COVID-19 Conversations

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#COVID19Conversations
CRISIS STANDARDS OF CARE AND COVID-19

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WHAT IS IT?

• Crisis standards of care – systems response including formal government recognition of situation and regulatory / legal / emergency order support and relief

• Crisis care – situational – inadequate resources – must provide ‘best care possible’ given the situation despite some risks to the patient(s)
<table>
<thead>
<tr>
<th></th>
<th>Conventional</th>
<th>Contingency</th>
<th>Crisis</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Space</strong></td>
<td>Usual patient care space fully utilized</td>
<td>Patient care areas re-purposed (PACU, monitored units for ICU-level care)</td>
<td>Facility damaged/unsafe or non-patient care areas (classrooms, etc.) used for patient care</td>
</tr>
<tr>
<td><strong>Staff</strong></td>
<td>Usual staff called in and utilized</td>
<td>Staff extension (brief deferrals of non-emergent service, supervision of broader group of patients, change in responsibilities, documentation, etc.)</td>
<td>Trained staff unavailable or unable to adequately care for volume of patients even with extension techniques</td>
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<tr>
<td><strong>Supplies</strong></td>
<td>Cached and usual supplies used</td>
<td>Conservation, adaptation, and substitution of supplies with occasional re-use of select supplies</td>
<td>Critical supplies lacking, possible reallocation of life-sustaining resources</td>
</tr>
<tr>
<td><strong>Standard of care</strong></td>
<td>Usual care</td>
<td>Functionally equivalent care</td>
<td>Crisis standards of care</td>
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</table>

**Normal operating conditions**

- Indicator(s): Potential for contingency care

**Extreme operating conditions**

- Indicator(s): Potential for crisis standards of care

**Trigger(s):**
- Decision point for contingency care

**Crisis care trigger(s):**
- Decision point for crisis standards of care
HOW TO DO THE GREATEST GOOD...

• Implement incident management and surge capacity plans
• Anticipate resource shortfalls
• Solve the imbalance (look towards community/coalitions)
  • Bring in resources
  • Transfer patients
  • Triage resources
• Get help...
CORE STRATEGIES

- Conserve
- Substitute
- Adapt
- Re-use
- Re-allocate
HOSPITAL CHALLENGES – COVID-19

- Space
  - Intensive Care
- Staff
  - Shift lengths, staffing ratios, responsibilities
  - ‘Step up, Step over’
- Stuff
  - Medications, PPE, ventilators, airway
- Special
  - Cohorting spaces, isolation practices
HOSPITAL CSC

• Concept of operations
• Criteria
• Coordination
**Hospital CSC Concept of Operations**

- **Trigger(s)**
- **Notifications**
- **ICS**
- **Participants**
- **Process**
  - Triage team
  - Communication
  - Quality / appeals
**MECHANICAL VENTILATION/EXTERNAL OXYGENATION**

**STRAIGHT STRATEGIES FOR SCARCE RESOURCE SITUATIONS** (cont.)

<table>
<thead>
<tr>
<th>RECOMMENDATIONS</th>
<th>Strategy</th>
<th>Crisis</th>
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</thead>
<tbody>
<tr>
<td><strong>STEP THREE</strong></td>
<td>Re-allocate</td>
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**Compared to other patient(s) requiring and awaiting external ventilation/oxygenation, does this patient have significant differences in prognosis or resource utilization in one or more categories below that would justify re-allocation of the ventilator/unit? Factors listed in reverse order of importance/weight: injury, epidemiologic factors may have the highest predictive value in some cases and may also affect the predictive ability of the SOFA score.**

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Resource re-allocated</th>
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<tbody>
<tr>
<td>Patient keeps resource</td>
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<tr>
<td>Low potential for death (SOFA score &lt; 7)</td>
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<tr>
<td>Intermediate potential for death (SOFA score 8-11)</td>
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<tr>
<td>High potential for death (SOFA score ≥ 12)</td>
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<thead>
<tr>
<th>2. Duration of benefit / prognosis</th>
<th>Strategy</th>
<th>Crisis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Good prognosis based upon epidemiology of specific injury</td>
<td>Indeterminate/Intermediate prognosis based upon epidemiology of specific disease/injury</td>
<td></td>
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<tr>
<td>No severe underlying disease</td>
<td>Severe underlying disease with poor long-term prognosis and/or ongoing resource demand (e.g., home oxygen dependent, diabetes dependent) and unlikely to survive more than 1-2 years.</td>
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<tr>
<td>Poor prognosis based upon epidemiology of specific disease/injury (e.g., pandemic influenza)</td>
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<tr>
<td>Severe underlying disease with poor short-term (e.g., &lt; 1 year) prognosis</td>
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<thead>
<tr>
<th>3. Duration of need</th>
<th>Strategy</th>
<th>Crisis</th>
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<tr>
<td>Short duration – flash pulmonary edema, chest trauma, other conditions anticipating &lt; 3 days on ventilator</td>
<td>Moderate duration – e.g., pneumonia in healthy patient (estimated 3-7 days on ventilator)</td>
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<tr>
<td>Long duration – e.g., ARDS, particularly in setting of preexisting lung disease (estimated &gt; 7 days on ventilator)</td>
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<tr>
<th>4. Response to mechanical ventilation</th>
<th>Strategy</th>
<th>Crisis</th>
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<tbody>
<tr>
<td>Improving ventilatory parameters over time</td>
<td>Stable ventilatory parameters over time</td>
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<tr>
<td>Worsening ventilatory parameters over time</td>
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**Abbreviations:**
- SOFA: Sequential Organ Failure Assessment
- ARDS: Acute Respiratory Distress Syndrome

**Additional Information:**

- **Examples of underlying diseases that predict poor short-term survival include (but are not limited to):**
  1. Congestive heart failure with ejection fraction < 25% or persistent ischemia unresponsive to therapy or non-reversible scheme with pulmonary edema.
  2. Severe chronic lung disease including pulmonary fibrosis, cystic fibrosis, obstructive or restrictive diseases requiring continuous home oxygen use prior to onset of acute illness.
  3. Central nervous system, solid organ, or hematopoietic malignancy with poor prognosis for recovery.
  4. Critical illness with active, life-threatening bleeding, fixed coagulopathy, or exophthalmus.

- **Changes in Oxygenation index over time may provide comparable data, though use of uncertain prognostic significance.**

**Recipients:**
- MN Department of Health
- Minneapolis Health Care Preparedness Program

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**Disclaimer:**

This document is intended to provide guidance on the allocation of critical resources. It is not a substitute for medical advice or professional judgment. Healthcare professionals should consider all available information and make decisions based on the specific circumstances of each patient.
CRITERIA

• MUST include COVID-19 specific prognostic factors
  - Age, elevated troponin, ddimer, severity of comorbid conditions, new renal failure
• MUST have a clinical care committee or similar to keep up on literature
• MUST be specific enough to avoid ‘ad hoc’ decision-making
• MUST be congruent with specialty society and state guidelines
  - ‘reasonable provider’ standard
COORDINATION

• Regional planning
  • Healthcare coalitions
  • Communications methods
  • Coordination methods
    • Multi-agency coordination (MAC)
    • Transfer center
  • State – guidelines, advisory committees, transfers
ASPR’s Technical Resources, Assistance Center, and Information Exchange