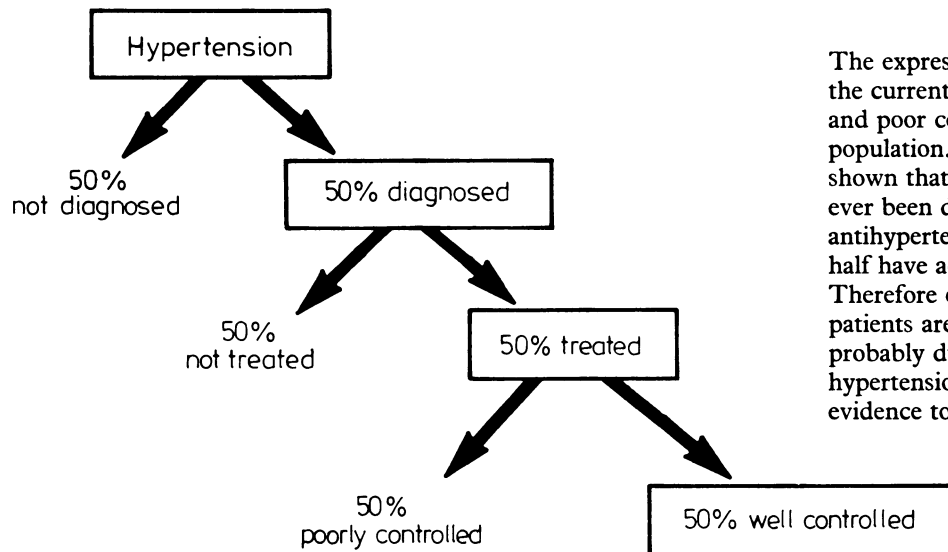


ABC of Blood Pressure Management

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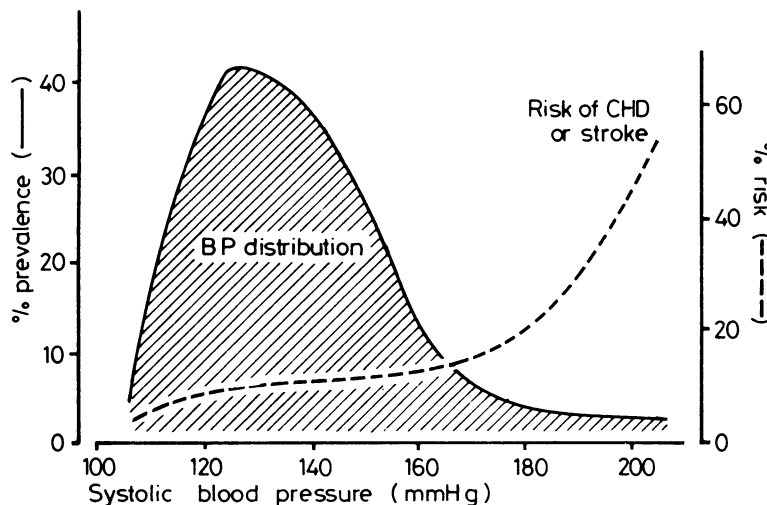
DETECTING HYPERTENSIVE PATIENTS

The rule of halves



The expression "the rule of halves" aptly expresses the current state of underdiagnosis, undertreatment, and poor control of blood pressure in the general population. Studies in Scotland and England have shown that only about half of hypertensives have ever been diagnosed; of these only about half receive antihypertensive treatment, and of these only about half have adequate reduction of blood pressure. Therefore only about one-eighth of all hypertensive patients are receiving satisfactory treatment. This is probably due to a series of dangerous myths about hypertension which are perpetuated despite ample evidence to the contrary.

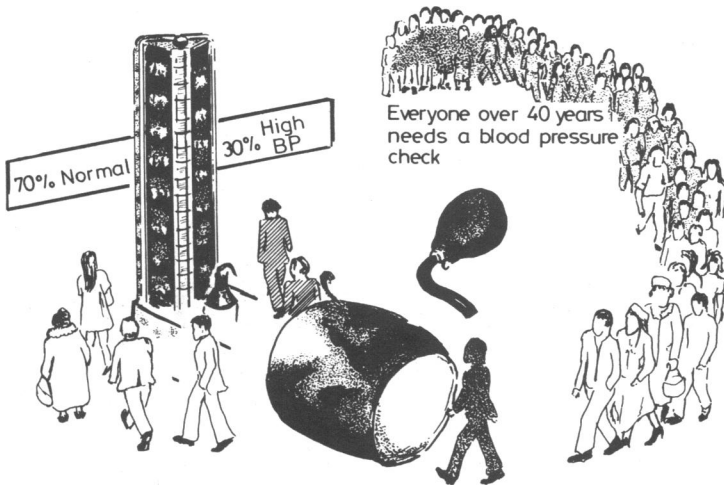
The myths and the solutions



The first myth is that occasional mildly raised blood pressure readings are attributable to minor stresses and can be ignored. The next myth is that hypertensive patients can be relied on to present with diagnostically useful symptoms such as headache and tiredness. An even more dangerous myth is the belief that once drug treatment has adequately reduced blood pressure treatment can be discontinued.

