









Medicines for High Blood Pressure

The new UK guidelines and what they mean for you

If you have high blood pressure and are taking medicines to treat your condition, then this information sheet is for you. It contains information about the latest UK guidelines for treating high blood pressure and how this may affect you.

KEY POINTS

-  UK guidelines published in June 2006 have given new advice on which medicines should be used to treat high blood pressure
-  One group of older medicines, beta-blockers, which have previously been used as a first choice of treatment for high blood pressure is no longer to be routinely used, except in a few special situations
-  Taking newer medicines to treat high blood pressure significantly reduces the risk of having a stroke when compared with beta-blockers. They are also less likely to cause diabetes when compared with beta-blockers
-  Your doctor may change your treatment if you are currently taking a beta-blocker
-  Do not stop taking your medications suddenly or without consulting your doctor or nurse
-  These new guidelines are a collaboration between the two UK organisations that publish guidelines on high blood pressure. This means that there is now one very clear pathway for health professionals and their patients to follow when choosing medicines

The new guidelines

Summary

UK guidelines published in June 2006 have given new advice on which medicines should be used to treat high blood pressure. These guidelines are produced by the British Hypertension Society (BHS), which is a group of specialists in high blood pressure and the National Institute for Health and Clinical Excellence (NICE). They set out a step-by-step approach to prescribing medicines for health professionals and their patients to use. This means that from now on people who have high blood pressure will be treated according to one national guideline and will have their medicines chosen based on their age and their ethnic group.

If you are already receiving treatment for high blood pressure, then the new guidelines may mean a change in your treatment, particularly if you are currently taking a beta-blocker. It is important to stress that there is no urgent need for anyone to change treatment, and that any changes that need to be made can be done as part of your routine treatment at your next usual appointment.

What has changed?

The biggest change in these new guidelines is in the use of the group of medicines called beta-blockers. Beta-blockers had been used routinely as a first treatment for people with high blood pressure, either on their own or in combination with other medicines. The new guidelines say that beta-blockers should not be used to treat high blood pressure except in a few specific situations (see Box 1 for more information).

The other important change in this new set of guidelines is that they have been agreed by both NICE and the BHS. This means that, for the first time, there is just one very clear pathway for you and your doctor to follow when choosing medicines.

What do the new guidelines say?

The chart opposite is a summary of how medicines will now be prescribed for people with high blood pressure. A full list of the medicines in each group can be found in Box 2 on page 5.

Step 1

If you are under the age of 55 and not of African or Caribbean descent then the first medicine you will be asked to try will usually be an ACE inhibitor. If you cannot take an ACE inhibitor for some reason or have side-effects from it, such as a cough, you will probably be asked to try an angiotensin receptor blocker instead.

If you are 55 or older or if you are of African or Caribbean descent (but not mixed race), then the first choice of treatment will be a tablet from either group of medicines: calcium-channel blocker or thiazide diuretic (sometimes called a water tablet)

Step 2

For two out of three people taking just one tablet on its own will not lower their blood pressure enough. If this is the case for you and your blood pressure is not controlled, then you will be asked to add in another medicine from a different group. If you are taking an ACE inhibitor then you will be asked to take a calcium-channel blocker or a diuretic as well. If you are taking a calcium-channel blocker or a diuretic, then you will be asked to also take an ACE inhibitor.

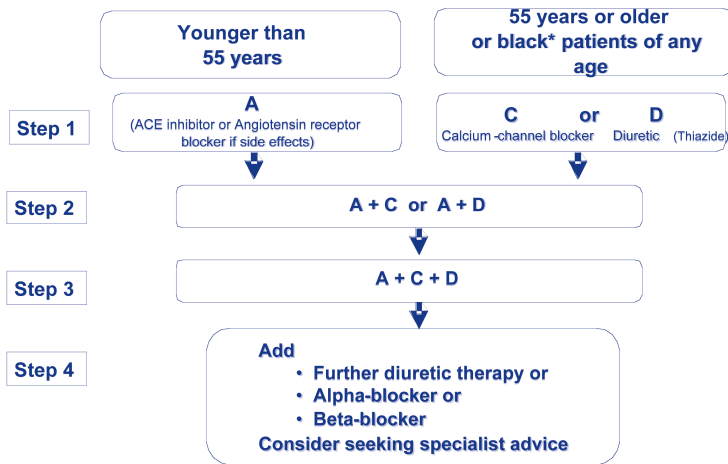
Step 3

If your blood pressure is still not lowered enough after this (this happens to about one in every three people) you will be asked to take all three types of medicine; an ACE inhibitor plus a calcium channel blocker plus a diuretic.

