

IMPROVED AAA SCREENING WITH CLINICAL REMINDERS

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Introduction: Based upon randomized, population-based screening protocols, a single ultrasound exam reduces mortality from abdominal aortic aneurysm (AAA) by facilitating elective surgical intervention before rupture. Ultrasound screening for AAA is accurate, non-invasive, inexpensive, and cost-effective. These protocols employed electoral rolls, specialized screening clinics, and primary practice lists to solicit age appropriate populations with an attendance rate of 63-80%. Invitations for the ADAM study were solicited by letter and achieved a 30% attendance rate; AAA >4cm were identified in 1.2% and >5cm in 0.5% of a cohort of 52,745 veteran subjects. We inquired whether the implementation of an electronic reminder to primary caregivers would increase detection of AAA.

Methods: A clinical reminder for male veterans ages 65-75 who ever smoked was installed at the VA NJ Health Care System via an automatic computerized patient record system (CPRS) prompt in May 2007. A specific vascular laboratory consult is requested automatically. The abbreviated abdominal ultrasound exam uses a 3.5 MHz scanhead, measures both anterior-posterior and transverse planes, and reports the largest aortic diameter. Normal aortic diameter was assumed to be less than 3.0cm; abnormal exams were categorized as >3cm, >4cm, >5cm, and >5.5cm.

Results: With a 76% attendance rate, 1205 exams were conducted since the program began. There were 79 AAA >3.0cm diameter (6.55%) identified. There were 37 AAA >4.0cm for a yield of 3.07%. AAA >5.0cm were identified in 19 subjects (1.57%). AAA >5.5cm were identified in 9 subjects (0.74%).

Comment: The yield of newly diagnosed AAA using the CPRS prompt exceeded that expected from the ADAM experience by almost 3 fold. We encourage use of electronic clinical reminders to increase identification of undiagnosed, life-threatening AAA prior to rupture. A potential advantage to those with abnormal scans is the availability of immediate counseling when performed in the vascular setting.