

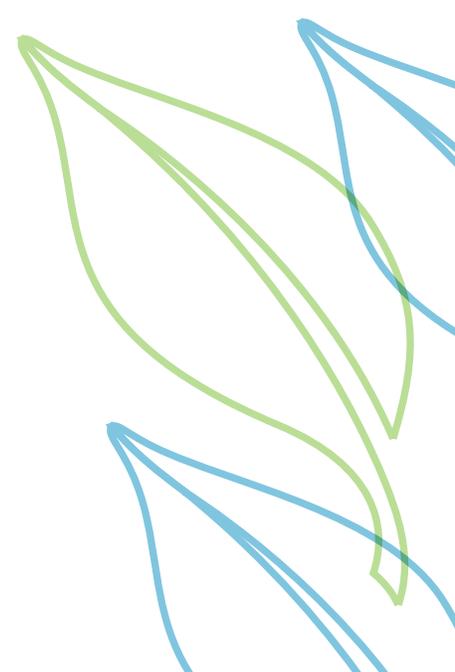
Spectrum *of* Health

October 2016

Chronic Obstructive Pulmonary Disease (COPD)

Highlights:

- Current standards in the screening and management of patients with COPD
- HEDIS requirements measuring COPD management
- List of reimbursable services for your Healthfirst patients with COPD



CHRONIC OBSTRUCTIVE PULMONARY DISEASE (COPD)

Dear Colleague:

Thank you for your care and service to our members. In this *Spectrum of Health* bulletin, we examine Chronic Obstructive Pulmonary Disease (COPD) and the opportunities and challenges for this population of patients. In 2014, chronic lower respiratory diseases,ⁱ including chronic bronchitis, emphysema, and small airways disease, accounted for 40.5 age-adjusted deaths per 100,000 Americans. With a prevalence of 14 million people in the United States, it is the third leading cause of death nationally.ⁱⁱ In addition, the disease manifests with disability, restrictions in activities of daily living, and poor health outcomes. It is estimated that 60% of those in the U.S. with COPD are undiagnosed.ⁱⁱⁱ

For New York adults 18 and over, the prevalence of COPD is 6.0%.^{iv} This gradual and progressive disorder generally has its onset in mid-life (patients in their 40s) and may be asymptomatic in early stages. COPD results from a decades-long accumulation of exposure to—first and foremost—tobacco, as well as to outdoor, indoor, and occupational air pollution. It is a global issue impacting the longevity and quality of life of the world's population.^v To reiterate, the dominant risk factor for COPD is cigarette smoking; so identifying and addressing tobacco use is a key primary and secondary preventive intervention for any adult patient.

What does this mean for you and your practice?

Our administrative and pharmacy data suggests inconsistent screening and management of our members with COPD. This *Spectrum of Health* bulletin highlights current standards in the screening and management of patients with COPD. It also reviews the current HEDIS quality measurement of COPD management and lists the reimbursable services that you can perform on behalf of your Healthfirst patients with COPD.

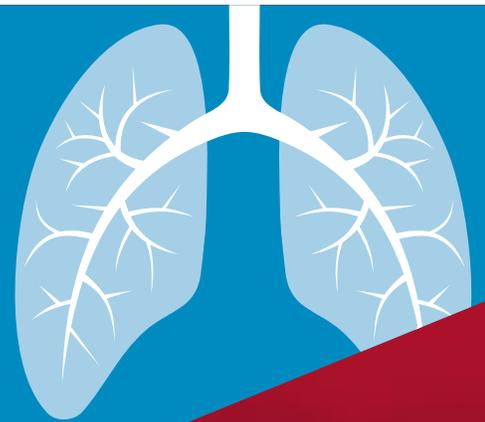
Your collaboration to change the trajectory of outcomes for our members—your patients—living with COPD makes all the difference. As a next step, please download the GOLD “*Pocket Guide to COPD Diagnosis, Management, and Prevention – 2016*” developed by and available from the Global Strategy for the Diagnosis, Management, and Prevention of COPD (2016 Update). Technical discussions of COPD and COPD management, evidence levels, and specific citations from the scientific literature are included in that source document.^{vi}

As always, I am available to work with you and your teams on this important area of clinical opportunity.

