

# **IoM Guidance- Altered Standards of Care in a Pandemic**

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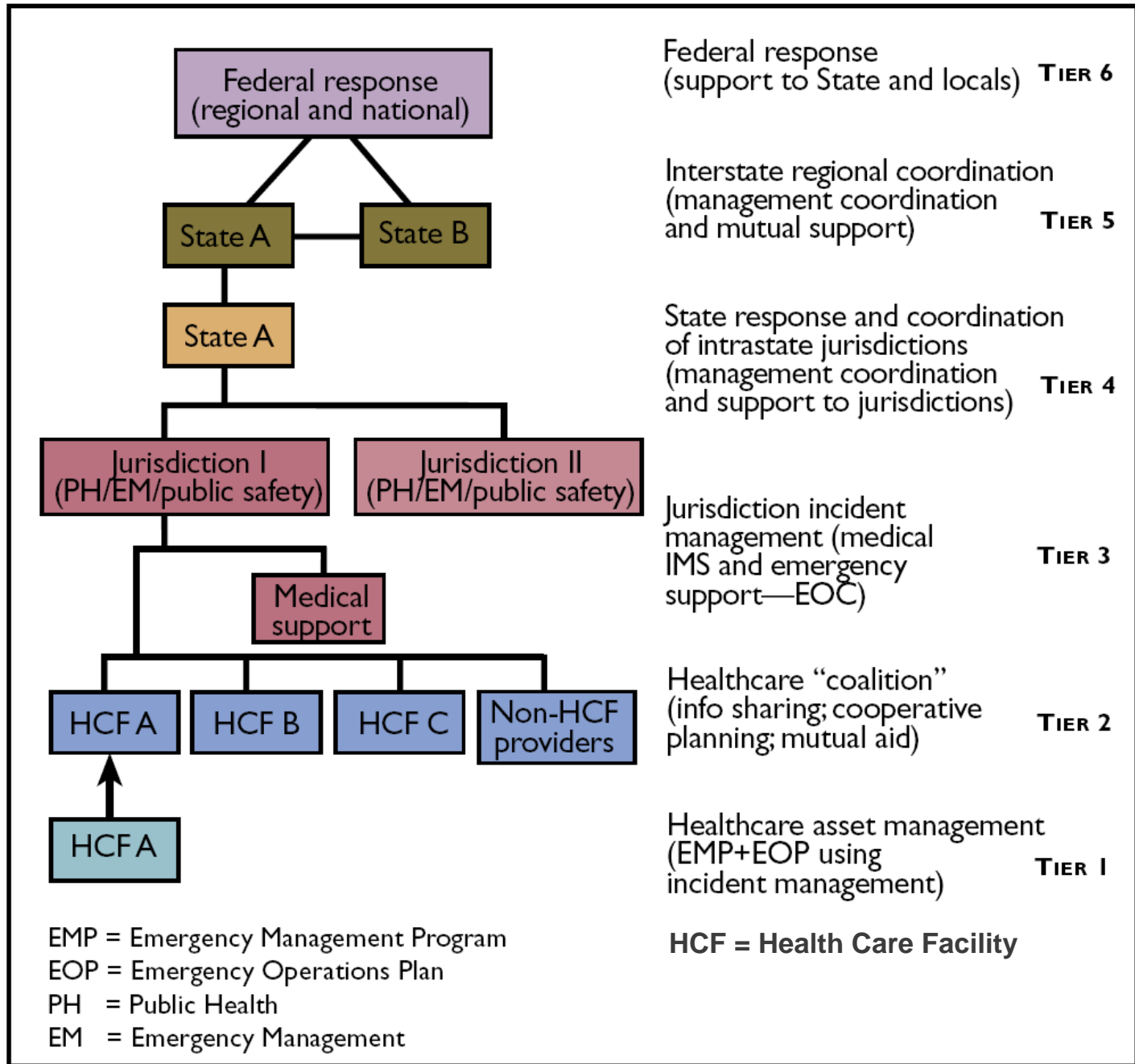
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# Overview

- Report requested by IOM
- Provide background for IOM committee in preparing report for ASPR
- Focus of our work is what can be done to prepare for a possible H1N1 Pandemic this year

# Overview- Background and Recommendations

- Communication and Coordination
- Triggers to initiate Altered Standards of Care (ASC)
- Surge capacity and response strategies
- Allocation of scarce resources
- Financing the Pandemic



**Medical Surge Capacity and Capability: A Management System for Integrating Medical and Health Resources During Large-Scale Emergencies, 2004.**

# Communication and Coordination

- Situational awareness crucial in assessing individual hospital and regional resources and capacity
- Effective communication and coordination are the foundation of situational awareness
- Initiation of any form of ASC's requires information on a regional basis, and implementation also requires regional participation and uniformity.

# Communication and Coordination

- HPP report UPCB- Healthcare Coalitions
  - Definition
  - Development of Healthcare Coalitions in local regions
- Well developed coalitions capable of effective communication and coordination

# Communication and Coordination

- Objective for this year
  - Facilitate (further) coalition development in local communities
- Deliverable- situational awareness
  - Effective 2-way communication processes between hospitals and partners
    - Able to provide up to date information on resources and utilization
  - Collaborate together and with health departments regarding when ASC's should be implemented

# Communication and Coordination-Recommendations

- Promote coalition development
  - May need to be informal in compressed time frame
  - Standard, defined communication standards, protocols
- Develop database of common elements
  - Number of cases, utilization and capacity, other elements

# Communication and Coordination- Recommendations

- Promote familiarity and trust
  - Meet in person, share information
  - Organize committees (HVA pandemic)
  - Others
- Continue routine hospital preparedness
  - But focus on partners, too

# Triggers to initiate ASC's

- Data reviewed
  - 4 states work (CO, MN, UT, and NY) and VA
  - Ontario, Canada and CHEST documents (5/08)
- Many other sources available- these seemed to have highest degree of refinement

# Triggers to Initiate ASC's

- Themes
  - States- when hospitals overwhelmed with cases, or likely to be (more so) with rapidly rising number of cases
  - Spectrum of crisis defined; not specific
  - Other indicators of crisis
    - internal disaster declared- hospital level
    - ER's on “divert status”- multiple hospitals

# Triggers to initiate ASC's

- Governor authorized to declare emergency, which was a separate trigger based on above
- 3 states provided support for legal protection for healthcare providers in a pandemic
- MN also had a legal means to provide emergency credentialing for other states, DC, and Canada

