Program Guide

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DISEASE MANAGEMENT NCQA CERTIFICATION

COPD CHALLENGE® is a program for healthcare organizations that provides resources and flexible options to address the management of patients with COPD.

This Program Guide provides information that may help organizations:

- Identify opportunities for intervention
- Design and implement a COPD care management program
- Measure outcomes

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Find COPD CHALLENGE® and other resources and tools on Care Management Central® at **www.CareManagementCentral.com**.

Introduction

In 2011, 6.5% of US adults* (approximately 13.7 million) reported having been diagnosed with chronic obstructive pulmonary disease (COPD).[1] Additionally, in earlier data based on spirometry readings,† COPD was estimated to go undiagnosed in 12 million people.[2]

COPD is the third most common cause of death in the US.[3] There were 133,575 deaths from COPD in 2010.[1‡]

Patients with COPD in 2010 experienced[1]:

- 10.3 million physician office visits
- 1.5 million emergency department visits
- 699,000 hospital discharges

The cost for COPD in the US in 2010 was projected to be approximately $50 billion[3]:

- $30 billion in direct healthcare expenditures
- $20 billion in indirect costs

* 6.5% age-adjusted prevalence; 6.8% unadjusted.

† Based on 1988-1994 NHANES spirometry readings of lung function.

‡ If COPD is underdiagnosed, mortality rates may be underestimated, as well.

Why Focus on COPD

Chronic obstructive pulmonary disease is a progressive, debilitating disease that can interfere with normal breathing.[3] It often limits normal physical exertion and sleeping patterns and can interfere with patients' ability to work, perform household chores, and participate in social and family activities.[3] As the disease progresses toward end-stage COPD, patients may experience increased hospitalizations and worsening shortness of breath until breathing is difficult even when at rest. Patients may suffer from anxiety, panic, and depression, and as symptoms worsen, patients may slowly lose their independence.[3]

Although COPD cannot be cured, patients' quality of life may be improved by certain lifestyle changes, such as smoking cessation and optimal management of the disease.[3]

Unfortunately, patients often do not follow treatment plans consistently and sometimes abandon treatment altogether.[4] Studies, including data from pharmacy and Veterans' Administration databases,[4] show that patient nonadherence to COPD therapies, such as medication, oxygen supplementation, and physical rehabilitation, contributes to rising rates of hospitalization, healthcare costs, and death.[4]

Research has shown that a collaborative care model may be a way to improve management of chronic diseases, especially in patients with comorbid conditions and multiple treatments.[4] A team-based approach may encompass[4]:

- Coordinated care among healthcare providers, which could include physicians, nurses, pharmacists, patient advocates, and patient navigators
- Education
- Patient monitoring

With increasing age and disease severity, exacerbations of COPD become more frequent and severe.[3]

Successfully addressing disease management in patients with COPD may potentially reduce hospitalization, emergency department visits, and other healthcare expenditures and contribute to a more acceptable quality of life.[3]

How Can Your Organization Use COPD CHALLENGE®?

Organizations interested in addressing the needs of patients with COPD may choose to create an initiative that utilizes care management resources. COPD CHALLENGE® may be used as part of an initiative to help with:

- Patient education, including self-management skills
- Provider education, including information from evidence-based guidelines
- Communication between patients with COPD and their healthcare providers
- Identification and stratification of patients with COPD by need or risk level
- Development of possible interventions based on patient need or risk level

COPD CHALLENGE® resources may be used as a complement to an organization's care management approach.

Designing and Implementing a Care Management Initiative

This section offers a 6-step approach to assessing, planning, and evaluating your COPD initiative:

1. Identify organizational goals and objectives to guide the planning, implementation, and evaluation of your initiative.
2. Determine organizational needs and gaps to help ensure a balance between your organization's objectives and its available resources.
3. Identify and stratify patients for intervention utilizing data from medical claims and pharmacy claims, if available, or electronic health records including diagnosis codes, lab values, and procedure codes.
4. Plan targeted interventions and timelines to identify the type and intensity of intervention and to identify appropriate resources for healthcare providers and patients.
5. Prepare for the implementation of your initiative by taking the action steps needed across your organization.
6. Evaluate the impact of your care management initiative to determine whether the interventions deliver meaningful improvements that result in better health outcomes.

The following information represents a suggested approach. Assess the needs of your organization before choosing to use this approach or designing your own.

STEP 1: IDENTIFY ORGANIZATIONAL GOALS AND OBJECTIVES

A successful care management initiative depends on the establishment of clear goals and objectives.

To formulate your goals, consider the following questions:

1. What are the long- and short-term impacts to be achieved with this initiative?
2. Why is it important to achieve these impacts?

