Quality ID #465: Uterine Artery Embolization Technique: Documentation of Angiographic Endpoints and Interrogation of Ovarian Arteries – National Quality Strategy Domain: Patient Safety

2018 OPTIONS FOR INDIVIDUAL MEASURES:
REGISTRY ONLY

MEASURE TYPE:
Process

DESCRIPTION:
The percentage of patients with documentation of angiographic endpoints of embolization AND the documentation of embolization strategies in the presence of unilateral or bilateral absent uterine arteries

INSTRUCTIONS:
This measure is to be submitted each time a procedure for uterine artery embolization is performed 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 are 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 undergoing uterine artery embolization for leiomyomas and/or adenomyosis

> **Denominator Criteria (Eligible Cases):**
> All patients, regardless of age
> **AND**
> **Diagnosis for leiomyomas or adenomyosis (ICD-10-CM):** D25.0, D25.1, D25.2, D25.9, N80.0
> **AND**
> **Patient procedure during the performance period (CPT):** 37243

NUMERATOR:
Number of patients undergoing uterine artery embolization for symptomatic leiomyomas and/or adenomyosis in whom embolization endpoints are documented separately for each embolized vessel AND ovarian artery angiography or embolization performed in the presence of variant uterine artery anatomy.

> **Definition:**
> **Embolization Endpoints –**
> - Complete stasis (static contrast column for at least 5 heartbeats)
> - Near-stasis (not static, but contrast visible for at least 5 heartbeats)
> - Slowed flow (contrast visible for fewer than 5 heartbeats)
> - Normal velocity flow with pruning of distal vasculature
> - Other [specify]
> - Not documented
>
> **Variant uterine artery anatomy –** Treatment strategy
> - Not applicable – Normal uterine artery anatomy
> - Ovarian artery angiography

- Ovarian artery embolization
- Abdominal aortic angiography
- No additional angiography or embolization performed

Numerator Options:

Performance Met: Embolization endpoints are documented separately for each embolized vessel AND ovarian artery angiography or embolization performed in the presence of variant uterine artery anatomy (G9962)

OR

Performance Not Met: Embolization endpoints are not documented separately for each embolized vessel OR ovarian artery angiography or embolization not performed in the presence of variant uterine artery anatomy (G9963)

RATIONALE:

The efficacy of uterine artery embolization is related to incomplete embolization. The two failure mechanisms that contribute are (1.) appropriate vessel selection but insufficient embolization and (2.) incomplete identification of uterine arterial supply. This measure ensures documentation of two important procedural aspects of uterine artery embolization, which are known to be associated with treatment efficacy: (1.) appropriate embolization endpoints achieved and (2.) delineation of all uterine arterial supply with embolization where possible.

Inadequate arterial embolization alone is a known cause of treatment failure[1]. The ovarian arteries often provide an alternate route of arterial supply to the uterus when the uterine artery is occluded or absent; however routine aortography is not recommended when conventional uterine artery anatomy is present[2].

References:
1. Dariushnia SR et al. Quality Improvement Guidelines for Uterine Artery Embolization for Symptomatic leiomyomata. JVIR 2014; 25:1737-1747.
2. White AM et al. Patient radiation exposure during uterine fibroid embolization and the dose attributable to aortography. JVIR 2007; 18:573-576.

CLINICAL RECOMMENDATION STATEMENTS:

