

- **Anxiety:** Managing a chronic illness, finger sticks, insulin injections
- **Risk for Injury:** Trauma, infection, hypoglycemia, hyperglycemia
- **Noncompliance** related to inability or unwillingness to manage the disease process and required treatment
- **Deficient Knowledge:** Disease process and management; administration and effects of antidiabetic drugs; interrelationships among diet, exercise, and antidiabetic drugs; and management of hypoglycemia, “sick days,” and other complications

Planning/Goals

The client will:

- Learn self-care activities
- Manage drug therapy to prevent or minimize hypoglycemia and other adverse effects
- Develop a consistent pattern of diet and exercise
- Use available resources to learn about the disease process and how to manage it
- Take antidiabetic drugs accurately
- Self-monitor blood glucose and urine ketones appropriately
- Keep appointments for follow-up and monitoring procedures by a health care provider

Interventions

Use nondrug measures to improve control of diabetes and to help prevent complications.

- Assist the client in maintaining the prescribed diet. Specific measures vary but may include teaching the client and family about the importance of diet, referring the client to a dietitian, and helping the client identify and modify factors that decrease compliance with the diet. If the client is obese, assist in developing a program to lose weight and then maintain weight at a more nearly normal level.
- Assist the client to develop and maintain a regular exercise program.
- Perform and interpret blood tests for glucose accurately, and assist clients and family members to do so. Self-monitoring of blood glucose levels allows the client to see the effects of diet, exercise, and hypoglycemic medications on blood glucose levels and may promote compliance.

Several products are available for home glucose monitoring. All involve obtaining a drop of capillary blood from a finger with a sterile lancet. The blood is placed on a semipermeable membrane that contains a reagent. The amount of blood glucose can be read with various machines (eg, glucometers).

- Test urine for ketones when the client is sick, when blood glucose levels are above 200 mg/dL, and when episodes of nocturnal hypoglycemia are suspected. Also teach clients and family members to test urine when indicated.
- Promote early recognition and treatment of problems by observing for signs and symptoms of urinary tract infection, peripheral vascular disease, vision changes, ketoacidosis, hypoglycemia, and others. Teach clients

and families to observe for these conditions and report their occurrence.

- Discuss the importance of regular visits to health care facilities for blood sugar measurements, weights, blood pressure measurements, and eye examinations.
- Perform and teach correct foot care. Have the client observe the following safeguards: avoid going barefoot, to prevent trauma to the feet; wear correctly fitted shoes; wash the feet daily with warm water, dry well, inspect for any lesions or pressure areas, and apply lanolin if the skin is dry; wear cotton or wool socks because they are more absorbent than synthetic materials; cut toenails straight across and only after the feet have been soaked in warm water and washed thoroughly. Teach the client to avoid use of hot water bottles or electric heating pads, cutting toenails if vision is impaired, use of strong antiseptics on the feet, and cutting corns or calluses. Also teach the client to report any lesions on the feet to the physician.
- Help clients keep up with newer developments in diabetes care by providing information, sources of information, consultations with specialists, and other resources. However, do not overwhelm a newly diagnosed diabetic client with excessive information or assume that a long-term diabetic client does not need information.

Evaluation

- Check blood sugar reports regularly for normal or abnormal values.
- Check glycosylated hemoglobin reports when available.
- Interview and observe for therapeutic and adverse responses to antidiabetic drugs.
- Interview and observe for compliance with prescribed treatment.
- Interview clients and family members about the frequency and length of hospitalizations for diabetes mellitus.

PRINCIPLES OF THERAPY

Goals of Therapy

For most clients, the goals of treatment are to maintain blood glucose at normal or near-normal levels; promote normal metabolism of carbohydrate, fat, and protein; prevent acute and long-term complications; and prevent hypoglycemic episodes.

There is strong evidence that strict control of blood sugar delays the onset and slows progression of complications of diabetes. In addition to glycemic control, other measures can be used to help prevent end-stage renal disease. Administration of angiotensin-converting enzyme (ACE) inhibitors (eg, captopril) has protective effects on the kidneys in both type 1 and type 2 diabetes and in both normotensive and hypertensive people. Although ACE inhibitors are also used in the treatment of hypertension, their ability to delay nephropathy seems to be independent of antihypertensive effects. Additional measures to preserve renal function include effective treatment of