**New Mexico Triage Protocol for the Allocation of Scarce Resources**

**Under COVID-19 Crisis Standards of Care**

**Executive Summary**

This protocol (1) establishes the legal liability standard to be applied to healthcare providers who follow the protocol in treating Covid-19 and other patients during the current crisis and (2) provides a consistent way in which providers must triage Covid-19 patients when there are inadequate healthcare resources, like ventilators, to make them available to every patient who needs them.

First, the protocol announces that healthcare providers who treat patients under the extraordinary medical circumstances prevailing during this crisis will not be measured by the ordinary standard of care applied in medical malpractice actions, but, rather, by a more limited standard that asks only whether the provider's act was grossly negligent or done recklessly or with willful disregard for the health of the patient. This protects providers who must make excruciatingly difficult decisions under circumstances that have never arisen before. This protection is necessary to assure that a sufficient number of providers will be available serve the public health needs of New Mexicans throughout this crisis.

Second, the protocol provides both a procedure and substantive standards for making triage decisions when two or more patients can benefit from treatment, like ventilator care, but when there are inadequate resources to provide the treatment to all who could benefit. The protocol provides for Triage Boards and Triage Officers at each hospital in the state as well as a Statewide Hub Triage Board and

Statewide Triage Officers who will address inter-hospital transfers. Triage officers will base their triage decisions on priorities determined entirely by the medical attributes of patients and those patients' prognoses with regard to their chance of survival. The protocol does not permit consideration of any other factor, including gender, race, ethnicity, religion, social status, age, education, sexual orientation, physical or mental disability of any kind, employment status, immigration status, social worth, value to the health care system, existence of dependents, insurance coverage or ability to pay for treatment, all of which are ethically irrelevant to making allocation decisions.

**New Mexico Triage Protocol for the Allocation of Ventilators**

**Under COVID-19 Crisis Standards of Care**

## INTRODUCTION

This Protocol is issued to allow for appropriate medical care of patients with COVID-19, and patients with other medical conditions who require scarce medical resources, during the declared public health emergency created by the COVID-19 crisis. The purpose of this Protocol is to establish the New Mexico crisis standards of care under these circumstances. All health care providers in New Mexico are bound by the standards provided in this Protocol, which replace the ordinary standards of care during this emergency. These standards will automatically expire at the termination of the current declared emergency.

These crisis standards of care are required because the ethical and legal obligations of all healthcare providers necessarily change during a crisis of this kind and magnitude. Normally, healthcare providers have an obligation to their patients individually, and both law and clinical ethics counsels those providers to offer what is best for their patients, and then to provide the care chosen by their patients. Under the crisis circumstances which are likely to arise in this emergency, there may be times during which certain scarce resources, such as ventilators and intensive care beds, will

be in short supply and cannot be provided to all patients who choose that care, and, thus, they cannot be offered to all patients who might benefit from them.

Under these circumstances providers have an obligation to the public good to do whatever is necessary to save the most lives. This means that patients with a better chance of survival as a result of receiving scarce resources must be given priority for those resources despite other individual patients' choices, and despite the fact that some of those other individual patients would have had a chance to benefit from the scarce resource.

The allocation method for scarce medical resources must be fair, consistent, and transparent. Being fair means that all patients across the State are subject to the same allocation procedures, and that choices are based entirely on clinical considerations. With regard to the allocation of scarce resources, patients at all geographical locations will be treated equally and patients with COVID-19 and other acute and critical conditions will be treated identically.

Being consistent means the same procedure and substantive policies will apply to everyone in the state.

Finally, it is the intent of the publication of this protocol to make it transparent.

In no case will any allocation decision consider other patient attributes such as gender, race, ethnicity, religion, social status, age, education, sexual orientation, physical or mental disability of any kind, employment status, immigration status, social worth, value to the health care system, existence of dependents, insurance coverage or ability to pay for treatment, all of which are ethically irrelevant to making allocation decisions.

## LEGAL CONSEQUENCES OF ADHERING TO CRISIS STANDARDS OF CARE

Health care workers providing care during this crisis will often be severely handicapped when they are making medical decisions. They often will not have access to all of the information that they would normally consider when making healthcare decisions. For example, they may not have access to medical records of those whom they have been asked to triage or provide care, and circumstances may make it impossible for them to talk to their patients' families. In addition, they may be called to triage or treat far more patients than a reasonable provider would under normal circumstances, and they will be asked to triage and treat those patients much more quickly than they normally would. Although all providers are always expected to act with due care under the circumstances, it would be unfair to expect healthcare workers during this crisis to act with the deliberation they would engage in under other, more normal, times.