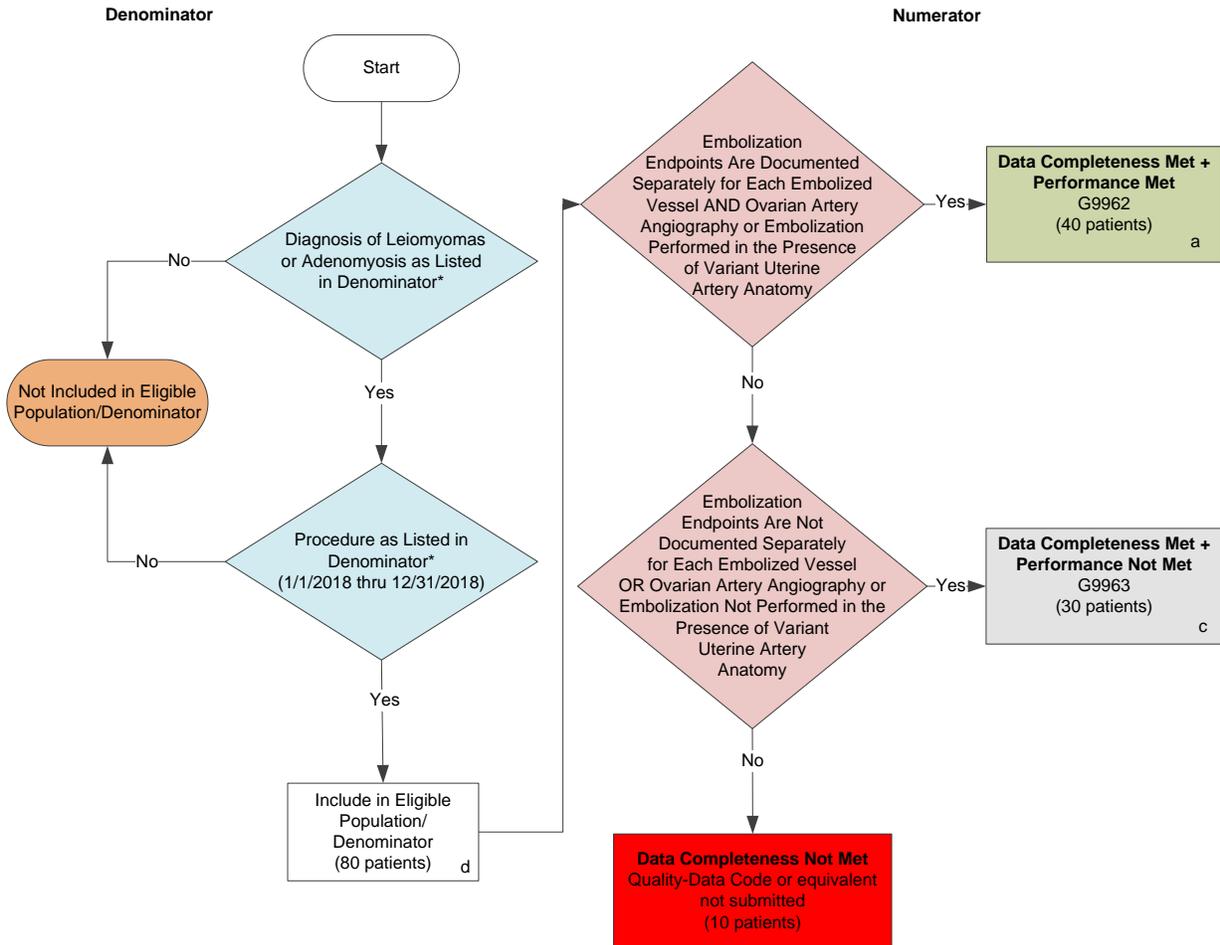Dariushnia SR et al. Quality Improvement Guidelines for Uterine Artery Embolization for Symptomatic leiomyomata. JVIR 2014; 25:1737-1747.

- Consensus opinion quality improvement document from the Society of Interventional Radiology utilizing the Modified Delphi method, defining consensus as 80% Delphi participant agreement on a value or parameter.

