EDITORIAL

Is opportunistic screening for AF in general practice worthwhile?

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SCREENING PATIENTS OPPORTUNISTICALLY IN PRIMARY CARE DOES NOT IMPROVE DETECTION of atrial fibrillation (AF), compared with usual care, a cluster randomised controlled trial from the Netherlands has found.[1]

AF is a cause of significant morbidity and mortality and early identification of this common arrhythmia remains a key healthcare priority. Simple handheld devices can provide clinicians with a rapid and reliable way of recording an ECG rhythm strip to detect AF. Such devices lend themselves well to the primary care environment where rapid access to a 12-lead ECG is not always feasible. Primary care is also well placed to screen patients opportunistically where a simple pulse check augmented with a handheld device trace may increase the accuracy of diagnosis of AF and appropriate use of a 12-lead ECG.

This study aimed to determine whether opportunistic screening in primary care improves the detection of AF compared with usual care.

'Opportunistic screening in primary care patients aged ≥ 65 did not increase the detection rate of previously unknown AF'

The SAFE study, published in 2007, which was carried out in 50 general practices in England, had suggested that opportunistic screening for AF over a year could detect more new diagnoses than usual care.[2]

In the current trial, a total of 96 primary care practices in the Netherlands were recruited: 47 in the intention to screen arm and 49 in the usual care arm. A sample of 200 eligible patients, aged 65 years or older, with no recorded history of AF, were randomly selected from each practice. In the intention to screen group, 9,218 patients eligible for screening were included, 55.0% women, mean age 75.2 years. In the usual care group, there were 9,526 patients eligible for screening, 54.3% women, mean age 75.0 years.

Screening consisted of three index tests: pulse palpation, electronic blood pressure measurement with an AF detection function, and ECG with a handheld single lead device.

The reference standard was a 12-lead ECG. This was carried out, immediately after the index tests, in patients with at least one positive index test and also in a 10% random sample of patients with three negative tests. The ECG results were examined by an experienced assessor supervised by a cardiologist. All the ECGs were re-evaluated by a second cardiologist. If there was disagreement a third cardiologist made the final decision.

If the 12-lead ECG showed no AF patients were invited for further screening by continuous monitoring with a Holter ECG monitor for two weeks.

The main outcome measure was the difference in the detection rate of newly diagnosed AF over one year in intention to screen versus usual care practices. Follow-up was completed for 8,874 patients in the former group and for 9,102 patients in the latter.

There were 144 (1.62%) new diagnoses of AF in the intention to screen group compared with 139 (1.53%) in the usual care group; OR 1.06 (95% CI: 0.84-1.35). Of 9,218 eligible patients in the intention to screen group, 4,106 (44.5%) participated in the screening protocol. In these patients, 12-lead ECG detected newly diagnosed AF in 26 patients (0.63%), all of whom had had at least one positive index test. In the 266 patients who continued with Holter monitoring, four more diagnoses of AF were found in patients who had had negative index tests but none in those who had had at least one positive index test.

The authors concluded: 'In this cluster randomised controlled trial, opportunistic screening in primary care patients, aged 65 and over, did not increase the detection rate of previously unknown AF.'

They add that their findings are in line with another Dutch study, the IDEAL-MD trial, published earlier this year, where opportunistic screening also failed to detect more new diagnoses of AF compared with usual care.[3]

It was interesting to note how few patients were found to have AF on 12-lead ECG or Holter who had a positive initial screening test. These findings imply that such screening is not useful and therefore primary care services should question any planned expansion of such screening on the basis of this trial data.

REFERENCES
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