Single pill with two drugs could transform blood pressure treatment

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A single pill with two drugs could transform blood pressure treatment, according to the 2018 European Society of Cardiology (ESC) and European Society of Hypertension (ESH) Guidelines on arterial hypertension published online today in *European Heart Journal*.

The guidelines recommend starting most patients on two blood pressure lowering drugs, not one. The previous recommendation was for step-wise treatment, which meant starting with one drug then adding a second and third if needed. This suffered from "physician inertia", in which doctors were reluctant to change the initial strategy despite its lack of success. At least 80% of patients should have been upgraded to two drugs, yet most remained on one drug.

It is now recognised that a major reason for poor rates of blood pressure control is that patients do not take their pills. Non-adherence increases with the number of pills, so administering the two drugs (or three if needed) in a single tablet "could transform blood pressure control rates", state the guidelines.

Professor Bryan Williams, ESC Chairperson of the Guidelines Task Force, University College London, UK, said: "The vast majority of patients with high blood pressure should start treatment with two drugs as a single pill. These pills are already available and should massively improve the success of treatment, with corresponding reductions in strokes, heart disease, and early deaths."

More than one billion people have hypertension (high blood pressure) worldwide. Around 30-45% of adults are affected, rising to more than 60% of people over 60 years of age. High blood pressure is the leading global cause of premature death, accounting for almost ten million deaths in 2015, of which 4.9 million were due to ischaemic heart disease and 3.5 million were due to stroke. High blood pressure is also a major risk factor for heart failure, atrial fibrillation, chronic kidney disease, peripheral artery disease, and cognitive decline.

High blood pressure does not usually cause symptoms. However, people with very high blood pressure may have headaches, blurred or double vision, regular nosebleeds, difficulty breathing, chest pain, irregular heartbeat, blood in the urine, confusion, or pounding in the chest, neck, or ears. See your doctor if you have any of these symptoms.

Treatment thresholds in the 2018 Guidelines are less conservative, with drugs recommended for patients who would previously have received lifestyle advice only. These are patients with low to moderate risk grade I hypertension (140-159/90-99 mmHg), including 65-80 year-olds, and those with high normal blood pressure (130-139/85-89 mmHg).

Professor Williams said: "Many more millions of people, particularly in the older age groups, should be receiving treatment for high blood pressure. See your doctor if you are 65 to 80 years old and your blood pressure is above 140/90 mmHg. The evidence suggests that treatment would reduce your risk of stroke and heart disease."

The guidelines state that "treatment should never be denied or withdrawn on the basis of age". It is increasingly recognised that frailty, independence and biological, rather than chronological, age determine the tolerability and likely benefit of blood pressure lowering medications. For people over 80 years who have not yet received blood pressure treatment, therapy should be started if systolic blood pressure is

160 mmHg or above. People already taking medication should not have it withdrawn at 80 years of age if it is well tolerated.

Blood pressure targets for patients of all ages are lower than in previous guidelines. Systolic blood pressure targets are now 120-129 mmHg for patients under 65 years of age, and 130-139 mmHg for patients over 65 years of age, taking into account treatment tolerability, independence, frailty, and comorbidities. Blood pressure below 120 mmHg should not be the target for any patient since the risk of harm outweighs the potential benefits.

When blood pressure is not controlled by three drugs given in a single pill, a condition known as resistant hypertension, a second pill containing a diuretic such as spironolactone should be added. Device-based therapy is not recommended for routine treatment of these patients and should only be administered within clinical trials.

A healthy lifestyle is recommended for all patients, regardless of blood pressure level, as it can delay the need for drugs or complement their effects. Advice includes salt restriction, alcohol moderation, healthy eating, regular exercise, weight control, smoking cessation, and a new recommendation to avoid binge drinking.

A new section on hypertension and cancer therapy states that temporary discontinuation of anticancer therapy may be considered when blood pressure values are exceedingly high despite multidrug treatment. A section on blood pressure during exercise and high altitude has been added, with the advice that patients with severe, uncontrolled hypertension should avoid exposure to very high altitude (above 4000 metres).

Professor Giuseppe Mancia, ESH Chairperson of the Guidelines Task Force, University of Milano-Bicocca, Milan, Italy, said: "We have

effective treatments and, theoretically, 90-95% of patients should have their blood pressure under control, but in reality only 15-20% achieve target levels. The 2018 Guidelines aim to improve these poor rates of blood pressure control by introducing a treatment strategy that is simple and easier to follow."

More information: 12018 ESC/ESH Guidelines for the management of arterial hypertension. *European Heart Journal*. 2018. doi:10.1093/eurheartj/ehy339

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