As people with high blood pressure cannot be diagnosed in a casual manner some systematic method of detecting symptomless cases is needed. The only way to do this is to measure blood pressure routinely in all adults, especially those aged over 40. This could be achieved through mass-screening exercises, rather like mass radiography in the era of tuberculosis, but this might be expensive and would mean creating new branches of the health services.

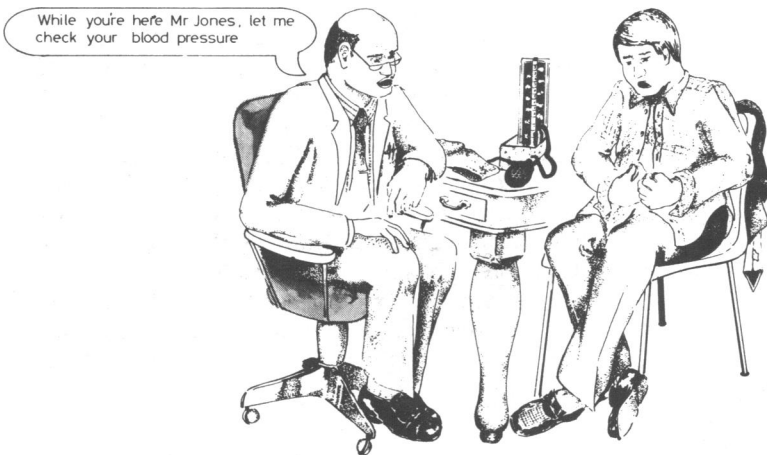
Screening



Screening for hypertension at the work place by occupational health doctors has more practical advantages if the relevant information can be transmitted efficiently to those doctors who have the responsibility for prescribing medicines. The current interest in health and safety at work should give added impetus to this approach.

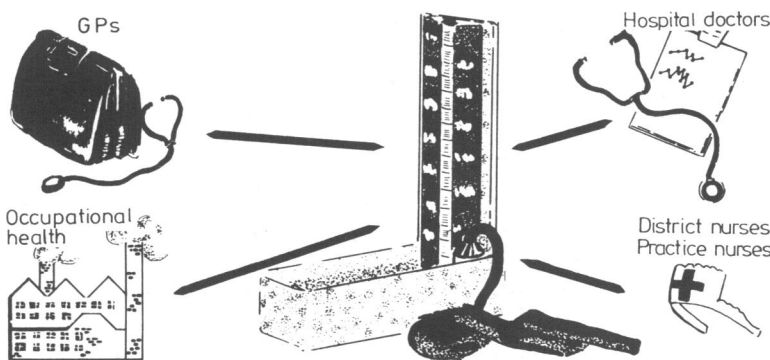
The provision of blood pressure measuring apparatus in shops and supermarkets in the hope of attracting the general population to "have a check" has little to recommend it. It probably attracts only known hypertensive patients, who want a double check, and may induce undue anxiety in people who have a mildly increased risk but in whom drug therapy is not justified.

General practice: the secret weapon



The most obvious solution to the failure of patients to get themselves diagnosed is to use existing health care resources efficiently. In Western countries about 85% of the population see a doctor at least once in three years. Usually patients attend for other reasons, complaining of some specific unassociated symptom. This is the ideal opportunity to measure blood pressure routinely in all comers, no matter what their presenting complaint. It is thus feasible to examine a very large proportion of the adult population without special screening units or equipment.

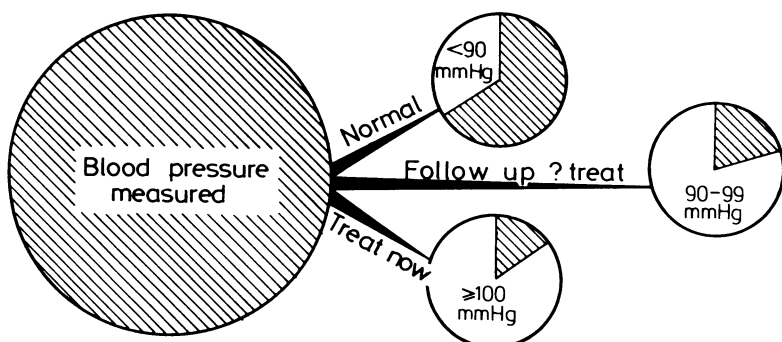
Who measures the blood pressure?