Next, consider your objectives for each goal. In general, objectives should be "SMART":

- **SPECIFIC:** It is easier to achieve well-defined goals. Make your goals clear, simple, and specific.
- **MEASURABLE:** Goals should be measurable so that there is a way to evaluate progress.
- **ACHIEVABLE:** Goals need to be challenging, but achievable. Early successes with modest goals help to build confidence.
- **RESULTS FOCUSED:** Goals should measure outcomes, not activities.
- **TIME-BOUND:** Goals must have a deadline.

STEP 2: DETERMINE ORGANIZATIONAL NEEDS AND GAPS

Based on your COPD goals and objectives, consider your organization's capabilities and resources. Questions to consider include:

1. Has your organization ever implemented other care management, preventive health, or clinical quality improvement activities?
2. If yes, is there anything you learned that may assist you in designing your new COPD initiative?
3. How will your COPD initiative be designed? Will it be large or small? Will there be locations selected to pilot the implementation? Will it be attached to an existing COPD program you already have in place?
4. Are resources, such as staff, leadership, information technology, and financial support, adequate to meet the initiative's objectives?

Once you have determined the scope and design of your COPD initiative, identify the potential gaps in your organization that need to be addressed before proceeding with the initiative. Below are suggested questions that may help.

Does your organization have:	Yes	No
Clinical practice guidelines for COPD in place?		
The capability to identify/stratify patients and providers using timely pharmacy and/or medical claims data, if available, or electronic health record data?		
Access to patient education materials on COPD? If yes, do these materials offer: • Strategies for early detection and screening for COPD? • Appropriate content for your patient demographics? • Goals for living with COPD? • Support for self-management and adherence to treatment plan? • Information about comorbid conditions, such as depression?		
Resources for healthcare providers (eg, a patient portal) that encourage coordination of care, meaningful communication with patients, and capability for assessment and referral?		
Resources to evaluate impact of the intervention pre- and post-implementation?		

STEP 3: IDENTIFY AND STRATIFY PATIENTS FOR INTERVENTION

Once you have identified and created strategies to help close any gaps that may impede the success of your COPD initiative, you will need to identify your participants. Medical and pharmacy claims data or electronic medical records can facilitate the ability to identify and stratify these participants, supplemented by the use of facility data, diagnostic test data, and/or survey data.

The algorithms found on the following 5 pages are suggested approaches to identify patient and provider participants.

ALGORITHM 1: Patients at risk for COPD

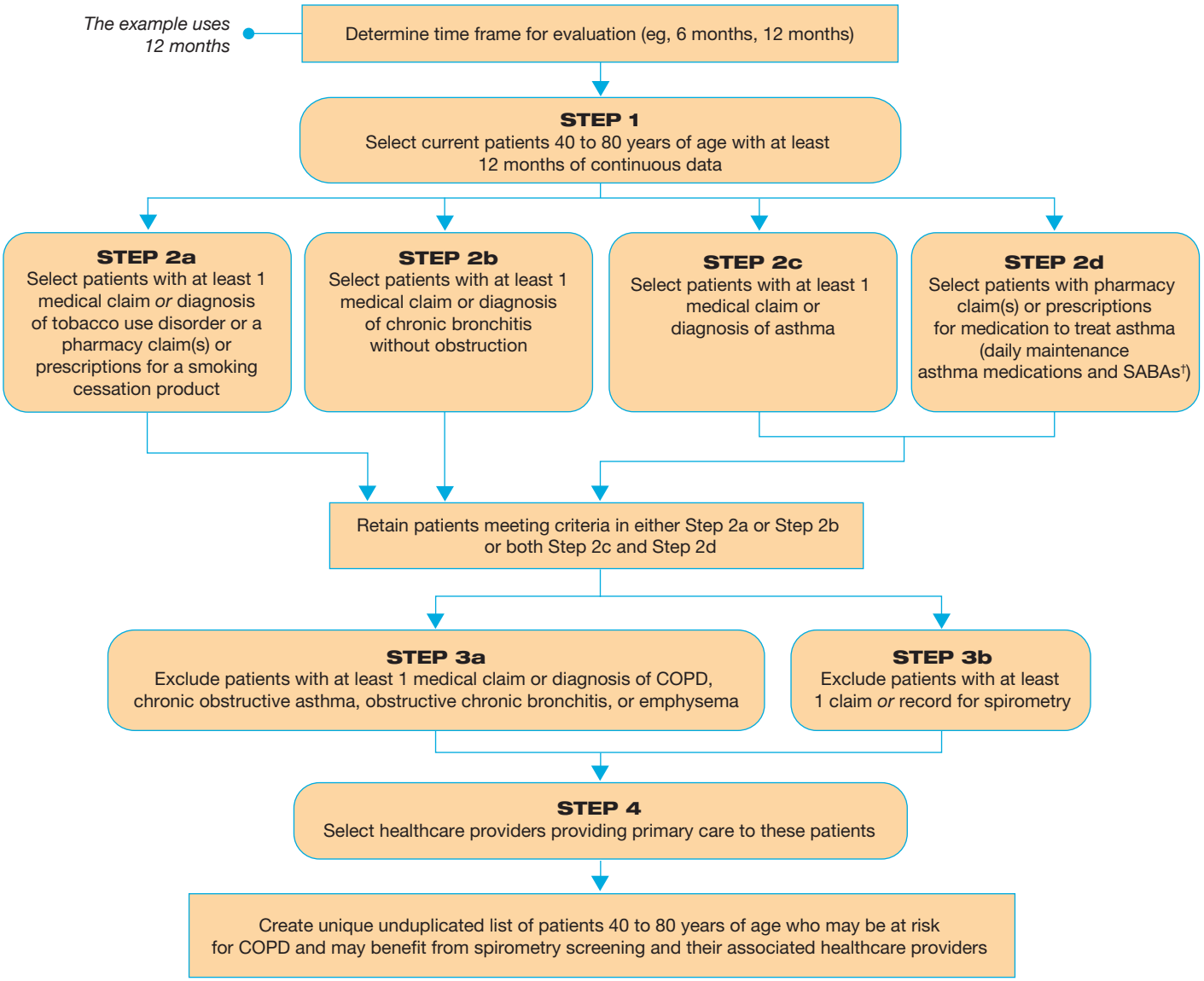
ALGORITHM 2: Patients diagnosed with COPD

