities.

Only COPD-related administrative (facility and professional) claims carrying a principal (primary or first-listed) code are included in the stratification criteria.

**Flag COPD-attributable ED visits and IP admissions**

Flag all ED and IP admissions for the COPD population. Only ED visits and IP admissions carrying a principal (primary or first-listed) code for a COPD-attributable ICD-9-CM diagnosis should be included in the stratification schema. The list of COPD-related ICD-9-CM codes can be found in Table 4. Intervention intensity levels will be assigned based on the patient’s COPD-attributed utilization history during the specified study period.

| Table 4. Codes to Identify COPD-Attributable Utilization
<table>
<thead>
<tr>
<th>Description</th>
<th>CPT</th>
<th>UB Revenue</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute inpatient</td>
<td>99221-99223, 99231-99233, 99238, 99239, 99251-99255, 99291</td>
<td>010x, 0110-0114, 0119, 0120-0124, 0129, 0130-0134, 0139, 0140-0144, 0149, 0150-0154, 0159, 016x, 020x, 021x, 072x, 080x, 0987</td>
</tr>
<tr>
<td>ED</td>
<td>99281-99285</td>
<td>045x, 0981</td>
</tr>
</tbody>
</table>

**Identify any members with one or more of the comorbidities listed in Table 5**

According to the GOLD report, comorbidities are common in COPD and should be actively identified. Comorbidities often complicate the management of COPD, and vice versa.

Some of the major comorbidities for which COPD patients are at high risk include depression, myocardial infarction, angina, diabetes, pulmonary hypertension, osteoporosis, sleep disorders, and glaucoma.

| Table 5. Codes to Identify Comorbidities
<table>
<thead>
<tr>
<th>Description</th>
<th>ICD-9-CM Diagnosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Depression</td>
<td>296.20-296.25[Buck/811/2/3], 296.30-296.35[Buck/811/2/3], 298.0[Buck/812/1/6], 300.4[Buck/813/2/3], 309.1 [Buck/819/1/2], 311[Buck/820/1/1]</td>
</tr>
<tr>
<td>Diabetes</td>
<td>250[Buck/790/2/2], 357.2[Buck/835/1/2], 362.0[Buck/837/2/3], 366.41[Buck/842/1/41], 648.0[Buck/932/1/2]</td>
</tr>
<tr>
<td>Hypertension</td>
<td>416.0 [Buck/862/2/3]</td>
</tr>
<tr>
<td>Acute myocardial infarction</td>
<td>410.x1</td>
</tr>
</tbody>
</table>
Assign each COPD patient to the mild or moderate-severe intervention group

According to the criteria described in Table 6 (below), assign each COPD patient to a mild or moderate-severe intervention group.

**Table 6. Criteria for Intervention Stratification by COPD Intensity**

<table>
<thead>
<tr>
<th>Intervention Intensity</th>
<th>Criteria (during the 12- to 24-month period)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mild intensity</td>
<td>No COPD-attributable inpatient hospitalizations and no ED visits -and- No COPD comorbid diagnoses</td>
</tr>
<tr>
<td>Moderate-severe intensity</td>
<td>1 ED visit, or</td>
</tr>
<tr>
<td></td>
<td>1 IP event, or</td>
</tr>
<tr>
<td></td>
<td>1 comorbidity diagnosis that includes any of the following: major depression, AMI, angina, diabetes, pulmonary hypertension, osteoporosis, sleep disorders, or glaucoma</td>
</tr>
</tbody>
</table>

Address any other considerations

Although the GOLD report does not specifically classify obesity, weight loss, or anorexia as "comorbidities" to COPD, the research shows that these conditions can be serious issues for persons with COPD. The client organization may want to identify and include appropriate ICD-9-CM codes for these conditions in the risk stratification criteria, or assess for these risk factors through the Case Management Assessment process (see Section V: Case Management Resources).

In addition, there may be potential for persons with COPD to experience exacerbations that would not require an ED visit or IP hospitalization. The client organization may want to consider expanding the moderate-severe intensity criteria based upon increased utilization of outpatient...
services or medications if appropriate, based upon the client organization’s unique patient population and the data sources available.

**Nonclaims–based data analysis for risk stratification**

Some client organizations may not have access to medical claims or pharmacy data. In this case, the organization may risk stratify the COPD patient population into mild or moderate-severe intervention categories based upon one of the following methods:

- **Medical records** (electronic or paper-based) to capture spirometric and/or symptom-based criteria for disease severity, per the GOLD guidelines
- **Self-reported data** (via online or individualized health-risk assessment or survey) to capture self-reported, symptom-based criteria for disease severity, per the GOLD guidelines

**Step 3: Identify appropriate risk-stratified interventions**

Education plays a key role in improving self-management skills and the ability to cope with a chronic medical condition such as COPD, as well as improving health status and outcomes. At the center of the SCC-COPD program are interventions designed to help educate patients and healthcare providers to realize the goal of an effective COPD management plan. The following is an overview of the educational content included in the program.

**Patient interventions**

Patients receive strategically timed and targeted interventions designed to lessen the burden of COPD through improved awareness and self-management skills over a 12-month period. These interventions can take the form of letters, brochures, or other educational resources. In addition, most of the patient materials contain a list of external resources and Internet links that patients can refer to for additional information and support.

An effort has also been made to provide patient interventions that are appropriate for the health literacy levels of patients in the program. All patient materials are written at the fifth-grade reading level and include information that is:

- Up to date and relevant to what the patient/caregiver really needs to know (without extraneous material)
- Actionable and promotes self-management
- Understandable and accessible (larger size, clean layout, easy-to-understand diagrams and pictures, larger type in a readable font, simpler language, inclusion of definitions and phonetic spelling, material provided in manageable “chunks”)
- Supportive and treats the reader with respect

In addition, most of the patient materials contain a list of external resources and internet links that a patient can refer to for additional information and support. Patients are given the choice to
opt out of the program at the time of enrollment or via other program contact, as described by the client organization’s opt-out process (see Section VIII: Implementation Support).

**Provider interventions**

Communication is critical to raising provider awareness of COPD, which remains an under-diagnosed condition. Along with the patient interventions, provider interventions offer tools to enhance patients’ self-management skills and support providers in their awareness of and adherence to COPD evidence-based clinical practice guidelines.

**Individualized case management**

The SCC-COPD program design recommends individualized case management as a key intervention for all at-risk patients. This process is to be developed and provided by the client organization. Patients with COPD exacerbations requiring emergency care, hospitalization, or who have depression or other comorbidities are identified through the risk stratification. These patients may have health issues that complicate the management of COPD. Case management has been shown to be an essential component of a successful disease management program.

A case management process may be implemented according to the client organization’s existing programs or services, which may include such methods as telephone outreach, in-person contact, online coaching, and coordination with the treating practitioner. The client organization may also utilize the SCC-COPD program Care Management Assessment tool that includes questions that may help address a patient’s health status and adherence to their treatment plan, the need for caregiver support, and a depression screener. For more information on implementing this intervention (see Section V: Case Management Resources).

