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**BBC**

**Blood pressure guidelines revised in England and Wales**

By Helen Briggs Health editor, BBC News website

Patients thought to have high blood pressure should have the diagnosis confirmed at home, according to new guidelines.

Patients in England and Wales will be offered extra checks using a mobile device that records blood pressure over 24 hours, says the watchdog NICE.

A quarter of patients may find visiting a GP stressful, leading to misdiagnosis and being given drugs they do not need.

The move could save the NHS £10.5m a year, predictions suggest.

High blood pressure (blood pressure of 140/90mmHg or more) affects about a quarter of all adults in the UK.

It is a leading risk factor for heart disease or stroke and costs the NHS about £1bn a year in drugs alone.

Currently, most patients found to have high blood pressure for the first time are given a formal diagnosis if their blood pressure is raised at two subsequent visits to the doctor.

They may then be prescribed medication to lower their blood pressure.

Day and night

Research suggests, however, that about a quarter of patients actually have "white coat" hypertension - where blood pressure is raised temporarily due to stress.

Now, the National Institute for Health and Clinical Excellence (NICE) has advised doctors in England and Wales to move towards "ambulatory" monitoring of patients at home, using a device that automatically takes blood pressure readings every 30 minutes day and night.

Around one in 10 GPs are already offering ambulatory monitoring, either directly or by referring patients to a hospital specialist.

The new guidelines were issued at the same time as the publication of a research study in The Lancet.

One of the authors of the paper, Professor Richard McManus of the University of Birmingham, said: "This research shows that ambulatory blood pressure monitoring at the time of diagnosis of high blood pressure would allow better targeting of treatment and is cost-saving.

"Ambulatory monitoring is already available in some general practices and we have shown that its widespread use would be better for both patients and the clinicians looking after them.

"Treatment with blood pressure lowering medication is usually lifelong and so it is worth getting the decision to start right in the first place."

It is expected to take about a year to implement the advice at a net cost of about £2.5m.

However, in the long-term the costs will be recouped, say experts, eventually saving about £10.5m a year.

'More accurate'

Cathy Ross, senior cardiac nurse at the British Heart Foundation, said the number of people with high blood pressure in the UK was "staggering".

"Some 12 million people are diagnosed with the condition and it is estimated another 5.7 million people have it but are unaware.

It's a major risk factor for heart disease and strokes so it's crucial we do all we can to get people diagnosed and properly treated as soon as possible.

"This new guidance will refine the way we test and treat people for hypertension, particularly by helping to identify people suffering from 'white coat hypertension'.

"It doesn't mean that current methods aren't working, only that they can be improved further.

Anyone currently concerned about their blood pressure or treatment should speak to their GP or practice nurse."

Professor Bryan Williams from the University of Leicester, chairman of NICE's Guideline Development Group, told the BBC there would be an "upfront cost" of introducing the ambulatory equipment.

But he added: "When you offset that against the reduced treatment costs of people who don't require treatment, and the reduced number of visits to doctors, we estimate that the NHS within about four or five years will save £10m.

"So it's a win-win situation for patients because it's a better way of making a diagnosis and the NHS actually saves money."

British Hypertension Society president Professor Mark Caulfield said the move was supported by research.

He said: "We've recommended that if high readings are found in the practice, that a 24-hour blood pressure monitor is worn because we found that the evidence now makes it very clear to us that this is a much more precise way of diagnosing high blood pressure."

In response to the new guidelines, Health Minister Anne Milton said: "These guidelines show that the use of innovations such as ambulatory monitors can provide more accurate blood pressure readings for patients as they go about their daily lives.

"This is not only better for patients, but also a better use of NHS resources."

DAILY MAIL (London)

August 24, 2011 Wednesday

**GO HOME FOR YOUR** **BLOOD PRESSURE TEST, PATIENTS TOLD**  
  
**BYLINE:** BY JENNY HOPE MEDICAL CORRESPONDENT  
  
**LENGTH:** 563 words

MILLIONS of high blood pressure patients will in future undergo testing for the condition at home.

For the first time in more than a century, readings taken in a GP's surgery will no longer be the recommended way to determine whether someone needs treatment.