Step 4

After this your doctor or nurse may choose from other groups of medicines such as alpha blockers,

Medicines guideline



*Black means a person of African or Caribbean descent, not mixed race or Asian

Adapted from NICE guidelines 2006

other diuretics or beta-blockers, or you may be asked to see a specialist.

Some of the commonly used combinations of medicines, such as an ACE inhibitor with a diuretic, are now available as one tablet. This means that rather than taking two medicines separately you can take them together as just one tablet. This may cut down the cost of your

prescription and the number of tablets you have to take. Discuss this with your doctor or nurse.

The aim of all the medicines that you are given is to get your blood pressure down to 140/90mmHg or less. Some people may find this difficult but this new way of combining medicines together makes it more likely that you will be able to reach this target.

Box 1

Beta-blockers may still be used in the following groups of people:

- Younger women who could get pregnant (This is because the usual choice of medication for younger people, an ACE inhibitor, can be harmful in pregnancy)
- Those who cannot take an ACE inhibitor or an angiotensin receptor blocker
- who have had a previous heart attack or who have chest pain (angina) and those who have heart failure

Do I need to do anything now?

If you are already taking a beta-blocker on its own or with other medicines:

There are many people currently taking beta-blockers as this has been one of the main ways of treating high blood pressure in the UK since the 1970s. It is absolutely vital that, if you are taking a beta-blocker, you do not just stop taking it without advice from your doctor or nurse. Research studies have shown that the most important way to reduce strokes and heart attacks is to control blood pressure even if this means taking a beta-blocker.

If you are taking a beta-blocker the new guidelines give different advice on what to do, depending on whether your treatment is working to lower your blood pressure or not.

- If your medication is not working, ie your blood pressure is not well controlled or lowered to the target of 140/90mmHg, then you should have your medication reviewed at your next appointment with your doctor or nurse. If it is appropriate, you may be asked to slowly come off the beta-blocker and start taking an alternative medication instead. Stopping a beta-blocker suddenly can be harmful so your doctor or nurse will ask you to stop slowly, taking smaller and smaller amounts until you stop. You will be asked to start taking a new medication while you are still stopping your beta-blocker to try and keep your blood pressure well controlled.

Some people can feel their heart beating faster when they reduce the amount of beta-blockers they take. This is because beta-blockers slow down the heart rate and, when you stop taking them it speeds up again. For most people this is a normal response. If you develop a very fast heart rate when you stop taking the beta-blocker, you should see your doctor or nurse.

- If your blood pressure is well controlled and lowered to 140/90mmHg or less, then you should discuss your medication with your doctor or nurse at your next visit. It might be that you could benefit from the advantages of trying one of the newer medicines, in which case discuss this with your doctor or nurse and see whether there are alternatives for you to try. If you change medicines, you may find that you have a period of time when your blood pressure increases or is not well controlled.

Σ You may prefer to continue to take your beta-

blocker if your blood pressure is lowered and well controlled. However, research studies do suggest that there are advantages to switching to other medicines.

If you have recently been found to have high blood pressure:

You and your doctor can use the new medicines chart on page 3 to help you choose which medications to take. Your doctor should work step by step through the different medicines available until you find the ones which work best to lower your blood pressure and which leave you feeling well. This can sometimes be a process of trial and error until you find the right medication. Most people also find that they need to take two or more medicines to lower their blood pressure far enough.

Although these guidelines have been written for doctors to use, it is important to remember that everyone is an individual and, because of this, there is no absolute set way to treat everyone's high blood pressure, so what your doctor or nurse gives you may be different from what other people are taking.

Do I need to see my doctor now?