**Clinical content areas for patient interventions**

Not all interventions are necessary for every patient, and assessing the potential benefit of the approach based at each stage of the illness is an important part of disease management. Based on the GOLD guidelines and other current clinical evidence cited, the SCC-COPD program includes the following clinical content areas in all levels of patient interventions:

**Self-management/Condition monitoring**

- All COPD patients should receive information and advice about reducing risk factors (e.g., smoking cessation, self-management) including:
  - Information about the nature of COPD
  - Instruction on medications and other treatments
  - Recognition and treatment of exacerbations (in particular for moderate-severe intensity patients)
  - Strategies for minimizing dyspnea (in particular for moderate-severe intensity patients)
Advice about when to seek help

- Spirometric confirmation is a key component of the diagnosis of COPD\textsuperscript{10}

Adherence

- In COPD, adherence does not simply mean that patients take their medication appropriately; it also addresses a range of nonpharmacologic treatments—e.g., maintaining an exercise program after pulmonary rehabilitation, starting and sustaining smoking cessation, and using devices such as nebulizers and spacers correctly\textsuperscript{10}

- Patients are more likely to adhere to treatment when they believe it will improve disease management or control, or when they anticipate serious consequences related to nonadherence\textsuperscript{17}

Health behaviors

- In addition to information on self-management skills and medications, members may also require specific education and counseling about smoking cessation, instruction on exercise, pulmonary rehabilitation, nutritional advice, and continued nursing support

- Smoking is the most common risk factor for COPD, and smoking cessation is the most effective intervention to prevent COPD and slow its progression\textsuperscript{10}

- Effective management of COPD in older adults calls for ongoing emphasis of vaccination, nutrition, and smoking cessation and special attention to proper inhaler technique\textsuperscript{18}

Psychosocial/Depression

- Depression and anxiety are associated with significant issues in patients with COPD, including longer hospital stays, poorer survival, increased symptom burden, and poorer physical and social functioning\textsuperscript{19,20}

- Although depression and anxiety are very treatable for patients with COPD, only 31% of COPD patients are being treated for these conditions\textsuperscript{21}

Provider-Patient communication

- In managing COPD, open communication between patient and provider is very important. Not only do providers need to listen and communicate well, they need to be empathetic and aware of the patient’s fears and apprehensions\textsuperscript{10}
Health literacy

- Health literacy challenges often affect the success of provider-patient communication. Health literacy has been defined as the extent of an individual’s ability to obtain, process, and understand basic health information and services needed to make appropriate health decisions.\(^{22}\)

- People with low health literacy\(^{23}\) visit emergency departments more, are hospitalized more and for longer periods, and manage chronic diseases less effectively.

The following clinical areas are of particular importance and should be included as part of the content of **moderate-severe** patient interventions:

Comorbidities\(^{10}\)

- Comorbidities are common in COPD. Some of the major comorbidities for which patients with COPD are at high risk include depression, myocardial infarction, angina, diabetes, pulmonary hypertension, osteoporosis, sleep disorders, and glaucoma.

- Weight loss, nutritional abnormalities, and skeletal muscle dysfunction are also well-recognized extrapulmonary effects of COPD.

- All comorbid conditions become harder to manage when COPD is present, and managing COPD becomes more complicated.

Psychosocial/Depression

- Psychiatric morbidity, especially depression and/or anxiety, is common in advanced COPD and merits specific inquiry in the clinical history.\(^{10}\)

- There is evidence of gender differences in COPD, in which women have demonstrated higher levels of anxiety and depression and worse symptom-related quality of life than their male counterparts.\(^{24}\)

- Anxiety and depression also appear to be more acute in patients with COPD requiring hospitalization. There is also an increased risk of rehospitalization for COPD patients with anxiety and low health status.\(^{24}\)

Caregiver support

- Family caregivers in the United States provide care for about 90% of dependent community-dwelling individuals with acute and chronic physical illness, cognitive impairments, and mental health conditions.\(^{25}\)
Family caregivers, as defined here, include relatives, partners, friends, and neighbors who assist with activities of daily living and complex healthcare needs that were once the domain of trained hospital personnel.

**Description of program interventions**

The following section describes all the patient and provider interventions included in the SCC-COPD program design, including optional brochures and letters, case management patient identification, and needs assessment tools (Tables 7–11). This section also lists the specific clinical content areas that are addressed in each intervention.

Interventions are delivered as outlined in the Intervention Timeline (Figure 1) and the Program Implementation Flowchart (Figure 2).

Table 7 shows the interventions that are designated for the total patient population, both mild and moderate-severe intensity levels.
<table>
<thead>
<tr>
<th>Intervention Title and Description</th>
<th>Focus</th>
<th>Timing</th>
</tr>
</thead>
</table>
| **Understanding & Managing Your Chronic Obstructive Pulmonary Disease (COPD)**                    | • General understanding  
• Adherence to medications  
• Condition monitoring  
• Health behaviors  
• Depression screening  
• Patient-Practitioner communication  
• External resources                                                   | Enrollment       |
| This booklet helps patients learn about COPD and ways they can take an active role in managing their condition. It includes information on the causes and symptoms of COPD, and tips on using symptom and medication trackers, contacting support groups, and improving communication with healthcare practitioners. |                                                                         |                 |
| **My COPD Checklist**                                                                               | • Condition monitoring  
• Adherence to medications  
• Patient-Practitioner communication                                                   | Enrollment       |
| This 2-sided resource contains a checklist with tips to help patients prepare for their doctor visits and manage their COPD symptoms, as well as an action plan for COPD management for patients to complete and review with their doctor |                                                                         |                 |
| **Spirometry and COPD: Testing the Health of Your Lungs**                                           | • Condition monitoring  
• Patient-Practitioner communication                                                   | Month 3          |
| This intervention provides patients with an overview about how they can test the health of their lungs when seeing their healthcare professional. It describes what spirometry is, what it tests, and how it should be performed. |                                                                         |                 |
| **You Can Do It! Commit to Quit Smoking**                                                           | • Health behaviors  
• Patient-Practitioner communication  
• External resources                                                              | Month 3          |
<p>| This resource provides an overview of the reasons to quit smoking and the nicotine replacement products that are available to help patients to do so. Also included are tips for coping with withdrawal symptoms and lists of questions for patients to ask their healthcare practitioner and resources that offer additional support. |                                                                         |                 |</p>
<table>
<thead>
<tr>
<th>Table 7. Interventions for Total Patient Population: Mild and Moderate-Severe Intensity Levels (cont’d)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Living With Chronic Obstructive Pulmonary Disease (COPD): Managing Your Diet, Fitness, and Moods</strong></td>
</tr>
<tr>
<td>This patient-facing booklet that provides practical advice and ideas on how patients can play a more active role in managing their health. It includes dietary guidelines, helpful breathing exercises and fitness tips, and suggestions for managing depression and anxiety.</td>
</tr>
<tr>
<td>• Health behaviors</td>
</tr>
<tr>
<td>• Psychosocial support</td>
</tr>
<tr>
<td>• Depression screening</td>
</tr>
<tr>
<td>Month 6</td>
</tr>
<tr>
<td><strong>Talking About COPD</strong></td>
</tr>
<tr>
<td>This resource provides guidance for COPD patients on preparing for doctor visits and communicating with the healthcare team. The flashcard includes tips about what to expect before, during, and after a COPD office visit as well as lists of suggested questions to ask and organizations to consult for more information.</td>
</tr>
<tr>
<td>• Patient-Practitioner communication</td>
</tr>
<tr>
<td>• External resources</td>
</tr>
<tr>
<td>Month 6</td>
</tr>
<tr>
<td><strong>Here and Now: Creating a New Vision for Your Life With Chronic Illness</strong></td>
</tr>
<tr>
<td>This booklet provides practical advice and tips for patients on how to cope when diagnosed with a chronic illness. It includes guidance on dealing with emotions, making healthy choices, learning more about the condition, overcoming setbacks, and improving communication.</td>
</tr>
<tr>
<td>• Psychosocial support</td>
</tr>
<tr>
<td>• Caregiver support</td>
</tr>
<tr>
<td>• Patient-Practitioner communication</td>
</tr>
<tr>
<td>• External resources</td>
</tr>
<tr>
<td>Month 9</td>
</tr>
<tr>
<td><strong>Living With COPD</strong></td>
</tr>
<tr>
<td>This double-sided flashcard describes how COPD affects the lungs, using simple graphics of healthy verses unhealthy airways. Also included are details about the impact of COPD with emphysema and with chronic bronchitis, as well as tips for living better with COPD and helpful sources of information.</td>
</tr>
<tr>
<td>• General understanding</td>
</tr>
<tr>
<td>• Health behaviors</td>
</tr>
<tr>
<td>• Patient-Practitioner communication</td>
</tr>
<tr>
<td>• External resources</td>
</tr>
<tr>
<td>Month 12</td>
</tr>
</tbody>
</table>

