Altered Mental Status

**Assessment:**

<table>
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<tr>
<th>Pediatric Pearls:</th>
<th>Signs &amp; Symptoms:</th>
<th>Differential:</th>
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<tr>
<td>• &lt; 37 kg</td>
<td>• Decreased mental status</td>
<td>• Brain trauma</td>
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<td>• Use volume control device (IV Burette) for Dextrose Infusions.</td>
<td>• Change in baseline mental status</td>
<td>• CNS (stroke, tumor, seizure, infection)</td>
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<td>• Upper limit BGL is 200</td>
<td>• Bizarre behavior</td>
<td>• Cardiac (MI, CHF)</td>
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<td>• Hypoglycemia (cool, diaphoretic skin)</td>
<td>• Infection</td>
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<tr>
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<td>• Hyperglycemia (warm, dry skin; fruity breath; Kussmaul resp; signs of dehydration)</td>
<td>• Thyroid (hyper / hypo)</td>
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**Clinical Management Options:**

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- **Oxygen:** Target SPO2 92% ↔ 96%
- **BGL assessment:** If BGL < 50: **Oral Glucose** (with intact gag reflex)
- If BGL > 50: **Cincinnati Pre-hospital Stroke Screen (CPSS) Assessment**
- **Basic Airway Management as needed**
- **Positive Stroke Screen and Glucose > 50 and Last known well ≤ 24 hrs. Declare “Stroke Alert” and < 15 minute on-scene time**
- **IV access**
- If BGL < 50 **Dextrose Infusion**, Titrate to patient condition and response.
- If BGL < 50 and, no IV access **Glucagon**
- If BGL > 300 (> 200 Pedi) or Signs of Dehydration: IV infusion of **Isotonic Crystalloid**
- **IO access as needed**
- **Cardiac Monitor and 12 Lead ECG, ETCO2, CO**
- **Advanced Airway Management as needed**

**Consult:**

On call **System Medical Director** as needed.

**Pearls:**

- **Refer to Drug Formulary Charts for ALL Medication Dosing for Adult and Pediatric patients.**
- Be aware of AMS as presenting sign of an environmental toxin or Haz-Mat exposure and protect personal safety.
- It is safer to assume hypoglycemia than hyperglycemia if doubt exists. Recheck blood glucose after Dextrose or Glucagon.
- Do not let alcohol confuse the clinical picture. Alcoholics frequently develop hypoglycemia.
- Hyperglycemia is treated with fluids since these patients are volume depleted.
- Patents on oral hypoglycemics or long acting insulin are at risk for repeat episodes of hypoglycemia, monitor closely and encourage transport.
- If hypoglycemic patients have returned to baseline and wish to refuse care make certain that the patient eats and that there is someone to observe them for repeat hypoglycemic episodes.
- Blood samples for performing glucose analysis should be obtained through a finger-stick (heel for infants). **Venous blood samples may produce artificially high blood glucose values and should be avoided.**
Pearls Continued:

**Cincinnati Pre-hospital Stroke Screen**

**Clinical Indications:**
- Assessment of patient currently exhibiting signs and symptoms associated with stroke

**Procedure:**
1. Initiate assessment and treatment of the suspected stroke patients in accordance with the Stroke Guideline. Utilize STROKE CHECKLIST listed below whenever possible.
2. Ascertain the last time the patient was seen normal to establish the time of “last known well”.
3. Obtain a blood glucose level according to the blood glucose procedure.
4. Perform the Cincinnati Prehospital Stroke Screen (CPSS).
   - All portions of CPSS must be completed. Any abnormality in the screening is positive for stroke
5. If time of “last known well” of current symptoms (as defined above) is ≤ 24 hrs., the blood glucose reading is > 50 and the CPSS is positive declare a STROKE ALERT and initiate transport per Transport Guideline CR-13.
6. Whenever possible identify a family member or historian to accompany the patient to the hospital.

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<tr>
<th>Test</th>
<th>Finding</th>
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<tr>
<td><strong>Facial Droop:</strong></td>
<td>❑ Normal – both sides of face move equally</td>
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<td>❑ Abnormal – one side of the face does not move as well as the other side</td>
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<tr>
<td><strong>Arm Drift:</strong></td>
<td>❑ Normal – both arms move the same or both arms are held steady</td>
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<td>❑ Abnormal – one arm drifts downward or the palm turns towards the ground (pronator drift*) when compared with the other or, unable to lift one arm.</td>
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<tr>
<td><strong>Abnormal Speech:</strong></td>
<td>❑ Normal – patient uses correct words with no slurring</td>
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<tr>
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<td>❑ Abnormal – patient slurs words, uses the wrong words, or is unable to speak</td>
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*Pronator drift: the forearm will pronate and the arm will drift downwards.
Pearls Continued:

**Insulin Pump**

**Clinical Indications**
- Patient that is hypoglycemic with altered mentation and an insulin pump in place

**Contraindications**
- None

**Notes/Precautions:**
- Care is directed at treating hypoglycemia first, then stopping administration of insulin

**Procedure**
1. Refer to appropriate PPE procedure.
2. Turn off insulin pump, if possible.
3. If no one familiar with the device is available to assist, disconnect pump from patient by:
   - Using quick-release where tubing enters dressing on patient’s skin -or-
   - As a last resort completely removing the dressing, thereby removing the subcutaneous needle and catheter from under patient’s skin. Use caution to avoid needle stick as it will be without any safety features.
4. Transport patient to hospital.
5. If patient is refusing transport against medical advice (AMA):
   - Encourage the patient to eat,
   - Ensure the patient is with a competent person to observe the patient and assure they eat,
   - Instruct them to follow-up with their physician
   - Instruct them to call back if symptoms return.