Advocate Physician Partners

Inspiring medicine. Changing lives.

Best Practices in Managing Patients With Chronic Obstructive Pulmonary Disease (COPD)

Advocate Physician Partners Case Study

Organization Profile

Advocate Physician Partners (APP) is a clinically integrated accountable care organization (ACO) formed as a care management and managed care contracting joint venture between the Advocate Health Care system and more than 4000 physicians on the medical staffs of Advocate hospitals. APP physician members in the Chicago metropolitan area and the Bloomington-Normal community in central Illinois provide patients with high-quality care and proven outcomes through participation in APP's Clinical Integration Program.

This nationally recognized program forms the framework on which APP based its first ACO-like contract for commercial patients and drives Advocate**Care**, Advocate Health Care's transformational care delivery model. The primary goal of the Program is to provide value to patients, employers, and payers by delivering outstanding clinical care and outcomes while reducing inefficiencies and redundancies and their associated costs. This unique program is made possible by funding from all the major health insurance plans in Illinois and the Advocate system. It unites an otherwise fragmented group of employed and independently practicing physicians into a single, comprehensive care management program, utilizing a common set of goals and measures across all insurance carriers that focus on improving healthcare outcomes and reducing the long-term cost of care.

Unlike third-party disease management or preventive health programs, APP's Clinical Integration Program provides infrastructure and support directly to participating physicians, as well as a pay-for-performance incentive system, to help drive the outstanding level of performance. This use of evidence-based medicine and pursuit of benchmark performance levels results in improved patient outcomes, reductions in employee absenteeism, and ultimately, significant reductions in healthcare cost through prevention, early detection, and optimal management of chronic disease and coordination of care across the entire continuum.

Project Summary

APP has achieved success with its management of chronic diseases, including asthma, diabetes, and depression. The organization's approach encourages self-management and continuity across the care continuum. APP recognizes the opportunity to implement clinical care guidelines and processes using evidence-based medicine to ensure consistent, effective, and efficient care for patients with COPD.

Program Goals and Measures of Success

In 2010, APP had 995 health maintenance organization enrollees with COPD. This population, when expanded to include preferred provider organization patients with COPD, would number more than 4000 based on this prevalence and medical expenses would total more than $8 million annually. As of June 2012, there were more than 6000 patients in COPD patient registries.

Goals and objectives

At APP, the physician is at the center of the disease management program. From the beginning, the organization has provided physicians with evidence-based protocols, guidelines, and tools (eg, flowsheets and office redesign) for wellness, preventive care, and disease management, thereby enhancing early identification and diagnosis of patients at risk for or having a chronic disease.

The overall goal was to implement a COPD disease management program based on the following broad objectives: adopt and implement clinical guidelines, educate practitioners, and develop tools to support practice redesign while measuring patient clinical outcomes and medical expense.

Based on these objectives, the specific goals are to

- Implement consistent care guidelines
- Define and implement outcomes measurement
- Achieve excellent COPD outcomes as demonstrated by clinical practice guidelines and key measures

Clinical Standards

APP initiated a review of national guidelines, including American Thoracic Society standards,[1] Department of Defense/Veterans Administration (DoD/VA) guidelines,[2] and the Global Initiative for Chronic Obstructive Lung Disease (GOLD),[3] to identify the evidence-based standards that are appropriate to adopt. After assessment of the available clinical guidelines by a subgroup of pulmonologists and primary care providers (PCPs), it was determined that the DoD/VA guidelines, which included grading of the evidence with clear treatment algorithms, best met the organization's needs.

Data Collection and Measurement

APP gathers clinical outcomes data from various sources such as physician office electronic health records, billing, claims or encounter data, pharmacy and laboratory sources, and manual data entry. The data are classified by measure (Table 1).