New guidelines say patients should be monitored for 24 hours in their homes to overcome the problem of 'waiting room nerves'.

According to research, as many as one in four people with diagnosed high blood pressure, or hypertension, have readings that are artificially high because they are anxious when a doctor or nurse takes it.

This syndrome is known as 'white-coat hypertension'.

Guidelines published today by the National Institute for Health and Clinical Excellence are expected to slash the number of patients needlessly taking drugs.

Patients whose blood pressure is high after being checked in the surgery will be asked to undergo ambulatory blood pressure monitoring (ABPM).

This involves wearing an inflated arm cuff and a box on a belt for a day to give a series of readings under normal conditions.

The machine will then be returned to the doctor, who will examine the readings.

Currently patients have a number of appointments to have their blood pressure checked.

In the UK, 12million people have high blood pressure, 5.7million of whom are undiagnosed.

It is estimated that the condition costs the NHS £1billion per year in drugs alone, and affects one in four adults.

Cathy Ross, senior cardiac nurse at the British Heart Foundation, said: 'The number with high blood pressure in the UK is staggering.

It's a major risk factor for heart disease and strokes so it's crucial we do all we can to get people diagnosed and properly treated as soon as possible.'

The new system would be particularly helpful in identifying those who have a misleadingly high score because of white-coat hypertension.

Professor Richard McManus, of Birmingham University, who carried out research leading to the guidelines, said ambulatory monitoring is already available in some GP surgeries and that widespread use would be better for patients and doctors.

'Treatment with blood pressure lowering medication is usually lifelong and so it is worth getting the decision right in the first place,' he said.

Professor Mark Caulfield, of the British Hypertension Society, said it was only patients 'right on the border line' who might need a change to their treatment.

This could be patients whose home monitoring has shown low blood pressure and who have taken low doses of medication, or those who did not display any signs related to high blood pressure such as heart disease.

Professor Bryan Williams, chairman of the guideline development group, said any patients who have been misdiagnosed will be identified during the standard review process, which is usually annual.

The cost of bringing in ABPM will be around £2.5million.

The guideline group says this will be recouped after two years because of a cut in the drugs bill.

After five years a saving of £10.5million per year is predicted.

The panel expects it will take around a year to extend the system across the country.

Under the new advice, it is also recommended that people over 80 are treated for high blood pressure.

In the past there has been debate over whether this will cause more harm than good because of the possible side effects of the drugs.

'Worth getting the decision right'

Metro (UK)

August 26, 2011 Friday   
Edition 1;   
National Edition

**Easing the pressure**  
**SECTION:** NEWS; Pg. 65  
  
**LENGTH:** 142 words

It has been reported one in four patients may be wrongly diagnosed with high blood pressure because people's blood pressure often rises in a surgery.

New guidelines say patients should wear a blood pressure monitoring cuff in their own home, which would give readings over 24 hours to give a more accurate result.

Many patients are unnecessarily being prescribed blood pressure pills, so this would save the NHS large sums of money.

It would also stop the side effects from unnecessarily prescribed pills.

Manufacturers' advice leaflets say these can include irregular heartbeat, serious blood disorders, bone marrow problems, chest pain, stroke, kidney failure, faulty liver function, autoimmune disease and increased risk of diabetes - depending on the type of pills prescribed.

Treating these must be a huge cost to the taxpayer.

**REUTERS**

**Hypertension study prompts new diagnosis guidance**



By Kate Kelland

LONDON | Wed Aug 24, 2011 1:21pm BST

Taking repeated blood pressure readings over a 24-hour period rather than a one-off measurement in the clinic is the most cost-effective way of deciding who should be prescribed drugs for hypertension, according to a study published Wednesday.

The findings in favor of so-called ambulatory blood pressure monitoring were immediately adopted by Britain's health costs watchdog, the National Institute for Health and Clinical Excellence (NICE), in new guidelines on how to diagnose and when to treat high blood pressure.

Bryan Williams, a professor of medicine at the Leicester University and chair of the NICE guideline development group, said the change would affect the treatment of millions of people in Britain and was "a step-change that is likely to be replicated across the world."