In addition to the interventions listed above, the following interventions are designated for the **moderate-severe intensity** patient population (Table 8). Client organizations have the option of adding any of these brochures to the intervention packages for their mild intensity COPD population, as they deem appropriate.
<table>
<thead>
<tr>
<th>Intervention Title and Description</th>
<th>Focus</th>
<th>Timing</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Know Your Medicines</strong>&lt;br&gt;This resource provides a set of simple questions for patients to answer concerning how comfortable they are understanding and complying with their COPD treatment regimen. It also includes tables for patients to keep track of their medications as well as contact information for their various healthcare providers.</td>
<td>• Adherence to medications&lt;br&gt;• Patient-Practitioner communication</td>
<td>Month 3</td>
</tr>
<tr>
<td><strong>COPD May Take Away More Than Your Breath</strong>&lt;br&gt;This patient-facing resource provides an overview of common COPD comorbidities. It includes suggested lifestyle changes for avoiding or managing these comorbidities and reviews the potential long-term psychosocial impact of the disease.</td>
<td>• Comorbidities&lt;br&gt;• Health behaviors&lt;br&gt;• Depression screening&lt;br&gt;• Patient-Practitioner communication&lt;br&gt;• External resources</td>
<td>Month 6</td>
</tr>
<tr>
<td><strong>Beyond Just Getting By: A Caregiver’s Guide to Finding Peace Through Tough Times</strong>&lt;br&gt;A booklet that provides practical guidance for caregivers on how they can take care of themselves while caring for someone who is ill. It includes tips on dealing with difficult emotions and stress, staying healthy, improving communication, and contacting support groups.</td>
<td>• Psychosocial support&lt;br&gt;• Caregiver support&lt;br&gt;• Depression screening&lt;br&gt;• External resources</td>
<td>Month 9</td>
</tr>
<tr>
<td><strong>When Your COPD Symptoms Get Worse</strong>&lt;br&gt;A patient-facing resource that explains to patients what exacerbations, or flare-ups, are, what causes them, how to avoid or reduce them, and what they should do if they experience them.</td>
<td>• Condition monitoring&lt;br&gt;• Health behaviors&lt;br&gt;• Patient-Practitioner communication</td>
<td>Month 12</td>
</tr>
</tbody>
</table>
Table 9 describes **optional** patient interventions that the client organization may opt to include for any risk-stratification level. This includes patient and provider letter templates that the client may also choose to utilize. A decision to utilize an optional intervention may be made on a case-by-case basis. For example, after identification and enrollment in the program, some patients may experience an exacerbation that leads to an ED or IP event. Upon notification of an ED/IP event, the client organization may increase the intensity of the intervention level to moderate-severe (if not already assigned) and deliver additional educational brochures, in conjunction with case-management assessment.

<table>
<thead>
<tr>
<th>Intervention Title and Description</th>
<th>Focus</th>
<th>Timing</th>
</tr>
</thead>
</table>
| **Staying Healthy With COPD: Managing Your Well-being** | • Health behaviors  
• Psychosocial support  
• Patient-Practitioner communication | Month 12 |
| A patient-facing flashcard that offers practical advice and tips for managing stress, embracing wellness, staying fit, and eating better in order to be able to breathe more easily with COPD. | | |
| **Understanding COPD** | • General understanding  
• Health behaviors  
• Patient-Practitioner communication | Month 12 |
| This resource provides an overview of the causes and symptoms of COPD and emphasizes the importance of being an active participant in the management of the disease. Also includes suggested topics for discussion with the patient’s healthcare provider to help support provider-patient communication. | | |
| **When Your COPD Symptoms Get Worse** | • Condition monitoring  
• Health behaviors  
• Patient-Practitioner communication | Month 12 |
| A patient-facing resource that explains to patients what exacerbations, or flare-ups, are, what causes them, how to avoid or reduce them, and what they should do if they experience them. | | |
| **Quit Smoking Diary** | • Health behaviors  
• Patient-Practitioner communication | |
Table 10 describes interventions included in the program design for providers.

**Table 10. Provider Interventions**

<table>
<thead>
<tr>
<th>Intervention Title and Description</th>
<th>Focus</th>
<th>Timing</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>GOLD Pocket Guide</strong></td>
<td>• Evidence-based guidelines for COPD</td>
<td>Enrollment</td>
</tr>
<tr>
<td><strong>GOLD at a Glance Card</strong></td>
<td>• Evidence-based guidelines for COPD</td>
<td>Enrollment</td>
</tr>
<tr>
<td>A laminated card with key elements from GOLD including diagnosis, spirometry classification, and therapeutic management.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Managing Chronic Obstructive Pulmonary Disease (COPD): Differential Diagnosis of COPD</strong></td>
<td>• Condition monitoring</td>
<td>Enrollment</td>
</tr>
<tr>
<td>This resource provides insightful information on the differential diagnosis of COPD versus other respiratory diseases and offers a comparison of the considerations, diagnostic and classification tests, and monitoring of COPD versus asthma.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Diagnosing Patients With COPD in the Primary Care Setting</strong></td>
<td>• Condition monitoring</td>
<td>Month 3</td>
</tr>
<tr>
<td>This resource provides healthcare providers information on COPD diagnosis and screening and includes the basics of spirometry—how to perform it, what are the measurements, and how to interpret the results—as well as the benefits of handheld devices and the COPD Population Screener in identifying and diagnosing patients at risk for COPD. It also includes a table of diagnostic and billing codes for spirometry.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Chronic Obstructive Pulmonary Disease (COPD) Contributes to Multiple Chronic Comorbidities</strong></td>
<td>• Comorbidities • Depression screening</td>
<td>Month 6</td>
</tr>
<tr>
<td>This resource provides an overview of common COPD comorbidities. It outlines morbidity and mortality risks and costs and reviews the potential long-term psychosocial impact of the disease.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 11 describes optional interventions for providers, as well as case management tools.

**Table 11. Optional Provider Interventions**

<table>
<thead>
<tr>
<th>Intervention Title and Description</th>
<th>Focus</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>COPD and Other Respiratory Conditions: ICD-9-CM and ICD-10-CM Reference Guide</strong></td>
<td>• Patient identification and stratification</td>
</tr>
<tr>
<td>This reference resource provides a detailed listing of the ICD-9-CM and ICD-10-CM codes and diagnostic classifications for bronchitis, asthma, emphysema, and other chronic respiratory diseases.</td>
<td></td>
</tr>
<tr>
<td><strong>Tools for Identifying &amp; Diagnosing Patients at Risk for COPD</strong></td>
<td>• Provider education</td>
</tr>
<tr>
<td>This resource walks healthcare providers through the basics of spirometry—how to perform it, what are the measurements, and how to interpret the results—as well as the benefits of handheld devices and the COPD Population Screener in identifying and diagnosing patients at risk for COPD.</td>
<td></td>
</tr>
</tbody>
</table>
| **Chronic Obstructive Pulmonary Disease (COPD) Care Management Assessment** | • Needs assessment  
• Adherence to medication  
• Comorbidities  
• Health behaviors  
• Psychosocial support  
• Depression screening  
• Caregiver support  
• External resources  
• Intervention assignment |
| This resource provides questions that healthcare practitioners can use to assess patients with COPD during telephonic or face-to-face assessments. The 2009 Global initiative for Chronic Obstructive Lung Disease (GOLD) served as the basis for the content of the assessment questions. It also includes a depression screening section with questions adapted from the PHQ-9. | |
| **COPD Care Track** | • Needs assessment  
• Medical intake  
• Intervention assignment |
| This interactive tracker enables healthcare providers to develop and monitor a care plan for their patients with COPD, including capturing their presentation/medical history, recommended therapy by stage of COPD, and patient care options. | |
Step 4: Deliver risk-stratified interventions

**Intervention timeline**

The intensity of patient-focused interventions reflects the patient's level of risk stratification into the mild or moderate-severe intensity levels, as outlined in the SCC-COPD Intervention Timeline (Figure 2). The program is designed so that patients receive interventions upon enrollment and again every 3 months for a 12-month period. Providers receive interventions in tandem with patient interventions for the first 6 months, with optional interventions thereafter. This provides an opportunity for physicians to reinforce the educational information provided to patients so that the information communicated is timely, consistent, and reinforced.