Sincerely,



Susan J. Beane, M.D.
Vice President and Medical Director
Clinical Partnerships
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COPD FACTS

- In 2011, 6.5% of adults in the United States reported as ‘diagnosed with COPD’
- Between 1999 and 2010, no change in the overall age-adjusted death rate, but the death rates increased among adults age 45–54
- There was a decline in the age-adjusted prevalence, death rate in men, and hospitalizations for COPD since 1999

(Martinez & O'Connor, 2016)

- In 2008, the total cost of COPD/asthma was \$68 billion. There was \$14.3 billion in lost productivity.

Of the direct medical costs of \$53.7 billion:

- Hospital inpatient stays: \$13.1 billion
- Emergency room visits: \$3.1 billion
- Outpatient/Office care: \$13.2 billion

For patients presenting with dyspnea and other respiratory symptoms,

clinically appropriate diagnostic testing, perhaps including spirometry, is certainly warranted. The USPSTF Recommendation Statement also “encourages clinicians... to pursue active case-finding for COPD in patients with risk factors, such as exposure to cigarette smoke....” –

(Martinez & O'Connor, 2016)

Diagnosis and Management of Chronic Obstructive Pulmonary Disease

Screening Symptomatic Patients

The April 2016 release of the Evidence Report for the USPSTF, entitled “Screening for Chronic Obstructive Pulmonary Disease,” concludes that there is no direct evidence available to determine the benefit of screening for asymptomatic populations.

There is indirect evidence that favors screening symptomatic patients in primary care. The COPD Diagnostic Questionnaire (CDQ) appeared to be the strongest risk-factor-and symptom-based tool, with a sensitivity of 87% and a specificity of 44% when the CDQ score is > 16.5. Symptomatic patients whose CDQ screening revealed mild to moderate COPD had a modest reduction in exacerbation frequency when treated.^{vii} Screening with spirometry using post-bronchodilator spirometry (FEV1/FEV6 < 0.70) had a sensitivity of 80% and a specificity of 93%–96%, both for smokers and nonsmokers.

KEY POINTS IN THE DIAGNOSIS AND ASSESSMENT OF COPD

From the Global Strategy for the Diagnosis, Management and Prevention of COPD, Global Initiative for Chronic Obstructive Lung Disease (GOLD) 2016.

- Consider the clinical diagnosis in any patient who has dyspnea, chronic cough or sputum production, and a history of exposure to risk factors for the disease.
- To guide therapy, assess:
 - ✓ the severity of airflow limitation
 - ✓ the impact on the patient’s health status
 - ✓ the risk of future events (such as exacerbations, hospital admissions, or death)
- Spirometry is required to make the diagnosis
 - ✓ the presence of a post-bronchodilator FEV1/FVC < 0.70 confirms the presence of persistent airflow limitation and thus of COPD
- Actively seek comorbidities, including:
 - ✓ Cardiovascular disease
 - ✓ Metabolic syndrome
 - ✓ Depression
 - ✓ Skeletal muscle dysfunction
 - ✓ Osteoporosis
 - ✓ Lung cancer



Diagnosis and Management of Chronic Obstructive Pulmonary Disease (continued)

Management Strategy for Stable Patients with COPD

In 2011, the Global Initiative for Chronic Obstructive Lung Disease (GOLD) released a consensus report, updating the original 2001 management strategy for COPD. This major revision, along with additional reports released in 2013–2016, provides a management paradigm that focuses on an assessment of patient symptomatology, future risk of exacerbations, severity of the spirometric findings, and the identification of comorbidities.^{viii}