An estimated 1 billion people around the world have high blood pressure, or hypertension, which is a major risk factor for cardiovascular disease, the leading cause of death globally.

If it is left untreated, high blood pressure can cause strokes, heart attacks, heart failure and organ damage, including kidney failure and vision problems.

Those diagnosed with hypertension are often prescribed one of many blood-pressure lowering drugs such as Novartis's Lotensin or generic benazepril, candesartan, sold as Atacand by AstraZeneca and Takeda, or Novartis' Diovan, known generically as valsartan.

Patients are often prescribed the drugs for many years if not the rest of their lives.

"Ambulatory monitoring allows better targeting of blood pressure treatment to those who will receive most benefit," said Richard McManus of Britain's Birmingham University, who led a study published in The Lancet medical journal which prompted the NICE guideline change.

"It is cost saving in the long term as well as more effective, and so will be good for patients and doctors alike."

Diagnosis of hypertension has traditionally been based on blood-pressure measurements in the clinic, but studies have found that home and ambulatory measurements are better indicators of who will suffer heart problems and strokes.

Ambulatory blood pressure measurement involves the patient wearing a blood pressure cuff attached to an automatic blood pressure machine for 24 hours.

Measurements are taken typically half hourly during the day and hourly during the night.

Experts say one-off blood pressure readings taken during a visit to the doctors can often be artificially raised due to what is known as the "white coat effect" when patients are nervous about going into a clinical setting.

In the Lancet study McManus' team analyzed the cost-effectiveness of the three approaches and found that ambulatory monitoring was the most cost effective way to diagnose high blood pressure in men and women of all ages.

It saved money in all groups and resulted in significant improvements in quality of life for both sexes in the 50-plus age group.

McManus said the new NICE guidelines marked a significant change in hypertension care.

"The use of ambulatory monitoring will ensure quicker and more accurate diagnosis," he said, adding that this was "an exciting advance which I am sure will be taken up internationally."

telegraph.co.uk

August 23, 2011 Tuesday 10:24 PM GMT

**Home checks for high blood pressure;   
Patients suspected of having high blood pressure are to be given home monitoring devices over fears millions have been misdiagnosed because they were simply nervous in the doctor's surgery.**  
**BYLINE:** By Stephen Adams Medical Correspondent  
  
**LENGTH:** 851 words

About a quarter of people become anxious while they have their blood pressure taken in the surgery, meaning they potentially give a misleading reading.

This wrongly pushes many into the high blood pressure zone, a phenomenon known as white coat hypertension.

This means up to three million people could be taking drugs needlessly or in incorrect doses.

Now the National Institute for Health and Clinical Excellence (Nice) has produced definitive guidelines so GPs can diagnose the condition more accurately.

They recommend that when a patient is deemed hypertensive in the consulting room, they are sent home with a special machine called an ambulatory blood pressure monitoring (ABPM) device.

This comprises an arm cuff and a small belt-clip monitor box containing a timer, compressor and computer chip, which can be worn during everyday activities.

Patients wear them for 24 hours and readings are automatically taken every half an hour during waking hours.

The information is then downloaded on to the surgery computer.

Studies show this method gives far more accurate readings than in the potentially stressful surgery setting, said Bryan Williams, professor of medicine at Leicester University, who chaired the guidelines panel.

He said ABPM monitoring would help screen out those with white coat hypertension while providing more accurate readings for those who really had high blood pressure, resulting in better treatment.

High blood pressure, which leads to heart disease and stroke, is one of the country's most widespread health problems.

Some 12 million people are officially diagnosed - although a quarter arguably wrongly - while up to six million more could have it without knowing.

Nice has decided to recommend nationwide (England and Wales) use of the ABPM monitors - which currently cost about £1,000 apiece - after doing a financial analysis which showed they would save money in the long term.

The NHS will have to fork out about £5 million a year to invest in the machines, but Nice predicts that after two years they will start to save money due to less prescriptions for ACE inhibitors, calcium-channel blockers and diuretics, which all lower blood pressure.

These drugs currently cost the NHS £1 billion a year, or one per cent of its budget.

Cut out people with white coat hypertension and that bill would fall dramatically.

Prof Williams described the new method as a "step-change" that was likely to be replicated worldwide.

