

### What is already known on this topic

Blood pressure is usually measured and monitored in the healthcare system by health professionals

With the introduction and validation of new electronic devices, self blood pressure monitoring at home is becoming increasingly popular

No evidence exists as to whether use of home monitoring is associated with better control of high blood pressure

### What this study adds

Patients who monitor their blood pressure at home have a lower "clinic" blood pressure than those whose blood pressure is monitored in the healthcare system

A greater proportion of them also achieve blood pressure targets when assessed in the clinic

- 2 MacMahon S, Peto R, Cutler J, Collins R, Sorlie P, Neaton J, et al. Blood pressure, stroke and coronary heart disease. I. Effect of prolonged differences in blood pressure: evidence from nine prospective observational studies corrected for the regression dilution bias. *Lancet* 1990;335:765-74.
- 3 Prospective Studies Collaboration. Age-specific relevance of usual blood pressure to vascular mortality: a meta-analysis of individual data for one million adults in 61 prospective studies. *Lancet* 2002;360:1903-13.
- 4 Prospective Studies Collaboration. Cholesterol, diastolic blood pressure, and stroke: 13,000 strokes in 450,000 people in 45 prospective cohorts. *Lancet* 1995;346:1647-53.
- 5 Primates P, Brookes M, Poulter NR. Improved hypertension management and control: results from the health survey for England 1998. *Hypertension* 2001;38:827-32.
- 6 Yarows SA, Staessen JA. How to use home blood pressure monitors in clinical practice. *Am J Hypertens* 2002;15:93-6.
- 7 Yarows SA, Julius S, Pickering TG. Home blood pressure monitoring. *Arch Intern Med* 2000;160:1251-7.
- 8 Chobanian AV, Bakris GL, Black HR, Cushman WC, Green LA, Izzo JL, Jr, et al. The seventh report of the joint national committee on prevention, detection, evaluation, and treatment of high blood pressure: the JNC 7 report. *JAMA* 2003;289:2560-71.
- 9 Cartwright W, Dalton KJ, Swindells H, Rushant S, Mooney P. Objective measurement of anxiety in hypertensive pregnant women managed in hospital and in the community. *Br J Obstet Gynaecol* 1992;99:182-5.
- 10 Glanz K, Kirscht JP, Rosenstock IM. Linking research and practice in patient education for hypertension: patient responses to four educational interventions. *Med Care* 1981;19:141-52.
- 11 Ross-McGill H, Hewison J, Hirst J, Dowsell T, Holt A, Brunskill P, et al. Antenatal home blood pressure monitoring: a pilot randomised controlled trial. *Br J Obstet Gynaecol* 2000;107:217-21.
- 12 Carnahan JE, Nugent CA. The effects of self monitoring by patients on the control of hypertension. *Am J Med Sci* 1975;269:69-73.
- 13 Haynes RB, Sackett DL, Gibson ES, Taylor DW, Hackett BC, Roberts RS, et al. Improvement of medication compliance in uncontrolled hypertension. *Lancet* 1976;i:1265-8.
- 14 Johnson AL, Taylor DW, Sackett DL, Dunnett CW, Shimizu AG. Self-recording of blood pressure in the management of hypertension. *CMAJ* 1978;119:1034-9.
- 15 Earp JA, Ory MG, Strogatz DS. The effects of family involvement and practitioner home visits on the control of hypertension. *Am J Public Health* 1982;72:1146-54.
- 16 Pierce JP, Watson DS, Knights S, Gliddon T, Williams S, Watson R. A controlled trial of health education in the physician's office. *Prev Med* 1984;13:185-94.
- 17 Stahl SM, Kelley CR, Neill PJ, Grim CE, Mamlin J. Effects of home blood pressure measurement on long-term BP control. *Am J Public Health* 1984;74:704-9.
- 18 Binstock ML, Franklin KL. A comparison of compliance techniques on the control of high blood pressure. *Am J Hypertens* 1988;1:192-4S.
- 19 Midanik LT, Resnick B, Hurley LB, Smith EJ, McCarthy M. Home blood pressure monitoring for mild hypertensives. *Public Health Rep* 1991;106:85-9.
- 20 Soghikian K, Casper SM, Fireman BH, Hunkeler EM, Hurley LB, Tekawa IS, et al. Home blood pressure monitoring: effect on use of medical services and medical care costs. *Med Care* 1992;30:855-65.
- 21 Muhlhauser I, Sawicki PT, Didjurgat U, Jorgens V, Trampisch HJ, Berger M. Evaluation of a structured treatment and teaching programme on hypertension in general practice. *Clin Exp Hypertens* 1993;15:125-42.
- 22 Friedman RH, Kazis LE, Jette A, Smith MB, Stollerman J, Torgerson J, et al. A telecommunications system for monitoring and counseling patients with hypertension: impact on medication adherence and blood pressure control. *Am J Hypertens* 1996;9:285-92.
- 23 Zarnke KB, Feagan BG, Mahon JL, Feldman RD. A randomized study comparing a patient-directed hypertension management strategy with usual office-based care. *Am J Hypertens* 1997;10:58-67.
- 24 Bailey B, Carney SL, Gillies AA, Smith AJ. Antihypertensive drug treatment: a comparison of usual care with self blood pressure measurement. *J Hum Hypertens* 1999;13:147-50.
- 25 Mehos BM, Saseen JJ, MacLaughlin EJ. Effect of pharmacist intervention and initiation of home blood pressure monitoring in patients with uncontrolled hypertension. *Pharmacotherapy* 2000;20:1384-9.
- 26 Vetter W, Hess L, Brignoli R. Influence of self-measurement of blood pressure on the responder rate in hypertensive patients treated with losartan: results of the SVATCH study. *J Hum Hypertens* 2000;14:235-41.
- 27 Artinian NT, Washington OG, Templin TN. Effects of home telemonitoring and community-based monitoring on blood pressure control in urban African Americans: a pilot study. *Heart Lung* 2001;30:191-9.
- 28 Broege PA, James GD, Pickering TG. Management of hypertension in the elderly using home blood pressures. *Blood Press Monit* 2001;6:139-44.
- 29 Rogers MA, Small D, Buchan DA, Butch CA, Stewart CM, Krenzer BE, et al. Home monitoring service improves mean arterial pressure in patients with essential hypertension: a randomized, controlled trial. *Ann Intern Med* 2001;134:1024-32.
- 30 Egger M, Davey SG, Schneider M, Minder C. Bias in meta-analysis detected by a simple, graphical test. *BMJ* 1997;315:629-34.
- 31 Sutton AJ, Song F, Gilbody SM, Abrams KR. Modelling publication bias in meta-analysis: a review. *Stat Methods Med Res* 2000;9:421-45.
- 32 Sutton AJ, Duval SJ, Tweedie RL, Abrams KR, Jones DR. Empirical assessment of effect of publication bias on meta-analyses. *BMJ* 2000;320:1574-7.
- 33 Aylett M, Marples G, Jones K. Home blood pressure monitoring: its effect on the management of hypertension in general practice. *Br J Gen Pract* 1999;49:725-8.
- 34 Brueren MM, Schouten HJA, de Leeuw PW, van Montfrans GA, van Ree JW. A series of self-measurements by the patient is a reliable alternative to ambulatory blood pressure measurement. *Br J Gen Pract* 1998;48:1585-9.
- 35 Nordmann A, Frach B, Walker T, Martina B, Battegay E. Reliability of patients measuring blood pressure at home: prospective observational study. *BMJ* 1999;319:1172.
- 36 Little P, Barnett J, Barnsley L, Marjoram J, Fitzgerald-Barron A, Mant D. Comparison of agreement between different measures of blood pressure in primary care and daytime ambulatory blood pressure. *BMJ* 2002;325:254.
- 37 Little P, Barnett J, Barnsley L, Marjoram J, Fitzgerald-Barron A, Mant D. Comparison of acceptability of and preferences for different methods of measuring blood pressure in primary care. *BMJ* 2002;325:258-9.
- 38 Staessen JA, Den Hond E, Celis H, Fagard R, Keary L, Vandenhoven G, et al. Antihypertensive treatment based on blood pressure measurement at home or in the physician's office. *JAMA* 2004;291:955-64. (Accepted 1 February 2004)

