Metrics Committee TEP
Draft Narrative Specifications
June 20, 2022

GRID AAA #1: Evidence-based Follow-up Recommendations for Aortic Dilation/Aneurysm

Measure Purpose	This surveillance measure is intended to reduce the risk of AAA rupture by including follow-up guidance in the radiology report.
Measure Type	Intermediate Outcome
Measure Level	Individual and Group Levels
Measure Rationale	Abdominal aortic aneurysm rupture is a leading cause of death in the US.[1] The natural history of abdominal aortic aneurysms (AAAs) is progressive enlargement with increasing risk of rupture. The goal of this measure is to avoid aneurysm rupture or emergency repair, which are associated with a high level of mortality and morbidity.[1] Appropriate follow-up with a clinical expert can facilitate elective repair, which improves outcomes.[1] Since incidental AAAs are relatively common, their detection and appropriate management are a public health concern.[2]
Measure Description	Percentage of final reports for imaging studies (CT, Ultrasound, and MRI) of patients aged 18 years and older, which include a measurement of the abdominal aorta diameter of 2.5 cm or greater with an evidence-based recommendation for follow up.
Denominator	All final reports for imaging exams (CT, Ultrasound, and MRI of the chest, abdomen, and pelvis) for patients aged 18 years and older which include a measurement of the abdominal aorta diameter of 2.5 cm or greater.
Numerator	All final reports with an evidence-based recommendation for follow-up of a AAA.
Denominator Exceptions	Documentation of reasons to not designate an evidence-based follow-up recommendation for the exam include: **Medical reasons:** • Care no longer needed because of patient's health status (e.g., palliative care, patient deceased, stable finding by comparison to prior imaging, alternative evidence-based guidance) **Patient reasons**: • Shared decision-making results in the patient declining the recommendation (e.g., patient risk tolerance, patient preference regarding over-diagnosis, expected diagnostic yield, unable to pay for exam)

Guidance

The following reference examples of evidence-based recommendations that were available when this measure was developed.

Society for Vascular Surgery [3]

4.0 - 4.9 cm	annual follow-up
>2.5 and < 3 cm	rescreening after 10 years
>3 and < 3.9 cm	rescreening after 3 years
>4 and < 4.9 cm	rescreening annually
>5 and < 5.4 cm	rescreening every 6 months
> 5.4 cm	surgical repair
CT is better than Ultrasound, with >90 percent measurements within 0.2 cm of the initial reading	

American College of Radiology [4]

Table 1. Recommended intervals for initial follow-up imaging of ectatic aortas and abdominal aortic aneurysms

Aortic Diameter (mm)	Imaging Interval
2.5-2.9	5 y
3.0-3.4	3 y
3.5-3.9	2 y
4.0-4.4	1 y
4.5-4.9	6 mo*
5.0-5.5	3-6 mo*

Note: For abdominal aortic diameters <2.5 cm, follow-up is generally thought to be unnecessary. Because the rupture of smaller abdominal aortic aneurysms is less likely, we recommend longer intervals between follow-up examinations. Follow-up intervals may vary depending on comorbidities and the growth rate of the aneurysm.
*In addition to planning follow-up imaging, one should also consider surgical or endovascular referral.

Definitions

References

1. Aggarwal, S., Qamar, A., Sharma, V., Sharma, A. *Abdominal aortic aneurysm: A comprehensive review*. Experimental & Clinical Cardiology, 2011; 16(1), p. 11-15.

	2. Singh, M.J. *Abdominal Aortic Aneurysm*. https://vascular.org/patients-and-referring-physicians/conditions/abdominal-aortic-aneurysm. Accessed February 10, 2023. 3. Chaikof, E.L., et al. *The Society for Vascular Surgery practice guidelines on the care of patients with an abdominal aortic aneurysm*. Journal of Vascular Surgery. 2018; 67(1): p. 2-77.e2. 4. Khosa, F., Krinsky, G., Macari, M., Yucel, E.K., Berland, L.L. Managing *Incidental Findings on Abdominal and Pelvic CT and MRI, Part 2: White Paper of the ACR Incidental Findings Committee II on Vascular Findings*. Journal of the American College of Radiology. 2013; 10: p. 789-794.