COPYRIGHT:

2017 Society of Interventional Radiology

2018 Registry Flow for Quality ID
#465: Uterine Artery Embolization Technique: Documentation of Angiographic Endpoints and Interrogation of Ovarian Arteries

Denominator

Numerator

```
                              Start
                                |
                                v
                         /Diagnosis of\
          No  <--------  /Leiomyomas  \
          |              \or Adenomyosis/
          |               \as Listed   /
          v                \in Denom.*/
  Not Included in               |
  Eligible Population/         Yes
  Denominator                   |
          ^                      v
          |               /Procedure as \
          No  <---------  /Listed in     \
                          \Denominator*   /
                           \(1/1/2018 thru/
                            \12/31/2018) /
                                |
                               Yes
                                |
                                v
                     Include in Eligible
                     Population/
                     Denominator
                     (80 patients)    d
```

Embolization Endpoints Are Documented Separately for Each Embolized Vessel AND Ovarian Artery Angiography or Embolization Performed in the Presence of Variant Uterine Artery Anatomy
— Yes → **Data Completeness Met + Performance Met** G9962 (40 patients) a
— No ↓

Embolization Endpoints Are Not Documented Separately for Each Embolized Vessel OR Ovarian Artery Angiography or Embolization Not Performed in the Presence of Variant Uterine Artery Anatomy
— Yes → **Data Completeness Met + Performance Not Met** G9963 (30 patients) c
— No ↓

Data Completeness Not Met Quality-Data Code or equivalent not submitted (10 patients)

SAMPLE CALCULATIONS:

Data Completeness=

$$\frac{\text{Performance Met (a=40 patients) + Performance Not Met (c=30 patients)}}{\text{Eligible Population / Denominator (d=80 patients)}} = \frac{70 \text{ patients}}{80 \text{ patients}} = 87.50\%$$

Performance Rate=

$$\frac{\text{Performance Met (a=40 patients)}}{\text{Data Completeness Numerator (70 patients)}} = \frac{40 \text{ patients}}{70 \text{ patients}} = 57.14\%$$

* See the posted Measure Specification for specific coding and instructions to submit this measure.
NOTE: Submission Frequency: Procedure

v2

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 Diagnosis:

   a. If diagnosis of Leiomyoma or Adenomyosis as Listed in the Denominator equals No, do not include in Eligible Patient Population. Stop Processing.

   b. If diagnosis of Leiomyoma or Adenomyosis as Listed in the Denominator equals Yes, proceed to check Encounter Performed.

3. Check Procedure Performed:

   a. If Procedure 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, include in the Eligible Population.

4. 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.

5. Start Numerator

6. Check Embolization Endpoints Are Documented Separately and Ovarian Artery Angiography or Embolization Performed in the Presence of Variant Uterine Artery Anatomy:

   a. If Embolization Endpoints Are Documented Separately and Ovarian Artery Angiography or Embolization Performed in the Presence of Variant Uterine Artery Anatomy are equal to 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 Embolization Endpoints Are Documented Separately and Ovarian Artery Angiography or Embolization Performed in the Presence of Variant Uterine Artery Anatomy are equal to No, proceed to check Embolization Endpoints Are Not Documented Separately and Ovarian Artery Angiography or Embolization Not Performed in the Presence of Variant Uterine Artery Anatomy.

7. Check Embolization Endpoints Are Not Documented Separately and Ovarian Artery Angiography or Embolization Not Performed in the Presence of Variant Uterine Artery Anatomy

   a. If Embolization Endpoints Are Not Documented Separately and Ovarian Artery Angiography or Embolization Not Performed in the Presence of Variant Uterine Artery Anatomy is equal to 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 and Performance Rate in the Sample Calculation listed at the end of this document. Letter c equals 30 patients in the Sample Calculation.

c. If Embolization Endpoints Are Not Documented Separately and Ovarian Artery Angiography or Embolization Not Performed in the Presence of Variant Uterine Artery Anatomy are equal to No, proceed to check Data Completeness Not Met.

8. 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=

$$\frac{\text{Performance Met (a=40 patients) + Performance Not Met (c=30 patients)}}{\text{Eligible Population / Denominator (d=80 patients)}} = \frac{70 \text{ patients}}{80 \text{ patients}} = 87.50\%$$

Performance Rate=

$$\frac{\text{Performance Met (a=40 patients)}}{\text{Data Completeness Numerator (70 patients)}} = \frac{40 \text{ patients}}{70 \text{ patients}} = 57.14\%$$