Discharge Planning for Patients with Diabetes Mellitus

For patients with diabetes mellitus, effective discharge planning involves teaching patients the skills and knowledge needed to maintain blood glucose targets. Patients with diabetes mellitus should participate in a comprehensive self-management education program that should include individualized instruction on nutrition, physical activity, optimizing metabolic control, and preventing complications (Wexler, 2025). Upon discharge, patient should receive a printed out After-Visit Summary (AVS) that includes detailed care instructions and visit details. The AVS includes follow-up instructions, care guidelines, and other key information to help them manage their health.

Areas of Consideration During Discharge Assessment and Planning	

Diabetes and Other Medical Diagnoses	• Type of diabetes
	• New or established diagnosis of diabetes
	• Degree of glucose control prior to admission
	• Severity of acute illness – diabetes and other comorbid conditions
	• Diabetes complications – cardiovascular disease, kidney function, retinopathy, neuropathy, wound care
	• Nutritional status
	  ○ Body mass index (additional obesity measurements may include waist circumference, waist-to-hip ratio and/or waist-to-height ratio) (American Diabetes Association, 2024)
	  ○ Diet (oral, enteral, or parenteral feeding)

Social Factors	• Socioeconomic factors
	  ○ Insurance, ability to afford copays and out of pocket expenses
	  ○ Access to nutritious meals
	  ○ Family support
	• Learning barriers
	  ○ Cognition
	  ○ Language
	  ○ Mental health
	  ○ Overall competence in diabetes self-management
	• Access to medications and medical supplies
	  ○ Supply logistics
	  ○ Affordability
	  ○ Safe disposal of needles
	• Motivation to engage in healthy lifestyle changes, including nutrition and exercise, as part of plan to control blood glucose
	• Religious or cultural preferences

Physical Factors	• Baseline functional status prior to admission
	  ○ Mobility
	  ○ Ability to drive
	  ○ Ability to shop and cook healthy meals
	• Physical limitations and barriers to self-care (e.g., stroke, blindness, amputation, hand dexterity, fatigue)

	• Discharge disposition; need for home health care or skilled nursing facility placement based on medical needs, physical or occupational therapy assessments • Age (older adults with higher risk of hypoglycemia should have less stringent glycemic goals [such as A1C less than 8.0%])

Ensure the tasks below are completed before discharge of patients with diabetes mellitus (American Diabetes Association, 2022):

- Medication reconciliation
- Structured discharge communication
- Education on diabetes self-management:
    - Identify the health care provider who will provide diabetes care after discharge.
    - Assess the patient's level of understanding related to the diagnosis of diabetes, self-monitoring of blood glucose (SMBG), and home blood glucose goals.
    - Teach the patient and household family members the definition, signs and symptoms, treatment, and prevention of hyperglycemia and hypoglycemia.
    - Provide information on consistent eating patterns.
    - Tell the patient when and how to take blood glucose-lowering medications, including method of administration.
    - Instruct the patient on specific measures for managing diabetes on sick days.
    - Educate the patient on proper use and disposal of needles and syringes.
- Provide appropriate durable medical equipment, medication, supplies and prescriptions, as appropriate, including:
    - Insulin (vials or pens)
    - Syringes or pen needles
    - Oral medications
    - Blood glucose meter and strips
    - Continuous Glucose Monitor (CGM) for people with Type 1 diabetes and selected people with Type 2 and other forms of diabetes (e.g., cystic fibrosis related diabetes) (American Diabetes Association, 2024)
    - Lancets and lancing devices
    - Urine ketone strips
    - Glucagon emergency kit
    - Medical alert application/charm
- Tell the patient about these survival skills:
    - Know how to recognize, treat, and prevent hyperglycemia and hypoglycemia
    - Learn how to perform SMBG
    - Check blood glucose before driving
    - Know how to take or administer prescription medications
    - Know the importance of meal planning (see below)
    - Keep an easy-to-reach snack or fast-acting sugars handy always
    - Wear a medical ID tag or bracelet
    - Contact a health care provider if hypoglycemia occurs more than twice a week
    - Remember the importance of following up with a health care provider regularly

- Referral to an outpatient diabetes center for follow-up education by a certified diabetes educator.

