

The role of nurses in the treatment of hypertension

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The World Health Organization estimates that 54% of strokes and 47% of cases of ischemic heart disease are the direct consequence of high blood pressure (BP), which thus takes its place among the main risk factors for cardiovascular morbidity and mortality. Arterial hypertension (AH) is a medical condition in which BP is elevated above 140/90 mmHg. High BP accelerates the process of atherosclerosis in the walls of blood vessels. Clogged arteries provide reduced blood supply to tissues and organs, damaging them and their function over time. Numerous factors have been shown to contribute to development of AH, such as stress, genetic factors, smoking, and alcohol, but being overweight also has a leading role in AH development.² Familial clustering implies a genetic predisposition whose interaction with environmental factors, such as the intake of salt and calories and the degree of physical exercise, ultimately determines how severe the rise of blood pressure will be. Elevated BP must be due to elevated cardiac output, elevated peripheral vascular resistance, or a combination of both. Each of these mechanisms is regulated, in turn, by hemodynamic, neural, humoral, and renal processes, all of which vary in their contribution from one individual to another. 3 The first-line drugs for arterial hypertension include long-acting dihydropyridine calcium channel blockers, angiotensin-converting enzyme inhibitors or angiotensin-receptor blockers, and thiazide-like diuretics. Mineralocorticoid-receptor blockers are effective in patients whose blood pressure cannot be brought into acceptable range with first-line drugs.

Nurses play a crucial role in the management of AH through both non-pharmacological and pharmacological interventions. Nurses are instrumental in educating patients about the importance of lifestyle modifications. They provide information about dietary changes, weight management, and regular exercise as key components of managing hypertension. Nurses regularly measure and monitor a patient's BP, helping to identify trends and ensuring that any changes are promptly reported to the healthcare team. Nurses are often responsible for administering antihypertensive medications in various healthcare settings, such as hospitals, clinics, or long-term care facilities. They educate patients on the importance of taking medications as prescribed, potential side effects, and the need for ongoing medication management. In addition to treatment, the nurse has a major role in the prevention of disease. By educating the patient about prevention, in a way they can understand, the nurse can directly reduce the number of patients, which is extremely important.

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