<table>
<thead>
<tr>
<th><strong>DATA ANALYSIS</strong></th>
<th><strong>MILD INTENSITY</strong></th>
<th><strong>MODERATE-SEVERE INTENSITY</strong></th>
<th><strong>PROVIDER</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ENROLLMENT</strong></td>
<td></td>
<td>Introduction Mailing</td>
<td>Introduction Mailing</td>
</tr>
<tr>
<td></td>
<td>Member identification</td>
<td>Member Introduction Letter</td>
<td>Member Introduction Letter</td>
</tr>
<tr>
<td></td>
<td>Member stratification</td>
<td>Understanding &amp; Managing Your COPD (booklet)</td>
<td>Understanding &amp; Managing Your COPD (booklet)</td>
</tr>
<tr>
<td></td>
<td>Identify members with recent COPD-related hospitalization or ED visit for moderate-severe group for interventions</td>
<td>My COPD Checklist</td>
<td>My COPD Checklist</td>
</tr>
<tr>
<td><strong>MONTH 3</strong></td>
<td>Communication 1</td>
<td>Introduction Mailing</td>
<td>Introduction Mailing</td>
</tr>
<tr>
<td></td>
<td>Member Letter 1 (optional)</td>
<td>Member Introduction Letter</td>
<td>Member Introduction Letter</td>
</tr>
<tr>
<td></td>
<td>Spirometry &amp; COPD: Testing the Health of Your Lungs</td>
<td>Understanding &amp; Managing Your COPD (booklet)</td>
<td>Understanding &amp; Managing Your COPD (booklet)</td>
</tr>
<tr>
<td></td>
<td>You Can Do It—Commit to Quit Smoking</td>
<td>My COPD Checklist</td>
<td>My COPD Checklist</td>
</tr>
<tr>
<td></td>
<td>Optional</td>
<td>Individualized case management (as appropriate)</td>
<td>Individualized case management (as appropriate)</td>
</tr>
<tr>
<td></td>
<td>Know Your Medicines</td>
<td>Communication 1</td>
<td>Communication 1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Member Letter 1 (optional)</td>
<td>Member Letter 1 (optional)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Spirometry &amp; COPD: Testing the Health of Your Lungs</td>
<td>Spirometry &amp; COPD: Testing the Health of Your Lungs</td>
</tr>
<tr>
<td></td>
<td></td>
<td>You Can Do It—Commit to Quit Smoking</td>
<td>You Can Do It—Commit to Quit Smoking</td>
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<td></td>
<td>Know Your Medicines</td>
<td>Know Your Medicines</td>
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<tr>
<td></td>
<td></td>
<td>Individualized case management (as appropriate)</td>
<td>Individualized case management (as appropriate)</td>
</tr>
<tr>
<td><strong>MONTH 6</strong></td>
<td>Communication 2</td>
<td>Communication 2</td>
<td>Communication 2</td>
</tr>
<tr>
<td></td>
<td>Member Letter 2 (optional)</td>
<td>Member Letter 2 (optional)</td>
<td>Member Letter 2 (optional)</td>
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<tr>
<td></td>
<td>Living With COPD (Managing Your Diet, Fitness, and Mood) (booklet)</td>
<td>Living With COPD (Managing Your Diet, Fitness, and Mood) (booklet)</td>
<td>Living With COPD (Managing Your Diet, Fitness, and Mood) (booklet)</td>
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<tr>
<td></td>
<td>Talking About COPD</td>
<td>Talking About COPD</td>
<td>Talking About COPD</td>
</tr>
<tr>
<td></td>
<td>Optional</td>
<td>COPD May Take Away More Than Your Breath</td>
<td>COPD May Take Away More Than Your Breath</td>
</tr>
<tr>
<td></td>
<td>Know Your Medicines</td>
<td>Individualized case management (as appropriate)</td>
<td>Individualized case management (as appropriate)</td>
</tr>
<tr>
<td><strong>MONTH 9</strong></td>
<td>Communication 3</td>
<td>Communication 3</td>
<td>Communication 3</td>
</tr>
<tr>
<td></td>
<td>Member Letter 3 (optional)</td>
<td>Member Letter 3 (optional)</td>
<td>Member Letter 3 (optional)</td>
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<tr>
<td></td>
<td>Optional</td>
<td>Beyond Just Getting By—A Caregiver’s Guide</td>
<td>Beyond Just Getting By—A Caregiver’s Guide</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Individualized case management (as appropriate)</td>
<td>Individualized case management (as appropriate)</td>
</tr>
<tr>
<td><strong>MONTH 12</strong></td>
<td>Communication 4</td>
<td>Communication 4</td>
<td>Communication 4</td>
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<tr>
<td></td>
<td>Member Letter 4 (optional)</td>
<td>Member Letter 4 (optional)</td>
<td>Member Letter 4 (optional)</td>
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<tr>
<td></td>
<td>Living With COPD (1 page)</td>
<td>Living With COPD (1 page)</td>
<td>Living With COPD (1 page)</td>
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<tr>
<td></td>
<td>When Your COPD Symptoms Get Worse</td>
<td>When Your COPD Symptoms Get Worse</td>
<td>When Your COPD Symptoms Get Worse</td>
</tr>
<tr>
<td></td>
<td>Know Your Medicines</td>
<td>Understanding COPD</td>
<td>Understanding COPD</td>
</tr>
<tr>
<td></td>
<td>Staying Healthy With COPD</td>
<td>Individualized case management (as appropriate)</td>
<td>Individualized case management (as appropriate)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Communication 1</td>
<td>Communication 1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Provider Letter 1 (optional)</td>
<td>Provider Letter 1 (optional)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>COPD: Contributes to Multiple Chronic Comorbidities (provider version)</td>
<td>COPD: Contributes to Multiple Chronic Comorbidities (provider version)</td>
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<tr>
<td></td>
<td></td>
<td>Provider Letter 2 (optional)</td>
<td>Provider Letter 2 (optional)</td>
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<tr>
<td></td>
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<td>COPD: Contributes to Multiple Chronic Comorbidities (provider version)</td>
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<td></td>
<td></td>
<td>Provider Letter 3 (optional)</td>
<td>Provider Letter 3 (optional)</td>
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<td>COPD: Contributes to Multiple Chronic Comorbidities (provider version)</td>
<td>COPD: Contributes to Multiple Chronic Comorbidities (provider version)</td>
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<td></td>
<td></td>
<td>Provider Letter 4 (optional)</td>
<td>Provider Letter 4 (optional)</td>
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<tr>
<td></td>
<td></td>
<td>COPD: Contributes to Multiple Chronic Comorbidities (provider version)</td>
<td>COPD: Contributes to Multiple Chronic Comorbidities (provider version)</td>
</tr>
</tbody>
</table>

**As Identifed**

- Clinical Alert to provide — Patient ED/IPC event
- Potentially Inappropriate Medication Use in Elderly Adults—Beers Criteria

**Figure 2. Intervention Timeline**
Step 5: Evaluate program

Changes in COPD management patterns related to improved guideline adherence and patient self-management can be assessed. The BIPI SCC-COPD program includes suggested outcome metrics for the client organization to evaluate the impact of the program’s interventions on satisfaction and clinical metrics. A program evaluation enables organizations to measure outcomes of members with COPD participating in the program and to evaluate effectiveness.