He said: "It will ensure that those who really need treatment get treated and those who don't need treatment don't get treated unnecessarily."

Nice estimates that in five years, treatment costs will be £15.6 million lower per annum than today, giving a net saving of £10.5 million in that year.

These estimates are quite conservative because they are based on new diagnoses rather than re-evaluating the 12 million existing ones.

However, Prof Williams believed many people with "borderline" hypertension would now question whether they really needed to be taking drugs and would ask to be re-checked.

"The emphasis is on new diagnoses but, having scaled it up, we will be able to use it for reviewing existing diagnoses," he said.

At the moment the availability of devices is very limited though, which could lead to long delays for patients.

Currently, only about one diagnosis in 20 is made with an ABPM machine, said Prof Richard McManus, a Birmingham GP, who spearheaded the cost-effectiveness study, published today in The Lancet.

He said they were mainly confined to larger GP practices and specialist units.

Questions remain over whether GPs will be convinced enough of the benefits to pay for the devices, which experts admitted were extremely expensive.

The Nice guidelines are not mandatory.

Prof Williams believed the cost per device could come down to £500 in time, especially if the NHS ordered sufficient numbers.

A much less expensive option is to use home blood pressure monitoring devices, which cost as little as £15.

These non-automated devices require patients to remember to take their pressure every half hour and record the information accurately.

Nice says these can be used in the absence of ABPMs, but Prof Williams emphasised the evidence showed automated devices produced better diagnoses, better outcomes, and were eventually cost effective.

Prof Mark Caulfield, president of the British Hypertension Society, believed the future lay in pared-down ABPM devices that plugged into smartphones, harnessing their processing power.

iHealth, an American company, already makes such a device for iPhones and iPads - albeit without a timer for full automation - which sells for $100 (£60).

\*One in seven blood pressure machines used by GPs could be inaccurate, according to a study in the British Journal of General Practice.

A research team from Oxford, led by Dr Christine A'Court, tested machines in over 80 general practices and found 14 per cent did not meet British Hypertension Society standards.

Dr A'Court and her team concluded low cost aneroid machines were particularly inaccurate and should be replaced with digital devices.

The Express

August 24, 2011 Wednesday   
U.K. 3rd Edition

**Home help for blood pressure**  
  
**SECTION:** NEWS; 18  
  
**LENGTH:** 161 words

PATIENTS are to be advised to monitor their blood pressure at home, under new guidelines.

The National Institute for Health and Clinical Excellence has for the first time recommended taking regular readings over a 24-hour period.

Patients will wear a blood pressure cuff attached to a machine - with measurements to be recorded typically half hourly during the day and hourly overnight.

Advocates believe it will be more accurate as some people suffer from 'white coat hypertension' - the prospect of a test at the GP's surgery can raise blood pressure beyond normal levels.

Studies have indicated monitoring over 24 hours is more effective in predicting heart attacks and strokes.

A study, published online in The Lancet, found the method resulted in small but significant improvements in the quality of life.

Professor Richard McManus and Dr Sue Jowett, of the University of Birmingham, said home readings will prevent treatment of patients whose blood pressure is normal.

The Guardian (London) - Final Edition

August 24, 2011 Wednesday

**Change in blood pressure tests expected to cut misdiagnoses: Experts recommend 24-hour monitoring Many patients may have 'white coat syndrome'**  
**BYLINE:** Randeep Ramesh Social affairs editor  
  
**SECTION:** GUARDIAN HOME PAGES; Pg. 8  
  
**LENGTH:** 613 words

More than a quarter of patients may have been misdiagnosed for high blood pressure, a finding that will see the way doctors identify hypertension changed for the first time in more than a century.

Guidelines published today by the National Institute for Health and Clinical Excellence (Nice) recommend that patients should be monitored for 24 hours to determine whether they have high blood pressure rather than having a measurement taken in a doctor's surgery.

The 24-hour process, ambulatory blood pressure monitoring (ABPM), involves wearing a cuff and a box on a belt for a day.

The patient then brings it back the following day for the recording to be downloaded on to a computer and an automatic report generated.