ALGORITHM 3: Patients with COPD and a need for treatment evaluation

ALGORITHM 4A: Patients with COPD who have recently utilized the emergency department or required hospitalization

ALGORITHM 4B: Patients with COPD with medication nonadherence

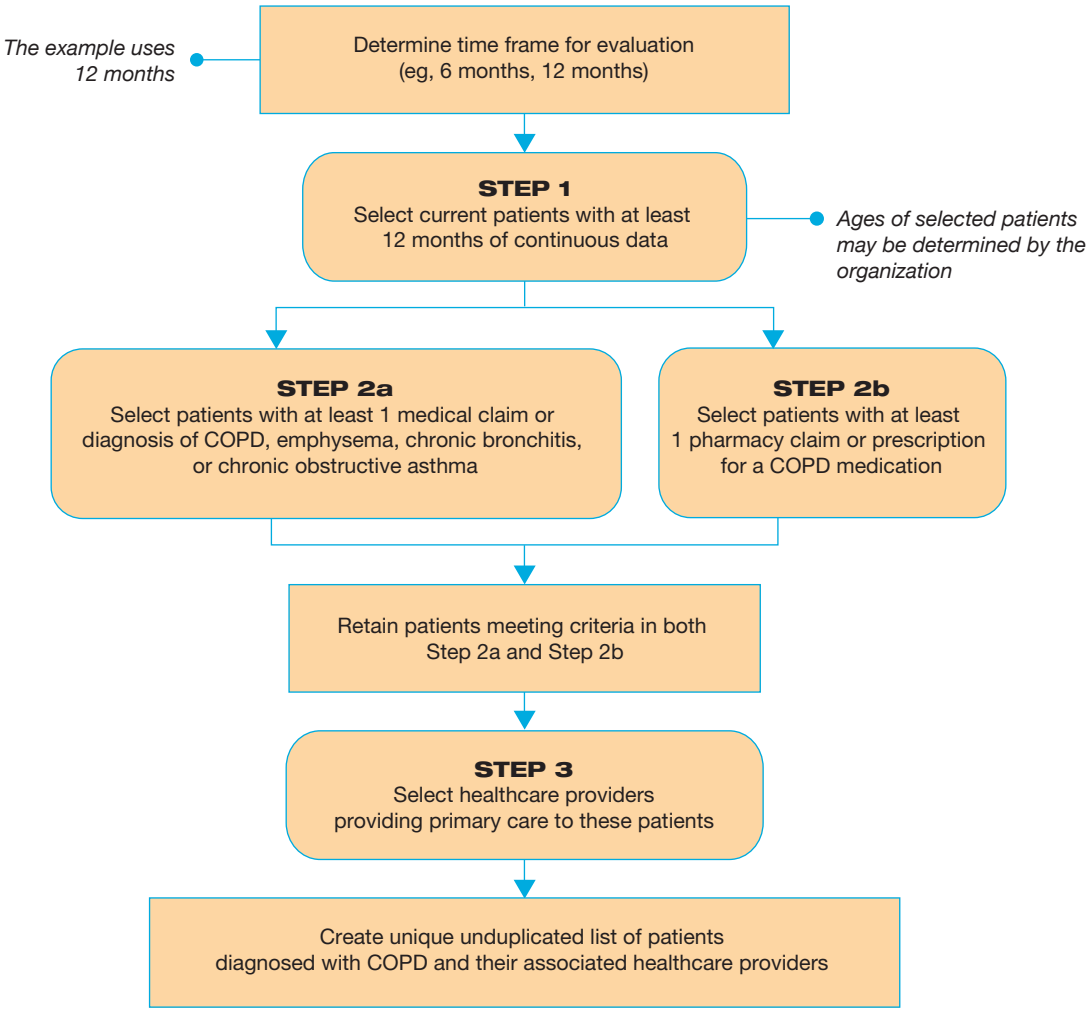
Algorithm 1: Patients at risk for COPD*



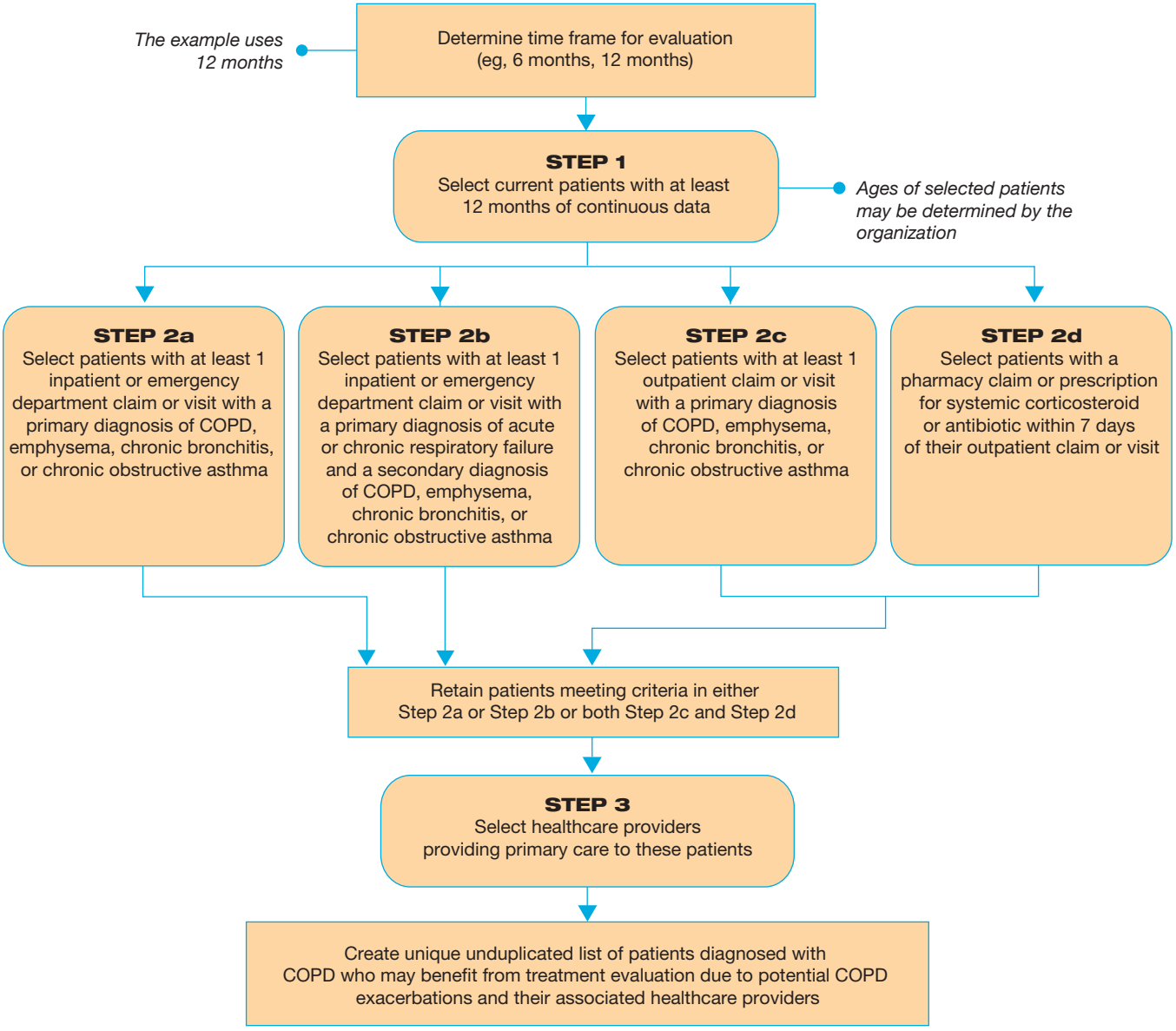
* Risk factors based on GOLD Guidelines.[5]

† SABAs, short-acting beta$_2$-agonists.