# Triggers to initiate ASC's- Recommendations

- “Early” trigger- large number hospitalized patients, or rapidly rising case count
  - no specific number can be recommended
- “Hard” trigger- any regional hospital with “internal disaster” or on “ER divert status”
  - Hospitals authorized for time limited ASC's
- Formal political declaration of emergency likely to follow quickly based on above
  - ASAP, to avoid “getting behind the curve”

# Triggers to initiate ASC's- Recommendations

- Healthcare professionals should be protected during the time ASC's in effect
  - State and Federal
  - Consider emergency credentialing
- Trigger for de-escalating emergency
  - When demand and supply in balance
  - Again, no specific number recommendation
  - Should be done regionally, based on circumstance

# Surge Capacity & Response Strategies

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# Context

- recommendations will be on moderate to major surge given the H1N1 context
- essential that the concept of a continuum of surge is not lost as systems and processes used to address moderate and major surge should build upon daily systems used to address minor surge

# Surge

- **Surge capacity:** is the ability to respond to a markedly increased number of patients;
- **Surge capability:** is the ability to address unusual or very specialized medical needs.
- mechanisms to mitigate surges address either the demand for health care services or the supply of health care services

# Surge objectives

- Approaches to decrease demand entail two components
  1. Decreasing existing demands upon the system there by freeing capacity for surge response and;
  2. Diverting new demands for services away from the system thus preventing the consumption of that resource.

# De-escalation

- Orderly de-escalation of services serves two purposes
  1. Protect the ability to provide essential services by preventing catastrophic failure of the system
  2. Free up resources for the response.

# Considerations

- De-escalate, considerations should include:
  1. Impact on patients
  2. Critical resources being made available by cancelling the service
  3. Ability to provide the service when significantly altered standards of care are in practice

# Recommendation #1

- Any initiatives put forth by the committee must recognize the nature of surge as a continuum from common minor daily events through to rare overwhelming events.
- Communities coalitions should develop systems for moderate and major surges (such as H1N1) which build upon the process and systems used to address minor surge.
- Stand alone systems should be avoided.

## Recommendation #2

- Health care coalitions should have a central committee that will make decisions regarding the de-escalation of services based upon:
  - a) the consequence to patients of suspending or delaying the service,
  - b) the resource requirements of that service and
  - c) the ability to provide the resources in the context of altered standards of care.
- Supported at a national level by professional societies developing classifications for prioritizing patients.

<b>Service/Procedure</b>	<b>Potential to delay service/proc before serious &amp; lasting harm is suffered the patient?<sup>1</sup></b>	<b>Avg. % of patients receiving this service who require care in a critical care area at any point during their stay?<sup>2</sup></b>	<b>Minimal resources required to provide the service</b>

# Recommendation #3

- Targets for service de-escalation should address those services which are most likely to make available staff, staff or space that are in scarce supply.
  - Services that are high yield for freeing up critical care resources include elective cardiovascular surgeries, transplants other than renal, and elective oral-maxillofacial surgeries requiring post-op ICU admission and any elective surgery with medical conditions that are likely to require post-operative ICU care or monitoring.
  - Surgical procedures, such as total-hip arthroplasty, which require in-patient post-op admission for greater than 24 hours.
  - Screening radiological and endoscopic procedures

