

**Quality ID #51 (NQF 0091): Chronic Obstructive Pulmonary Disease (COPD): Spirometry Evaluation  
– National Quality Strategy Domain: Effective Clinical Care**

**2018 OPTIONS FOR INDIVIDUAL MEASURES:**  
**REGISTRY ONLY**

**MEASURE TYPE:**  
Process

**DESCRIPTION:**  
Percentage of patients aged 18 years and older with a diagnosis of COPD who had spirometry results documented

**INSTRUCTIONS:**  
This measure is to be submitted a minimum of **once per performance period** using the most recent spirometry results in the patient record for all COPD patients seen during the performance period. Do not limit the search for spirometry results to the performance period. This measure may be submitted by eligible clinicians who perform the quality actions described in the measure based on the services provided and the measure-specific denominator coding.

**Measure Submission:**  
The listed denominator criteria is used to identify the intended patient population. The numerator options included in this specification are used to submit the quality actions allowed by the measure. The quality-data codes listed do not need to be submitted for registry submissions; however, these codes may be submitted for those registries that utilize claims data.

**DENOMINATOR:**  
All patients aged 18 and older with a diagnosis of COPD

**Denominator Criteria (Eligible Cases):**  
Patients aged  $\geq 18$  years on date of encounter

**AND**

**Diagnosis for COPD (ICD-10-CM):** J41.0, J41.1, J41.8, J42, J43.0, J43.1, J43.2, J43.8, J43.9, J44.0, J44.1, J44.9

**AND**

**Patient encounter during the performance period (CPT):** 99201, 99202, 99203, 99204, 99205, 99212, 99213, 99214, 99215

**WITHOUT**

**Telehealth Modifier:** GQ, GT, 95, POS 02

**NUMERATOR:**  
Patients with documented spirometry results in the medical record (FEV1 and FEV1/FVC)

***NUMERATOR NOTE:*** Denominator Exception(s) are determined on the date of the denominator eligible encounter.

**Numerator Instructions:** Look for most recent documentation of spirometry results in the medical record; do not limit the search to the performance period.

**Numerator Options:**

**Performance Met:** Spirometry results documented and reviewed (3023F)

**OR**

**Denominator Exception:** Documentation of medical reason(s) for not

OR  
*Denominator Exception:*

documenting and reviewing spirometry results (3023F  
*with 1P*)

Documentation of patient reason(s) for not  
documenting and reviewing spirometry results (3023F  
*with 2P*)

OR  
*Denominator Exception:*

Documentation of system reason(s) for not  
documenting and reviewing spirometry results (3023F  
*with 3P*)

OR  
*Performance Not Met:*

Spirometry results not documented and reviewed,  
reason not otherwise specified (3023F *with 8P*)

### RATIONALE:

Despite major efforts to broadly disseminate the Global Initiative for Chronic Obstructive Lung Disease (GOLD) guidelines and use of COPD performance measures across different specialty societies, COPD remains underdiagnosed and misdiagnosed (Collins et al., 2015; Perez et al., 2011). Although spirometry use has increased, it remains underutilized to confirm airflow obstruction and accurately diagnose COPD (CDC, 2012; Nishi et al., 2013). Studies show proper COPD diagnosis with spirometry is done on just over half of patients in the US and Canada (Boulet et al., 2013; Bourbeau et al., 2008; Collins et al., 2015; Nishi et al., 2013; Perez et al., 2011; Yu et al., 2013) and ranges from 10-48% in the Asia-Pacific region, Africa, eastern Europe, and Latin America (Aisanov et al., 2012). A study of physician-diagnosed COPD patients hospitalized for exacerbations found that 22% of patients did not have COPD upon spirometry testing (Prieto Centurion, et al., 2012).

Treatment of COPD without accurate diagnosis and understanding of true etiology of symptoms results in patients not receiving medication that would improve symptoms and quality of life, prevent exacerbations and reduce costly use of emergency and hospital services while other patients may be exposed to adverse effects of unneeded medication and or delays in true diagnosis and management of another condition increasing overall cost of care (Boulet et al., 2013; Bourbeau et al., 2008; CDC, 2012; Collins et al., 2015; Joo et al., 2011). We believe this measure will continue to increase appropriate spirometry use to assist physicians in the accurate diagnosis and treatment of patients with COPD, improving patient management and reducing total costs of COPD.

