EMERGENCY DEPARTMENT / ACUTE CARE

1. Signs/symptoms suggestive of hyperglycemia or ketoacidosis

- HYPERGLYCEMIA: polyuria/polydipsia, weight loss, fatigue
- KETOACIDOSIS: vomiting, abdominal pain, Kussmaul breathing, altered mental status, dehydration, hypotension

2. Random glucose >140 mg/dL

3. Risk factors for Stage 3 (symptomatic) T1D

- Known Stage 1 or 2 T1D
- ≥1 positive islet autoantibodies
- Family history of T1D
- History of autoimmune disease
- History of dysglycemia

4. Non-classic presentations without clear report of polyuria/polydipsia

Especially if difficulty in eliciting clear history of symptoms (e.g. young children)

- Infants/toddlers:
  - Irritabiilty, lethargy
  - Poor feeding, poor weight gain
- New onset nocturnal enuresis
- Candidal infections (especially if recurrent, unusual presentation, more severe, resistant to standard therapy)
- Recurrent/severe UTI
- Vision changes

5. Patient/family concern for T1D

Assess for dysglycemia: POC Glucose, HbA1c

Glucose ≥ 200 mg/dL OR HbA1c ≥ 6.5%

- **ASAP Labs:** HbA1c, BMP, VBG, ketones (β-Hydroxybutyrate preferred over urine ketones)

Glucose 141-199 mg/dL OR HbA1c 5.7 – 6.4%

Glucose ≤ 140 mg/dL AND HbA1c ≤ 5.6%

Consider islet autoantibody screening if:

- No previous history of screening
- Patient/family concern for T1D
- Infrastructure for follow-up of islet autoantibody results

- **Assess risk factors for T1D/T2D**
- **Assess for and address precipitating factors:** infection/sepsis, medication, pancreatitis, acute coronary syndrome, etc.
- **Determine Treatment plan** (see below)

Diabetic Ketoacidosis (DKA)

- Glucose ≥ 200 mg/dL
- Ketones positive
- Acidosis:
  - pH<7.3
    OR
  - Bicarbonate <15 mmol/L

- Start DKA pathway:
  - fluid resuscitation
  - insulin infusion
  - electrolyte monitoring
- Assess for precipitating factors
- **Send islet autoantibodies**

Hyperosmolar Hyperglycemic State (HHS)

- Glucose ≥ 600 mg/dL
- Osmolality > 320 mOsm/kg
- Ketones negative-small
- No acidosis:
  - pH≥7.3
    AND
  - Bicarbonate ≥15 mmol/L

- Start HHS pathway:
  - Aggressive IV fluid resuscitation
  - insulin infusion
  - electrolyte monitoring
  - monitoring for complicatons
- **Send islet autoantibodies**

Mixed DKA/HHS

- HHS glucose/hyperosmolar criteria plus ketoacidosis

Uncomplicated Hyperglycemia vs New Diagnosis of Diabetes

- Hyperglycemia:
  - Glucose ≥ 200 mg/dL
    OR
  - HbA1c ≥ 6.5%
- No hyperosmolality
- No acidosis:
  - pH≥7.3
    AND
  - Bicarbonate ≥15 mmol/L

- Address dehydration PRN
- **Send islet autoantibodies**
- Use ADA criteria for diabetes vs prediabetes/Stage 2 T1D
- Consider Insulin AND/OR metformin based on presentation and labs

Possible Prediabetes vs Stage 2 T1D vs other etiology of labs/symptoms

- Glucose < 200 mg/dL
- HbA1c <6.5%

- **Send islet autoantibodies**
- If symptoms, assess for other causes:
  - Additional lab/history as needed
  - Address other labs/ symptoms as needed
- Refer for follow-up, repeat glycemic evaluation
- Provide return precautions
- If <18 years and HbA1c = 5.7–6.4%: consider consultation with pediatric endocrinology