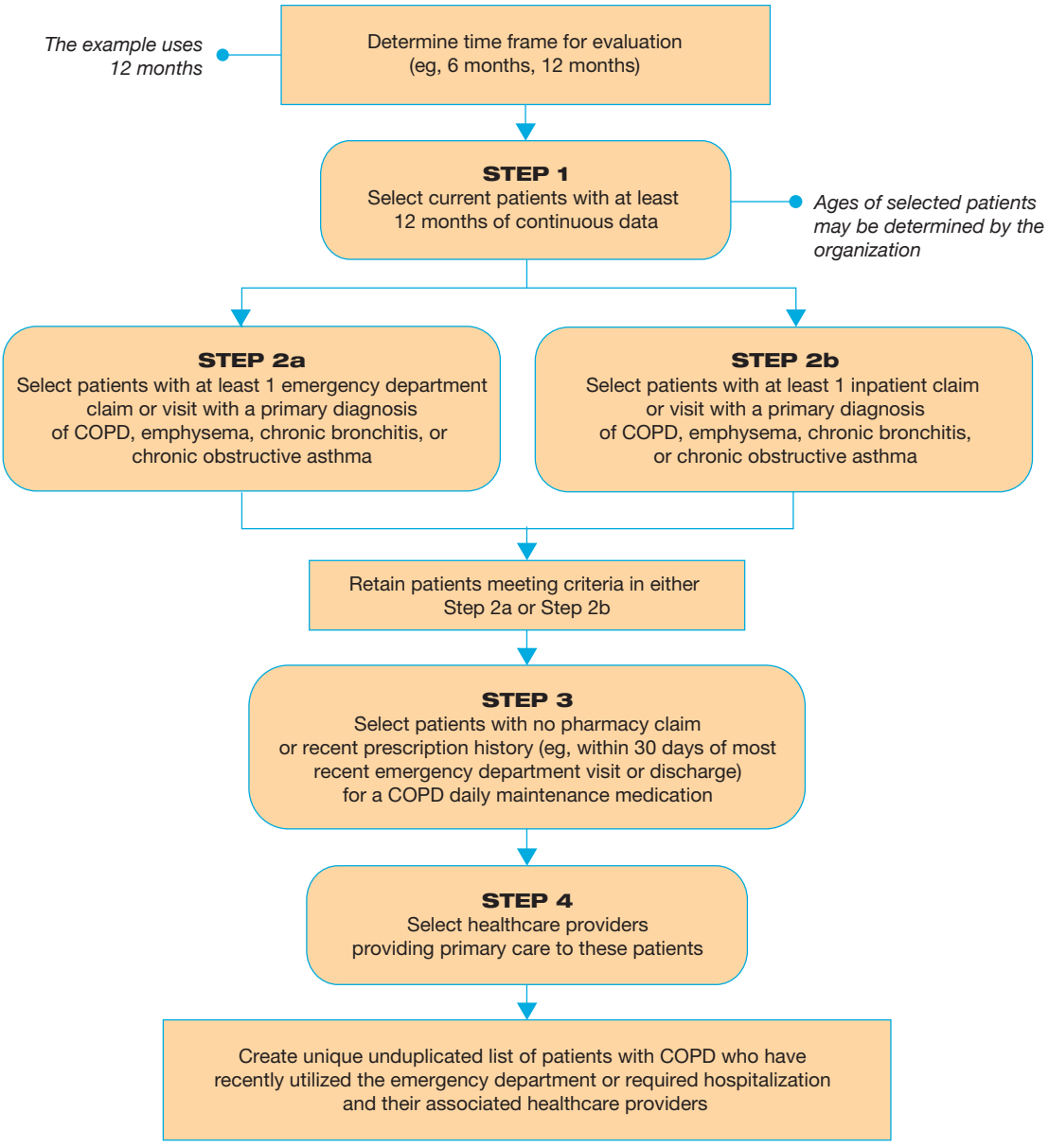
Algorithm 2: Patients diagnosed with COPD