### CLINICAL RECOMMENDATION STATEMENTS:

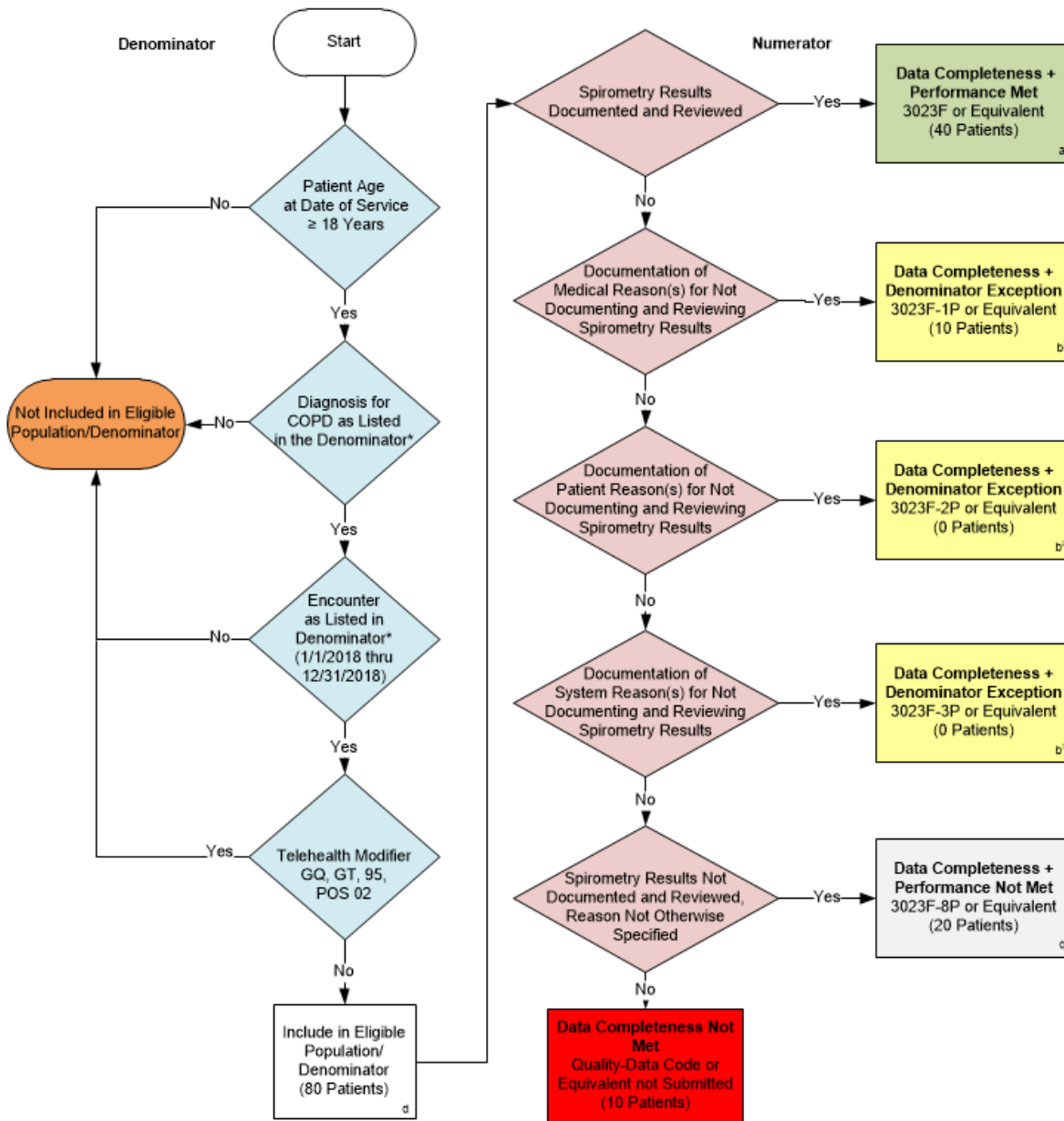
A clinical diagnosis of COPD should be considered in any patient who has dyspnea, chronic cough or sputum production, and a history of exposure to risk factors for the disease. Spirometry is required to make the diagnosis in this clinical context; the presence of a post-bronchodilator FEV1/FVC < 0.70 confirms the presence of persistent airflow limitation and thus of COPD...Whereas spirometry was previously used to support a diagnosis of COPD, spirometry is now required to make a confident diagnosis of COPD. Spirometry is the most reproducible and objective measurement of airflow limitation available. (GOLD 2015)