Table 1

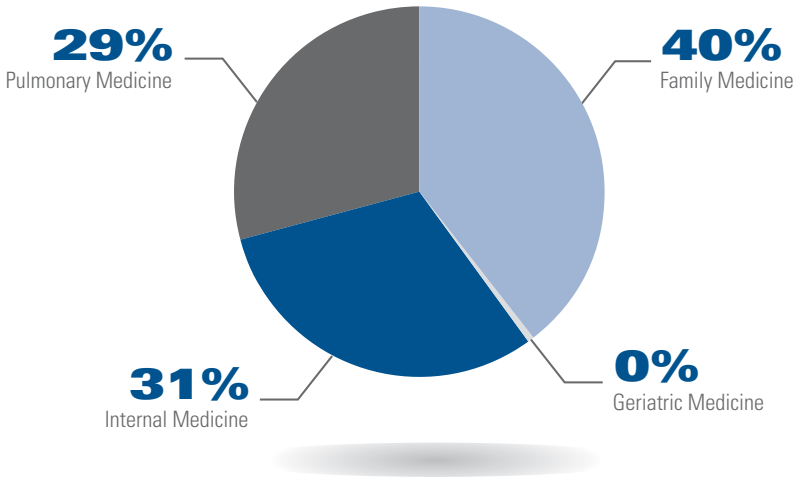
Measure	Additional Measure Information	Data Reported
Spirometry evaluation in the assessment and diagnosis of COPD	• One claim/encounter for spirometry in the previous 730 days or 180 days from Index Episode Start Date	• Percentage of patients with documented spirometry
Smoking assessment	• Documented at least annually	• Percentage of patients who are not using tobacco products
Smoking counseling	• Documented at least annually	• Percentage of smokers who were counseled to quit smoking
Pneumococcal vaccinations	• Current pneumococcal vaccination (received vaccine within the previous 5 years)	• Percentage of patients who have been administered pneumococcal vaccine
Flu vaccinations	• Flu shot received annually	• Percentage of patients who have been administered influenza vaccine

Population Identification

Patients with COPD are identified using hospital, ambulatory, physician office, and claims-based data. In 2012, APP activated its COPD patient registry with 6478 patients. Approximately one-third

of the population is cared for by internal medicine, another third followed by family medicine, and the remaining third monitored by pulmonary medicine specialists (see Figure 1).

Figure 1—2012 patients with COPD distributed by specialty



Data collection for the first year results is still underway. It is expected that 2012 results will be available in January 2013.

The Intervention

APP implemented clinical guidelines as summarized in Table 2, and embedded these guidelines in the COPD Action Plan provided to patients (Figure 2).

Table 2—Clinical practice guidelines for management of outpatient COPD

APP's "Clinical Practice Guidelines for Management of Outpatient COPD" is designed to assist clinicians by providing a framework for evaluation and treatment of patients. It is not intended to replace a clinician's judgment or establish a protocol for all patients with a particular condition.

Recommendations	Actions	APP Approach
Cigarette smoking contributes to 1 of every 5 deaths in the United States and is the most important modifiable cause of premature death. Quitting smoking is the single most effective way to reduce the risk of developing COPD	• Advise every tobacco user to quit • Include smoking cessation counseling and other forms of treatment at a routine office visit • Urge avoidance of exposure to environmental tobacco smoke at work and home	• Maintains a clinical practice guideline for smoking cessation and encourages clinicians to use the recommendations found in "Treating Tobacco Use and Dependence: 2008 Update" (*US Public Health Service*)[4] • Encourages the use of the COPD Action Plan • Provides numerous educational materials to patients • Offers a Lifestyle Health Coaching Program to support patients with COPD