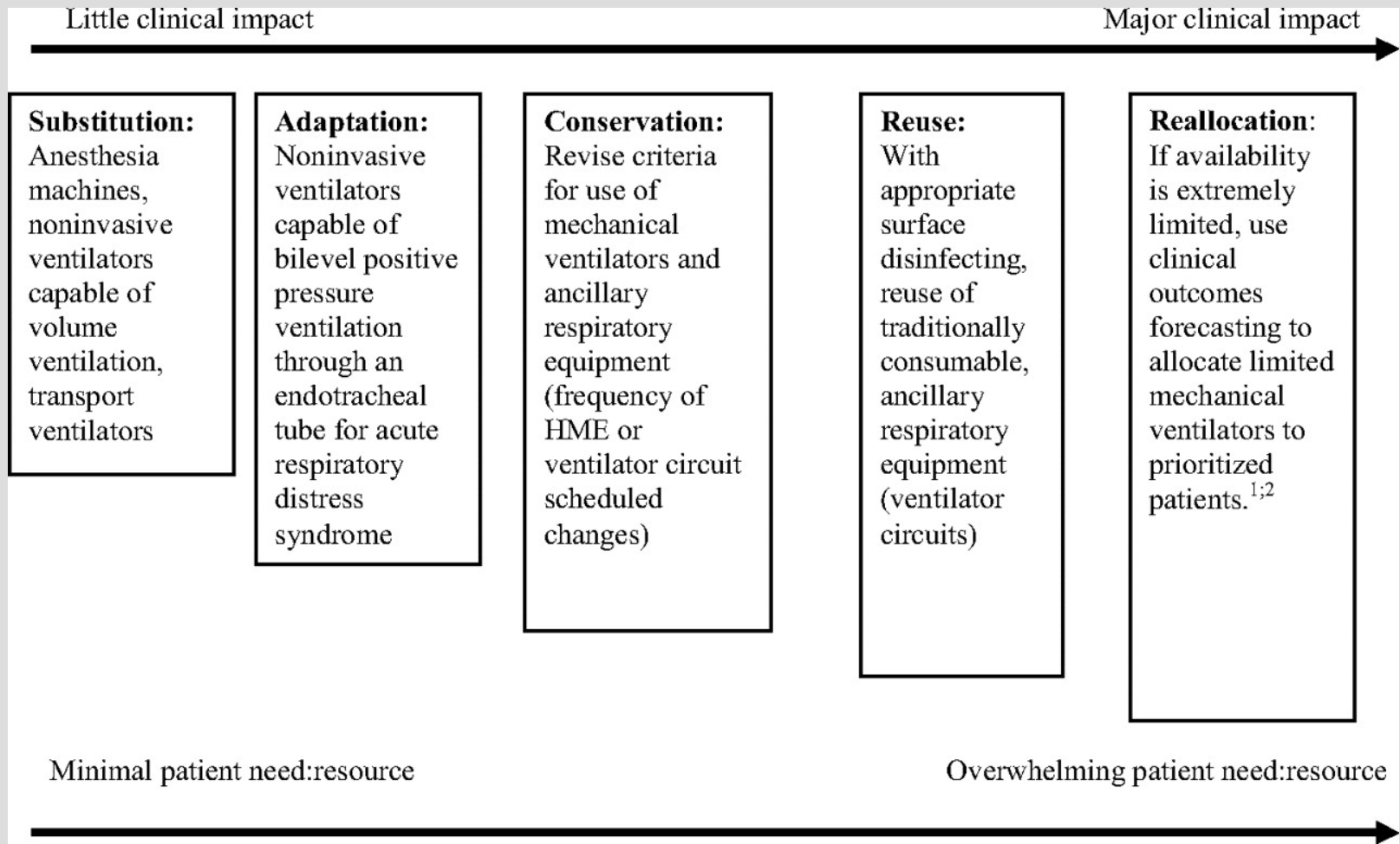
## Recommendation #4

- Health care coalitions should work cooperatively to ensure that within a geographic region or between regions access some capacity to provide non-deferrable essential services are maintained

# Recommendation #5

- Health care institutions should prepare plans which detail options for substituting, adapting, conserving and where appropriate re-using critical supplies which may face shortfalls during a H1N1 surge. This activity should be supported by scientific guidance from organizations such as the CDC and FDA. Hospitals should specifically consider planning for substituting, adapting, conserving and re-using the following:
  - ventilators and components (i.e. circuits, endotracheal tubes)
  - antibiotics
  - sedatives and analgesics
  - vasopressors/inotropes
  - oxygen
  - vascular access devices (i.e. central lines, PICC lines and peripheral i.v.s)

# Stepwise modifications in resource use to maintain positive pressure ventilation



HME = heat and moisture exchanger

# PANDEMIC RECOMMENDED ACTIONS FOR HEALTHCARE FACILITIES BY EVENT STAGE

## GREEN

*Pre-pandemic period; no current pandemic activity but moderate to high potential exists*

These listed measures may be taken:

### Administration/Planning

- Establish and maintain emergency notification list of key personnel.
- Discuss at facility and regional level contingencies for scarce resource situations [see AHRQ document *Mass Medical Care with Scarce Resources* at [www.ahrq.gov/research/mce/](http://www.ahrq.gov/research/mce/)], including involvement of ethics committee members, administration, and medical staff on a facility Clinical Care Committee that will determine which services may be offered during a pandemic.
- Conduct Continuity of Operations Planning (COOP) for pandemic situations—assume schools may be out and staff may need housing during pandemic.
- Write pandemic annex to all-hazards emergency response plan.
- Develop security plans for buildings including augmentation of staff and ingress/egress control.
- Stockpile personal protective equipment and create contingencies for when supplies run low.
- Plan for surge capacity, including accommodating patients in non-traditional areas both on-site and off-site.
- Contact local public health agencies and area hospitals to formulate regional plans for capacity, including alternate care sites, as determined by regional needs.
- Encourage employees to have personal emergency plans in place, including emergency day-care arrangements and family communications.

### Operations

- Stress good infection control practices
- ### Pre-Training/Education (Pre-Event)
- Encourage personal preparedness planning using [www.codeready.org](http://www.codeready.org) information.
  - Provide pandemic education to employees and fit-test personnel, and/or have ability to provide just-in-time fit testing for N95 or other appropriate respirators.
  - Promote Cover Your Cough Campaign.
  - Conduct exercises to practice pandemic responses; stress long-term response and incident action planning cycles consistent with Hospital Incident Command System (HICS) and National Incident Management System (NIMS).

## BLUE

*Pandemic has begun; no cases in Minnesota*

In addition to the previously listed measures, the following steps may be taken:

### Administration/Planning

- Cancel or deny employee travel/leave, as appropriate.
- Conduct education about staff protections and expectations.
- Activate clinical care committee to examine situation and determine when and how to change services provided (e.g., canceling elective surgeries/appointments) based on the severity and expected arrival time of the pandemic. Determine triggers to move from this level to yellow level and further adaptive strategies when this occurs.
- Track financial impact (direct and indirect) and staff time carefully for reimbursement.

### Communications

- Communicate plans and expectations to clinical and business units, as well as to patients and families.
- Coordinate staff and public messages with community and regional leaders and partners.

### Operations

- Partially activate the Hospital Command Center; begin daily action planning cycle and information updates.
- Have staff wear personal protective equipment (PPE) when treating suspect cases and place in isolation room, per infection control recommendations.
- Separate suspect cases in emergency departments (ED) and clinics; follow MDH case definitions and protocols. Provide masks to all suspect cases and post signage for patients regarding respiratory hygiene.
- Review elective procedures and cancel if patient recovery will be impacted by pandemic.
- Assess supplies and vendor inventory, place orders as needed; communicate with partner agencies about supply needs.
- Screen patients and visitors prior to building entry, assigning infectious or suspect cases to appropriate care areas with appropriate PPE and respiratory hygiene.

### Training/Education (Pre-Event)

- Conduct just-in-time education for employees, including fit-testing when required. Work with public health agencies and hospitals to craft public messages about symptoms and when (and when not) to come to hospital/clinics.

## YELLOW

*Sporadic community cases of Pandemic influenza have been confirmed but are few in number*

In addition to the previously listed measures, the following steps may be taken:

### Administration/Planning

- Have Clinical Care Committee determine (on daily basis) which (if any) modifications in facility services are necessary. Conduct appropriate case-finding and reporting.
- Open staff housing areas, as needed; open auxiliary rest, clinical care, and family areas, as needed.
- Begin limiting non-urgent surgeries and procedures.
- Implement access controls and institute visitor and family member policies according to institutional procedures.

### Communications

- Communicate on a daily basis among hospitals and agencies (e.g., through conference calls).
- Conduct employee and public information campaigns; update daily.

### Operations

- Isolate or cohort cases in ED, clinics, and in-patient units.
- Determine whether staff wear PPE for all patient encounters in addition to suspect cases.

# MINNESOTA HEALTHCARE SYSTEM PREPAREDNESS PROGRAM

## ORANGE

*Widespread community cases*

In addition to the previously listed measures, the following steps may be taken:

### Administration/Planning

- Have Clinical Care Committee determine each day the administrative and clinical changes needed to cope with demand for resources; this may include appointment of triage team to decide which patients receive certain therapies (e.g., ventilators), based on prognosis; conduct bed management to move beds and patients with authority of administration.
- Set up Multi-Agency Coordination (MAC) with public health agencies, other hospitals, and EMS; determine when to open on-site and/or off-site alternate care sites, as needed and as staffing and resources are available.