Algorithm 3: Patients with COPD and a need for treatment evaluation

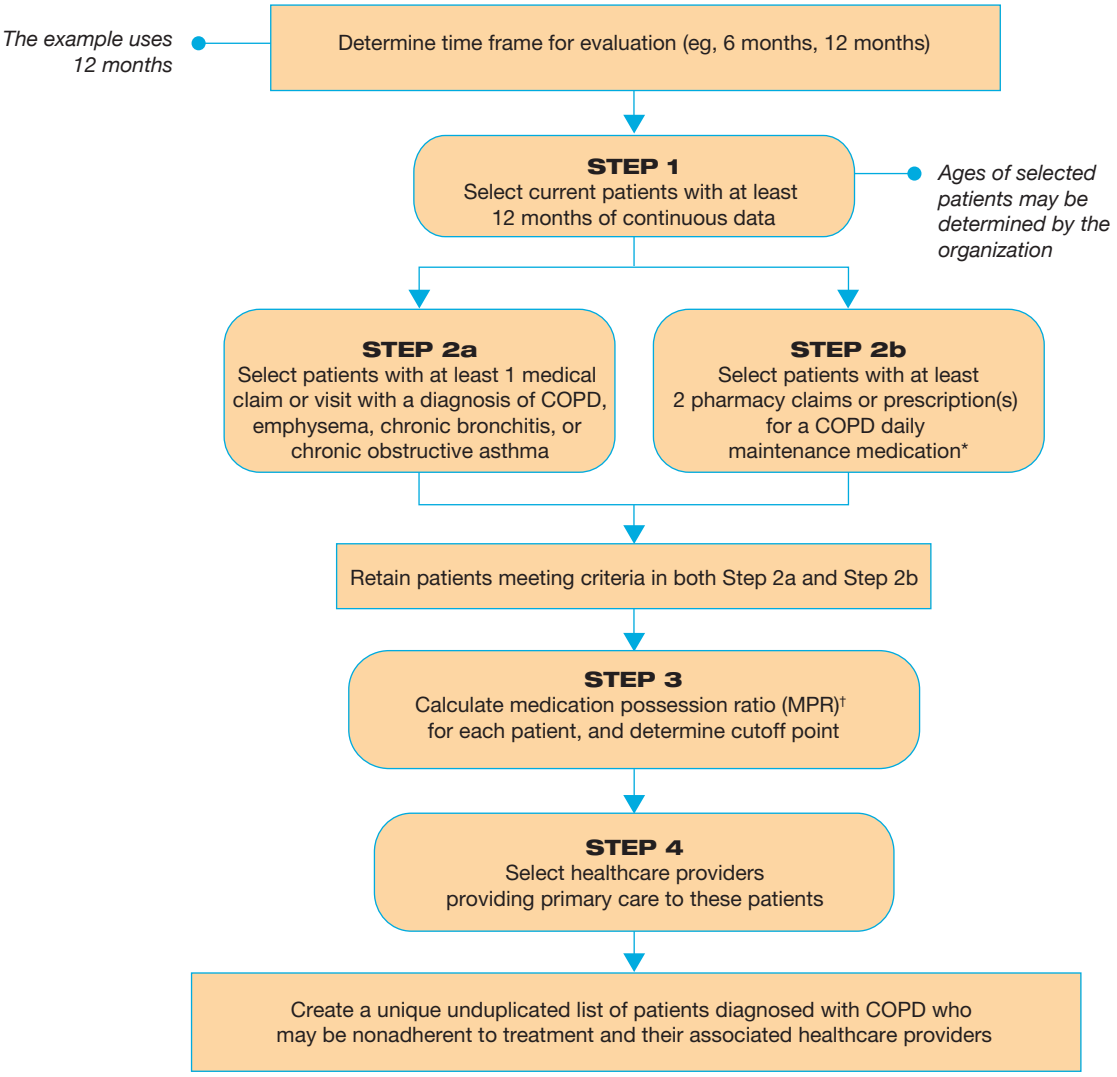


Algorithm 4A: Patients with COPD who have recently utilized the emergency department or required hospitalization*



* This algorithm specifically identifies patients who did not fill a COPD maintenance medication within 30 days of their emergency department visit or hospital discharge.

Algorithm 4B: Patients with COPD with medication nonadherence



* Daily COPD maintenance medication includes long-acting beta$_2$-agonists (LABAs), anticholinergics, inhaled corticosteroid (ICS)/LABA combinations, methylxanthines, or phosphodiesterase-4 inhibitors.[5]

† Medication possession ratio (MPR) is defined as the number of days' supply of medication between first and last medication fills/number of days between first and last medication fills.[6]

STEP 4: PLAN TARGETED INTERVENTION GOALS AND ACTIONS

Now that your patient population has been identified and stratified, you will need to determine the most effective level of intervention for your initiative. The interventions in the initiative outlined here are defined as:

LOW INTENSITY: Patients at risk for COPD or patients diagnosed with COPD (See Algorithms 1 and 2 on pages 11 and 12)

MEDIUM INTENSITY: Patients with COPD and a need for treatment evaluation or patients with COPD with medication nonadherence (See Algorithms 3 and 4B on pages 13 and 15)

HIGH INTENSITY: Patients with COPD who have recently utilized the emergency department or required hospitalization (See Algorithm 4A on page 14)

Please see the chart on the next page for examples of possible intervention approaches based on these stratification levels.