Recommendations	Actions	APP Approach
Spirometry is the most reproducible, standardized, and objective way of measuring airflow limitation	• Patients with suspected COPD should have a spirometry test to diagnose	• Provides numerous educational materials to patients • Encourages the use of the COPD Action Plan • Encourages the use of Chronic Care Flowsheets
Diagnosis of COPD rests on focused clinical history and physical exam	• Provide a complete medical assessment including but not limited to smoking status, activity level, exercise tolerance, assessment of airflow obstruction, shortness of breath, cough, sputum production, auscultation, and palpation/ percussion	• Offers a Lifestyle Health Coaching Program to support patients with COPD • Provides numerous educational materials to patients • Encourages the use of the COPD Action Plan
Step care for bronchodilators	• Inhaled bronchodilators provide symptom relief • Long-acting bronchodilators provide sustained relief of symptoms in moderate to severe COPD • Combination therapy is useful in moderate and very severe COPD • Adding inhaled glucocorticoids to optimize bronchodilator therapy reduces exacerbation in patients with both severe COPD and frequent exacerbations • Long-term use of oral glucocorticoids is not recommended	• Encourages the use of Chronic Care Flowsheets • Encourages the use of the COPD Action Plan
Pulmonary rehabilitation reduces dyspnea, anxiety, and depression, and improves exercise capacity and quality of life	• Pulmonary rehabilitation should include, but not be limited to, exercise training, education, and self-management programs	• Provides numerous educational materials to patients regarding the benefits of exercise and a healthy lifestyle
Influenza and pneumonia are common, preventable, infectious diseases associated with high mortality and morbidity in the elderly and in people with chronic diseases	• Provide an annual influenza vaccine to all patients with cardiovascular disease • Provide a pneumococcal polysaccharide vaccine to individuals with COPD	• Administers flu shot clinics during flu season • Encourages the use of the COPD Action Plan • Provides educational materials to patients

Figure 2– COPD action plan

Advocate Health Care

COPD ACTION PLAN

Remember to:
Get A Flu Shot Every Year!
Be Current with your Pneumococcal Shot!
Do not Smoke or Use Tobacco

Most Recent Spirometries
Date _____ _____
FEV_1 _____ _____
FEV_1/FVC Ratio _____ _____

Age _____
Height _____
Weight _____
BMI _____

Maintenance Therapy

These medications may help keep your condition stable.
Your physician may adjust your medication for different disease stages

Take these to keep your condition stable.

MEDICATIONS	Strength/ delivery	Dose	Frequency
albuterol/ipratropium (*Combivent*) MDI	☐18/90	__puffs	every 6 hrs
albuterol/ipratropium (*Duoneb*)	☐	__neb	every 6 hrs
beclomethasone DPI (*QVAR*)	☐40 ☐80	__puffs	every 12 hrs
budesonide/formoterol (*Symbicort*) DPI	☐160/4.5	__puffs	every 12 hrs
fluticasone/salmeterol (*Advair*) DPI	☐ 250/50	__puffs	every 12 hrs
fluticasone (*Flovent HFA*) MDI	☐40 ☐110 ☐220	__puffs	every 12 hrs
salmeterol (Serevent) DPI	☐50	__puffs	every 12 hrs
ipratropium (*Atrovent HFA*) MDI	☐17	_puffs	every 4-6 hrs
tiotropium (*Spiriva*) DPI	☐18	__puffs	Daily
Other			

ZONES

Stable
No or less then daily symptoms
Can be controlled with rescue therapy
Complete usual activities

Caution
Increased shortness of breath
Walks slower than friends
Increased cough & wheezing
Difficulty sleeping

Call Physician
Increased cough
Change in sputum color
Increased leg swelling
Difficulty w alking or talking Loss of appetite and/or sleep

Emergency
Unable t o do any activity
More wheezing
Increased shortness of breath
Unable to eat or sleep
Increased tiredness & sleepiness

Rescue Therapy

Continue Your Maintenance Medication.
Worsening symptoms means you are having an acute attack.
This requires a medication and/or frequency change

MEDICATIONS	Strength/delivery	Dose	Frequency
albuterol (or nebulizer)	☐90 MDI	__puffs	4-6 hrs
levalbuterol (*Xopenex*) MDI or nebulizer	☐45	__puffs	4-6 hrs

MEDICATIONS	Strength/Delivery	Dose	Frequency
albuterol (or nebulizer)	☐90 MDI	__puffs	4-6 hrs
levalbuterol (*Xopenex*) MDI or nebulizer	☐45	__puffs	4-6 hrs

Call MD with symptoms. Make an urgent appointment even if symptoms improved. You may need prednisone or an antibiotic

MEDICATIONS	Strength/Delivery	Dose	Frequency
albuterol (or nebulizer)	☐90 MDI	__puffs	4-6 hrs
levalbuterol (*Xopenex*) MDI or nebulizer	☐45	__puffs	4-6 hrs
predisone	☐___ mg	__tabs	_____
Consider antibiotic			

Call 911 or go to Emergency Department if symptoms worsen further.