### Communications

- Update hospital employees and the public regularly on what services the hospital is offering. When should patients come to the hospital? What can they do at home?

### Operations

- Fully activate Hospital Command Center with action-planning cycles for next operational period.
- Mask all patients and visitors presenting to facility; staff wear PPE continuously to prevent exposure.
- Triage use of ED, clinic, and in-patient resources as required (e.g., what conditions will be evaluated in the ED? What surgeries will be done today?)

## RED

*Overwhelming number of local cases beyond capacity of healthcare system*

In addition to the previously listed measures, the following steps may be taken:

### Administration/Planning

- Triage team appointed by clinical care committee makes medical allocation decisions. Clinical Care Committee continues to make daily decisions about which hospital services can be maintained. Cohorting of patients no longer possible — emphasis on respiratory hygiene and masks, based on clinical situations and ethical standards.

### Communications

- Staff, patient, and patient / provider family behavioral health and security issues become critical — assure support and safety
- Update the hospital employees and the public regularly on what services the hospital is offering. When should patients come to the hospital? What can they do at home?

### Operations

- Work with area hospitals, clinics, and public health to open alternate care sites when possible to reduce burden on hospitals, based on clinical situations and ethical standards.
- Concentrate critical care in hospitals; work with homecare and public health to assure appropriate homecare instructions given.

# PATIENT CARE STRATEGIES FOR SCARCE RESOURCE SITUATIONS

# MINNESOTA HEALTHCARE SYSTEM PREPAREDNESS PROGRAM

## Summary Table

RESOURCE	STRATEGY*	TACTIC
Oxygen	CONSERVE	Use minimum liter flow to keep O <sub>2</sub> saturation > target (85-95% depending on situation). Use O <sub>2</sub> conserving cannulas (Oxymizer™). No oxygen driven nebs. Eliminate or reduce equipment with high O <sub>2</sub> consumption.
	RE-USE	Appropriately disinfect and re-use cannulas, masks, and tubing.
	RE-ALLOCATE	May have to base therapy on triage decision tool similar to ventilator allocation.
Medication Administration	SUBSTITUTE	Use alternative inexpensive medications (morphine, lorazepam, doxycycline) that are easily stockpiled prior to the event.
	ADAPT	Use morphine and benzodiazepines for sedation drips when possible, run drips via gravity rather than IV pumps if needed; Administer more medications via subcutaneous or intramuscular route than intravenous.
	CONSERVE	Give adjunctive non-steroidal and other analgesics / medications including orally when possible.
	RE-ALLOCATE	Last resort – palliative care demands adequate pain control / sedation – focus should be on stockpiling inexpensive options in advance of event.
Hemodynamic Support and IV Fluids	SUBSTITUTE	Use alternative vasopressor agents such as epinephrine (inexpensive).
	ADAPT	May have higher threshold to initiate vasopressors; may use gravity drips (e.g., 1mg epinephrine in 100cc NS) instead of infusion pumps. Consider nasogastric fluid replacement rather than IV.
	CONSERVE	Minimize invasive monitoring.
	RE-USE	Consider reusing central venous catheters, other tubes and catheters with appropriate sterilization/disinfection.
Mechanical Ventilation	ADAPT	Use of anesthesia machines, BiPAP, short-term manual ventilation and other strategies.
	CONSERVE	Adjust threshold for intubation; decrease elective surgeries to free up ventilators / anesthesia machines.
	RE-USE	Re-use of ventilator circuits after appropriate sterilization / disinfection.
	RE-ALLOCATE	Last resort, allocating ventilators to patients who can most benefit / will use least resources - must be according to pre-planned process using decision support tool and expert clinical judgment.
Nutrition	ADAPT	Have family or ancillary staff provide meals. Simpler meals, fewer choices for those that can take oral intake. Tube feedings in preference to total parenteral nutrition. May delay feedings longer than usual.
	CONSERVE	See above.
	RE-USE	May need to re-use nasogastric and other feeding equipment with appropriate disinfection.
Staffing	SUBSTITUTE	Outside, equally-qualified staff brought in to institution via compact agreements or other mechanism (DMAT, Medical Reserve Corps, other local/regional/state/federal sources). Use family or non-professional staff to provide basic patient cares (non-clinical).
	ADAPT	Less qualified staff from sources as above or volunteers provide basic patient care with critical care nursing and physician staff monitoring larger numbers of patients. Just-in-time training and orientation to job duties. Change shift duration. Use family or non-professional staff to provide some clinical care with training / in-service.
	CONSERVE	Reduce administrative demands (teaching and administration, documentation, etc.).

\*Core strategies to be employed (generally in order of preference) during or in anticipation of a scarce resource situation are:

**Prepare** - pre-event actions taken to minimize resource scarcity

**Substitute** - use an essentially equivalent device, drug, or personnel for one that would usually be available (e.g., morphine for fentanyl)

**Adapt** - use a device, drug, or personnel that are not equivalent but that will provide sufficient care (e.g., anesthesia machine for mechanical ventilation)

**Conserve** - use less of a resource by lowering dosage or changing utilization practices (e.g., minimizing use of oxygen driven nebulizers to conserve oxygen)

**Re-use** - re-use (after appropriate disinfection / sterilization) items that would normally be single-use items

**Re-allocate** - take a resource from one patient and giving it to a patient with a better prognosis or greater need

MDR/OEP/MHSP/Patient Care Strategies/12-07/Revised 6-08

MINNESOTA DEPARTMENT OF HEALTH  
OFFICE OF EMERGENCY PREPAREDNESS  
www.health.state.mn.us/oep/healthcare

