# Clinical Pathway: DKA & Hyperosmolar

## DRG NO: 294  
**Length of Stay:** 3.0

### Patient Identification

<table>
<thead>
<tr>
<th>Date</th>
<th>Activity</th>
<th>Test Specimens</th>
<th>Diet</th>
<th>IV Fluids</th>
<th>Meds (continued on next pg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Day 1</td>
<td>Admission Hour 1 - 6</td>
<td>Admission Weight, CBC c diff STAT, BMP, Lipid Profile, Serum Ketones, Hgb A1C, UA-C&amp;S as indicated, CXR, EKG, ABCs if Bicarb &lt; 15, Accuchek q 1 hr, Intake and Output</td>
<td>NPO</td>
<td>Bolus #1-1000 ml NS over 1 hr</td>
<td>Insulin Drip, Regular Human Insulin 0.1 unit/kg as bolus, followed by 0.1 unit/kg per hr as drip until BS &lt; 250, then 1-2 unit insulin per hr to keep BS in 150-250 range</td>
</tr>
<tr>
<td>Day 2</td>
<td>Hour 6 - 12</td>
<td>BMP at hr 6 STAT</td>
<td>NPO</td>
<td>#2 1000 ml NS over 2 hr, #3 1000 ml NS over 4 hr; Change solution to D5 1/2 NS or D5W if BS &lt; 250</td>
<td>Continue Insulin Drip</td>
</tr>
<tr>
<td>Day 3</td>
<td>Hour 12 - 24</td>
<td>BMP at hr 12 STAT</td>
<td>NPO</td>
<td>#4 1000 ml 1/2 NS or D5 1/2 NS at 150-200 ml/hr. Adjust rate for hydration (I and 0)</td>
<td>Continue Insulin Drip</td>
</tr>
<tr>
<td></td>
<td>Day 2</td>
<td>OOB as tolerated</td>
<td>NPO</td>
<td>Assess need to continue IV fluids</td>
<td>Continue Insulin Drip</td>
</tr>
<tr>
<td></td>
<td>Day 3</td>
<td>OOB as tolerated</td>
<td>NPO</td>
<td>Fluids as indicated</td>
<td>Discontinue Insulin Drip**</td>
</tr>
</tbody>
</table>

### Clinical Pathway

**Nonketotic Hyperosmolar Syndrome**

- Plasma osmolarity > 320m Osm / Liter

\[
\text{Osmolarity (mOsm/kg)} = 2 \times [\text{Na}^+(\text{mEq/liter}) + \text{K}^+(\text{mEq/liter})] + \left[\frac{\text{BUN}(\text{mg/dl}/2.8)}{2} \right] + \left[\frac{\text{glucose}(\text{mg/dl}/18)}{2} \right]
\]

- BS > 300
- Acidosis - ph < 73
- Ketonemia
- Bicarb < 15

### Notes

- Clinical pathways are tools to facilitate and guide multi-disciplinary patient care. They do not represent a standard of care or replace physician orders or clinical judgment. Modifications are made based on documented individual patient needs.

---

**Part of the Medical Record**

- Regular Insulin Sliding scale 1/2 hour before lunch & HS. Cover only BS > 300
- Begin Novolin or Humulin 70/30 0.1 units / kg / 24hr SQ
**MEDS (continued)**

- 2/3 of calculated dose
- **Do not discontinue insulin drip after 8 pm**
- 1/3 of calculated dose
- 30 min before dinner
- Hold insulin if NPO

**CONSULTS**

- Dietary - Diabetes Educator
- Social Services - Case Mgmt Coordinator if indicated
- As indicated for discharge planning

**DISCHARGE PLANNING**

- Assess discharge needs and document
- Review LOS with patient and family
- Establish discharge plan with patient and family
- Assess & arrange need for home assistance & distribution of supplies
- Arrange for discharge needs

**PATIENT TEACHING**

- Orient patient to room, call light and floor routines.
- Explain diagnosis & course of treatment
- Review plan of care with patient and family
- Implement Diabetes Teaching Form
- Begin Insulin Instruction with patient & family
- Patient to observe injection and BGM.
- Patient to continue self injection and BGM with nurse observing
- Patient can receive education and skills Foot Care
- Patient receives education and skills Foot Care
- Hypoglycemia
- Practice injection + BGM "then"
- Patient does own injection and BGM
- Encourage patient to watch channel 3 Diabetes Awareness Video
- **When to call MD**

**EVALUATION**

<table>
<thead>
<tr>
<th>ADMISSION</th>
<th>HOUR 1 - 6</th>
<th>HOUR 6 - 12</th>
<th>HOUR 12 - 24</th>
<th>DAY 2</th>
<th>DAY 3</th>
</tr>
</thead>
</table>
| **PART OF THE MEDICAL RECORD**

Clinical pathways are tools to facilitate and guide multi-disciplinary patient care. They do not represent a standard of care or replace physician orders or clinical judgment. Modifications are made based on documented individual patient needs.