15-15 Rule

Teach the "15-15 Rule" commonly used as a guideline for hypoglycemia treatment

- Check glucose level on the continous glucose monitoring device or with meter to determine if blood glucose is below 70 mg/dL.
- Eat or drink 15 g of simple, concentrated carbohydrates. Examples include:
  - Glucose tablets (follow instructions)
  - Gel tube (follow instructions)
  - 4 ounces (1/2 cup juice or regular soda)
  - 1 tablespoon of sugar, honey, or corn syrup
  - Hard candies, jellybeans, or gumdrops (check label)
- Wait 15 minutes.
- Check blood glucose again.
- Consume an additional 15 g carbohydrate if blood glucose is still below 70 mg/dL.
- Repeat these steps until your blood sugar is at least 70 mg/dL.
- If initial blood glucose is less than or equal to 54 mg/dL, treat with 30 g of carbohydrate (Funnel, Kloss & Nwankwo, 2022).
- Follow up with a light snack or meal once glucose is stable.
- Mild to moderate hypoglycemia can usually be reversed rapidly (within 5-10 minutes).
- Avoid foods high in fat because they slow the absorption of carbohydrates.
- Remind your patient to make a note about episodes of hypoglycemia and to discuss with their health care provider why it happened and ways to prevent it.

Treating Severe Hypoglycemia (American Diabetes Association, 2021a)

- Educate the patient and family members on how to respond to severe hypoglycemia.
  - If low blood sugar is not treated promptly and the patient requires assistance to recover, glucagon may be needed.
  - Glucagon is available by prescription as an injectable or inhalable.
  - Call 911 immediately if the patient becomes unconscious and glucagon is not available, or someone does not know how to use it.
  - Do NOT inject insulin as this will lower the person's blood sugar more.
  - Do NOT give food or fluids as the patient may choke.

Meal Planning (American Diabetes Association, 2021b; Funnel, Kloss & Nwankwo, 2022)

General guidelines:

- Choose whole foods that are enjoyable and meaningful. Avoid highly processed foods.
- Make a plate colorful with fruit, vegetables, whole grain, beans, nuts, and lean protein. Ensure carbohydrates are non-starchy and fiber- and nutrient-rich with minimal added sugar and refined grains.
- Watch calories.
- Eat foods high in fiber, low in fat, and with a low glycemic index.

- Do not skip meals; eat meals and snacks at the same time each day.
- Choose water or unsweetened beverages.
- Limit alcoholic intake.

While no one diet is recommended over another for diabetes, the following nutrition plans can serve as guidelines for meal preparation.

"Diabetes Plate Method" (American Diabetes Association, 2020) is a strategy to change portion size to larger amounts of non-starchy vegetables and smaller portions of starchy foods.

- Draw a line down the middle of the plate. Then, on one side, cut in half again, giving you a total of three sections.
    - Fill 1/2 the plate with non-starchy vegetables.
    - Add carbohydrates (whole grains and starchy vegetables) to fill 1/4 the plate.
    - Add lean protein to the last 1/4 section of the plate.
- Choose water or a low-calorie drink.

"Carbohydrate Counting" (American Diabetes Association, 2024) is a technique that tracks carbohydrate intake to keep blood glucose in the target range. Tools are available to assist with counting carbohydrates, including mobile applications (apps) to make the process easier. These are particularly helpful to track whole foods, fruits, grains, and vegetables without nutritional labels.

- If the patient takes mealtime insulin, carbohydrates should be counted, and insulin is dosed based on that count. This is recommended for people on intensive insulin therapy by shots or pump (people with type 1 and some type 2 diabetes).
- People with type 2 diabetes who don't take mealtime insulin may use the Diabetes Plate Method (above) or "carbohydrate choices," where one "choice" contains about 15 grams of carbohydrate.
- The number of carbohydrates each person needs is based on body size, activity level, appetite, and hunger. Encourage patients to develop a medical nutrition therapy with a registered dietician.

Examples of Foods with 15 Grams Carbohydrate		
1 small piece fresh fruit (4 oz)	4-6 crackers	2-inch square brownie
½ cup canned or frozen fruit	½ English muffin	2-inch square cake, no Frosting
1 slice bread (1 oz)	½ hamburger bun	1 Tbsp syrup, jam, jelly, Honey
1 (6 inch) tortilla	¼ large baked potato (3 oz)	6 chicken nuggets
½ cup oatmeal	2/3 cup plain fat free yogurt	½ cup casserole
1/3 cup pasta or rice	2 small cookies	1 cup soup
	½ cup black beans	½ cup ice cream or sherbet

Outpatient Follow-up

An outpatient follow-up visit with the primary care provider, endocrinologist, or diabetes care and education specialist within one month of discharge is advised for all patients experiencing hyperglycemia in the hospital. If glycemic medications are changed, or if glucose control is not optimal at discharge, an earlier appointment (in 1–2 weeks) is preferred, and frequent contact may be needed to avoid hyperglycemia and hypoglycemia.

A Hgb A1c should be obtained twice a year in those patients meeting glycemic goals. Obtain a Hgb A1c four times a year in patients whose therapy has changed or who are not meeting goals. Adjustments of therapy whould not be done less frequently then every three months. Adjustments of therapy are based upon the Hgb A1c results and sometimes even with results of blood glucose monitoring (Wexler, 2025).

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