Intervention examples

Remember that these are examples only. The approaches/actions are structured to build upon each other as intensity level increases. Organizations need to determine the design and content of their specific interventions.

Intensity Level	Sample Approach/Action
Low: Patients at risk for COPD or patients diagnosed with COPD	Provide patient education on COPD basics. Consider including patient tools that will assess a patient's COPD health status and encourage communication of these results with their providers.
Medium: Patients with COPD and a need for treatment evaluation or patients with medication nonadherence	In addition to the approach listed above, consider implementing patient and provider interventions, such as: — Supporting patient self-management, healthy behaviors, and adherence to treatment with a series of educational mailings — Supplying providers with educational information and tools about COPD symptoms and management of COPD — Encouraging providers to screen as appropriate for depression and other medical/behavioral comorbidities in patients with COPD
High: Patients with COPD who have recently utilized the emergency department or required hospitalization	In addition to the approaches listed above, consider initiating interactive management and sustained intervention for patients and providers, such as: — Providing ongoing patient management (eg, by care manager or health coach) — Encouraging continuity and coordination of care between providers — Sending providers follow-up summary reports showing emergency department and inpatient healthcare utilization (based on claims data) for their patients with COPD

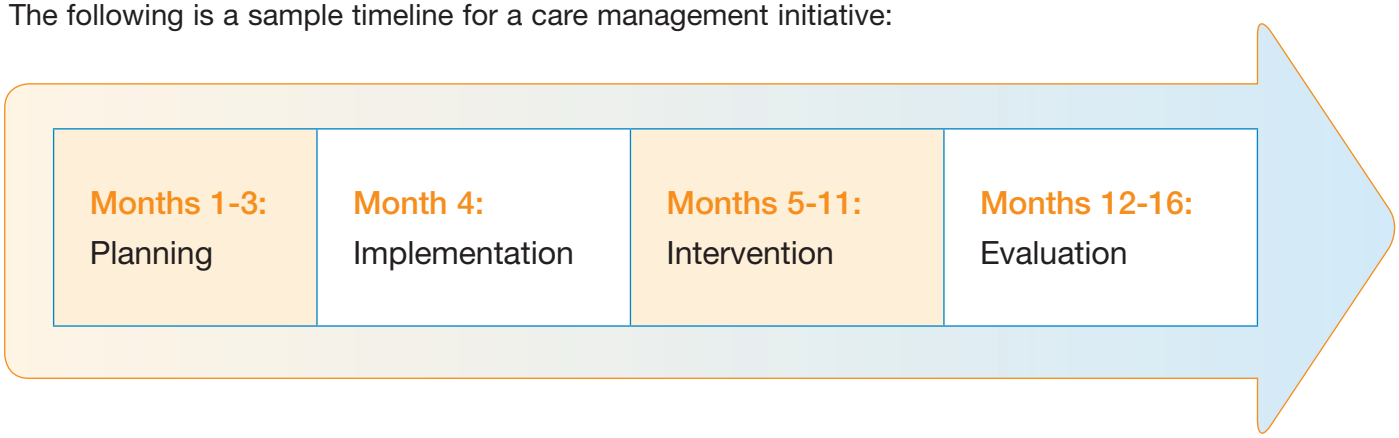
STEP 5: PREPARE FOR IMPLEMENTATION OF THE INTERVENTION

Steps to consider may include:

1. Identify your intervention champions for each intervention location
2. Map out the workflow for implementation
3. Train staff involved in the intervention on tools and resources
4. Establish the timeline

COPD initiative timeline option

The following is a sample timeline for a care management initiative:



STEP 6: EVALUATE THE IMPACT OF YOUR QUALITY INITIATIVE

The next step in your COPD initiative involves evaluating outcomes. Measuring outcomes allows your organization to:

- Help your patients with COPD better manage their disease
- Document and report progress toward meeting stated goals and objectives
- Demonstrate success
- Identify next steps and new opportunities for improvements

Outcome measures can document incremental or short-term objectives that allow an organization to demonstrate early progress toward, or success in, achieving a larger goal.

***Example of short-term objective*:** *"Increase the number of patients over 40 years old with risk factors for COPD who are screened by using spirometry."*

Outcome measures that address an organization's primary objectives typically require more comprehensive planning, intervention, and reporting processes, even when the measures themselves are straightforward. There is often a much longer interval between an intervention and measurement of its impact (ie, months or years).