doi 10.1136/bmj.38121.684410.AE

### Corrections and clarifications

We inadvertently omitted the first author's name in the Dr Foster's Case Notes about social class and elective caesareans, and we also listed the authors in the wrong order (12 June, p 1399). The correct authorship (also amended on bmj.com) is Katherine Barley, Dr Paul Aylin, Dr Alex Bottle, and Professor Brian Jarman.

*FDA rejects over the counter status for emergency contraceptive*

In this News article by Janice Hopkins Tanne, we stated that levonorgestrel (Levonelle-2) is taken in a split dose—two tablets, 12 hours apart (22 May, p 1219). The manufacturer has informed us that the tablets can now be taken together.

*ABC of burns: pathophysiology and types of burns*

The first sentence of the section "Electrical injuries" in this article by Shehan Hettiaratchy and Peter Dzielwski (12 June, pp 1427-9) led one reader, a self confessed pedant, to contact us. He rightly objected to the use of the word electrocution (which appeared later too). According to *Chambers 21st Century Dictionary*, "to electrocute" means "to kill someone or something by electric shock." The first sentence should probably more correctly read: "Some 3-4% of burn unit admissions are caused by electrical [not 'electrocution'] injuries." And for any other pedants out there, the phrase "are caused by" might be better replaced with "are the result of."