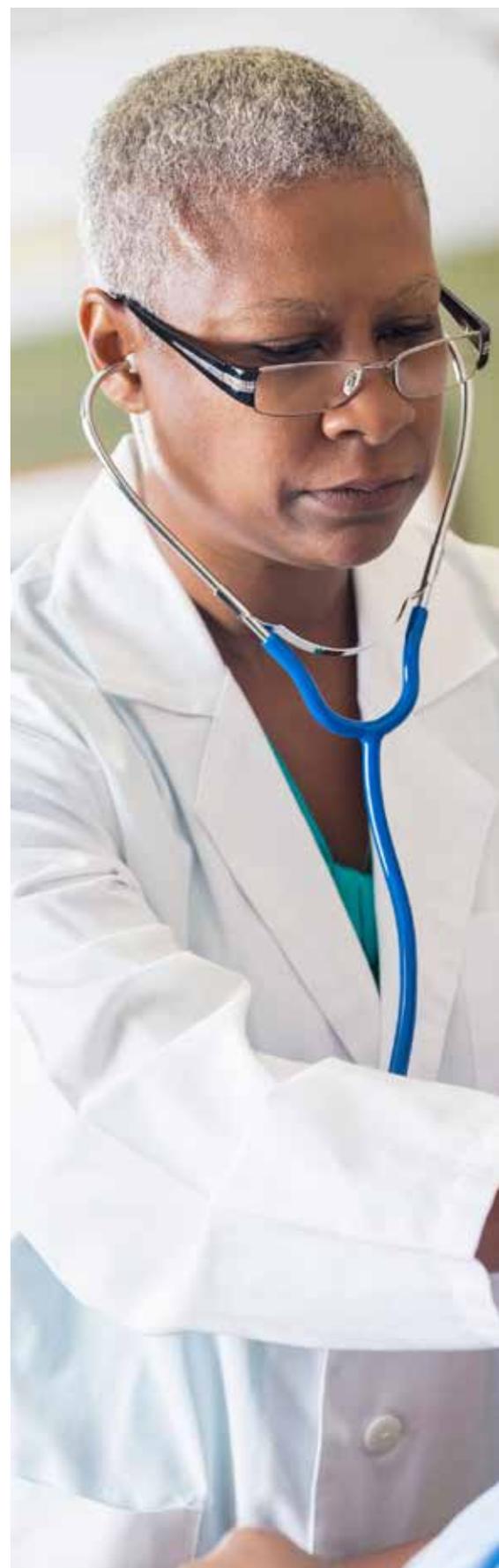
A clinical diagnosis of COPD should be considered in any patient who has dyspnea, chronic cough or sputum production, and a history of exposure to risk factors for the disease. The goals of COPD assessment are to determine the severity of the disease, including the severity of airflow limitation, the impact on the patient's health status, and the risk of future events (such as exacerbations, hospital admissions, or death), in order to guide therapy. Two tools are recommended by the GOLD report for use in routine practice:

- ✓ The COPD Assessment Test (CAT), which is available in a wide range of languages (www.catestonline.org)
- ✓ COPD Control Questionnaire (CCQ), which is self-administered to measure clinical control (www.ccq.nl)

Spirometry is required to make the diagnosis in this clinical context; the presence of a post-bronchodilator FEV1/FVC < 0.70 confirms the presence of persistent airflow limitation and thus of COPD. This testing should occur in any setting in which a new or newly active diagnosis of COPD is made.

Comorbidities should be actively looked for and treated appropriately if present. Comorbidities occur frequently in COPD patients, including cardiovascular disease, skeletal muscle dysfunction, metabolic syndrome, osteoporosis, depression, and lung cancer and can occur in patients with mild, moderate, and severe airflow limitation and influence mortality and hospitalizations independently.

Patients with a high risk of exacerbations tend to be in GOLD categories 3 and 4. These patients fall into this category because of severe or very severe airflow limitation and/or two or more exacerbations per year and/or one or more exacerbations with hospitalization and CAT score < 10, or, if extremely severe airflow limitation, a CAT score ≥ 10 .^{ix}





Therapeutic Considerations

Smoking Cessation – Once established, COPD is progressive, and so far no existing medications conclusively modify the trajectory of lung function decline. This is why smoking cessation—using multiple modalities beginning with physician advice and including group support, pharmacologic therapy, and nicotine replacement—is key. Refer members to the NYS Quitline (**1-866-NY-QUITS** or **www.nysmokefree.com**) to support their efforts to quit. For more tobacco use information, tools, and resources, visit our website at **www.healthfirst.org**.