Currently patients have a number of appointments to have their blood pressure checked, and it is estimated that 25% suffer from "white-coat hypertension" - a syndrome in which people show elevated blood pressure in a surgery or hospital but nowhere else.

Bryan Williams, professor of medicine at the University of Leicester, who chaired the Nice hypertension guideline committee, said any patients who had been misdiagnosed would be identified as the system was adopted across the NHS.

He said: "Everybody on treatment is under periodic, usually annual, review and that is the opportunity to consider whether or not the original diagnosis was the right one."

He added that 10% of the NHS could introduce "this tomorrow . . . Our modelling showed that for every 100,000 people this new method would cost £2.5m in the first year.

But by year five you would see savings of £10m a year."

The guideline panel expect that the new process will take about a year to introduce and that the cost of the machines, currently around £1,000 each, could halve.

The new advice also recommends that people over 80 are treated for high blood pressure.

In the past there has been debate over whether this will cause more harm than good.

But Williams said that patients would benefit.

In the UK 12 million people have high blood pressure and almost half are undiagnosed.

It is estimated that the condition costs the NHS £1bn a year in drugs alone.

Managing high blood pressure is the most important thing patients can do to lessen their risk of a stroke - the third most lethal condition after cancer and heart disease and leading cause of severe disability.

It is estimated that 20% of hospital beds are occupied by stroke victims.

Cathy Ross, senior cardiac nurse at the British Heart Foundation, said: "The number of people with high blood pressure in the UK is staggering.

It's a major risk factor for heart disease and strokes so it's crucial we do all we can to get people diagnosed and properly treated as soon as possible."

Although there is no debate over the existence of white coat syndrome, some researchers argue that even mild exercise can influence readings and patients should be at home when an assessment is made.

A study in Finland five years ago concluded that the home approach "is more convenient and better accepted by the patients for long-term use and also less costly compared to ambulatory monitoring."

However, a study accompanying the Nice guidelines found that ambulatory monitoring was the most cost-effective way to diagnose hypertension among men and women of all ages.

For women aged 40, the saving was £323 for each patient.

The health minister Anne Milton said: "Hypertension is a serious public health issue that affects up to a third of the population and needs to be better managed in primary care.

"Getting the diagnosis right is vital in order to make sure that all patients who need treatment get it before they go on to develop a more serious condition."

The Independent (London)

August 24, 2011 Wednesday   
First Edition

**Blood pressure testers not fit for purpose**  
**BYLINE:** Jeremy Laurance Health Editor  
  
**SECTION:** NEWS; Pg. 10  
  
**LENGTH:** 326 words

UP TO one-quarter of the six million people being treated for high blood pressure in the UK may have been misdiagnosed.

The standard method of measuring blood pressure is inaccurate and should be replaced by 24-hour monitoring, using a device worn on the waist, experts advise.

The recommendation, by a panel of the National Institute for Clinical Excellence (Nice), is expected to be adopted around the world - the first change to the way blood pressure is measured for more than a century.

High blood pressure affects an estimated 12 million people in the UK, one in four of the adult population and one in two of those over 60.

But it remains undiagnosed in more than half of them.

It is one of the most important causes of heart disease, stroke and kidney disease and controlling it is one of the most effective ways of preventing premature death.

Traditionally, blood pressure is taken by a cuff attached to the patient's upper arm and pumped up to block the blood flow before being released slowly to measure the pressure at which blood starts to flow again.

Many patients suffer from "white coat syndrome" - their blood pressure rises because of anxiety triggered by a visit to the surgery.

A more accurate measure can be obtained by monitoring blood pressure for 24 hours using a device attached to the waist that pumps up the cuff worn around the arm every half hour and takes a reading, all of which are then averaged out.

Fewer than one in 10 patients are diagnosed in this way.

The devices cost more than £1,000 and drugs prescribed for blood pressure on the NHS cost £1bn a year.

Nice estimates that introducing the devices would save £10bn annually after five years.

Bryan Williams, Professor of medicine at the University of Leicester, who led the Nice panel, said: "The important recommendations in this guideline will affect the treatment of millions of people in our country.

It is a step change that is likely to be replicated across the world."

