

'Hey Siri, Call my Cardiologist': A New Era in AF Screening

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March 12, 2019



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Objectives

- List methods of AF detection, including new tech
- Review principles of screening tests
- Discuss recent studies for targeted AF screening
- Focus on cost-effectiveness and harms of AF screening
- Discuss incorporating consumer tech into clinical practice

Wilson and Junger Principles of Screening (1968)

- The condition sought should be an important health problem.
- The natural history of the condition, including development from latent to declared disease, should be adequately understood.
- There should be a recognizable latent or early symptomatic stage.
- There should be a suitable test or examination.
- The test should be acceptable to the population.
- There should be an agreed policy on whom to treat as patients.
- There should be an accepted treatment for patients with recognized disease.
- Facilities for diagnosis and treatment should be available.
- The cost of case-finding (including diagnosis and treatment of patients diagnosed) should be economically balanced in relation to possible expenditure on medical care as a whole.
- Case-finding should be a continuing process and not a “once and for all” project.

Box 1. Sample Calculation of NNS for AF With ECG to Prevent 1 Stroke^a

- New AF found on initial ECG in 0.5% of screened population
- NNS to diagnose 1 new case of AF, $1/0.005 = 200$ people
- Estimated absolute risk reduction from anticoagulation, 2%
- Number needed to treat to prevent 1 stroke, $1/0.02 = 50$ people
- NNS to prevent 1 stroke, $200 \times 50 = 10\,000$ people

Abbreviations: AF, atrial fibrillation; ECG, electrocardiography; NNS, number needed to screen.

^a All data are from the STROKESTOP study.⁷