The suggested program evaluation may comprise 2 parts:

1. A **“Claims-Based” Plan** that provides a methodology for identifying members who use healthcare services for COPD (and the healthcare professionals providing care to these members), as well as for identifying and quantifying **COPD-attributed utilization and costs**. Suggested claims-based metrics are listed in Table 12.

2. A **“Survey-Based” Plan** that describes a baseline and post-guideline implementation assessment of **provider and patient outcomes not available in administrative claims data** (e.g., satisfaction, knowledge assessment, smoking cessation, and vaccination rates). This information can be obtained through a patient self-report or satisfaction survey. The health plan may obtain this information through medical record review and abstraction, if available. Suggested survey-based metrics are listed in Table 13.

Data source(s):

- The healthcare organization’s administrative data set, which may include billing claims across multiple sites of care (e.g., facility, professional encounters, pharmacy) and eligibility files. Data will be needed beginning with the year before the program began to measure the baseline rate of performance
- Information on nonclaims metrics is obtained from surveys conducted with patients and providers. (Survey templates are not included in this Program Description)
- Another source of treatment information is through abstraction of medical records

The client organization that undertakes a program evaluation either through claims or survey-based metrics will have an enhanced understanding of its performance and the effectiveness of the program. The client may report feedback on the program to BIPI through collaboration with BIPI’s Health Quality and Outcome Associate Directors and Account Managers, who work with the client to support implementation of the SCC-COPD program and delivery of interventions. The client organization may also participate in an annual client satisfaction survey to evaluate the patient and provider content, rate the effectiveness of the materials, and make recommendations for future improvements.
### Table 12. Claims-Based Administrative Metrics

- Appropriate COPD medication use
- Exacerbation management: Use of bronchodilator(s)
- Exacerbation management: Use of systemic steroids
- COPD-attributed healthcare services utilization
- All-cause healthcare services utilization
- Use of spirometry: Refer to HEDIS® 2011 Technical Specification\(^{16}\)
- Pharmacotherapy management of COPD exacerbations: Refer to HEDIS® 2011 Technical Specifications\(^{16}\)

### Table 13. Survey-Based Administrative Metrics

- Influenza and pneumococcal vaccination rates
- Use of smoking cessation resources, quit rate, advice to quit smoking
- Patient knowledge
- Patient medication adherence assessment
Section V: Case Management Resources

Defining case management

According to the Case Management Society of America, case management is defined as “a collaborative process of assessment, planning, facilitation and advocacy for options and services to meet an individual's health needs through communication and available resources to promote quality cost-effective outcomes.”

The sickest 10% of health plan members account for 70% of spending in any 1 year, with the vast majority using very few services for preventive and primary care. The role of case management is to assist an individual in reaching the optimum level of wellness and functional capability, with the underlying premise that everyone benefits: the individuals being served, their support systems, the healthcare delivery systems, and the various reimbursement sources.

A successful disease management program incorporates individualized case management that follows a clear strategy in planning care throughout the continuum of services. This would include:

- Conducting an initial assessment with the patient to develop a practical, actionable plan to address the patient’s chronic illness, his or her needs, available caregiver support, and any barriers in achieving his or her care plan
- Implementing a plan with a focus on patient education, coordinating care with providers, involving caregivers, and follow-up to ensure action steps are being completed
- Monitoring and adjusting the plan as necessary, considering the patient’s health status, his or her self-care skills, and success in overcoming barriers

Overall, evidence shows that relatively effective disease management programs share a fundamental approach:

- They use individualized case management
- They use in person contact with patients in addition to telephonic contact
- They focus on hospital discharges as key opportunities to improve health outcomes
- They encourage patients to use effective treatments
Case management resources

The BIPI SCC-COPD program includes guidelines and tools that may assist the client organization in implementing a case management program. The first step in a case management program is to conduct an initial assessment. This process should help assess the following:

- **Patient home status**
  - Lives alone, with spouse, other family member, friend, or other caregiver

- **Patient needs**
  - Personal care, assistance with activities of daily living, medication adherence, health behaviors, psychosocial support, transportation assistance, financial issues, and environmental concerns

- **Family/Caregiver support**
  - Does the patient have family or caregiver support for self-management efforts? Plan to include family/caregiver in counseling and education

- **Case management action plan**
  - Services needed, doctor appointments, education or counseling; plan to engage family or other social support systems

- **Patient safety issues**
  - Polypharmacy, medication contraindications, safety of home environment (risk for falls, home fires—e.g., ambulatory oxygen use and smoking)
  - Risk of depression, suicide
  - Clinical alerts to provider, as appropriate

BIPI COPD Care Management Assessment tool

To assist client organizations with conducting the initial step in the case management process, BIPI has developed a Care Management Assessment tool. It contains questions that can be utilized by the case/care managers to develop a practical, actionable plan to address the patient’s chronic illness, his or her emotional or physical needs, available caregiver support, and any beliefs and concerns that are barriers to achieving the patient’s care plan. It also includes a depression screening section with questions adapted from the PHQ-9.

The GOLD guidelines served as a basis for the content of the assessment questions. All or select questions may be utilized by the healthcare professional during a telephone or face-to-face
assessment. The sequencing of the questions can be organized to meet the needs of the person conducting the assessment. Responses to the questions may be utilized by the healthcare professional to determine patient education needs, assist in coordinating care with providers, engage caregivers, and ensure action steps are being completed.

Case Management Society of America guidelines

BIPI has collaborated with the Case Management Society of America (CMSA) to develop Case Management Adherence guidelines. These guidelines focus on medication nonadherence and persistency.

BIPI has also sponsored the development of disease-specific COPD Case Management Adherence guidelines. These guidelines not only address medication adherence and persistence, but all aspects of COPD self-management with a particular emphasis on patient safety.

BIPI launched these guidelines in 2010, and client organizations can integrate these resources into their existing case management programs. BIPI will provide training on the guidelines to select client organizations.

Web sites

Case Management Society of America
http://www.cmsa.org

National Association of Professional Geriatric Care Managers
http://www.caremanager.org/

National Transitions of Care Coalition
http://www.ntocc.org/

The Care Transitions Program
http://www.caretransitions.org/structure.asp
Section VI: Patient Safety Resources

Key National Patient Safety goals

Patient safety is defined by the National Patient Safety Foundation simply as: “Actions undertaken by individuals and organizations to protect healthcare recipients from being harmed by the effects of healthcare services.”

The Joint Commission (formerly JCAHO) published its revised National Patient Safety Goals in 2011. There are several patient safety goals within the ambulatory, hospital, and home healthcare settings that are particularly applicable to client organizations serving COPD patients:

- Find out what medicines each patient is taking. Make sure that it is all right for the patient to take any new medicines with his or her current medicines.
- Some patients may get medicine in small amounts or for a short time. Make sure that it is OK for those patients to take those medicines with their current medicines.
- Give a list of the patient’s medicines to the patient, caregiver, and/or his or her family before he or she goes home from the hospital. Explain the list. Give the list to the patient’s regular doctor.
- Find out which patients are most likely to fall. For example, are the patients taking any medicines that might make them weak, dizzy, or sleepy? Take action to prevent falls for these patients.
- Find out if there are any risks for patients who are getting oxygen. For example, do they smoke, or are there other risks of fire in the patient’s home?
- Find out which patients are most likely to try to commit suicide.

