

To the Editors:

Blood pressure measurement by final year medical students

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Blood pressure (BP) measurement is a simple yet crucial procedure performed widely in clinical practice, which affects patient care both directly (eg. diagnosis, prognosis, decision to treat) and indirectly (eg. biostatistics, epidemiological studies). The accuracy of an office BP measurement depends greatly on the correctness and consistency of technique, including use of suitable apparatus (1,2).

We assessed the knowledge and skill of final year medical students in office BP measurement. Skill was assessed by direct observation using a standard evaluation form, and knowledge using a structured questionnaire; no limit was applied on time. Performance was compared with recommendations of a working party of the British Hypertension Society (3,4). 51 final year medical students attending the professorial medical appointment, randomly selected from the register, participated. Patients with known hypertension and on active treatment were taken, with their informed consent. No change in treatment was done unless medically indicated.

Only four (8%) of the students checked the apparatus

for suitability before use. Thirteen (26%) explained the procedure to the patient. The cuff was applied correctly by twenty-seven (54%). Forty (80%) positioned the manometer and themselves correctly. The rate of deflation was correct in 21 (42%), being too fast in 22 (44%). None used the brachial artery to estimate the systolic BP by the palpatory method, while 39 (78%) used the radial, and the rest did not use the palpatory method. The placement of the stethoscope for auscultation was correct in 41 (82%).

In questionnaire, 44 (88%) recognised the need to obtain several high readings before making a diagnosis of hypertension. 31(62%) knew of the need to use a cuff of appropriate size in obese patients. Phase IV was used for diastolic pressure by 18 (36%). 48 admitted rounding off the figures - upward (29), downward (18) or to the closest 5 mm Hg (01). 42 (84%) knew that a significant difference in the measurements in the two arms can occur in coarctation of the aorta.

We observed that the practical skill in BP measurement needs improvement, although theoretical knowledge

Letters

fared better in comparison. We conclude that the training of this important skill needs to be given more importance in the undergraduate medical curriculum than at present.

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References

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