The Scotsman

August 24, 2011, Wednesday   
4 Edition

**New advice over blood pressure test**  
**BYLINE:** LYNDSAY BUCKLAND  
  
**SECTION:** Pg. 15  
  
**LENGTH:** 147 words

EXPERTS have recommended a change in the way high blood pressure is diagnosed for the first time in more than a century.

It is thought that potentially a quarter of patients could have been misdiagnosed using current methods.

New guidance from the National Institute for Health and Clinical Excellence (Nice) recommends that patients should be monitored for 24 hours by wearing a special cuff to determine if they have high blood pressure.

Currently patients have a number of appointments to have their blood pressure checked, and it is estimated that 25 per cent suffer from "white-coat hypertension" - nervousness when seeing medical staff - which will cause a high reading.

A spokesman for Healthcare Improvement Scotland said: "The new guideline relating to hypertension has no formal status in Scotland.

However, the information may be of interest to clinicians in mapping out care."

The Times (London)

August 24, 2011 Wednesday   
Edition 1;   
National Edition

**Anxious wait for doctor raises blood-pressure diagnosis rate;   
Quarter of patients 'wrongly assessed'**  
**BYLINE:** Chris Smyth  
  
**SECTION:** NEWS; Pg. 19  
  
**LENGTH:** 619 words

Patients suspected of having high blood pressure are to wear a monitor for 24 hours because the condition is being wrongly diagnosed in millions of people who are simply nervous about visiting the doctor.

Fears that a quarter of those in whom the condition is diagnosed are being wrongly assessed have prompted the first change in the standard method of measuring blood pressure in more than a century.

GPs should no longer rely on readings in the surgery, but should send people home with a portable monitoring device, when high blood pressure is suspected, the National Institute of Health and Clinical Excellence (Nice) will recommend today.

The 12 million people in Britain who have been told that they have the condition are likely to be reassessed in annual reviews.

One in four of these patients is simply experiencing the higher pulse rate that comes with waiting-room nerves, the watchdog estimates, meaning that millions are using blood-pressure drugs unnecessarily.

Although doctors say that the drugs will not be doing any harm, the NHS is wasting millions of pounds by prescribing them.

Nice estimates that savings on this bill will more than offset the cost to GPs' surgeries of having to buy the ambulatory monitoring devices, which cost about £1,000 each.

"This is clearly a very fundamental change. Practice in this area has not been changed in more than 100 years," said Bryan Williams, Professor of Medicine at the University of Leicester, who led the development of the new guidelines.

"It will ensure that those who really need treatment get treated."

GPs are being told to switch to ambulatory monitoring over the next year.

Some have questioned whether the upheaval is justified, but Professor Williams said that the monitoring would give a far more accurate picture.

"People diagnosed with hypertension [high blood pressure] are potentially treated for the next 50 years of their lives and we want to get it right.

It's a big challenge for the health service but it's better for patients," he said.

At present, GPs initially measure blood pressure using an inflatable arm cuff in the surgery, calling back people whose readings are high for a series of extra measurements by the same method.

Under the new system, people with high readings in the surgery will be sent home with an ambulatory monitoring device to wear under their clothes.

The device automatically takes a reading about every half an hour and the average reading can be downloaded by a nurse after 24 hours.

Nice insists that such readings are significantly more accurate and a better predictor of the risk of heart attacks and strokes, which are two of Britain's biggest killers.

Anne Milton, the Health Minister, said: "This is not only better for patients, but also a better use of NHS resources."

Up to three million people could be told that they have received a wrong diagnosis, mainly younger people who have seen no sign of pressure-related damage to the heart and kidneys.

"These are probably people who are right on the borderline, not the people with very high blood pressure," Professor Mark Caulfield, President of the British Hypertension Society, said.

"We are not advising three million people to turn up tomorrow in the GP surgery."

Cathy Ross, senior cardiac nurse at the British Heart Foundation, said: "It doesn't mean current methods aren't working, only that they can be improved.

Anyone concerned about their blood pressure or treatment should speak to their GP or practice nurse."

The guidelines also recommend that the over-80s be given drug treatment for high blood pressure.

"You're never too old to start treatment," Professor Williams said.

'Change will ensure that only people who need the treatment receive it'