Process for detection and notification of patient safety issues

In order to support client organizations’ efforts to improve patient safety and adopt Joint Commission goals, BIPI has developed a process for detection and notification of patient safety issues. This process references 2 clinical frameworks for clients to utilize in identifying potential patient safety issues: (1) COPD Case Management Adherence guidelines, and (2) Beers Criteria for potentially inappropriate medication use in older adults.

As described in Section V, not only do the COPD Case Management Adherence guidelines address strategies for medication adherence and persistence, they also strongly emphasize the corresponding patient safety issues. There are assessment questions that should be a part of the case manager's ongoing involvement with the individual diagnosed with COPD.

These include questions based on the GOLD guidelines that cover exposure to environmental risk factors, as well as the monitoring of pharmacotherapy and other medical treatment such as home oxygen. It also describes the high prevalence of depression and anxiety with COPD and...
the importance of the case manager in assessing these symptoms or other impaired coping, including a risk of suicide. In particular, there is evidence of gender differences in COPD, in which women have demonstrated higher levels of anxiety and depression and worse symptom-related quality of life than their male counterparts. Anxiety and depression also appear to be more acute in patients with COPD that requires hospitalization. There is also an increased risk of rehospitalization for COPD patients with anxiety and low health status.\textsuperscript{24}

While most people diagnosed with COPD are between 40 and 65 years of age, the highest prevalence of COPD is among the elderly.\textsuperscript{21} Medication-related problems in elderly adults can have safety consequences. Adverse drug events have been linked to preventable problems, such as depression, falls, and hip fractures.\textsuperscript{31} In elderly adults diagnosed with COPD, potentially inappropriate medication use is considered a safety issue.

The Beers Criteria, updated in 2003, is a tool for identifying potentially inappropriate medication use and provide a list of medications potentially inappropriate for patients aged 65 and older because the drugs are: (1) either ineffective or pose a higher risk for adverse events when a safer alternative may be available, or (2) medications that should not be used in older persons known to have specific medical conditions, such as COPD (Table 14). According to the Beers Criteria, these medications may potentially induce central nervous system adverse effects or exacerbate respiratory depression.\textsuperscript{31} The monitoring of medications used to treat elderly adults is important.

<table>
<thead>
<tr>
<th>Table 14: Beers Criteria for Potentially Inappropriate Medication Use in Older Adults with COPD\textsuperscript{31} [Fick/2721/Table2/Row18/col2]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Long-acting benzodiazepines:</td>
</tr>
<tr>
<td>• Chlordiazepoxide (Librium\textsuperscript{®})</td>
</tr>
<tr>
<td>• Chlordiazepoxide-amitriptyline (Limbitrol\textsuperscript{®})</td>
</tr>
<tr>
<td>• Clidinium-chlordiazepoxide (Librax\textsuperscript{®})</td>
</tr>
<tr>
<td>• Diazepam (Valium\textsuperscript{®})</td>
</tr>
<tr>
<td>• Quazepam (Doral\textsuperscript{®})</td>
</tr>
<tr>
<td>• Halazepam (Paxipam\textsuperscript{®})</td>
</tr>
<tr>
<td>• Clorazepate (Tranxene\textsuperscript{®})</td>
</tr>
<tr>
<td>β-Blockers:</td>
</tr>
<tr>
<td>• Propranolol</td>
</tr>
</tbody>
</table>

Please refer to the full journal article for a complete listing of all the potentially inappropriate medications and health conditions. Note that the Beers Criteria do not supersede clinical judgment and assessment by the physician or practitioner.
Sample patient safety process for client organizations

1. Routinely analyze claims data for indicators that may detect potential patient safety issues, such as:
   - Patients who are aged 65 and older with medication(s) listed as potentially inappropriate medications (per Beers Criteria)
   - Patients who have had any recent ED or IP events
   - Unusual gender differences in utilization
   - Patients who have not refilled their COPD medications in the last 90 days

2. Based upon the case management assessment, evaluate if the patient’s safety is at risk. In particular, consider gender-specific risks, medication polypharmacy and contraindications, medication adherence, environmental risks (e.g., falls and home oxygen), anxiety, depression, and suicide.

3. Take appropriate action(s) to prevent patients from being harmed, such as notifying caregiver or treating practitioner.

4. Provide practitioners with data on their patients. Promote provider level reporting or Clinical Alerts to clinician/physician if potentially inappropriate medications are prescribed for patients with COPD, or if other risk factors or patient safety issues are present.

5. Notify the practitioner assigned to (or associated with) the patient(s) of the patient-safety issue. This can be delivered by phone contact or a Clinical Alert mechanism via an appropriate method available to the client organization (e.g., fax or e-mail). It is recommended to notify practitioners within 24-48 hours for urgent care issues.
Sample Clinical Alert

<<ORGANIZATION NAME>>
<<Phone>>
<<Fax>>

<<DATE>>
<<PHYSICIAN NAME>>
<<TITLE>>
<<ADDR>>
<<PHONE>>
<<FAX>>

RE: <<Patient Name>>
Phone: <<Patient Phone>>
DOB: <<Patient DOB>>
Nurse Update by: <<Nurse Name>>
Organization: <<Organization Name>>

<<Organization Name>> provides patient education and health management services for your patients with respiratory disease. In order to support important patient safety goals, we would like to communicate with you any patient risks that we have identified that may have safety consequences.

Older adults aged 65 years and older diagnosed with COPD are at risk for potentially inappropriate medication use. Medication use and medication-related problems in elderly adults can have safety consequences and increase the risk of adverse events. The monitoring of medications in elderly adults is important.

Please refer to the Beers Criteria updated in 2003¹ and the National Heart, Lung, and Blood Institute² for more information on this topic.

Your patient has reported the following information:

<table>
<thead>
<tr>
<th>Polypharmacy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drug Name</td>
</tr>
<tr>
<td>-------------------</td>
</tr>
<tr>
<td></td>
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</table>


Section VII: Implementation Support

BIPI has developed the SCC-COPD program to provide client organizations with important educational tools to enhance their patients’ self-management of COPD and support providers in adhering to evidence-based clinical guidelines. This program was also designed to adhere to disease management quality standards put forth by the National Committee for Quality Assurance (NCQA).

In order to support the client in fulfilling all elements of the program design and achieving positive outcomes, BIPI has developed a checklist of implementation processes that must be carried out in order for client organizations to deliver a successful program.

Please review this checklist on the following page as you prepare for and conduct the program activities to ensure that each essential process has been developed and implemented.
Checklist for Disease Management Program Implementation

The client organization must develop and implement the following processes to:

☐ Provide patients a mechanism to “opt-out” of the program if they do not wish to participate or if they have been identified in error
☐ Consistently apply criteria to determine the level of intervention and services for individual patients
  - Refer to the process outlined in Section IV: Process for Program Implementation, Step 2: Risk stratify for targeted interventions
☐ Identify practitioners who are responsible for providing care to eligible patients
  - Refer to the process outlined in Section IV: Process for Program Implementation, Step 1: Identify the COPD patient population
☐ Distribute decision-support information to practitioners
  - Refer to the process outlined in Section IV: Process for Program Implementation, Step 4: Deliver risk-stratified program interventions (intervention timeline, program implementation flowchart, and description of program interventions)
☐ Coordinate with the activities of treating practitioners (including specialists and primary care practitioners)
  - Refer to the process outlined in Section IV: Process for Program Implementation, Step 4: Deliver program interventions (intervention timeline, implementation flowchart, and description of program interventions)
  - Refer to Section V: Case Management Resources, Care Management Assessment Tool
  - Refer to Section VI: Patient Safety Resources (process for detection and notification of patient safety issues, sample patient safety process for client organizations)
☐ Inform practitioners within 45 days that their patients with the highest disease severity or clinical risk have been engaged by the DM program (e.g., had their first live contact—“live” may be by phone, online, or in person)
  - Refer to Section V: Case Management Resources, Care Management Assessment Tool
  - Refer to Section VI: Patient Safety Resources (process for detection and notification of patient safety issues, sample patient safety process for client organizations, sample Clinical Alert)
☐ Notify practitioners about urgent care opportunities for individual patients that must be addressed (e.g., notifications about patients who do not refill medications; missed laboratory tests or laboratory results that indicate patients are at risk for exacerbations of their condition; patient hospitalizations). The process must specify types of care opportunities that require practitioner notification, and specify timeframes, such as 24-48 hours, for providing urgent care opportunity updates to practitioners
  - Refer to Section V: Case Management Resources (Care Management Assessment tool)
  - Refer to Section VI: Patient Safety Resources (process for detection and notification of patient safety issues, sample patient safety process for client organizations, sample Clinical Alert)
☐ Assess caregiver support available to the patient and determining the types of activities such support will provide to patients, depending on the level of support
  - Refer to Section V: Case Management Resources (Care Management Assessment tool)
References


