Quality ID #326 (NQF 1525): Atrial Fibrillation and Atrial Flutter: Chronic Anticoagulation Therapy –
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 nonvalvular atrial fibrillation (AF) or atrial flutter who were prescribed warfarin OR another FDA-approved anticoagulant drug for the prevention of thromboembolism during the measurement period

INSTRUCTIONS:
This measure is to be submitted a minimum of once per performance period for patients with nonvalvular AF or atrial flutter seen during 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-based submissions; however, these codes may be submitted for those registries that utilize claims data.

DENOMINATOR:
All patients aged 18 years and older with a diagnosis of nonvalvular AF or atrial flutter who do not have a documented CHA2DS2-VASc risk score of 0 or 1

DENOMINATOR NOTE:
The intent of the denominator exclusion G9931 is to allow patients with a low risk for a thromboembolic event (i.e. a CHA2DS2-VASc score of 0 or 1) to be excluded from the sample. This denominator exclusion serves as documentation that a patient’s risk for a thromboembolic event was appropriately assessed using the CHA2DS2-VASc scoring tool and that the risk was low enough to not warrant anticoagulation treatment. In order to exclude low risk patients, eligible clinicians must use the CHA2DS2-VASc assessment tool to determine a patient’s risk score and must document either the numeric score (i.e. 0 or 1) or all the individual risk factors assessed to support an assessment of the CHA2DS2-VASc score.

Definition:
Comfort Care Only - Refers to medical treatment of a dying person where the natural dying process is permitted to occur while assuring maximum comfort. It includes attention to the psychological and spiritual needs of the patient and support for both the dying patient and the patient's family. Comfort Measures Only is commonly referred to as “comfort care” by the general public. It may be completed in an inpatient, outpatient or home environment. Comfort Measures Only includes hospice, palliative and supportive treatment for patients who are suffering from a terminal illness—e.g., AIDS, cancer—or who have refused life-sustaining treatment. In order to use G9930, a patient must be on comfort care measures only and not be receiving any other types of care. It is not equivalent to a physician order to withhold emergency resuscitative measures such as Do Not Resuscitate (DNR)

CHA2DS2-VASc Stroke Risk Assessment - The assessment of patients with nonvalvular AF or atrial flutter, assessment of thromboembolic risk should include:
**CHA₂DS₂-VASc Criteria**

<table>
<thead>
<tr>
<th>Condition</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Congestive HF</td>
<td>1</td>
</tr>
<tr>
<td>Hypertension</td>
<td>1</td>
</tr>
<tr>
<td>Age &gt;= 75 years</td>
<td>2</td>
</tr>
<tr>
<td>Diabetes Mellitus</td>
<td>1</td>
</tr>
<tr>
<td>Stroke/Transient Ischemic Attack (TIA)/Thromboembolism (TE)</td>
<td>2</td>
</tr>
<tr>
<td>Vascular disease (prior myocardial infarction [MI], peripheral artery disease [PAD], or aortic plaque)</td>
<td>1</td>
</tr>
<tr>
<td>Age 64-74 years</td>
<td>1</td>
</tr>
<tr>
<td>Sex category (i.e.; female)</td>
<td>1</td>
</tr>
</tbody>
</table>

**Denominator Criteria (Eligible Cases):**

- Patients aged ≥ 18 years on date of encounter
- **AND**
  - **AND**
    - Patient encounter during the performance period (CPT): 99201, 99202, 99203, 99204, 99205, 99212, 99213, 99214, 99215, 99281, 99282, 99283, 99284, 99285, 99304, 99305, 99306, 99307, 99308, 99309, 99310, 99324, 99325, 99326, 99327, 99328, 99334, 99335, 99336, 99337, 99341, 99342, 99343, 99344, 99345, 99347, 99348, 99349, 99350
  - WITHOUT
    - Telehealth Modifier: GQ, GT, 95, POS 02
    - **AND NOT**
      - **DENOMINATOR EXCLUSIONS:**
        - Patient with transient or reversible cause of AF (e.g., pneumonia, hyperthyroidism, pregnancy, cardiac surgery): (G9929)
      - OR
        - Patients who are receiving comfort care only: (G9930)
      - OR
        - Documentation of CHA₂DS₂-VASc risk score of 0 or 1: (G9931)

**NUMERATOR:**

Patients with nonvalvular AF or atrial flutter for whom warfarin or another FDA-approved anticoagulant was prescribed