MEDICATIONS	Strength/Delivery	Dose	Frequency
albuterol (or nebulizer)	☐90 MDI	__puffs	4-6 hrs
levalbuterol (*Xopenex*) MDI or nebulizer	☐45	__puffs	4-6 hrs
predisone	☐___ mg	__tabs	_____
Consider antibiotic			

Plan reviewed and copy given to patient:	Date:	Patient Name:
Provider Name:	Address/Phone #	DOB:
Plan authorized by:	Date:	MRN:

17-8160 08/11

See the reverse side for the things you can do to better manage your COPD

White copy – Patient Yellow copy - Chart

Workflow and staffing changes

Unlike traditional disease management programs that focus primarily on claims-driven patient management, APP's Disease Management Program is driven by physicians and begins with the early identification of disease in patients. While early diagnosis by a physician is a critical first step in managing chronic disease, it is just one part of a multifaceted approach to improving health outcomes. Other components of the program include embedded chart-based patient management tools, a comprehensive patient outreach program, individual patient coaching, outpatient care managers focused on the highest-risk patients, a chronic disease physician collaborative, and outpatient wellness clinics for patients with diabetes. This program was expanded to include COPD guidelines, tools, and measures such as the COPD Action Plan and clinical guidelines.

The COPD program was developed by dedicating the following resources

1. Manager to direct resources and coordinate processes
2. Quality improvement specialist to provide practice support and support of the clinical education plan
3. PCP champion
4. Specialty care physician champion and pulmonary physician experts
5. Physician office staff representative

Leadership Involvement and Support

A successful clinical integration program requires a comprehensive approach that includes engaging physicians in leadership, addressing the shortcomings of the current payment system, and providing infrastructure and support for chronic disease management initiatives. The success of a program designed to continuously improve outcomes and reduce costs is dependent upon building a strong culture of committed physicians. To help sustain that commitment, the program includes a pay-for-performance system that recognizes and rewards physicians for improved patient care outcomes. These improved outcomes stem from a program built on evidence-based guidelines developed from physician leadership groups. Rounding out this infrastructure are extensive training programs for physicians and their staff, as well as information technologies designed to provide physicians with necessary support to drive better patient outcomes more efficiently.

Lessons Learned

- Physician leadership and engagement are essential
- Identify and utilize national best practices
- Identify small sections of complex processes to address individually to make the overall project more manageable

References:

1. American Thoracic Society. Standards for the diagnosis and management of patients with COPD. http://www.thoracic.org/clinical/copd-guidelines/resources/copddoc.pdf. Accessed August 7, 2012.
2. Department of Veterans Affairs. VA/DoD clinical practice guideline for management of outpatient chronic obstructive pulmonary disease. http://www.healthquality.va.gov/copd/copd_20.pdf. Accessed August 7, 2012.
3. Global Initiative for Chronic Obstructive Lung Disease (GOLD). Global strategy for the diagnosis, management, and prevention of chronic obstructive pulmonary disease; revised 2011. http://www.goldcopd.org/. Accessed August 7, 2012.
4. Public Health Service. Treating tobacco use and dependence: 2008 update. http://www.ahrq.gov/clinic/tobacco/treating_tobacco_use08.pdf. Accessed August 7, 2012

Provided as an educational resource by AMGA and Boehringer Ingelheim Pharmaceuticals, Inc.

One Prince Street, Alexandria, VA 22314
Tel: (703) 838-0033 Fax: (703) 548-1890 www.AMGA.org

(08/12) COPD415400MHC-A