Thus, it is important to reassure health care providers that their participation in this protocol, with all of its uncertainties, will not expose them to arbitrary liability. The purpose of this Protocol is to assure health care providers, including clinicians and institutions, that they will be protected from legal liability for making treatment decisions that are consistent with these COVID-19 crisis standards of care, as long as those providers do not act with gross negligence or with willful and malicious disregard of the health of their patients. All agencies of New Mexico government are required to liberally interpret this emergency protocol, recognizing the extreme pressure and extraordinary burden that is imposed upon providers engaged in treating COVID-19 patients.

## PROCEDURE FOR ALLOCATION AND SUBSTANTIVE PRINCIPLES OF ALLOCATION

*Creation of Local Triage Boards and Triage Officers*

In preparation for the implementation of the crisis standards of care, each hospital will create a Local Triage Board, which will have the responsibility to ensure that the appropriate triage and allocation policies and procedures are in place, maintain contact with other Triage Boards to facilitate inter-organization collaboration, maintain contact with the state Medical Advisory Team to preserve state-wide consistency in the administration of this protocol, explain the allocation process to community groups, patients and families, and review appeals of decisions to remove patients from scarce resources. Each hospital will also appoint Triage Officers who will administer the priority scale to patients requiring intensive care, mechanical ventilation, or another scarce resource, determining who will access those resources in a time of scarcity in that hospital. The Triage Officers will also serve to coordinate allocation of ICU beds with the State Triage Hub, when bed capacity becomes available to receive additional patients into that hospital. The Triage Officers should be physicians with the clinical expertise necessary to administer the priority scale. The Triage officers should serve as members of the Local Triage Board.

*Statewide Capacity Surge Regional Centralized Triage Hub and Medical Command Center, and the Initial Assessment of Patients*

A Statewide Triage Officer at the Statewide Triage Hub (the Statewide "Hub"), established by the Medical Advisory Team, will receive and resolve requests for intensive care services from throughout the state and will assign patients in need of critical care to scarce resources, applying the substantive principles described below. The Statewide Triage Hub will collaborate with the Local Triage Officers to understand the available ICU capacity in each location, to allow them to use the same priority scale to determine which patients will be transferred to access those beds.

In order to respond to a surge of patients requiring critical care and access to scarce resources, all providers are required to assist with the sharing of information and evaluation procedures and to facilitate the orderly transfer of patients from regional hospitals.

Prior to making a triage decision, the Local and Statewide Triage Officers will determine whether a patient has an advance directive or a proxy decision-maker, and whether the patient wishes to receive intensive care services, mechanical ventilation or other scarce resources under the circumstances. If the patient expresses the wish not to be placed on a ventilator or receive those services, the patient will continue to receive appropriate hospital care, including treatment of any symptoms arising from their condition. Patients and families may choose to receive care focused on symptom management, which could be delivered in the inpatient setting or in the home.

*Substantive Principle Governing Assessing Patients Under This Protocol*

Because patients differ in the severity of their symptoms and in the probability that they will survive the illness episode, when there is a scarcity of resources, some

patients should be prioritized over others in order to maximize the usefulness of resources and to save as many lives as possible.

Patients' priority for treatment under this protocol depends upon those patients' chance of survival. To facilitate that priority decision, the scoring model described below will be used. This model is similar to those developed at the University of Pittsburgh and proposed for use in other medical systems during a crisis of care.

The model assesses a patient's clinical and functional state and it yields a Priority Score. The initial step uses the Sequential Organ Failure Assessment, SOFA, to assess the patient's current clinical status, predicting the likelihood of survival from the acute clinical insult itself and the stresses of undergoing critical care and mechanical ventilation.

**Table 1. Scoring Strategy to Allocate Ventilators During a Public Health Emergency**

| Specification | Point System* | | | |
|---|---|---|---|---|
| | 1 | 2 | 3 | 4 |
| Prognosis for short-term survival (SOFA score#) | SOFA score < 6 | SOFA score 6-8 | SOFA score 9-11 | SOFA score ≥12 |
| Prognosis for long-term survival (medical assessment of comorbid conditions) | … | Major comorbid conditions with substantial impact on long-term survival | … | Severely life-limiting conditions; death likely within 1 year |

The Sequential Organ Failure Assessment (SOFA) scale is used to assess current respiratory, cardiovascular, hepatic, coagulation, renal and neurological systems. It returns a score between 0 and 24.

The patient's SOFA score is used to contribute up to four points on the total Priority Score. SOFA scores of <6 receive 1 priority point; 6-8 receive 2 priority points, 9-11 receive 3 priority points, >=12 receive 4 priority points.

