

Planning/Goals

The client will:

- Receive or take antihypertensive drugs correctly
- Be monitored closely for therapeutic and adverse drug effects, especially when drug therapy is started, when changes are made in drugs, and when dosages are increased or decreased
- Use nondrug measures to assist in blood pressure control
- Avoid, manage, or report adverse drug reactions
- Verbalize or demonstrate knowledge of prescribed drugs and recommended lifestyle changes
- Keep follow-up appointments

Interventions

Implement measures to prevent or minimize hypertension. Preventive measures are mainly lifestyle changes to reduce risk factors. These measures should be started in childhood and continued throughout life. Once hypertension is diagnosed, lifetime adherence to a therapeutic regimen may be necessary to control the disease and prevent complications. The nurse's role is important in the prevention, early detection, and management of hypertension. Some guidelines for intervention at community, family, and personal levels include the following:

- Participate in programs to promote healthful lifestyles (eg, improving eating habits, increasing exercise, managing stress more effectively, and avoiding cigarette smoking).
- Participate in community screening programs, and make appropriate referrals when abnormal blood pressures are detected. If hypertension develops in women taking oral contraceptives, the drug should be discontinued for 3 to 6 months to see whether blood pressure decreases without antihypertensive drugs.
- Help the hypertensive client comply with prescribed therapy. Noncompliance is high among clients with hypertension. Reasons given for noncompliance include lack of symptoms, lack of motivation and self-discipline to make needed lifestyle changes (eg, lose weight, stop smoking, restrict salt intake), perhaps experiencing more symptoms from medications than from hypertension, the cost of therapy, and the client's failure to realize the importance of effective management, especially as related to prevention of major cardiovascular diseases (myocardial infarction, stroke, and death). In addition, several studies have shown that compliance decreases as the number of drugs and number of doses increase.

The nurse can help increase compliance by teaching the client about hypertension, helping the client make necessary lifestyle changes, and maintaining supportive interpersonal relationships. Losing weight, stopping smoking, and other changes are most likely to be effective if attempted one at a time.

- Use recommended techniques for measuring blood pressure. Poor techniques are too often used (eg, the client's arm up or down rather than at heart level; cuff applied over

clothing, too loosely, deflated too rapidly, or reinflated before completely deflated; a regular-sized cuff used on large arms that need a large cuff; using the stethoscope diaphragm rather than the bell). It is disturbing to think that antihypertensive drugs may be prescribed and dosages changed on the basis of inaccurate blood pressures.

Evaluation

- Observe for blood pressure measurements within goal or more nearly normal ranges.
- Observe and interview regarding compliance with instructions about drug therapy and lifestyle changes.
- Observe and interview regarding adverse drug effects.

PRINCIPLES OF THERAPY

Therapeutic Regimens

Once the diagnosis of hypertension is established, a therapeutic regimen must be designed and implemented. The goal of management for most clients is to achieve and maintain normal blood pressure range (below 140/90 mm Hg). If this goal cannot be achieved, lowering blood pressure to any extent is still considered beneficial in decreasing the incidence of coronary artery disease and stroke.

The Joint National Committee on Detection, Evaluation, and Treatment of High Blood Pressure recommends a management algorithm in which initial interventions are lifestyle modifications (ie, reduction of weight and sodium intake, regular physical activity, moderate alcohol intake, and no smoking). If these modifications do not produce goal blood pressure or substantial progress toward goal blood pressure within 3 to 6 months, antihypertensive drug therapy should be initiated and the lifestyle modifications should be continued. Although the Committee recommends monotherapy (use of one antihypertensive drug) with a diuretic or a beta blocker because research studies demonstrate reduced morbidity and mortality with these agents, a drug from another classification (eg, ACE inhibitors, ARBs, calcium channel blockers, alpha₁-adrenergic blockers) may also be used effectively. Studies also indicate decreased cardiovascular morbidity and mortality with ACE inhibitors.

If the initial drug (and dose) does not produce the desired blood pressure, options for further management include increasing the drug dose, substituting another drug, or adding a second drug from a different group. If the response is still inadequate, a second or third drug may be added, including a diuretic if not previously prescribed. When current management is ineffective, reassess the client's compliance with lifestyle modifications and drug therapy. In addition, review other factors that may decrease the therapeutic response, such as over-the-counter appetite suppressants, dietary or herbal supplements, or nasal decongestants, which raise blood pressure.

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