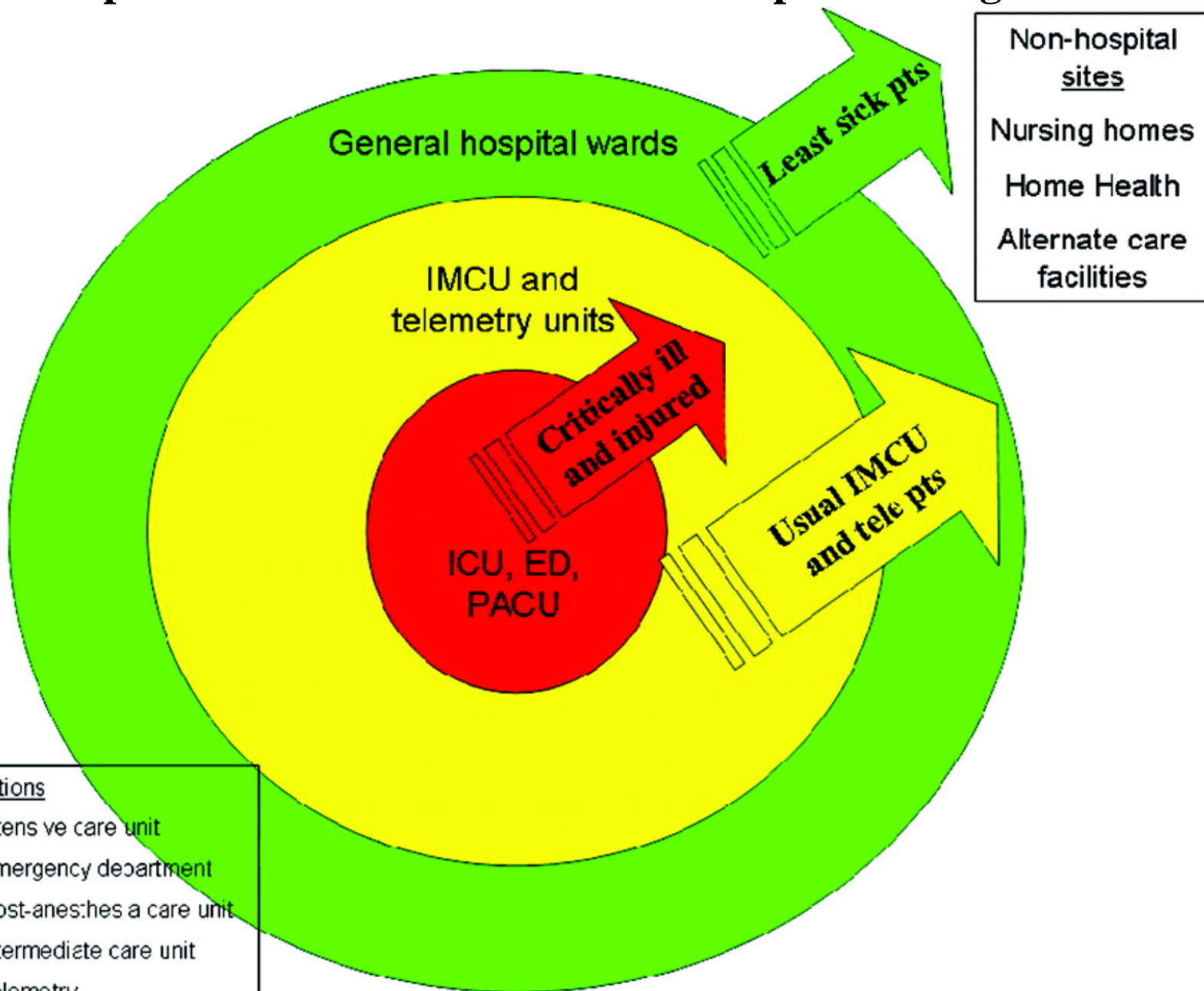
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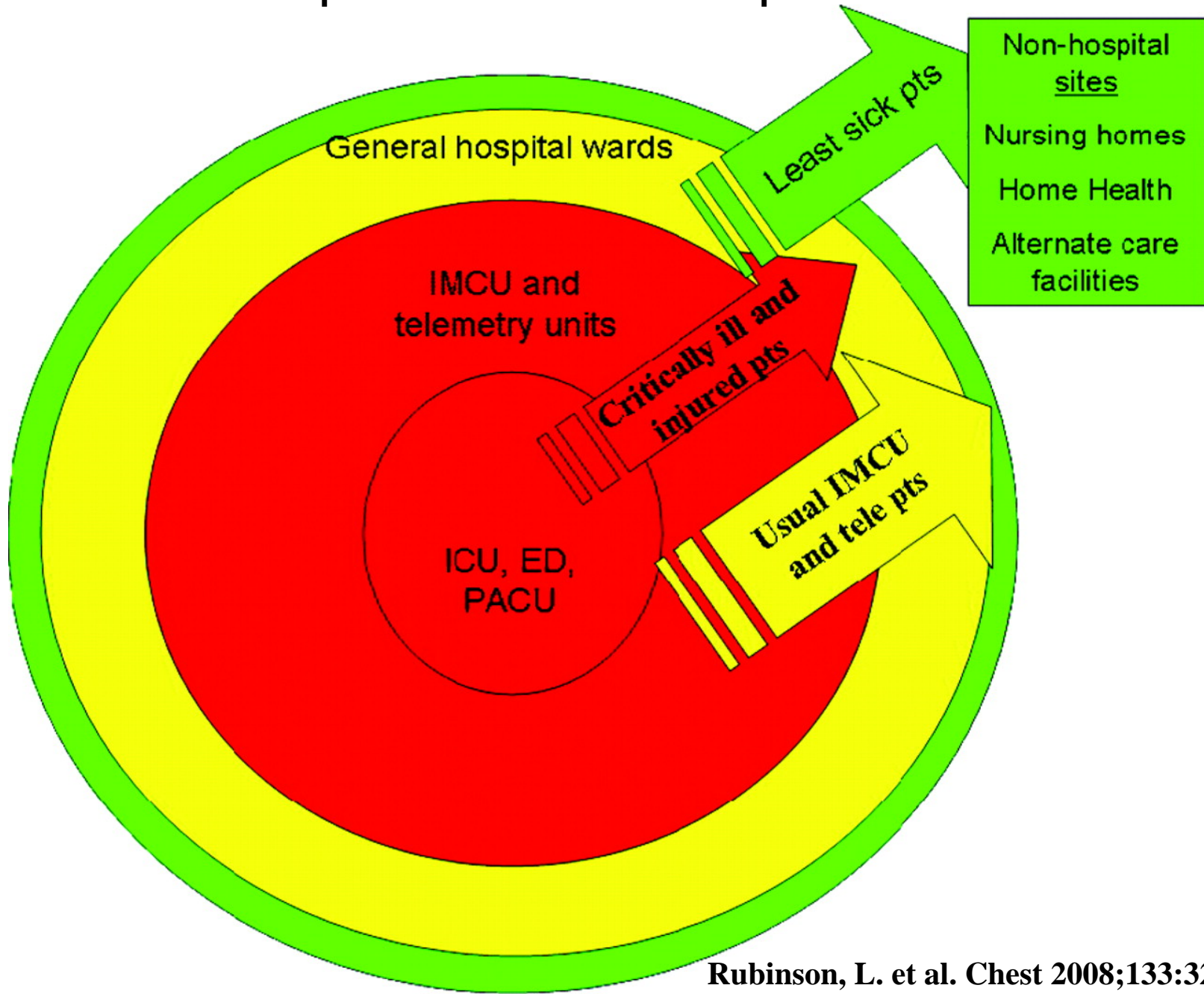
## Recommendation #6