The second step in the model is to assess the impact of comorbidities on the patient's chance of survival. A patient's short-term prognosis (survival to discharge) and medium-term prognosis (the initial years following the discharge) are strongly influenced by the number and severity of that patient's comorbid medical conditions and prior functional status. Comorbidity is assessed using the following clinical criteria:

**Table 2. Major Comorbidities and Severely Life Limiting Comorbidities***

| | **Major Comorbidity** (associated with significantly decreased long-term survival - approx. 50% 5-year mortality) | **Severe Life-limiting Comorbidity** (commonly associate with poor 1-year survival. approx. 50% 1-year mortality) |
|---|---|---|
| **Neurocognitive Disorder (Dementia)**[12] | Diagnosis of Dementia (or similar progressive neurocognitive disorder) and function less than or equal to 6 on FAST Scale | Diagnosis of Dementia (or similar progressive neurocognitive disorder) and function ≥7 on FAST scale |
| **Cancer** | Any malignancy with < 50% 5-year survival rate (SEER Cancer Registry[3]) **AND** ECOG status less than or equal to 2 | • Any malignancy with < 50% 1-year survival rate (SEER Cancer Registry) **OR**<br>• ECOG status > 2 **OR**<br>• Receiving chemotherapy or radiation under palliative protocols **OR**<br>• No longer able to receive treatment |
| **Heart Failure** | NYHA Class 3 or AHA Stage C[4] | NYHA Class 4 or AHA Stage D |
| **CAD** | | Severe Multivessel Coronary Artery Disease (symptomatic, not amenable to treatment) |
| **Lung Disease** | • Pulmonary Hypertension (all Groups)<br>• COPD: $FEV_1$ <40% predicted<br>• Lung Transplant Recipient<br>• Idiopathic Pulmonary Fibrosis (mild to moderate) | • Pulmonary Hypertension (all Groups): WHO Functional Class III or IV<br>• COPD: $FEV_1$ <20% predicted<br>• Idiopathic Pulmonary Fibrosis with home $O_2$ use |
| **Chronic Kidney** | ESRD on dialysis (peritoneal or | |

| Disease | hemodialysis) | |
|---|---|---|
| **Liver Disease** | • Childs-Pugh Class A or B<br>MELD Score ≥ 15 and < 20 | • Childs-Pugh Class C<br>MELD Score >20 and ineligible for transplant |
| **Other Neurodegenerative Disorder** | | • Advanced Progressive Neurodegenerative Disorder, such as Amyotrophic lateral sclerosis, Multiple Sclerosis, Parkinson's disease |
| **Frailty** | *In geriatric patients, Clinical Fragility Score ≥ 4 [5] | |

[1] Xie J, Brayne C, Matthews FE; Medical Research Council Cognitive Function and Ageing Study collaborators. Survival times in people with dementia: analysis from population-based cohort study with 14 year follow-up. *BMJ*. 2008;336(7638):258–262. doi:10.1136/bmj.39433.616678.25
[2] Reisberg, B. Functional Assessment Staging (FAST). Psychopharmacology Bulletin. 1988:24: 653-659.
[3]https://seer.cancer.gov/archive/csr/1975_2014/browse_csr.php?sectionSEL=1&pageSEL=sect_01_table.05.html
[4] https://www.ahajournals.org/doi/10.1161/circulationaha.106.666818 Rockwood K, Song X,
[5] MacKnight C, Bergman H, Hogan DB, McDowell I, Mitnitski A. A global clinical measure of fitness and frailty in elderly people. Cmaj. 2005 Aug 30;173(5):489-95.

*The clinical references made in this table to define the conditions are illustrative; it is understood that at times, all of the normal clinical information may not be available to healthcare providers, and that those providers will interpret these guidelines and apply them to the best of their abilities. The clinical guidelines may be changed or updated, based on the recommendation of the State Triage Hub.

A patient who has one or more severely life-limiting comorbidity receives a score of 4 points on the Priority Score. A patient who has one or more major comorbidity receives a score of 2 points. Patients who have no major or life-limiting comorbidities score 0 points. A single score of 0, 2 or 4 will be applied to the Priority Score; there is no additive effect from having more than one condition.

The scores reflecting symptom severity (the SOFA) (Table 1) and comorbidity (Table 2) are added to create a patient's Priority Score, which will range from 1 to 8. High scores reflect high severity and low likelihood of survival following treatment with mechanical ventilation. Patients with lower scores are thus prioritized to receive available ventilators.

For administrative convenience, the scores will also be translated into color-coded priority groups, although it is the Priority Score, not the color code, that determines the ultimate priority.

