Hospital Admission Guidelines for Diabetes Mellitus*

AMERICAN DIABETES ASSOCIATION

These guidelines are to be used for determining when a patient requires hospitalization for reasons related to diabetes. Inpatient care may be appropriate in the following situations:

- Life-threatening acute metabolic complications of diabetes.
- Newly diagnosed diabetes in children and adolescents.
- Severe and chronic poor metabolic control that necessitates close monitoring of the patient to determine the etiology of the control problem, with subsequent modification of therapy.
- Substantial and chronic poor metabolic control that dictates admission of newly diagnosed insulin-requiring diabetes during pregnancy.
- Institution of insulin-pump therapy or other intensive insulin regimens.
- Severe chronic complications of diabetes that require intensive treatment or other severe conditions unrelated to diabetes as defined herein justifies admission for the complication per se (e.g., management of end-stage renal disease) can cause a major deterioration in diabetes control, or 4) there is acute onset of retinal, renal, neurological, or cardiovascular complications of diabetes.

Modification of fixed insulin-treatment regimens or sulfonylurea treatment is not, by itself, an indication for hospital admission.

Guidelines for hospital admission are given below. Guidelines are never a substitute for medical judgment, and each patient’s total clinical and psychosocial circumstances must be considered in their application. Therefore, there may be situations in which admission is appropriate, although the patient’s clinical profile does not comply with these guidelines. For example, inadequate family resources may dictate admission of newly diagnosed type 1 diabetic patients who otherwise do not meet the admission guidelines.

**ACUTE METABOLIC COMPLICATIONS OF DIABETES** — Admission is appropriate for the following:

- Diabetic ketoacidosis
  - Plasma glucose >250 mg/dl (>13.9 mmol/l) with 1) arterial pH <7.30 and serum bicarbonate level <15 mEq/l and 2) moderate ketonuria and/or ketonemia.

- Hyperglycemic hyperosmolar state
  - Impaired mental status and elevated plasma osmolality in a patient with hyperglycemia. This usually includes severe hyperglycemia (e.g., plasma glucose >600 mg/dl (>33.3 mmol/l)) and elevated serum osmolality (e.g., >320 mOsm/kg (>320 mmol/kgl)).

- Hypoglycemia with neuroglycopenia
  1) Blood glucose <50 mg/dl (<2.8 mmol/l) and the treatment of hypoglycemia has not resulted in prompt recovery of sensorium; or 2) coma, seizures, or altered behavior (e.g., disorientation, ataxia, unstable motor coordination, dysphasia) due to documented or suspected hypoglycemia; or 3) the hypoglycemia has been treated but a responsible adult cannot be with the patient for the ensuing 12 h; or 4) the hypoglycemia was caused by a sulfonylurea drug.

- **UNCONTROLLED DIABETES** — Poor metabolic control of established diabetes as defined herein justifies admission if it is necessary to determine the reason for the control problems and to initiate corrective action. For admission under these guidelines, documentation should include at least one of the following:
  - Hyperglycemia associated with volume depletion.
  - Persistent refractory hyperglycemia associated with metabolic deterioration.
  - Recurring fasting hyperglycemia >300 mg/dl (>16.7 mmol/l) that is refractory to outpatient therapy or an A1C level ≥100% above the upper limit of normal.
  - Recurring episodes of severe hypoglycemia (i.e., <50 mg/dl [<2.8 mmol/l]) despite intervention.
  - Metabolic instability manifested by frequent swings between hypoglycemia (<50 mg/dl [<2.8 mmol/l]) and fasting hyperglycemia (>300 mg/dl [>16.7 mmol/l]).
  - Recurring diabetic ketoacidosis without precipitating infection or trauma.
  - Repeated absence from school or work due to severe psychosocial problems causing poor metabolic control that cannot be managed on an outpatient basis.

**ADMISSION FOR COMPLICATIONS OF DIABETES OR FOR OTHER ACUTE MEDICAL CONDITIONS** — Chronic cardiovascular, neurological, renal, and other diabetic complications may progress to the stage where hospital admission is appropriate. In these situations, the needs governing admission for the complication per se (e.g., management of end-stage renal disease) are the primary guidelines for determining whether inpatient care is required. However, in applying such guidelines, the fact that diabetes is present must be considered; this may result in patients requiring admission who otherwise might be managed on an outpatient basis. The same is true for other medical conditions (e.g., infections) and treatments (e.g., surgery, chemotherapy) in which 1) diabetes is a confounding factor, 2) rapid initiation of rigorous control of diabetes can improve outcome (e.g., pregnancy), 3) the primary medical problem or the therapeutic intervention (e.g., large doses of glucocorticoid) can cause a major deterioration in diabetes control, or 4) there is acute onset of retinal, renal, neurological, or cardiovascular complications of diabetes.

---


*Currently, there is a committee considering a major revision of this position statement.