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

**Definition:**

Prescribed – also satisfied by documentation in current medication list

**Numerator Options:**

- **Performance Met:** Warfarin OR another FDA-approved oral anticoagulant is prescribed (G8967)
- **OR**
  - **Denominator Exception:** Documentation of medical reason(s) for not prescribing warfarin OR another FDA-approved anticoagulant (e.g., atrial appendage device in place) (G8968)
**Denominator Exception:** Documentation of patient reason(s) for not prescribing warfarin OR another FDA-approved oral anticoagulant that is FDA-approved for the prevention of thromboembolism (e.g., patient choice of having atrial appendage device placed) (G8969)

*OR*

**Denominator Exception:** Documentation of system reason(s) for not prescribing warfarin OR another FDA-approved anticoagulation due to patient being currently enrolled in a clinical trial related to AF/atrial flutter treatment (G9927)

*OR*

**Performance Not Met:** Warfarin OR another FDA-approved anticoagulant not prescribed, reason not given (G9928)

**RATIONALE:**
AF, whether paroxysmal, persistent, or permanent and whether symptomatic or silent, significantly increases the risk of thromboembolic ischemic stroke. Nonvalvular atrial fibrillation increases the risk of stroke 5 times, and AF in the setting of mitral stenosis increases the risk of stroke 20 times over that of patients in sinus rhythm.

Thromboembolism occurring with AF is associated with a greater risk of recurrent stroke, more severe disability, and mortality. Silent AF is also associated with ischemic stroke. The appropriate use of antithrombotic therapy and the control of other risk factors, including hypertension and hypercholesterolemia, substantially reduce stroke risk.

One meta-analysis has stratified ischemic stroke risk among patients with nonvalvular AF using the following point scoring systems: AF Investigators; CHA₂ DS₂ (congestive heart failure, hypertension, age 75 years, diabetes mellitus, prior stroke or TIA or thromboembolism [doubled]), or CHA₂ DS₂ -VASc (congestive heart failure, hypertension, age 75 years [doubled], diabetes mellitus, prior stroke or TIA or thromboembolism [doubled], vascular disease, age 65 to 74 years, sex category).

When compared with the CHA₂ DS₂ score, the CHA₂ DS₂ -VASc score for nonvalvular AF has a broader score range (0 to 9) and includes a larger number of risk factors (female sex, 65 to 74 years of age, and vascular disease).

The selection of an antithrombotic agent should be based on shared decision making that takes into account risk factors, cost, tolerability, patient preference, potential for drug interactions, and other clinical characteristics, including time in the INR therapeutic range if the patient has been on warfarin, irrespective of whether the AF pattern is paroxysmal, persistent, or permanent.

**CLINICAL RECOMMENDATION STATEMENTS:**
1. In patients with AF, antithrombotic therapy should be individualized based on shared decision-making after discussion of the absolute and RRs of stroke and bleeding, and the patient’s values and preferences. (Class I, Level of Evidence: C)
2. Selection of antithrombotic therapy should be based on the risk of thromboembolism irrespective of whether the AF pattern is paroxysmal, persistent, or permanent. (Class I, Level of Evidence: B)
3. In patients with nonvalvular AF, the CHA₂ DS₂ -VASc score is recommended for assessment of stroke risk. (Class I, Level of Evidence: B)
4. For patients with AF who have mechanical heart valves, warfarin is recommended and the target international normalized ratio (INR) intensity (2.0 to 3.0 or 2.5 to 3.5) should be based on the type and location of the prosthesis. (Class I, Level of Evidence: B)
5. For patients with nonvalvular AF with prior stroke, TIA, or a CHA₂DS₂-VASc score of 2 or greater, oral anticoagulants are recommended. Options include: warfarin (INR 2.0 to 3.0) (Class I, Level of Evidence: A), dabigatran (Class I, Level of Evidence: B), rivaroxaban (Class I, Level of Evidence: B), or apixaban. (Class I, Level of Evidence: B)

6. Among patients treated with warfarin, the INR should be determined at least weekly during initiation of antithrombotic therapy and at least monthly when anticoagulation (INR in range) is stable. (Class I, Level of Evidence: A)

7. For patients with nonvalvular AF unable to maintain a therapeutic INR level with warfarin, use of a direct thrombin or factor Xa inhibitor (dabigatran, rivaroxaban, or apixaban) is recommended. (Class I, Level of Evidence: C)

8. Re-evaluation of the need for and choice of antithrombotic therapy at periodic intervals is recommended to reassess stroke and bleeding risks. (Class I, Level of Evidence: C)

9. For patients with atrial flutter, antithrombotic therapy is recommended according to the same risk profile used for AF. (Class I, Level of Evidence: C)