***Example of primary objective*:** *"Decrease hospitalizations due to exacerbations of COPD."*

Example study designs for measuring change for a care management initiative*

Pre-/Post-Intervention Measurement

- Popular method of measuring care management interventions
- Establishes baseline rates from either surveys or claims data
- Allows measurement of any change over time
- Used primarily for business purposes, not research; causation cannot be demonstrated

Pre-/Post-Intervention Measurement with Control Group of Self-Elected Nonparticipants

- Control group consists of patients who elected not to participate†
- Compares change between those patients who receive intervention and those who do not participate
- Selection bias may occur due to different levels of interest and commitment; comparison may have inaccurate results

Random Control Pre-/Post-Intervention Design

- Random selection of patients for intervention group
- Most scientifically sound
- May not always be appropriate or feasible

* You may want to review potential study designs with your organization's legal counsel.

† An alternate approach to a "true" control group is to roll out the intervention in phases (ie, offer it to different groups at different times). This allows a comparison of patients who have received the intervention with those who have not yet received the intervention (control group).

Suggested outcome measures:

You may want to consider the following outcome measures. First, you will need to establish your desired goals for improvement, eg, a change of 10% to 15% from baseline.

1. Medication adherence: annual monitoring for patients on COPD daily maintenance medication‡

Calculate medication possession ratio (MPR)[6]:

Numerator:	# of days' medication supply between first and last medication fills within a 12-month period
Denominator:	# of days between first and last medication fills within a 12-month period

Goal: Increase the rate by X%

2. Inpatient utilization: determining inpatient admissions at a general hospital or acute care facility

Admission rate

Numerator:	# of patients admitted to a hospital with a primary diagnosis of COPD in a 12-month period
Denominator:	# of patients admitted

Goal: Decrease the rate by X%

3. Follow-up care: determining prescription access for patients with COPD following an emergency department visit or hospitalization

Numerator:	# of patients with claims for ≥1 emergency department visit or inpatient visit with a diagnosis of COPD and who had ≥1 pharmacy claim or prescription for a COPD daily maintenance medication within 30 days of the visit/discharge
Denominator:	# of patients with claims for ≥1 emergency department visit or inpatient visit with a diagnosis of COPD

Goal: Increase the rate by X%

‡ Daily COPD maintenance medication includes long-acting beta$_2$-agonists (LABAs), anticholinergics, inhaled corticosteroid (ICS)/LABA combinations, methylxanthines, or phosphodiesterase-4 inhibitors.[5]

Next steps:

Completing a Barrier Analysis

Barrier analyses help determine obstacles that may have impacted the outcome of an intervention. A barrier analysis may include post-intervention surveys of patients and healthcare providers to identify areas for improvement or an analysis of system issues, such as materials distribution or staffing support. This information, along with post-intervention outcomes measures, can help determine the direction of future interventions and programs.

Notes

In Conclusion...

COPD CHALLENGE® resources, including this Program Guide, may be used by an organization as part of a care management initiative to help address appropriate management of patients with COPD.

These resources may be used as a complement to an organization's care management approach.

For more COPD resources and tools, please visit Care Management Central® at www.CareManagementCentral.com.

References

1. Ford ES, Croft JB, Mannino DM, et al. COPD Surveillance – United States, 1999-2011. *Chest.* 2013;144(1):284-305. http://dx.doi.org/10.1378/chest.13-0809. Accessed April 23, 2014. **2.** Morbidity & Mortality: 2012 Chart Book on Cardiovascular, Lung, and Blood Diseases. National Institutes of Health, National Heart, Lung, and Blood Institute Web site. http://www.nhlbi.nih.gov/resources/docs/2012_ChartBook.pdf. Accessed May 9, 2014. **3.** Guarascio AJ, Ray SM, Finch CK, et al. The clinical and economic burden of chronic obstructive pulmonary disease in the USA. *ClinicoEconomics and Outcomes Research.* 2013;5:235-245. http://dx.doi.org./10.2147/CEOR.S34321. Accessed May 9, 2014. **4.** Bender BG. Nonadherence in chronic obstructive pulmonary disease patients: what do we know and what do we do next? *Curr Opin Pulm Med.* 2014;20:132-137. http://dx.doi.org/10.1097/MCP.0000000000000027. Accessed May 9, 2014. **5.** Global Initiative for Chronic Obstructive Lung Disease. Global Strategy for the Diagnosis, Management, and Prevention of Chronic Obstructive Pulmonary Disease. Updated 2014. http://www.goldcopd.org/uploads/users/files/GOLD_Report_2014.pdf. Accessed May 9, 2014. **6.** Cantrell CR, Priest JL, Cook CL, et al. Adherence to treatment guidelines and therapeutic regimens: a US claims-based benchmark of a commercial population. *Population Health Management.* 2011;14:33-41. http://dx.doi.org/10.1089/pop.2010.0018. Accessed May 9, 2014.

NCQA has reviewed and certified the Program Design capability of the Care Management Strategy & Solutions group, GSK.

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