**Table 3. Assigning Patients to Color-coded Priority Groups**

| **Use Raw Score from Multi-principle Scoring System to Assign Priority Category** | |
|---|---|
| **Level of Priority and Code Color** | **Priority score from Multi-principle Scoring System** |
| **RED**<br>**Highest priority** | **Priority score 1-3** |
| **ORANGE**<br>**Intermediate priority**<br>(reassess as needed) | Priority score 4-5 |
| **YELLOW**<br>**Lowest priority**<br>(reassess as needed) | Priority score 6-8 |

In situations when two or more patients have the same Priority Score, a lottery will be used to assign a scarce resource.

*Assessment of Patients for Continuation of Treatment*

The decision to allocate a scarce resource to a patient is independent of the decision to maintain a patient on that resource. If the triage decision allocates a ventilator to a patient, for example, he or she should be given a fair chance to benefit from it. However, not every patient will benefit from ventilator, and in an emergency, it will not always be ethical to wait until a patient's clinical state deteriorates to the point that he or she dies while on a ventilator, if by waiting other patients are denied the possibility of recovery.

A patient's response to ventilator treatment will be monitored closely and over time, and progress will be regularly assessed using the SOFA score and other key clinical signs of increasing or decreasing effectiveness of intensive care and the use of mechanical ventilation to reverse the patient's illness. The assessment of patients on ventilators will occur daily, overseen by a team of Local Triage Officers in collaboration with the treating clinicians. This team should be composed of at least two skilled physicians with the training necessary to make these assessments. If possible, these should not be physicians also taking care of patients in the critical care unit at the time they are in this role. In many institutions, a palliative care physician is added to assist with assessments and work with families and teams on difficult communications.

It is critical that the decision to remove a patient from a ventilator or other supportive care be made with the collaboration this team, both to ensure fairness and to support the critical care team operating in these difficult circumstances.

Patients removed from ventilators will receive supportive care to relieve their symptoms.

*Review of Decisions*

There is no review of the decision of a Triage Officer, at the Statewide Hub or at local hospitals, not to place a patient on a ventilator.

Review of a decision to withdraw a ventilator or another scarce resource from a patient may be requested of the Local Triage Board. This review must happen rapidly, given the demand for scarce resources. At least two clinician members of the Local Triage Board where the patient is being treated will assess any such appeal under processes established by that local Triage Review Board and make a final decision.

## Conclusion

The COVID-19 epidemic is expected to exceed a threshold where many of our normal practices, including the methods of prioritization of available resources, must be reconsidered. This protocol, while imperfect, provides the fairest and most just method of ensuring that those patients who are most likely to benefit from a ventilator will receive priority when those scarce resources cannot be provided to everyone who wants or needs that resource.

Appendix 1: Triage Roles:

| | Composition | Primary Role | Reports to |
|---|---|---|---|
| Medical Advisory Board | Not reviewed in this document | Not reviewed in this document | Governor; Secretary of Health; Secretary of Human Services |

| Statewide Triage Hub (the Statewide "Hub") is established by the Medical Advisory Team | Composed of volunteer physicians (Statewide Triage Officer) with the expertise to review these cases, assisted by administrative staff. | 1) Will receive and resolve requests for intensive care services from throughout the state;<br>2) Will assign patients in need of critical care to scarce resources, applying the substantive principles described. (reference)<br>3) Prior to making a triage decision, the Statewide Hub will clarify whether a patient has an Advance Directive or a proxy decision-maker, and whether the patient wishes to receive intensive care services and mechanical ventilation under the circumstances. | Medical Advisory Team |
|---|---|---|---|
| Local Triage Officer(s) | A physician or group of physicians with the expertise necessary to administer the priority scale and review progress of patients | 1) Administer the priority scale to patients requiring scarce resources, determining who will access those resources in a time of scarcity in that hospital.<br>2) Serves as part of a team to review progress of those patients allocated scarce resources.<br>3) Serves to coordinate allocation of ICU beds with the State Triage Hub, when bed capacity becomes available to receive additional patients into that hospital .<br>4) Serves as a member of the Local Triage Board. | |

| Local Triage Boards<br><br>* each hospital will create a Local Triage Board. Hospitals may choose to develop a shared Local Triage Board with other hospitals to limit the workload on their staff. | Clinicians and Administrators | 1) Ensures that the appropriate triage and allocation policies and procedures are in place;<br>2) maintains contact with other Triage Boards to facilitate inter-organization collaboration<br>3) maintains contact with the state Medical Advisory Team to preserve state-wide consistency in the administration of this protocol;<br>4) explains the allocation process to community groups, patients and families;<br>5) Reviews decisions of Local Triage Officers to terminate scarce resources of patients | ??? |
|---|---|---|---|