Blood pressure may be measured by the family doctors, the practice nurse, the receptionist, or any suitably trained intelligent person. Tuition in measuring blood pressure takes only about half an hour.

Not only family doctors, but all doctors in every branch of medicine—physicians, surgeons, and casualty doctors—have the same responsibility to measure blood pressure in all comers and ensure that any abnormalities are referred to the family doctor.

The yield



About 0.5% of the adult population will have very severe hypertension requiring urgent investigation and treatment. This represents no more than five cases for each individual general practitioner. A further 10 to 15% of adults will have pressures above 100 mm Hg and will probably need drug treatment if this level of blood pressure persists. A further 20% of the population will have pressures of 90 to 99 mm Hg, and as they have a measurably increased risk, they will need systematic follow-up even though there is so far little evidence that they need drug treatment.

Other risk factors



When assessing hypertensive patients, other coronary risk factors should be taken into account. These include obesity, cigarette smoking, physical inactivity, and hypercholesterolaemia. Action to reduce obesity and stop smoking is known to be beneficial. There is no evidence that the drug treatment of hypercholesterolaemia prolongs life, but the presence of high cholesterol concentrations might lower the threshold above which antihypertensive treatment might be started.

Records

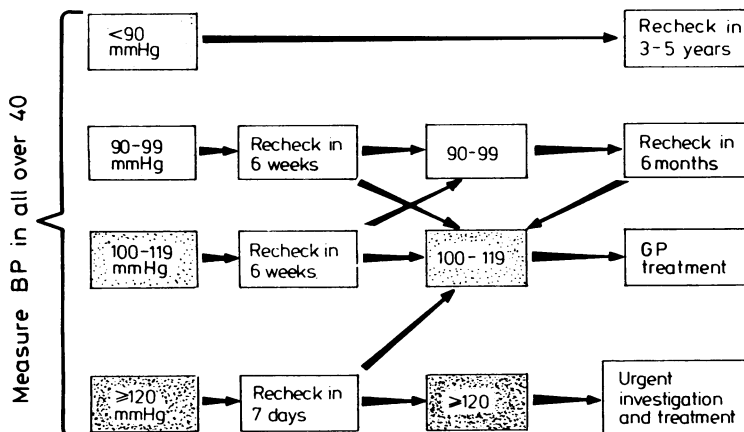
Blood Pressure Record Card	
Surname: JONES	Forenames: JOHN PETER
DOB: 27/11/35	Local Hosp. Number: QUA 157 D
NHS Number: QUA 157 D	Diagnosis/Investigation: Hypertension
Previous Medical History: Rheumatoid Arthritis	Electrolytes/Urine: U: 6.2 Na: 137 K: 4.5
Date: 9 2 74	Clinical Notes: 26 9 80 Recheck check 170/110 Ur E, see 6/52
Date: 8 7 74	12 Nov 80 Well 175/110 Step propranolol LA 30 see 6/52
Date: 26 9 80	26 Nov 155/100 Propranolol LA 30
Date: 23 12 80	23 12 80

Efficient detection and follow-up of hypertension requires an efficient records system. The existing octavo general practitioner record sheet and folder can, with simple modification, be used to good effect, but A4 records are ideal. Once a general practitioner has decided to embark on a hypertension detection exercise the simplest system is to insert a stiff coloured card into the folder of all adults over 40 years of age. It should remain there until the individual patient has attended and had his blood pressure measured. Record cards for hypertension follow-up, with a protruding "flag," are available from many drug companies.

Once the hypertensive patient has been detected a permanent marker or sticker or rubber stamp should identify the record folder to remind the doctor of the diagnosis and the need for follow-up at each visit.

Probably the most important aid to detecting and managing hypertension is enthusiasm. Many general practitioners have completed such case detection exercises, and have screened all their listed patients. Their favourable reports and the differing systems they have used should act as a stimulus for all general practitioners to follow suit.

Justification



The prime responsibility for the detection and management of hypertension rests in general practice. Efficient blood pressure reduction definitely prevents both heart attacks and strokes. Thus the time has come to organise the care of hypertension systematically in general practice.

The second figure is based on one by Professor L Wilhelmsen published in *Clinical Science* 1979;57:455-8. Dr Liam T Bannan, BSC, MRCP, is an honorary research fellow, Dr D G Beevers, MD, MRCP, a senior lecturer in medicine, and Dr S H D Jackson, MB, MRCP, a research fellow, University of Birmingham, Dudley Road Hospital, Birmingham.