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2018 Registry Flow for Quality ID #326 NQF #1525:
Atrial Fibrillation and Atrial Flutter: Chronic Anticoagulation Therapy

Denominator

Start

Patient Age on Date of Service ≤ 18 Years

No

Yes

Diagnosis of Nonsurgical Atrial Fibrillation or Atrial Flutter as Listed in Denominator

No

Yes

Not Included in Eligible Population/Denominator

Denominator Exclusion

Encounter as Listed in Denominator on 1/1/2018 thru 12/31/2018

No

Yes

Telehealth Modifier G2, GT, GS, PO, PS

No

Yes

Data Completeness Met + Denominator Exception GS999 or equivalent (10 patients)

b1

Data Completeness Met + Denominator Exception GS999 or equivalent (10 patients)

c1

Data Completeness Met + Denominator Exception GS999 or equivalent (10 patients)

c1

Warfarin OR Another FDA-approved Oral Anticoagulant is Prescribed

No

Yes

Documentation of Medical Reason(s) for Not Prescribing Warfarin OR Another FDA-approved Anticoagulant

No

Yes

Documentation of System Reason(s) for Not Prescribing Warfarin OR Another FDA-approved Anticoagulant Due to Patient Being Currently Enrolled in a Clinical Trial Related to AF/Atrial Flutter Treatment

No

Yes

Warfarin OR Another Oral Anticoagulant is FDA-Approved Not Prescribed, Reason Not Given

No

Yes

Data Completeness Met + Performance Not Met GS999 or equivalent (20 patients)

c

Data Completeness Met + Performance Met GS989 or equivalent (60 patients)

a

Data Completeness Met + Denominator Exception GS999 or equivalent (10 patients)

b1

Data Completeness Met + Denominator Exception GS999 or equivalent (10 patients)

c1

Data Completeness Met + Denominator Exception GS999 or equivalent (10 patients)

c1

Included in Eligible Population/Denominator (120 patients)

d

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

NOTE: Submission Frequency: Patient-Process.
2018 Registry Flow for Quality ID #326 NQF #1525:
Atrial Fibrillation and Atrial Flutter: Chronic Anticoagulation Therapy

SAMPLE CALCULATIONS:

Data Completeness

\[
\text{Performance Rate} = \frac{\text{Performance Rate} \cdot \text{Denominator Exception} (b^2 + d^2 + 30 \text{ pts}) + \text{Data Completeness Numerator} (130 \text{ pts})}{\text{Eligible Population} \cdot \text{Denominator} (120 \text{ pts})} = \frac{110 \text{ pts}}{150 \text{ pts}} = 91.67\%
\]

Performance Rate

\[
\text{Performance Rate} = \frac{\text{Performance Rate} \cdot \text{Denominator Exception} (b^2 + d^2 + 30 \text{ pts})}{\text{Data Completeness Numerator} (130 \text{ pts})} = \frac{50 \text{ pts}}{80 \text{ pts}} = 75.00\%
\]

NOTE: Submission Frequency: Patient-proc
2018 Measure Flow for Quality ID
#326 NQF #1525: Atrial Fibrillation and Atrial Flutter: Chronic Anticoagulation Therapy

Please refer to the specific section of the Measure 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 Nonvalvular Atrial Fibrillation or Atrial Flutter as Listed in the Denominator equals No, do not include in Eligible Patient Population. Stop Processing.
   b. If Diagnosis of Nonvalvular Atrial Fibrillation or Atrial Flutter as Listed in the Denominator equals Yes, proceed to Encounter Performed.

4. Check Encounter Performed:
   a. If Encounter Performed 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, proceed to check Patient has Transient or Reversible Cause of AF

6. Check Patient has Transient or Reversible Cause of AF:
   a. If Patient has Transient or Reversible Cause of AF equals Yes, do not include in Eligible Patient Population. Stop Processing.
   b. If Patient has Transient or Reversible Cause of AF equals No, proceed to Patient is Receiving Comfort Care Only.

7. Check Patient is Receiving Comfort Care Only
   a. If Patient is Receiving Comfort Care Only equals Yes, do not include in Eligible Patient Population. Stop Processing.
   b. If Patient is Receiving Comfort Care Only equals No, Check Documentation of CHA2DS2-VASc risk score of 0 or 1

8. Check Documentation of CHA2DS2-VASc risk score of 0 or 1
a. If Documentation of CHA₂DS₂-VASc risk score of 0 or 1 equals Yes, do not include in Eligible Patient Population. Stop Processing.

b. If Documentation of CHA₂DS₂-VASc risk score of 0 or 1 equals No, include in Eligible Population

9. 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 120 patients in the Sample Calculation.