- Health care institutions should prepare plans to altering the standard of care to extend staff and space resources.

# Initial expansion of critical care treatment space during disasters



# Critical care expansion during sustained catastrophies will require further expansion of critical care capabilities



# Allocation of Scarce Resources

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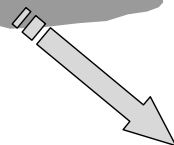
# Background

- If shortages of vital resources occur during a disaster despite efforts to substitute, adapt, conserve and re-use, then re-allocation strategies must be employed
- Triage should be used to direct the allocation of those resources in order to optimize efficiency, maintain ethical tenets, and help the greatest number of people possible.

# Types of Triage

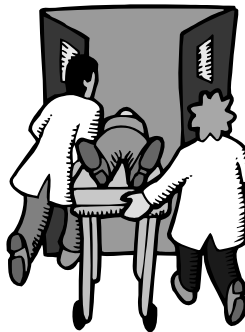


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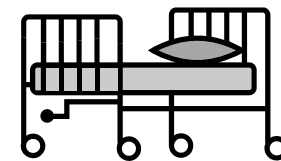
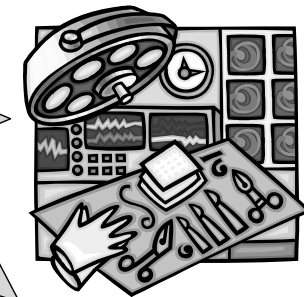
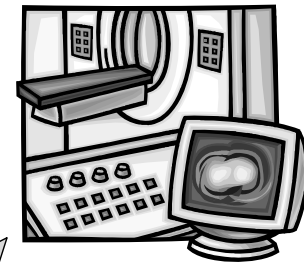
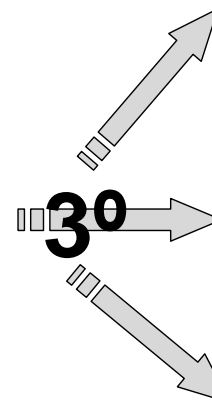
Triage

EMERGENCY

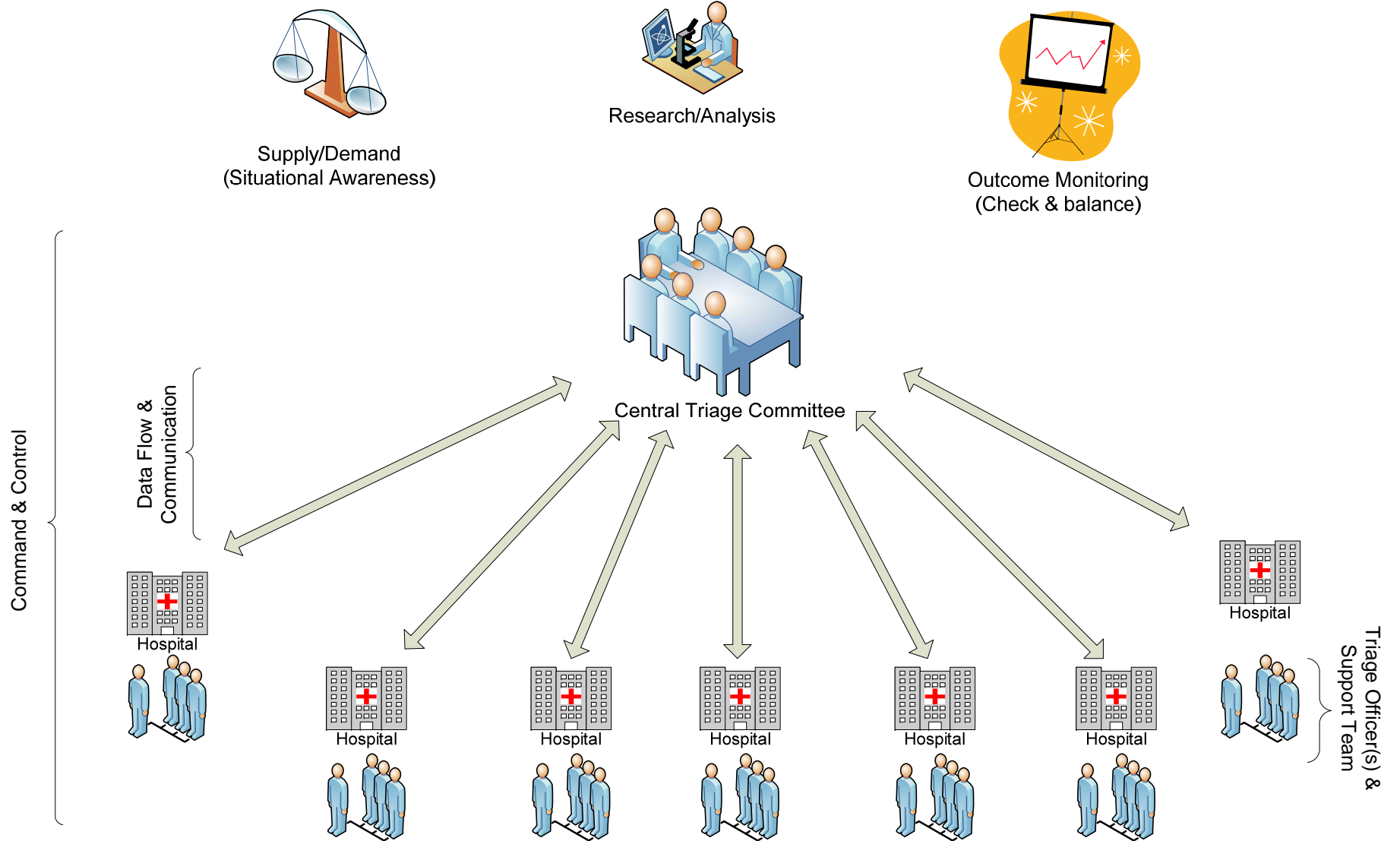


2<sup>o</sup>

3<sup>o</sup>



# Triage infrastructure: the optimal relationship between the state/regional central triage committee and the triage officer(s) at individual hospitals