There is no immediate risk to your health if you are taking a beta-blocker. Therefore you do not need to make a special appointment to see your doctor, but when you next have a routine appointment talk to your doctor or nurse about your medications.

You must not stop taking your medications suddenly or without consulting your doctor as this can be harmful to your health and can lead to poor control of your blood pressure, which increases your risk of having a heart attack or stroke in the future.

If you have angina (chest pain), have had a previous heart attack or have heart failure you

should not, under any circumstances, stop taking your beta-blocker. In these situations beta-blockers have been shown to be of great value and are an important part of your treatment.

In the next few pages you can find more detailed information about the reasons why the guidelines changed, the types of different medicines that are being recommended and why beta-blockers are no longer being used as a first choice of treatment for most people with high blood pressure.

Additional information

Box 2

Medicines for high blood pressure

The medicines listed below are the generic or drug names, not the brand names.

ACE inhibitors work by reducing the amount of a hormone, angiotensin II, made from the kidney. This hormone plays an important role in controlling blood pressure.

Examples are: captopril, cilazapril, enalapril, fosinopril, lisinopril, perindopril, ramipril, trandolapril

Angiotensin receptor blockers work in a similar way to ACE inhibitors.

Examples are: candesartan, eprosartan, irbesartan, losartan, olmesartan, telmisartan, valsartan

Beta-blockers lower blood pressure by reducing the amount of a particular hormone (messenger in the blood), which is made by the kidney and which increases blood pressure.

Examples are: acebutolol, atenolol, bisoprolol, metoprolol, oxprenolol, propranolol, pindolol and timolol

Calcium-channel blockers relax the arteries (large blood vessels) in your body and this lowers your blood pressure.

Examples are: amlodipine, diltiazem, felodipine, isradipine, lacidipine, nicardipine nifedipine, nisoldipine, verapamil

Diuretics work by increasing the amount of salt that your kidneys put out in your urine. This means that your body loses some salt, which brings out water with it so that the amount of fluid around the cells is reduced. This lowers your blood pressure.

Examples are: bendroflumethiazide (also called bendrofluazide), chlorothiazide, chlorthalidone, cyclopenthiiazide, hydrochlorothiazide, indapamide

Background

Before the launch of these new guidelines, there were two guidelines used by health professionals when treating and managing high blood pressure. One was produced by the British Hypertension Society (BHS), a group of leading specialists in high blood pressure, and the other by the National Institute of Clinical Excellence (NICE). These two guidelines agreed on most of the major decisions

for successful management of high blood pressure, for example the need for treatment, the level at which blood pressure should be treated and lifestyle advice. However, they disagreed on the way different groups of medicines should be used.

The new guidelines mean that, for the first time, NICE and the BHS have agreed on a way that medicines for high blood pressure should be used. The Blood Pressure Association (BPA) consulted

widely with its members and experts and contributed to the development of these new guidelines. The BPA supports the use of these new guidelines to help you and your health professional choose the most effective medicines for you.

Why have the guidelines been changed?

In the last two years the results of a number of research studies have been published looking at the medicines used to treat high blood pressure and, in particular, the group of medicines called beta-blockers. These research results have been important enough to make the organisations that produce the UK guidelines review and change what they say about using medicines to treat high blood pressure.

One of the research studies that you may have seen publicity about is called the ASCOT study. The results of this study came out last year and showed that taking a combination of newer medicines (a calcium-channel blocker and an ACE inhibitor together) significantly reduced the risk of having a stroke or heart attack and of developing diabetes, compared to the older medicines (a beta-blocker and a diuretic). Those people taking a calcium-channel blocker and an ACE inhibitor together reduced their risk of having a stroke by a quarter, of having a heart attack by 15% and of developing diabetes by almost a third, compared with those people taking a beta-blocker and a diuretic. The BPA has an information sheet available on the ASCOT study results, please contact us if you would like a copy.

Other research studies have also questioned how well beta-blockers work, compared with other medicines, to lower your risk of stroke and heart disease. In a recent paper in *The Lancet*, results from a review of 20 different studies concluded that the effect of beta-blockers is less than optimum

in comparison with other medicines, with an increased risk of stroke for the person taking them.