We have also developed a Spectrum of Health bulletin that provides best practices, intervention strategies, billing guidelines, and FAQs which can be accessed on the following link for your reference:
http://assets.healthfirst.org/api/pdf?id=pdf_e53c0b2e16&key=12bc9096acd86ddb7c71d7b6c519e4a0f5bcbcd9.

Pharmacotherapy^x – The goal of pharmacologic therapy for stable COPD is a balance of:

- ✓ Reducing symptoms
- ✓ Reducing frequency and severity of exacerbations
- ✓ Improving health status and exercise tolerance
- Bronchodilator medications, in particular long-acting inhaled therapy, are central to symptom management in COPD
- Inhaled corticosteroids, when used as part of regular treatment, improve multiple indicators for COPD patients
 - ✓ Symptoms
 - ✓ Lung function
 - ✓ Quality of Life
 - ✓ Exacerbations (frequency is reduced)
- Phosphodiesterase-4 Inhibitors act on the breakdown of intracellular cyclic AMP and principally reduce inflammation
- Flu and pneumococcal vaccinations are critical for these patients

Diagnosis and Management of Chronic Obstructive Pulmonary Disease (continued)

Other therapies can be important in the management of subpopulations of patients with COPD.

Pulmonary rehabilitation, a non-pharmacologic therapy, has numerous benefits whether conducted in inpatient, outpatient, and/or home settings. This includes exercise capacity, reduction in the perceived intensity of breathlessness, health-related quality of life, reduction in anxiety and depression, and improved recovery after hospitalization for an exacerbation.

Oxygen therapy has been shown to increase survival in patients with severe resting hypoxemia (for patients meeting specific criteria).



Acute Exacerbations^{xi}

The frequency, severity, and etiology of exacerbations must be monitored closely and, if possible, managed proactively to avoid urgent or emergency care facility use. Increases in sputum volume, worsening dyspnea, and purulent sputum can be important signs and symptoms that are flags for exacerbation. Carefully selected patients without acidotic respiratory failure may be managed with nurse-administered home care (“hospital-at-home”) with similar treatment recommendations as those hospitalized. Neither self-management to prevent readmission nor telehealth is of proven benefit; nor is either recommended at this time.

COPD exacerbations can often be prevented. Smoking cessation, influenza and pneumococcal vaccination, knowledge of current therapy (including inhaler technique and treatment with long-acting inhaled bronchodilators, with or without inhaled corticosteroids), and treatment with a phosphodiesterase-4 inhibitor are all interventions that reduce the number of exacerbations and hospitalizations.^{xii}

Management of exacerbations requires attention to the precipitating factors (respiratory tract infections, changes in air pollution levels, aggravation of COPD by comorbidities such as CHF, for example) and appropriate use of three classes of medications:

- ✓ Short-acting bronchodilators — short-acting beta2-agonists, with or without short-acting anticholinergics
- ✓ Systemic corticosteroids — multiple benefits, including shortened recovery time, improved lung function, improved arterial hypoxemia, reduced risk of early relapse, treatment failure and reduced length of hospital stay
- ✓ Antibiotics for moderately or severely ill patients with exacerbations associated with increased cough and sputum purulence



Carefully selected patients without acidotic respiratory failure may be managed with nurse-administered home care (“hospital-at-home”) with similar treatment recommendations as those hospitalized.

HEDIS Measures

Use of Spirometry Testing in the Assessment and Diagnosis of COPD (SPR)

Description

The percentage of members 40 years of age and older with a new diagnosis of COPD or newly active COPD who received appropriate spirometry testing to confirm the diagnosis.

Negative Diagnosis History

The measure defines that the index episode found is either a “new” diagnosis of COPD or a newly acutely active COPD by confirming a “negative diagnosis history.”