ACP, ACCP, ATS, and ERS [COPD Guidelines] recommend that spirometry should be obtained to diagnose airflow obstruction in patients with respiratory symptoms (Grade: strong recommendation, moderate-quality evidence)...Spirometry is a pulmonary function test that is useful to identify airflow obstruction in symptomatic patients who may benefit from pharmacotherapy, long-term oxygen, or pulmonary rehabilitation (or all of these strategies). Symptomatic patients with FEV1 less than 60% predicted will benefit from inhaled treatments (anticholinergics, long-acting beta-agonists, or corticosteroids). (ACP 2011)

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**2018 Registry Flow for Quality ID #51 NQF #0091:  
Chronic Obstructive Pulmonary Disease (COPD): Spirometry Evaluation**



**SAMPLE CALCULATIONS:**

**Data Completeness=**  
 Performance Met (a=40 patients) + Denominator Exception (b<sup>1</sup>+b<sup>2</sup>+b<sup>3</sup>=10 patients) + Performance Not Met (c=20 patients) = 70 patients = 87.50%  
 Eligible Population / Denominator (d=80 patients) = 80 patients

**Performance Rate=**  
 Performance Met (a=40 patients) = 40 patients = 66.67%  
 Data Completeness Numerator (70 patients) – Denominator Exception (b<sup>1</sup>+b<sup>2</sup>+b<sup>3</sup>=10 patients) = 60 patients

\*See the posted Measure Specification for specific coding and instructions to submit this measure.

NOTE: Submission Frequency: Patient-intermediate

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 The measure diagrams were developed by CMS as a supplemental resource to be used  
 in conjunction with the measure specifications. They should not be used alone or as a  
 substitution for the measure specification. v2

## 2018 Registry Flow for Quality ID#51 NQF #0091: Chronic Obstructive Pulmonary Disease (COPD): Spirometry Evaluation

Please refer to the specific section of the specification to identify the denominator and numerator information for use in submitting this Individual Specification. This flow is for registry data submission.

1. Start with Denominator
2. Check Patient Age:
  - a. If the Age is greater than or equal to 18 years of age on Date of Service and equals No during the measurement period, do not include in Eligible Patient Population. Stop Processing.
  - b. If the Age is greater than or equal to 18 years of age on Date of Service and equals Yes during the measurement period, proceed to check Patient Diagnosis.
3. Check Patient Diagnosis:
  - a. If Diagnosis of COPD as Listed in the Denominator equals No, do not include in Eligible Patient Population. Stop Processing.
  - b. If Diagnosis of COPD as Listed in the Denominator equals Yes, proceed to check Encounter Performed.
4. Check Encounter Performed:
  - a. If Encounter as Listed in the Denominator equals No, do not include in Eligible Patient Population. Stop Processing.
  - b. If Encounter as Listed in the Denominator equals Yes, proceed to check Telehealth Modifier.
5. Check Telehealth Modifier:
  - a. If Telehealth Modifier equals Yes, do not include in Eligible Patient Population. Stop Processing.
  - b. If Telehealth Modifier equals No, include in the Eligible Population.
6. Denominator Population:
  - a. Denominator population is all Eligible Patients in the denominator. Denominator is represented as Denominator in the Sample Calculation listed at the end of this document. Letter d equals 80 patients in the Sample Calculation.
7. Start Numerator
8. Check Spirometry Results Documented and Reviewed:
  - a. If Spirometry Results Documented and Reviewed equals Yes, include in Data Completeness Met and Performance Met.
  - b. Data Completeness Met and Performance Met letter is represented in the Data Completeness and Performance Rate in the Sample Calculation listed at the end of this document. Letter a equals 40 patients in the Sample Calculation.

