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Altered Standards of Care

Office of Health Affairs
Kathryn Brinsfield, MD, MPH
Types of Disasters
When do we go to ASC?

![Graph showing the amount of resources and disaster over time.]
What if it is a Catastrophe?

![Graph showing resource and disaster amounts over time]

- **Amount**
  - 1200
  - 1000
  - 800
  - 600
  - 400
  - 200
  - 0

- **Time**

  - **Yellow line**: resources
  - **Red line**: disaster

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**Homeland Security**
How Does it Really Look?

![Graph showing the amount of resources and disaster over time.](image)
Or Like This?
Propose a Matrix

• Across Top
  • A: Normal Operations
  • B: Normal Surge, MCI
  • C: Disaster: overwhelms local/regional capacity
  • D: Catastrophe: unable to meet needs
Propose a Matrix

- Along Side
  - Ventilators
  - Beds
  - Elective Surgery
  - Outpatient Services (Dialysis)
Builds on Work That Has Been Done…

- Hick article
- Chest article
- Tia Powell article

- Takes into account other areas of concern
- Takes into account matching available resources to patient volume and needs
## SOFA Scores

<table>
<thead>
<tr>
<th>Category</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Respiratory: PaO₂/FiO₂</strong></td>
<td>&gt;400</td>
<td>≤400</td>
<td>≤300</td>
<td>≤200</td>
<td>≤100</td>
</tr>
<tr>
<td><strong>Renal: creatinine (µmol/l)</strong></td>
<td>≤110</td>
<td>110–170</td>
<td>171–299</td>
<td>300–440; urine output ≤500 ml/day</td>
<td>&gt;440; urine output &lt;200 ml/day</td>
</tr>
<tr>
<td><strong>Hepatic: bilirubin (µmol/l)</strong></td>
<td>≤20</td>
<td>20–32</td>
<td>33–101</td>
<td>102–204</td>
<td>&gt;204</td>
</tr>
<tr>
<td><strong>Cardiovascular: hypotension</strong></td>
<td>No hypotension</td>
<td>MAP &lt;70 mmHg</td>
<td>Dopamine ≤5&lt;sup&gt;a&lt;/sup&gt;, dobutamine (any dose)</td>
<td>Dopamine &gt;5&lt;sup&gt;a&lt;/sup&gt; or epinephrine ≤0.1&lt;sup&gt;a&lt;/sup&gt; or norepinephrine ≤0.1&lt;sup&gt;a&lt;/sup&gt;</td>
<td>Dopamine &gt;15&lt;sup&gt;a&lt;/sup&gt; or epinephrine &gt;0.1&lt;sup&gt;a&lt;/sup&gt; or norepinephrine &gt;0.1&lt;sup&gt;a&lt;/sup&gt;</td>
</tr>
<tr>
<td><strong>Hematologic: platelet count</strong></td>
<td>&gt;150</td>
<td>≤150</td>
<td>≤100</td>
<td>≤50</td>
<td>≤20</td>
</tr>
<tr>
<td><strong>Neurologic: Glasgow Coma Scale score</strong></td>
<td>15</td>
<td>13–14</td>
<td>10–12</td>
<td>6–9</td>
<td>&lt;6</td>
</tr>
</tbody>
</table>
Areas of Controversy

• Age limit
• Hard limits on Sofa Score
• CRF on Dialysis (acute vs chronic)
• Only apply to new patients needing ventilators, or apply to patients already on ventilators
MCI: Level B

![Graph showing MCI Level B with two lines representing resources and disaster over time.](image)
Catastrophe: Reaches Level D
Acute Catastrophe: Reaches Level D
<table>
<thead>
<tr>
<th></th>
<th>1: Normal</th>
<th>2: Seasonal/MCI</th>
<th>3: Disaster, overwhelms local resources</th>
<th>4: Catastrophe, overwhelms all resources or destroys infrastructure</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. RESOURCE ALLOCATION / ACUTE CARE</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A. Ventilators</td>
<td>Current Criteria</td>
<td>Ventilators offered to patients with Sofa Scores &lt; or =3, unwitnessed or recurrent arrests</td>
<td>Ventilators excluded for arrests, mat. Malgnancy, burn &gt;40%, eard on htd, meld&gt;20, nhya class III or IV, sofa&gt;11</td>
<td>Ventilators excluded for arrests, mat. Malgnancy, burn &gt;40%, eard on htd, meld&gt;20, nhya class III or IV, sofa &gt; or = to 3</td>
</tr>
<tr>
<td>B. Inpatient Beds</td>
<td>Current</td>
<td>Level II surge: Alternate in house sites w wall gasses, nl inpt criteria met. May exceed licensed beds</td>
<td>Level III surge: Conversion of sites such as PACU/EGD, beds or gurneys, &gt;5' b etween beds, privacy curtains</td>
<td>Level IV surge: Cafeteria/hallways Cots, 3 ft between, no privacy considerations, may cohort</td>
</tr>
<tr>
<td>C. Elective Surgery</td>
<td>Normal Operations</td>
<td>Cosmetic and elective ortho, etc. procedures postponed</td>
<td>Cancer/Cardiac/ Emergency orthopedic only</td>
<td>All nonessential services held</td>
</tr>
<tr>
<td>D. Blood Products</td>
<td>Normal Operations</td>
<td>Postpone high need elective Surgery, elective transfusions</td>
<td>Limit to life saving transfusions</td>
<td>Consider warm whole blood transfusion if life saving</td>
</tr>
<tr>
<td>E. Labs/ Radiology</td>
<td>Normal Ops</td>
<td>Hold if clinical correlation</td>
<td>Trauma, ICU only</td>
<td>Only emergent case by case</td>
</tr>
<tr>
<td>II. RESOURCE ALLOCATION / PHARMACEUTICAL INTERVENTION</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A/B. Vaccines and Prophylaxis</td>
<td>Available to all</td>
<td>Prioritized to those known exposed and/or at risk to pop and Healthcare /</td>
<td>Prioritized to those known exposed and/or risk populations</td>
<td>Prioritized to those known exposed and also are at risk population.</td>
</tr>
<tr>
<td>C. Outpatient Services</td>
<td>Normal Operations</td>
<td>Schedule curtailed</td>
<td>Sunday Schedule</td>
<td>All nonessential or non emergent services held</td>
</tr>
<tr>
<td>III. WORKFORCE ISSUES</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A. Scope of Practice</td>
<td>Normal</td>
<td>Increased scope for pharmacists/ EMTs</td>
<td>Changed m and pharmD student to supervisor ratio</td>
<td>Family and volunteers provide nurse assistant services</td>
</tr>
<tr>
<td>B. Care Ratios</td>
<td>Normal</td>
<td>Increased short term, or RN asst to balance</td>
<td>Increased up to ½, Minimal extra help</td>
<td>Doubled and above as situation dictates</td>
</tr>
</tbody>
</table>