

Frequency of pulse palpation by practice nurses

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Background

Atrial Fibrillation (AF) is a major cause of stroke⁽¹⁾. Pulse palpation is a simple screening tool that can aid detection of AF⁽²⁾. However, arrhythmias, including AF, may not be detected using an electronic sphygmomanometer, which routinely measures blood pressure (BP) and pulse rate, but not rhythm. Use of an electronic sphygmomanometer without pulse palpation may therefore result in arrhythmias not being detected.

It is not known to what extent practice nurses undertake pulse palpation. Here we report the findings from a cross-sectional pilot survey which investigated how often practice nurses palpate the pulse alongside using an electronic sphygmomanometer to measure blood pressure.



Methods and participants

- A questionnaire was devised and piloted with the aid of two clinical experts. This resulted in a single question (see Box).
- The questionnaire was:
 - Given to 34 practice nurses who attended a short course, diploma or degree level study day at Education for Health during August 2007
 - Emailed (using Survey Monkey) to 147 practice nurses who had attended a short course, diploma or degree level module at Education for Health during June or July 2007.
 - Descriptive statistics were calculated.

“Think back to your last five consultations in which the patient’s blood pressure was taken using an electronic sphygmomanometer. In how many of these did you feel the pulse?”

- None
- In one consultation
- In two consultations
- Not applicable – I don’t use an electronic sphygmomanometer
- In three consultations
- In four consultations
- In all five consultations

Results

- 58% (105/181) of nurses responded
- 67% of these respondents (70/105) reported that they used an electronic sphygmomanometer to record blood pressure
- Of these respondents:
 - Nearly a quarter did not palpate the pulse in any of their last five consultations
 - Half palpated the pulse in some, but not all of the consultations
 - Just over a quarter palpated the pulse in all of their last five consultations (Fig. 1).

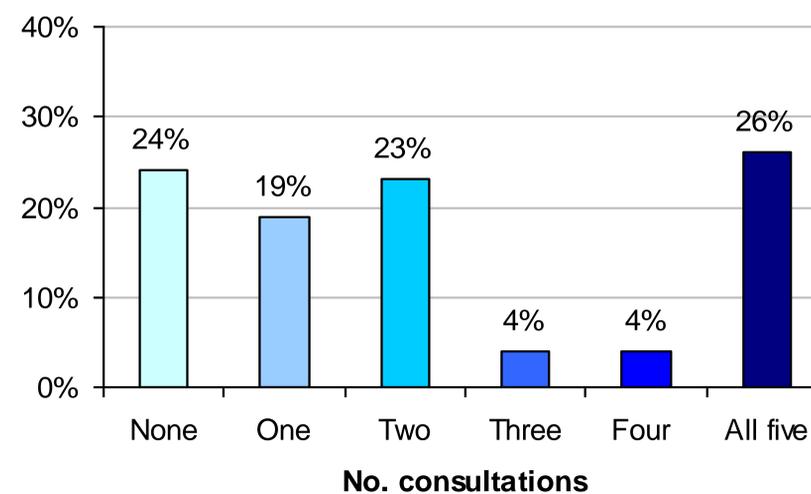


Figure 1: The frequency of pulse palpation when using an electronic sphygmomanometer.

- Almost three quarters of respondents therefore did not palpate the pulse in all of their last five consultations (Fig. 2).

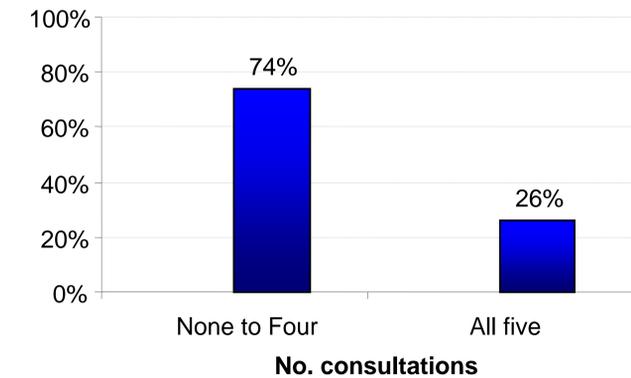


Figure 2: The frequency of pulse palpation when using an electronic sphygmomanometer.

Conclusions

This survey indicated that approximately one quarter of nurses palpated the pulse during all past five consultations where BP was measured using an electronic sphygmomanometer.

Although this is encouraging, three quarters of nurses did not palpate the pulse in every consultation (including a quarter that did so in none of the past five consultations).

It is important that future training informs health professionals that pulse palpation is an important initial screening tool for AF, and should be included in all relevant consultations.

Future Research

- Identify the frequency of pulse palpation undertaken by other health professionals during relevant patient consultations
- Investigate why health professionals undertake pulse palpation in some but not all relevant consultations.

References

1. Wolf P, Abbott R, Kannel W. Atrial fibrillation as an independent risk factor for stroke: the Framingham Study. *Stroke* 1991; 22:983-988
2. Fitzmaurice DA, Hobbs FD, Jowett S, Mant J, Murray ET, Holder R *et al.* Screening versus routine practice in detection of atrial fibrillation in patients aged 65 or over: cluster randomised controlled trial. *BMJ* 2007; 335(7616):383.