**Enhanced Hot Spot**
Read the case study and “highlight” the area of the information that affects your decision to GIVE/HOLD the medication.

<table>
<thead>
<tr>
<th>Client Information</th>
<th>Resource Information</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Medical Diagnosis</strong></td>
<td>42 year old male admitted with advanced liver disease secondary to ETOH.</td>
</tr>
<tr>
<td><strong>Current Vital Signs</strong></td>
<td>T. 98.7° F (37° C); HR 110 beats; BP 98/62 mmHg; RR 22 breaths; Sats 96% RA; Pain free</td>
</tr>
<tr>
<td><strong>Medical History</strong></td>
<td>ETOH x 16 years; Smokes 2 packs/day x 18 years; GERD; total knee replacement 4 years ago; history of rheumatoid arthritis</td>
</tr>
<tr>
<td><strong>Physical Exam</strong></td>
<td>Oriented x 2; agitated and restless; MAE, weak, S1S2 hear sounds, fine crackles bilaterally, ascites, 3+ pedal edema, urine dark amber</td>
</tr>
<tr>
<td><strong>Lab Tests</strong></td>
<td>Albumin 2.8; Na+ 140; K+ 3.2; Ammonia 357; PT 15.6; PTT 45</td>
</tr>
<tr>
<td><strong>Meds</strong></td>
<td>Lactulose; Vitamin K;</td>
</tr>
</tbody>
</table>

**Enhanced Hot Spot**

<table>
<thead>
<tr>
<th>Client Information</th>
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<tr>
<td><strong>Medical Diagnosis</strong></td>
<td>Medication</td>
</tr>
<tr>
<td><strong>Current Vital Signs</strong></td>
<td>Indications</td>
</tr>
<tr>
<td><strong>Medical History</strong></td>
<td>Contraindications</td>
</tr>
<tr>
<td><strong>Physical Exam</strong></td>
<td>Interactions</td>
</tr>
<tr>
<td><strong>Lab Tests</strong></td>
<td>Route/dose</td>
</tr>
<tr>
<td><strong>Meds</strong></td>
<td>Nursing Concerns</td>
</tr>
</tbody>
</table>

**NurseThink.com / NurseTim.com**
Create Worksheet

help@nursethink.com
Highlight Item

Highlight the information that requires additional exploration.

<table>
<thead>
<tr>
<th>Lab</th>
<th>Normals</th>
<th>4/11</th>
<th>4/12</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hemoglobin (g/dl)</td>
<td>13.5 - 16.5 M</td>
<td>9.6 L</td>
<td>7.9 L</td>
</tr>
<tr>
<td></td>
<td>12.0 - 15.0 F</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hematocrit (%)</td>
<td>41 - 50 M</td>
<td>30 L</td>
<td>28 L</td>
</tr>
<tr>
<td></td>
<td>36 - 44 F</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RBC's (x 10^6/ml)</td>
<td>4.5 - 5.5 M</td>
<td>2.97 L</td>
<td>2.8 L</td>
</tr>
<tr>
<td></td>
<td>4.0 - 4.9 F</td>
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<td></td>
</tr>
<tr>
<td>RDW</td>
<td>&lt; 14.5</td>
<td>10.8 L</td>
<td>10.6 L</td>
</tr>
<tr>
<td>MCV</td>
<td>80 - 100</td>
<td>77 L</td>
<td>76 L</td>
</tr>
<tr>
<td>MCH</td>
<td>26 - 34</td>
<td>27.2</td>
<td>27</td>
</tr>
<tr>
<td>MCHC %</td>
<td>31 - 37</td>
<td>39 H</td>
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</tr>
<tr>
<td>Platelet count</td>
<td>100,000 to 450,000</td>
<td>213</td>
<td>210</td>
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| WBC (cells/ml)       | 4,500 - 10,000           | 18.1 H| 15.97 H|
| Segmented neutrophils| 54 - 62%                 | 79 H | 69 H |
| Band forms           | 3 - 5%                   | 9 H  | 6 H  |
| Basophils            | 0 - 1 (0 - 0.75%)        | 0    |      |
| Eosinophils          | 0 - 3 (1 - 3%)           | 0    | 0    |
| Lymphocytes          | 24 - 44 (25 - 33%)       | 9 L  | 21 L |
| Monocytes            | 3 - 6 (3 - 7%)           | 3    | 3    |

Highlight Item

Create another set of numbers ...

