



MAKING HARD DECISIONS ON RESOURCE ALLOCATION IN AN ERA OF PANDEMICS AND UNCERTAINTY

Gina Piscitello, MD

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Learning Objectives:

1. Discuss ethical principals of resource allocation.
2. Discuss the ethics of balancing protection of healthcare workers with caring for patients
3. Review ethical principals for providing care in a pandemic

Case:

A 68-year-old man is brought to the ED by ambulance with shortness of breath, cough, and fever. Vitals on presentation are HR 120, BP 110/70, temperature 38.6, & O2 68%. Patient is altered on admission and cannot protect his airway. Patient has no family at bedside due to visitor restrictions. Is emergently intubated by the ED team and a request for admission is placed to the ICU.

Questions:

Is it ok to proceed with intubation without discussing with patient's alternate decision maker?

Is it ok in a time of public health emergencies to restrict visitors?

Case Continued:

A 68-year-old man is brought to the ED by ambulance with shortness of breath, cough, and fever, and is intubated emergently in the ED.

The patient is found to meet criteria for severe acute respiratory distress syndrome (ARDS) and the decision is made to paralyze and prone the patient. The patient also develops renal failure requiring initiation of CRRT.

Ethical Principles of Resource Allocation

Are institutions obligated to share resources with each other?

Ventilators? Dialysate Solution? Fentanyl?
Cisatracurium? ECMO?

Accepting transfer of patients from other institutions?

Ethical Principles of Resource Allocation

Is variability in management of patients with respiratory failure acceptable?

Early intubation?

How much should institutions work together?

Case Continued:

A 68-year-old man with severe ARDS continues to have respiratory failure and renal failure without improvement after being in the ICU 2 days.

A clinical trial to treat COVID-19 is available for patients, but there is a limit in how many patients can be enrolled on this trial.

Ethical Principles of Resource Allocation

How can access to clinical trials be equitably distributed?

Case Continued:

A 68-year-old man with severe ARDS continues to have respiratory failure and renal failure without improvement after being in the ICU 10 days.

The hospital is running low on mechanical ventilators and more patients are being admitted for respiratory failure requiring intubation.

Question:

If a ventilator shortage occurs, what should be done?

Should this patient be allowed to remain on ventilatory support or should it be withdrawn?

Ethical Principles of Resource Allocation

Conventional Care

Contingency Care

Crisis Care

Ethical Principles of Resource Allocation

Autonomy

Justice

Nonmaleficence

Beneficence

Ethical Principles of Resource Allocation

Which ethical allocation strategy should be used?

Utilitarianism

Human Dignity

First Come, First Served

Common Good

Considerations for Resource Allocation

Acute Mortality

Maximizing years of life saved

Life-Cycle Argument

Considerations for Resource Allocation

Principle	Specifications	Point System			
		1	2	3	4
Save the most lives	Prognosis for short term survival (SOFA score predicting ICU mortality)	SOFA score <6 (mortality ~20% if initial score, ~7% if highest score)	SOFA score 6-9 (mortality ~33% if initial score, ~26% if highest score)	SOFA score 10-12 (mortality ~50% if initial score, ~45% if highest score)	SOFA score >12 (mortality ~95% if initial score, ~80% if highest score)
Save the most life years	Prognosis for long term survival (Charlson Comorbidity Index predicting 10 year survival)	No comorbidities limiting long term survival (~0-3 points)	Minor comorbidities with small impact on long term survival (~4-5 points)	Major comorbidities with substantial impact on long term survival (~6-7 points)	Severe comorbidities, likely death within one year (~8 points)
Life Cycle Principle	Prioritize those who have had the least chance to live through life's stages (age in years)	Age ≤ 40	Age 41-60	Age 61-74	Age ≥ 75

Considerations for Resource Allocation

Americans are split over how hospitals should allocate ventilators in a shortage.

Providing to patients with highest needs vs. patients who are most likely to recover with treatment.

Considerations for Resource Allocation

Priority for certain groups?:

Health Care Workers

Pregnancy

Children

Considerations for Resource Allocation

Should exclusion criteria exist?

Ethical Principles of Resource Allocation

Should protocols be transparent?

Should the community be involved with creation of protocols?

Ethical Principles for Providing Care in a Pandemic

Duty to Provide Care

Ethical Principles for Providing Care in a Pandemic

Duty to Protect Healthcare Workers



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