# Comparisons of Existing Protocols



## Critical Care During a Pandemic

Final report of the Ontario Health Plan for an Influenza Pandemic (OHP-IP)  
Working Group on Adult Critical Care Admission, Discharge and Triage Criteria



April 2006

# RESEARCH

## Development of a triage protocol for critical care during an influenza pandemic

Michael D. Christian, Laura Hawryluck, Randy S. Wax, Tim Cook, Neil M. Lazar, Margaret S. Herridge, Matthew P. Muller, Douglas R. Gowans, Wendy Fortier, Frederick M. Burkle, Jr.

∞ See related article page 1393

### ABSTRACT

**Background:** The recent outbreaks of avian influenza (H<sub>5</sub>N<sub>1</sub>) have placed a renewed emphasis on preparing for an influenza pandemic in humans. Of particular concern in this planning is the allocation of resources, such as ventilators and antiviral medications, which will likely become scarce during a pandemic.

**Methods:** We applied a collaborative process using best evidence, expert panels, stakeholder consultations and ethical principles to develop a triage protocol for prioritizing access to critical care resources, including mechanical ventilation, during a pandemic.

**Results:** The triage protocol uses the Sequential Organ Failure Assessment score and has 4 main components: inclusion criteria, exclusion criteria, minimum qualifications for survival and a prioritization tool.

**Interpretation:** This protocol is intended to provide guidance for making triage decisions during the initial days to weeks of an influenza pandemic if the critical care system becomes overwhelmed. Although we designed this protocol for use during an influenza pandemic, the triage protocol would apply to patients both with and without influenza, since all patients must share a single pool of critical care resources.

CMAJ 2006;175(11):1377-81

The recent outbreaks of avian influenza (H<sub>5</sub>N<sub>1</sub>)<sup>1-4</sup> have placed a renewed emphasis on preparing for an influenza pandemic in humans.<sup>5,6</sup> Developing plans to deal with the allocation of critical care resources, including mechanical ventilators, which will likely become scarce during a pandemic,<sup>7-8</sup> presents a significant challenge. Health care systems in the developed world have rarely encountered the type of resource scarcities envisaged during an influenza pandemic. Models of the potential impact of a pandemic on the Ontario population predict that hospital admissions for influenza will peak at 1823 per day over a 6-week period.<sup>9</sup> This translates to 72% of the total hospital capacity being used by influenza patients. Similarly, the de-

mand for intensive care unit (ICU) resources, solely for patients with influenza, would peak at 171% of current ICU bed capacity and 118% of the ventilator capacity. These figures do not take into account the current usage rate of critical care for patients without influenza, which is nearly at 100%. Nor does this model factor in the availability of human resources. Surge response strategies<sup>10</sup> (e.g., scaling back elective procedures, opening additional critical care areas and implementing the use of "mass critical care"<sup>11,12</sup>) will partially mitigate the sudden demand for medical care during an influenza pandemic; however, these strategies will be inadequate to fully address the demands on the health care system.

When resource scarcities occur, the tenets of biomedical ethics and international law dictate that triage protocols be used to guide resource allocation.<sup>13-15</sup> International law requires a triage plan that will equitably provide every person the "opportunity" to survive. However, such a law does not guarantee either treatment or survival.<sup>16</sup> We have developed this triage protocol in an effort to ensure the equitable and efficient use of critical care resources if scarcities occur during an influenza pandemic.

### Methods

In December 2004, at the request of the steering committee of the Ontario Health Plan for an Influenza Pandemic (OHP-IP), a group of clinicians with expertise in critical care, infectious diseases, medical ethics, military medicine, triage and disaster management was convened to provide advice regarding critical care during an influenza pandemic. They specifically sought to address issues surrounding critical care resource allocation.

The working group undertook an in-depth review of the medical literature by searching MEDLINE for articles published from January 1966 to December 2004 using the terms "triage," "intensive care," "critical care," "mechanical ventilation," "influenza" and "pandemic." The group also conducted an in-depth review of the disaster literature, military protocols and published pandemic plans as well as Internet searches and networking with experts in critical care medicine, military medicine and disaster medicine to identify any

DOI:10.1503/cmaj.060691

SPECIAL CONTRIBUTIONS

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## Concept of Operations for Triage of Mechanical Ventilation in an Epidemic