How has high blood pressure been treated before?

Both of the guidelines produced in 2004 took a step-by-step approach to prescribing medicines for high blood pressure. When you were diagnosed as having high blood pressure you would be asked to start taking a certain medication (this differed depending on which guideline was followed). After a month on your first medication your treatment would be reviewed to see whether your blood pressure had come down and how well you felt taking the tablet (ie, whether you had any side-effects).

If, with this single tablet, your blood pressure had come down to the target level and you felt well you would continue with this tablet. If you had side-effects then you may be asked to switch to the other type of medicine.

If your blood pressure had come down, but not enough, then your doctor would move to step 2 and add in another medicine from a different group of drugs. Medicines would continue to be added until your blood pressure was lowered and well controlled.

Both the NICE and the BHS guidelines produced a medication plan for doctors to follow. Each guideline was different, but both included four main groups of medicines to choose from;

- Thiazide diuretics
- Beta-blockers
- ACE inhibitors
- Calcium-channel blockers

As well as these four main groups, others could be chosen, such as angiotensin receptor blockers and alpha blockers. These medicines could be used for people who had side-effects with other

tablets or who had difficulty controlling and lowering their blood pressure.

Why are beta-blockers no longer going to be used much?

It is worth remembering that there is nothing damaging or wrong with taking a beta-blocker, it is just that there are now newer and more effective medicines available to treat high blood pressure which should be used instead. Beta-blockers still work well to lower blood pressure, which helps to lower your risk of a heart attack or stroke.

Beta-blockers have successfully been used to treat high blood pressure for many years. Over that time however, new and more effective medicines have been developed and tested, and these are now the preferred choice because they are more effective at reducing your risk of having a stroke or heart attack. It is a bit like replacing a video recorder with a DVD player or upgrading your car for a new model.

Beta-blockers were also known to cause a number of unpleasant side-effects, such as lethargy and general lack of interest in day-to-day life, cold hands and feet, impotence, a slow heart rate, sleeping and breathing problems. When taken together with a thiazide diuretic, beta-blockers also increased the risk of developing diabetes. Many of the newer medicines cause fewer side-effects.

If I have been taking beta-blockers for a long time could this have been harmful for me?

The simple answer is that this is unknown. However, medicines are important in lowering blood pressure and reduce your risk of a stroke or heart disease in the future. The most important factor in reducing strokes and heart attacks is the extent to which your blood pressure is lowered to the target level, irrespective of which drugs have been used. If you have been treating your blood pressure with medications, regardless of what they were, and have successfully lowered it, you will have reduced your risk of heart disease and stroke overall.

If I have to change my medications, am I likely to get side-effects from the new ones?

It is possible to get side-effects from any medication and what suits one person may not suit someone else. However, in general the newer medicines tend to have far fewer side-effects than beta-blockers. If you want to find out more about the different groups of medicines and what the common side-effects may be, contact the BPA for a copy of our booklet on medicines.

Where can I find more information?

For more information about high blood pressure and the medicines used to treat it, contact the Blood Pressure Association at the address below or see our web site at www.bpassoc.org.uk

The new NICE guidelines can be found at:

www.nice.org

National Institute of Clinical and Health Excellence

Midcity Place, High Holborn, London WC1V 6NA
Tel: 0870 1555455 (quote N1051)

British Hypertension Society Guidelines can be found at www.bhsoc.org

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Research papers

Article: Prevention of cardiovascular events with an antihypertensive regimen of amlodipine adding perindopril as required versus atenolol adding bendroflumethiazide as required, in the Anglo-Scandinavian Cardiac Outcomes Trial-Blood Pressure Lowering Arm (ASCOT-BPLA): a multicentre randomised controlled trial

Publication: The Lancet, Volume 366, Issue 9489, 10 September 2005-16 September 2005, Pages 895-906

Authors: B Dahlöf, P Sever, N Poulter and others

For information on the ASCOT study visit their web site at www.ascotstudy.org

Article: Should beta-blockers remain first choice in the treatment of primary hypertension? A meta-analysis

Publication: The Lancet 2005. Volume 366, Pages 1545-1553

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