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## Extended Multiple Response

<table>
<thead>
<tr>
<th></th>
<th>24 hours later</th>
<th>Not Concerning</th>
<th>Could become a Complication</th>
<th>Complication</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Medical History</strong></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Emphysema x 15 years</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hypertension x 25 years</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diabetes mellitus x 5 years</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Colon resection 8 years ago</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ETOH x 20 years</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No bowel movement for 2 days</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td><strong>Vital Signs</strong></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Temp 97.5°C (36.4°C)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HR 87 beats</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BP 145/78 mmHg</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RR 22 breaths</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sats 94% 2L/NC</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pulse ox 93%</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td><strong>Physical Exam</strong></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Alert, oriented x 3; barrel chested; S1, S2, S3 heart sounds; diminished lung sounds; mildly labored respirations; distended abdomen; 1+ pedal edema</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Respiratory rate 12 breaths per minute</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Labs</strong></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>pH 7.36; PCO2 40; HCO3 22; PO2 79; RBCs 5.6 m/mcL; glucose 201 g/dL</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Warm, reddened, tender area in left calf</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

## Extended Multiple Response - **CREATE**

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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Vital Signs</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Physical Exam</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Labs</strong></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Multiple Selection

**Time: 0800**
- Temperature: 99.8°F (37.6°C)
- Heart Rate: 100
- Respiration: 22
- Oxygen Sats: 93% on RA
- Blood Pressure: 99/68 (78)

**Time: 0815**
- Lungs: crackles in bases, expiratory wheezes.
- Heart: 3+ pedal edema, S1, S2, S3.
- Abd: Ascites, hypoactive bowel sounds.
- Urinary: Dark amber urine.
- Neuro: Confused.
- Skin: Jaundiced.

Select all prescriptions that the nurse should question.
- Full neurological assessment.
- Place O2 at 2L/NC
- Administer pain medication.
- Place indwelling urinary catheter.
- Place on a high protein diet.
- Administer isotonic fluids.
<table>
<thead>
<tr>
<th>Cognitive Function</th>
<th>Conditioning Factor(s)</th>
<th>Expected Behaviors</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Item Template</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Recognize Cues</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Environment Cues</td>
<td>Recognize abnormal vs normal</td>
<td></td>
</tr>
<tr>
<td>Patient Observation Cues</td>
<td>Recognize signs and symptoms</td>
<td></td>
</tr>
<tr>
<td>Medical Record Cues</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Time Pressure Cues</td>
<td>Identify history of</td>
<td></td>
</tr>
<tr>
<td><strong>Analyze Cues</strong></td>
<td>Requires knowledge of signs and symptoms of...</td>
<td></td>
</tr>
<tr>
<td><strong>Prioritize Hypothesis</strong></td>
<td>Can give vital signs as resource</td>
<td>Requires prioritization of condition... Address condition of...</td>
</tr>
<tr>
<td><strong>Generate Solutions</strong></td>
<td>Knowledge of conditions</td>
<td>Knowledge of treatment for conditions with nursing intervention</td>
</tr>
<tr>
<td><strong>Take Actions</strong></td>
<td>Experience:</td>
<td>Nursing Intervention...</td>
</tr>
<tr>
<td><strong>Evaluate Outcomes</strong></td>
<td>Experience:</td>
<td>Follow-up on labs, vital signs, assessment etc- determine improvement or worsening of condition being treated</td>
</tr>
</tbody>
</table>

---

**Cognitive Operations (NCSBN-CJM Layer 3)**

- **Recognize Cues**
  - Environmental Cues
    - Location: Emergency Department
    - Parent present
    - Client observation cues
      - Present age: 8-10 years
      - Present/symptoms of dehydration: dry mucous membranes, cool extremities, capillary refill 3-4 seconds.
      - Present/imply: lethargy
    - Medical record cues
      - Present/imply: Hx. of diabetes
      - Present/imply: Vital signs
    - Time Pressure Cues
      - Set time pressure to vary with onset/acuity of symptoms
  - Requires knowledge of pediatric development
  - Requires knowledge of dehydration symptoms
  - Requires knowledge of diabetes symptoms

- **Analyze Cues**
  - Requires knowledge of pediatric development
  - Requires knowledge of dehydration symptoms
  - Requires knowledge of diabetes symptoms

- **Prioritize Hypotheses**
  - Give vital signs monitors as resources
  - Set time pressure to vary with vital signs
  - Requires knowledge of pediatric developmentally appropriate approach
  - Requires knowledge of dehydration treatment and intervention
  - Requires knowledge of diabetes treatment and intervention

- **Generate Solutions**
  - Requires knowledge of pediatric developmentally appropriate approach
  - Requires knowledge of dehydration treatment and intervention
  - Requires knowledge of diabetes treatment and intervention

- **Take Actions**
  - Experience: Requires experience of administering isotonic fluid

- **Evaluate Outcomes**
  - Experience: Requires experience of administering isotonic fluid

---

**Factor Conditioning (NCSBN-CJM Layer 4)**

- **Recognize Cues**
  - Recognize signs/symptoms of dehydration
  - Identify history of diabetes
  - Recognize abnormal vital signs
  - Hypothesize dehydration
  - Hypothesize diabetes

- **Analyze Cues**
  - Describe relationship between level of blood sugar and dehydration
  - Use evidence to determine client issues

- **Prioritize Hypotheses**
  - Prioritize dehydration
  - Address dehydration
  - Avoid glucose

- **Generate Solutions**
  - Administer isotonic fluid

- **Take Actions**
  - Reassess vital signs
  - Reassess lethargy

---

**Used with permission**

Dr. Phil Dickison, NCSBN
Aug. 9, 2019