The two years prior to what appears to be a new diagnosis of COPD in the measurement period are reviewed for lack of claims/encounters containing any diagnosis of COPD.

Index Episode Start Date (IESD)

The earliest date of service for an eligible visit (outpatient, ED, or acute inpatient) during the Intake Period with any diagnosis of COPD.

Denominator: Eligible Population

Ages

42 years or older as of December 31 of the measurement year.

Continuous Enrollment

Two years prior to the IESD through 180 days (six months) after the IESD.

Numerator

At least one claim/encounter for spirometry (CPT codes: 94010, 94014–94016, 94060, 94070, 94375, 94620) during the two years (730 days) prior to the first claim with the diagnosis of COPD through six months (180 days) after the initial diagnosis date.

Pharmacotherapy Management of COPD Exacerbation (PCE)

Description

The percentage of COPD exacerbations for members 40 years of age and older who had:

- an acute inpatient discharge or ED visit on or between January 1 and November 30 of the measurement year and
- who were dispensed one or both of the following appropriate medications within the timeframe:
 1. Systemic corticosteroid (or there was evidence of an active prescription) within 14 days of the event
 2. Bronchodilator (or there was evidence of an active prescription) within 30 days of the event

Denominator: COPD exacerbations that meet measure criteria

Numerator

- **Systemic Corticosteroid**—dispensed prescription for systemic corticosteroid on, or within 14 days after, the Episode Date
- **Bronchodilator**—dispensed prescription for systemic corticosteroid on, or within 14 days after, the Episode Date





Healthfirst Formulary Options for Acute Exacerbations

In accordance with the clinical guidelines recommended by the Global Initiative for Chronic Obstructive Lung Disease^{xiii} and the National Committee for Quality Assurance (NCQA), our members with an acute exacerbation of COPD, chronic bronchitis, and/or emphysema will require a **systemic corticosteroid and a bronchodilator upon discharge**.

To optimize the prescription fill and use of these medications by your patients post-discharge:

- Please ensure that the clinical pathways for your ED and hospital-based teams include careful evaluation of any barriers to your patients' adherence
- This may include clear instructions about the role and importance of filling and taking the systemic corticosteroid and bronchodilator no later than 14 days from discharge to prevent a relapse

To support your efforts in this regard, a limited list of our applicable formulary agents is presented below.



Formulary Bronchodilators*

MEDICAID	Anticholinergic agents	Incruse Ellipta	Combivent Respimat	Ipratropium-albuterol inh sol
		Ipratropium inh sol	Spiriva Respimat, Handihaler	
	Beta 2 Agonists	Albuterol inh sol	ProAir HFA	Ventolin HFA
		Foradil	Arcapta Neohaler	Striverdi Respimat
		Symbicort	Dulera	
Methlyxanthines	Theophylline liquid, XR			
MEDICARE <i>(italics indicates preferred brand)</i>	Anticholinergic agents	<i>Incruse Ellipta</i>	Ipratropium inh sol	<i>Anoro Ellipta</i>
		Combivent Respimat	Ipratropium-albuterol inh sol	
	Beta 2 Agonists	Albuterol inh sol	Levalbuterol inh sol	Xopenex HFA
		<i>Ventolin HFA</i>	Perforomist	<i>Serevent Diskus</i>
		<i>Advair Diskus, HFA</i>	<i>Breo Ellipta</i>	<i>Symbicort</i>
	Methlyxanthines	Aminophylline inj	Elixophyllin	Theophylline, XR

*Quantity limits may apply. The Medicaid formulary is subject to change on a quarterly basis; Medicare's on a yearly.