- c. If Spirometry Results Documented and Reviewed equals No, proceed to Documentation of Medical Reason(s) for Not Documenting and Reviewing Spirometry Results.
9. Check Documentation of Medical Reason(s) for Not Documenting and Reviewing Spirometry Results:
- a. If Documentation of Medical Reason(s) for Not Documenting and Reviewing Spirometry Results equals Yes, include in Data Completeness Met and Denominator Exception.
  - b. Data Completeness Met and Denominator Exception letter is represented in the Data Completeness and Performance Rate in the Sample Calculation listed at the end of this document. Letter b1 equals 10 patients in the Sample Calculation.
  - c. If Documentation of Medical Reason(s) for Not Documenting and Reviewing Spirometry Results equals No, proceed to Documentation of Patient Reason(s) for Not Documenting and Reviewing Spirometry Results.
10. Check Documentation of Patient Reason(s) for Not Documenting and Reviewing Spirometry Results:
- a. If Documentation of Patient Reason(s) for Not Documenting and Reviewing Spirometry Results equals Yes, include in Data Completeness Met and Denominator Exception.
  - b. Data Completeness Met and Denominator Exception letter is represented in the Data Completeness and Performance Rate in the Sample Calculation listed at the end of this document. Letter b2 equals 0 patients in the Sample Calculation.
  - c. If Documentation of Patient Reason(s) for Not Documenting and Reviewing Spirometry Results equals No, proceed to Documentation of System Reason(s) for Not Documenting and Reviewing Spirometry Results.
11. Check Documentation of System Reason(s) for Not Documenting and Reviewing Spirometry Results:
- a. If Documentation of System Reason(s) for Not Documenting and Reviewing Spirometry Results equals Yes, include in Data Completeness Met and Denominator Exception.
  - b. Data Completeness Met and Denominator Exception letter is represented in the Data Completeness and Performance Rate in the Sample Calculation listed at the end of this document. Letter b3 equals 0 patients in the Sample Calculation.
  - c. If Documentation of System Reason(s) for Not Documenting and Reviewing Spirometry Results equals No, proceed to Spirometry Results Not Documented and Reviewed, Reason Not Otherwise Specified.
12. Check Spirometry Results Not Documented and Reviewed, Reason Not Otherwise Specified:
- a. If Spirometry Results Not Documented and Reviewed, Reason Not Otherwise Specified equals Yes, include in Data Completeness Met and Performance Not Met.
  - b. Data Completeness Met and Performance Not Met letter is represented in the Data Completeness Met in the Sample Calculation listed at the end of document. Letter c equals 20 patients in the Sample Calculation.
  - c. If Spirometry Results Not Documented and Reviewed, Reason Not Otherwise Specified equals No, include in Data Completeness Not Met.
13. Check Data Completeness Not Met

- a. If Data Completeness Not Met equals No, Quality Data Code or equivalent not submitted. 10 patients have been subtracted from the Data Completeness Numerator in the Sample Calculation.

**SAMPLE CALCULATIONS:**

**Data Completeness=**

$$\frac{\text{Performance Met (a=40 patients)} + \text{Denominator Exception (b}^1\text{+b}^2\text{+b}^3\text{=10 patients)} + \text{Performance Not Met (c=20 patients)}}{\text{Eligible Population / Denominator (d=80 patients)}} = \frac{70 \text{ patients}}{80 \text{ patients}} = 87.50\%$$

**Performance Rate=**

$$\frac{\text{Performance Met (a=40 patients)}}{\text{Data Completeness Numerator (70 patients) - Denominator Exception (b}^1\text{+b}^2\text{+b}^3\text{=10 patients)}} = \frac{40 \text{ patients}}{60 \text{ patients}} = 66.67\%$$