Member Letter: Introduction

[Print on Organization’s Letterhead or insert Organization’s logo]

[Date]

Dear [Patient Name]:

At [Organization name], helping our member’s health and well-being is very important to us. Our records show that you may have received treatment for a breathing problem called chronic obstructive pulmonary disease, or COPD. COPD is a long-term disease that causes frequent cough and shortness of breath. It is also referred to as emphysema and chronic bronchitis.

This mailing includes educational tools that we hope you will find helpful in managing your health:

- **Understanding & Managing Your COPD** – This booklet describes the causes and symptoms of COPD, ways to manage it and how to take an active role in your health.

- **COPD Action Plan / My Symptom Checklist** – Bring this form to your next doctor’s visit. Talk to the doctor about your unique plan. Complete it together. Follow your COPD Action Plan to keep your symptoms under control.

Stopping smoking and preventing lung infections are important in managing your COPD. The COPD Action Plan can help you manage your COPD and the medications you take to control it. You may need some type of daily medicine to prevent or reduce symptoms. You may take others only when needed to relieve symptoms. Be sure you take your medicine exactly as the doctor prescribes.

If you have questions about the enclosed information or your condition, please consult your doctor. It is important to partner with your doctor to make a treatment plan that works best for you.

We hope that with COPD education and support, you will enjoy improved health.

Sincerely,

[Organization Medical Director or QI Manager]

P.S. If you have received this letter in error, or do not wish to receive future mailings, please contact our member services department at [phone number].
Dear [Patient Name]:

[Organization name] is committed to your good health. Your doctor needs to know how well your lungs are working. He or she may ask you to take a special breathing test called spirometry. This test measures the flow of air in and out of your lungs. It is a painless way to test how well you are breathing.

Why is spirometry so important? You may not notice the slow changes that happen to your lungs with COPD. This test is a way to measure changes in your lung health. It helps your doctor keep your treatment plan up-to-date. With the right treatment, you are more likely to keep your symptoms under control. You will have a greater chance of feeling better for longer.

If you smoke, quit – it's never too late! Smoking is the greatest cause of COPD, which results in lung damage that gets worse over time. Quitting smoking has both immediate and long-term health benefits.

Medicines are also vital. Medicines may be taken daily to help you breathe better and lessen your symptoms. Be sure to take your medicine the way your doctor prescribes.

This mailing includes educational materials that we hope you will find helpful in managing your health:

Spirometry and COPD - Learn more about this special test.
You can Do It – Commit to Quit – Facts about smoking and tips on how to quit.
[For Moderate-Severe patients include the following] Know Your Medicines – Check how much you know about your COPD medicines.

We hope that with COPD education and support, you will enjoy improved health.

Sincerely,

[Organization Medical Director or QI Manager]

P.S. If you have received this letter in error, or do not wish to receive future mailings, please contact our member services department at [phone number].
Dear [Patient Name]:

[Organization name] wants to help you learn how you can manage your COPD and keep your symptoms under control. We want to remind you that it is very important for people with COPD to get a yearly flu shot. This may help prevent you from getting sick or keep your symptoms milder if you do get the flu.

**Ask your doctor if a pulmonary rehabilitation program would help you.** This type of program may help you feel better and make it easier to manage your symptoms.

We hope you find the enclosed brochures helpful:

**Living with COPD** – Learn more about pulmonary rehabilitation and breathing exercises. Understand how diet, fitness and moods can affect your health.

**Talking about COPD** – Take an active role in your health. Learn tips on how to prepare for your doctor visit and talk to your doctor about your condition.

[For moderate-severe patients include the following] **COPD May Take Away More Than Your Breath** – Find out how to get help for other health problems like depression, which can make it harder to manage your COPD.

We hope that with COPD education and support, you will enjoy improved health.

Sincerely,

[Organization Medical Director or QI Manager]

P.S. If you have received this letter in error, or do not wish to receive future mailings, please contact our member services department at [phone number].
Dear [Patient Name]:

Living with a chronic disease like COPD can be a challenge and [Organization name] wants to help. COPD is a chronic illness, which means you have it for life. It means that you may have to make changes in your life to control your symptoms. You may need to take daily medicine or get assistance with your daily activities. You may also have days when you don’t feel your best.

Quitting smoking is the only way to slow the progression of COPD. If you are smoking, there are many places to turn for help. Your doctor is the first person you should see. Here are some other helpful resources:

- Freedom From Smoking® web site at www.lungusa.org. This is the American Lung Association’s free online program to quit smoking.
- Call 1-800-LUNGUSA to ask experts about quitting smoking and lung health.

Medicines are also very important. They help you breathe better. It is vital to take your medicine the way your doctor has prescribed, even if you are feeling okay.

Please read the enclosed brochure, Here and Now – A Patient Guide. This brochure contains important facts about COPD and tips about how to cope with your illness.

[For moderate-severe patients, use the following paragraph:] Please read the enclosed brochures, Here and Now – A Patient Guide and A Caregiver’s Guide. These brochures contain important facts about COPD and tips about how to cope with your illness for both you and your caregivers.

We hope that with COPD education and support, you will enjoy improved health.

Sincerely,

[Organization Medical Director or QI Manager]

P.S. If you have received this letter in error, or do not wish to receive future mailings, please contact our member services department at [phone number].
Member Letter: Communication 4
[Print on Organization’s Letterhead or insert Organization’s logo]

[Date]

Dear [Patient Name]:

We know that you want to be healthy and [Organization name] wants to be your partner in this effort. Over the past several months you have received educational materials that we hope have helped you to better understand and manage your COPD. We want to remind you of the main steps you can take to keep your COPD under control:

- **Watch for signs of COPD worsening.** Coughing, thick mucus, shortness of breath, and fatigue. Talk to your doctor if your symptoms get worse, or if you get a lung infection.

- **Follow your COPD Action Plan.** Keep it up-to-date by talking with your doctor regularly.

- **Know when to get emergency help.** If it is hard to talk or walk, if your lips or fingernails turn gray or blue, or if your heartbeat becomes rapid, call your doctor right away or call 911.

- **Know your triggers, and avoid them.** Keep away from secondhand smoke. Avoid being outdoors on days when air pollution or pollen is bad. Avoid dust and fireplaces.

- **Be sure to take your medicine the way your doctor tells you – and get your flu shots.** Medicine is a central part of your COPD Action Plan. Flu and pneumonia shots are also a must for people with COPD who often get more lung infections.

- **If you smoke, quit – it’s never too late!** Smoking is the greatest cause of COPD, which results in lung damage that gets worse over time.

- **See your doctor at least two times a year – even if you feel well.** You may not notice the slow change in your lung health until it is too late and you have a flare-up (also known as an “exacerbation”)

- **Ask your doctor about testing.** Have spirometry tests to measure your lung health, and to make sure you are getting the right treatment.

- **Keep your body strong.** Get regular exercise and eat well.