John L. Hick, MD, Daniel T. O'Laughlin, MD

ACADEMIC EMERGENCYMEDICINE 2006

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# RESEARCH

DMPHP. 2008;2:20-26

## Allocation of Ventilators in a Public Health Disaster

Tia Powell, MD, Kelly C. Christ, MHS, and Guthrie S. Birkhead, MD, MPH



# **Utah Pandemic Influenza Hospital and ICU Triage Guidelines**

**Prepared by UTAH HOSPITALS AND HEALTH SYSTEMS ASSOCIATION  
for the Utah Department of Health**

**Version 1, January 10, 2009**

# Challenges

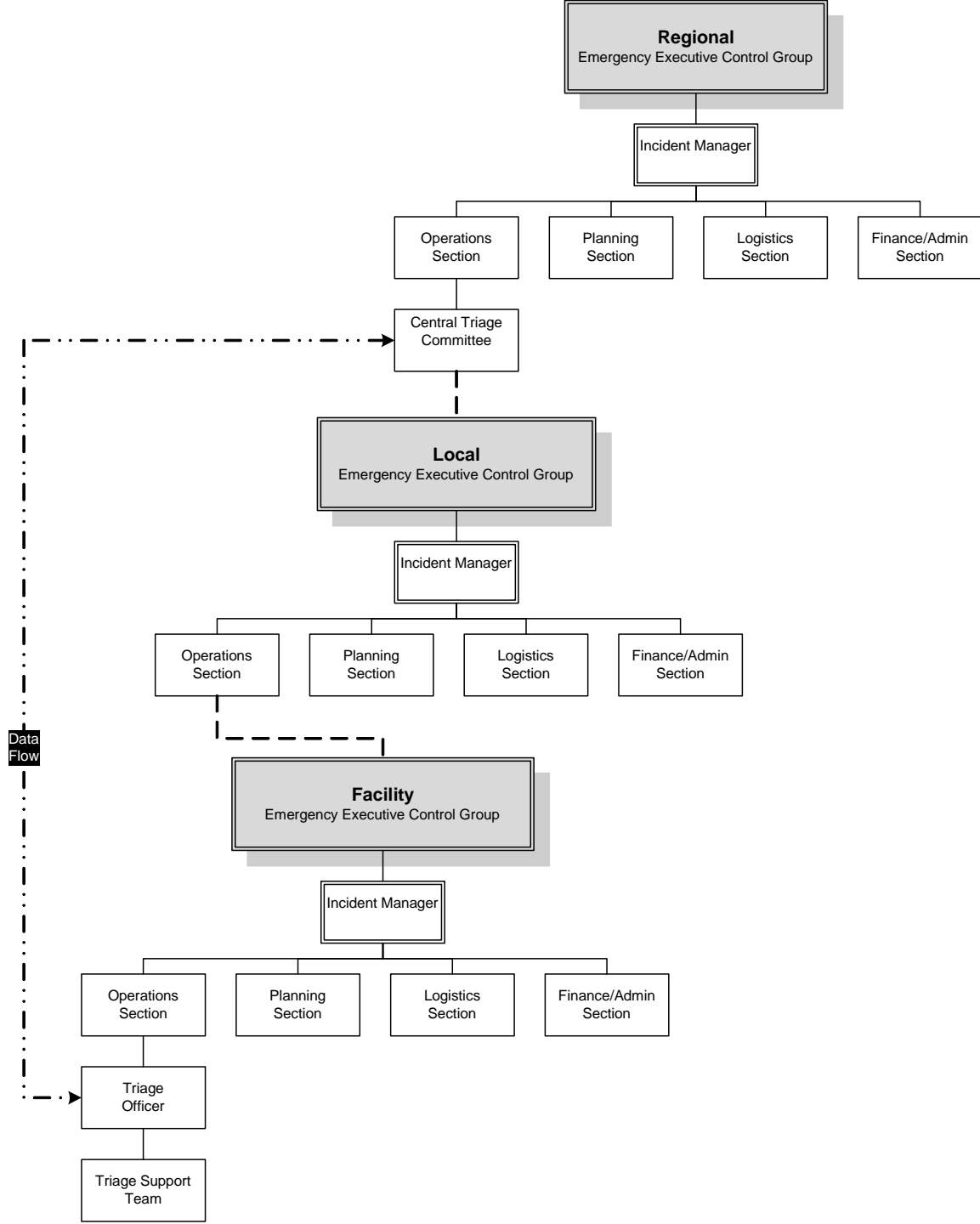
- Lack of evidence based
- Only early in evaluative process
- Lack of infrastructure necessary to support an ethical & effective triage process
- Legal process to create infrastructure & provide appropriate legal (civil and criminal) protections for triage officers is required

# Recommendation #1

- Given that it is unlikely the necessary infrastructure or liability issues can be addressed in the next 3-6 months, government officials should recognize that entering into a triage situation would carry with it significant risks of inequities and system failure.
- Therefore all efforts should be made to avoid resource shortfalls.

## Recommendation #2

- If triage was necessary, coordination of the triage process should occur at a state level. Health care coalitions cannot possess a sufficiently broad level of situational awareness to make independent decisions regarding the initiation or coordination of triage.



## Recommendation #3

- States governments should use the Utah & Colorado approaches as models to develop plans for triage utilizing the protocol developed through the Task Force on Mass Critical's collaborative process and their existing state legislation to implement the protocol.
- These plans should include mechanisms to address triage infrastructure and triage officer liability issues.
- The infrastructure should include a process to systematically review of the decisions of the triage officers by a review committee to ensure that inequities are not occurring and assess patient outcomes to modify the triage protocol if required.

## Recommendation #4

- The allocation committee established by health care coalitions to oversee resource allocation should liaise with the state level central triage committee to provide information on resource supply and demand status to the state triage committee and communicate triage directives from the state to coalition members.

## Recommendation #5

- Critical care should be rationed only after all efforts at augmentation have been exceeded a Tier level 6 has been attained or exceeded.

## Recommendation #6

- Each health care institution should develop a pandemic staffing plan that includes a senior intensivist acting as a triage officer and a team to support the triage officer.
- Prior to resource shortfalls occurring, the role of this senior intensivist should be to coordinate resource utilization (ICU admissions & discharges) across the expanded critical care units within an institution established as part of the EMCC response.
- This individual should remain free of direct clinical responsibilities so that he/she can maintain a level of objectivity and be available to liaise when required with the hospital's emergency management group in the emergency operations center.

# Financing during a Pandemic

- “The elephant in the room”
  - Huge costs associated with care
    - Loss of revenue when routine care (eg surgeries) not provided
    - Difficult to document appropriately in a crisis
  - Unfair to ask healthcare to provide care, and shoulder cost of it
    - Penalizes the “good citizens”
    - ?incentive for some to avoid participation

# Financing during a Pandemic-Recommendation

- Compensate Hospitals and providers during the time of a declared emergency
  - Daily per diem equivalent to average daily income over the past 365 days
    - Billing for services ok, but must continue to document and code appropriately
  - Alternative: Billing done as usual, but with modifications to documentation and regulatory requirements

# End

- For further information contact:  
[Jeffrey.R.Dichter@HealthPartners.Com](mailto:Jeffrey.R.Dichter@HealthPartners.Com)  
or  
[michael.christian@utoronto.ca](mailto:michael.christian@utoronto.ca)



### DEFINITIVE CARE FOR THE CRITICALLY ILL DURING A DISASTER

Summary of Suggestions From the Task Force for Mass Critical Care Summit, January 26–27, 2007 <i>Asha Devereaux; Michael D. Christian; Jeffrey R. Dichter; James A. Geiling; Lewis Rubinson</i>	15
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**Paper 1**  
**Background**



**Paper 2 & 3**  
**Optimizing Response Capability**



**Paper 4**  
**Allocating Scarce Resources**