10. Start Numerator

11. Check Warfarin OR Another FDA-Approved Oral Anticoagulant Prescribed:

   a. If Warfarin or Another FDA-Approved Oral Anticoagulant that is Prescribed Yes, include in Data Completeness Met and Performance Met.

   b. Data Completeness Met and Performance Met is represented in the Data Completeness in the Sample Calculation listed at the end of this document. Letter a equals 60 patients in the Sample Calculation.

   c. If Warfarin OR Another FDA-Approved Oral Anticoagulant that is Prescribed equals No, proceed to check Documentation of Medical Reason(s) for Not Prescribing Warfarin or Another FDA-Approved Anticoagulant for Prevention of Thromboembolism.

12. Check Documentation of Medical Reason(s) for Not Prescribing Warfarin or Another FDA-Approved Oral Anticoagulant for Prevention of Thromboembolism.

   a. If Documentation of Medical Reason(s) for Not Prescribing Warfarin or Another FDA-Approved Anticoagulant for Prevention of Thromboembolism equals Yes, include in Data Completeness Met and Denominator Exception.

   b. Data Completeness Met and Denominator Exception is represented in the Data Completeness 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 Prescribing Warfarin or Another FDA-Approved Anticoagulant for Prevention of Thromboembolism equals No, proceed to check Documented Patient Reason(s) for Not Prescribing Warfarin or Another FDA-Approved Anticoagulant for Prevention of Thromboembolism.

13. Check Documentation of Patient Reason(s) for Not Prescribing Warfarin or Another FDA-Approved Oral Anticoagulant for Prevention of Thromboembolism.

   a. If Documented Patient Reason(s) for Not Prescribing Warfarin or Another FDA-Approved Oral Anticoagulant for Prevention of Thromboembolism equals Yes, include in Data Completeness Met and Denominator Exception.

   b. Data Completeness Met and Denominator Exception is represented in the Data Completeness in the Sample Calculation listed at the end of this document. Letter b2 equals 10 patients in the Sample Calculation.

   c. If Documentation of Patient Reason(s) for Not Prescribing Warfarin or Another FDA-Approved Oral Anticoagulant for Prevention of Thromboembolism equals No, proceed to Check Documentation of
14. Check Documentation of System Reason(s) for Not Prescribing Warfarin OR Another FDA-Approved Anticoagulation Due to Patient Being Currently Enrolled in a Clinical Trial Related to AF/Atrial Flutter Treatment:
   a. If Documentation of System Reason(s) for Not Prescribing Warfarin OR Another FDA-Approved Anticoagulation Due to Patient Being Currently Enrolled in a Clinical Trial Related to AF/Atrial Flutter Treatment equals Yes, include in the Data Completeness Met and Denominator Exception.
   b. Data Completeness Met and Denominator Exception is represented in the Data Completeness in the Sample Calculation listed at the end of this document. Letter b3 equals 10 patients in the Sample Calculation.
   c. If Documentation of System Reason(s) for Not Prescribing Warfarin OR Another FDA-Approved Anticoagulation Due to Patient Being Currently Enrolled in a Clinical Trial Related to AF/Atrial Flutter Treatment equals No, proceed to check Warfarin OR Another FDA-Approved Anticoagulant Not Prescribed, Reason Not Given.

15. Check Warfarin OR Another FDA-Approved Anticoagulant Not Prescribed, Reason Not Given:
   a. If Warfarin OR Another FDA-Approved Anticoagulant that is FDA-Approved Not Prescribed, Reason Not Given 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 in the Sample Calculation listed at the end of this document. Letter c equals 20 patients in the Sample Calculation.
   c. If Warfarin OR Another FDA-Approved Anticoagulant Not Prescribed, Reason Not Given equals No, proceed to Data Completeness Not Met.

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

SAMPLE CALCULATIONS:

<table>
<thead>
<tr>
<th>Data Completeness =</th>
<th>Performance Met (a= 60 pts) + Denominator Exception (b^2 + b^2 + b^2 = 30 pts) + Perf. Not Met (c= 20 pts) = 110 pts</th>
<th>120 pts</th>
<th>91.67%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Performance Rate</td>
<td>Performance Met (a= 60 pts) = 60 pts</td>
<td>75.00%</td>
<td></td>
</tr>
<tr>
<td>Data Completeness Numerator (110 pts) - Denominator Exception (b^2 + b^2 + b^2 = 30 pts) = 80 pts</td>
<td>80 pts</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>