Please read the enclosed brochure, Living with COPD. We hope that with COPD education and support, you will enjoy improved health.

Sincerely,

[Organization Medical Director or QI Manager]

P.S. If you have received this letter in error, or do not wish to receive future mailings, please contact our member services department at [phone number].
Dear [Patient Name]:

We know that you want to be healthy and [Organization name] shares your concern. We understand that you recently required [urgent care / hospitalization] for your COPD. If you have not already done so, please schedule a follow-up visit with your doctor.

We want to remind you of steps you can take to keep your COPD under control:

- **Watch for signs of COPD worsening.** Symptoms include coughing, thick mucus, shortness of breath, and fatigue. Talk to your doctor if your symptoms get worse, or if you get a lung infection.
- **Follow your COPD Action Plan.** Keep it up-to-date by talking with your doctor regularly.
- **Know when to get emergency help.** If you have increased trouble breathing, if it is hard to talk or walk, if your lips or fingernails turn gray or blue, or if your heartbeat becomes rapid, call your doctor right away or call 911.
- **Know your triggers, and avoid them.** Keep away from secondhand smoke. Avoid being outdoors on days when air pollution or pollen is bad. Avoid dust and wood burning stoves and fireplaces. Keep your kitchen aired out when cooking.
- **Be sure to take your medicine the way your doctor tells you – and get your flu shots.** Some medicines are taken daily to manage symptoms. Others are only taken when symptoms are worse. Flu and pneumonia shots are a must for people with COPD who often get more lung infections.
- **If you smoke, quit – it’s never too late!** Smoking is the most common cause of COPD and results in lung damage that gets worse over time.
- **See your doctor at least two times a year – even if you feel well.** You may not notice the slow changes in your lung health until it is too late and you have a flare-up (also known as an “exacerbation”)
- **Ask your doctor about testing.** Have spirometry tests to measure your lung health, and to make sure you are getting the right treatment.
- **Keep your body strong.** Get regular exercise and eat well.

We hope this information is helpful. [Organization name] is dedicated to helping you to enjoy improved health.

Sincerely,

[Organization Medical Director or QI Manager]

P.S. If you have received this letter in error, or do not wish to receive future mailings, please contact our member services department at [phone number].
Member Letter: Refill Reminder Letter
[Print on Organization’s Letterhead or insert Organization’s logo]

**This is a reminder from [Organization name] to refill your COPD medicine prescription.**

[Date]

Dear [Patient Name]:

[Organization name] wants to help you feel your very best. This is why we offer you the COPD health management program.

Our records show that you have not filled your COPD medicine prescription(s) for 90 days. These medicines are very important. They help you breathe better. It is vital to take your medicine the way your doctor has prescribed, even if you are feeling okay.

Taking your COPD medicines:
- Helps reduce COPD symptoms and flare-ups
- Helps your lungs work better

Here are some things to remember about taking your medicine:
- Take them the way your doctor tells you.
- Take them at the same time every day as part of taking your medicines
- Write down the dates you need refills and when they expire. Ask your pharmacist if they offer an automatic refill service.

We hope this information is helpful. [Organization name] is dedicated to helping you to enjoy improved health.

Sincerely,

[Organization Medical Director or QI Manager]

P.S. If you have received this letter in error, or do not wish to receive future mailings, please contact our member services department at [phone number].
Dear [Provider Name]:

Approximately 24 million Americans have airflow limitation. Of these patients, approximately half are diagnosed with COPD. The overwhelming majority of undiagnosed patients are symptomatic (10.3 million).¹

COPD is a key priority disease for [Organization]. As part of our effort to optimize the care of COPD patients, we have put in place a health management program to enhance the management of our members with COPD. This free program supports you in your efforts to provide excellent care for your COPD patients.

As part of this program, we will provide our network of providers with the most up-to-date information regarding management of COPD. Enclosed you will find evidence-based treatment guidelines developed by the National Heart, Lung, and Blood Institute and the World Health Organization as outlined in the report by the Global Initiative for Chronic Obstructive Lung Disease (GOLD), *Global Strategy for the Diagnosis, Management, and Prevention of Chronic Obstructive Pulmonary Disease*. The GOLD guidelines provide the foundation for the content of our program.

We have also recently provided educational materials to your patients participating in our program. These materials include information that will help underscore your important educational messages to your COPD patients.

Please contact me at [contact phone number] if you should you have questions or concerns. Building upon the foundation of your excellent care, your feedback on this program can be an effective support tool for improving the lives of your patients. We look forward to your continued partnership in this effort.

Sincerely,

[Organization Medical Director or QI Manager]

---

Dear [Provider Name]:

[Organization name]'s COPD Program is a free disease management program designed to help you support the clinical management of your COPD patients. This program was founded on the principles of the evidence-based recommendations from the Global Initiative for Chronic Obstructive Lung Disease (GOLD).

Of particular note, the GOLD Guidelines define COPD as being a preventable and treatable disease, with effective COPD management described as meeting the following goals: relieving symptoms, preventing disease progression, improving exercise tolerance, improving health status, preventing and treating exacerbations, and reducing mortality.

The guidelines also recommend spirometry as essential to COPD diagnosis. For more information on spirometry, please review the enclosed brochures, Differential Diagnosis of COPD and Diagnosing Patients in the Primary Care Setting. You may also refer to the American Thoracic Society Web site at http://www.thoracic.org for more resources on spirometry training.

To support your efforts to provide quality COPD management, we provide educational materials periodically to your [Organization name] patients who have enrolled in our disease management program. The goals of these mailings are to:

- Underscore your educational messages to your COPD patients, including information and support for smoking cessation
- Encourage patients to adhere to their prescribed treatment plan and medications
- Improve patient self-management skills to reduce exacerbations
- Improve the overall quality of disease management by providing tools to help patients manage COPD on a daily basis

Please contact me at [contact phone number] if you should you have questions or concerns. Building upon the foundation of your excellent care, your feedback on this program can be an effective support tool for improving the lives of your patients. We look forward to your continued partnership in this effort.

Sincerely,

[Organization Medical Director or QI Manager]
Dear [Provider Name]:

As you may recall from our previous correspondence, Chronic Obstructive Pulmonary Disease (COPD) is a priority disease for [Organization name]. As part of the COPD health management program, patients receive smoking cessation information and resources. Cigarette smoking is the greatest risk factor for COPD. For patients who smoke, a key aspect of treatment is encouraging them to quit.

Patients’ smoking status should be assessed at each visit, and smoking cessation should be a key component of disease prevention and management across all stages of disease for patients who smoke. Smoking cessation has both immediate and long-term benefits for your patient’s health.

We would also like to underscore the GOLD Guidelines emphasis on comorbidities as a common factor that makes management of COPD more difficult. Please refer to the enclosed brochure, The Complexities of Comorbidities, for more information on this important topic. It is recommended that comorbidities be identified and addressed appropriately to optimize management of your patients with COPD.

Depression and anxiety are comorbid conditions of particular importance, as they often go undiagnosed and untreated. Although depression and anxiety are very treatable for patients with COPD, only 31% of COPD patients are being treated for these conditions. Depression and anxiety are associated with significant issues in patients with COPD, including longer hospital stays, poorer survival, increased symptom burden, and poorer physical and social functioning.

Should your patients report signs and symptoms such as persistent sadness or anxiety, feeling hopeless or worthless, or loss of pleasure in activities or pastimes once enjoyed, assessment for depression is crucial. Treatment for depression may help people with COPD manage the symptoms of both diseases, with the goal of improving the quality of their lives.

Please contact me at [contact phone number] if you should you have questions or concerns. Building upon the foundation of your excellent care, your feedback on this program can be an effective support tool for improving the lives of your patients. We look forward to your continued partnership in this effort.

Sincerely,

[Organization Medical Director or QI Manager]

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