Formulary Systemic Corticosteroids*

MEDICAID	Dexamethasone tabs	Fludrocortisone tabs	Hydrocortisone tabs
	Methylprednisolone tabs	Prednisolone ODT, sol	Prednisone tabs, syp
MEDICARE	Dexamethasone tabs, elix, sol, inj	Fludrocortisone tabs	Hydrocortisone tabs
	Methylprednisolone tabs, inj	Prednisolone sol, syp	Prednisone tabs, sol, syp

Additional Resources

- **Pharmacy:** The complete formulary is available on our website at www.healthfirst.org/formulary. If you have any questions about the information in this bulletin, please contact Alexandra Cruz, Senior Pharmacy Manager, at alcruz@healthfirst.org.
- **Patient education:** For information on COPD educational materials for patients, please visit our website at <http://healthfirst.org/live-healthy/resources/?flp=85&slp=111>.
- **Healthfirst Case Management:** For Healthfirst members requiring case management assistance, please call our CCU-CM department at 1-800-404-8778 or email Jennifer Bailey, RN, Assistant Director, Clinical Services Care Management, at jbailey@healthfirst.org.
- **Clinical Quality:** For questions about HEDIS and quality measures, please contact Autumn Kerr, Director, Clinical Quality, at akerr@healthfirst.org.

ⁱ ICD-10 codes J40–J47.

ⁱⁱ Ford, ES; Croft, JB; Mannino, DM; Wheaton, AG; Shang, X; & Giles, WH (2013). COPD Surveillance-United States, 1999–2011. *Chest*, 144(1), 284–305.

ⁱⁱⁱ Martinez, FJ & O'Connor, GT (2016). Screening, Case-Finding, and Outcomes for Adults with Unrecognized COPD. *JAMA*, 315(13), 1343–1344.

^{iv} Ibid

^v From the Global Strategy for the Diagnosis, Management and Prevention of COPD, Global Initiative for Chronic Obstructive Lung Disease (GOLD) 2016. Available from: <http://goldcopd.org/>. Accessed August 26, 2016.

^{vi} <http://goldcopd.org/pocket-guide-copd-diagnosis-management-prevention-2016/>. Accessed September 29, 2016.

^{vii} (Guirguis-Blake, Senger, Webber, Mularski, & Whitlock, 2016).

^{viii} From the Global Strategy for the Diagnosis, Management and Prevention of COPD, Global Initiative for Chronic Obstructive Lung Disease (GOLD) 2016. Available from: <http://goldcopd.org/>. Accessed August 26, 2016.

^{ix} Ibid

^x Ibid

^{xi} Ibid

^{xii} Ibid

^{xiii} Ibid

References

Mapel, DW; Dalal, AA; Johnson, P; Becker, L; & Hunter, AG (2015). A Clinical Study of COPD Severity Assessment by Primary Care Physicians and Their Patients Compared with Spirometry. *The American Journal of Medicine*, 128, 629–637.

NHLBI morbidity and mortality chart book. National Heart, Lung, and Blood Institute website. Published 2012. www.nhlbi.nih.gov/research/reports/2012-mortality-chart-book. Accessed August 24, 2016

WHAT YOU SAY MAKES A DIFFERENCE

COPD mortality is rising; it's now the third leading cause of death in the United States. But, early diagnosis and aggressive management can improve quality and length of life for patients.

LOOK for COPD in patients 40+ who have these risk factors:

- Persistent cough or progressive dyspnea
- Chronic cough or sputum production
- Decline in level of activity
- Shortness of breath with or without symptoms of cough or sputum production

TALK with symptomatic patients to learn more about a history of:

- Smoking
- Environmental or occupational exposure to irritants
- Genetic factors

While COPD is more likely among former and current smokers, as many as one out of six Americans with COPD has never smoked.

TEST or refer for spirometry to determine severity. Spirometry with bronchodilator testing may distinguish COPD from asthma.

A criterion for COPD diagnosis is a post-bronchodilator FEV1/FVC < 0.7.

TREAT from the range of effective therapies, including recent advances. Pro-active treatment can improve quality of life for patients with COPD.

While 12 million Americans are diagnosed with COPD, research shows that many do not get optimal treatment. Another 12 million may have the disease and remain undiagnosed.

Source:

What You Say Makes A Difference: COPD Provider Card: www.nhlbi.nih.gov/health/educational/copd/campaign-materials/pub-provider-card.pdf