



Considerations for Allocating Medical Resources during Covid-19
Triage Protocol for Catholic Health
For CHS Medical Staff Members Use Only
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(FINAL DRAFT: April 8, 2020)

(adapted from the New York State Ventilator Allocation Guidelines November 2015)

I. Our Duty to Plan, Safeguard and Guide

- A. Our primary focus in medicine has always been a single patient-centered approach to care, always putting as a priority patient autonomy in medical decision making. Patients receive the services they desire, and have access to the full extent of medical care available. This patient-centered approach does not change just because we have a COVID-19 pandemic; all institutions, including our designated COVID-19 site, will continue as usual as long as resources are available.
- B. The COVID-19 pandemic is likely to stretch our capabilities to provide all the care for every patient that we are accustomed to. Our current effort is to maximize needed resources within all our institutions as much as possible. We are also collaborating with other health systems across the region, so that each patient can receive the level of care that they need.
- C. While we are hopeful that our best efforts to expand resource capacity throughout the region will be sufficient to meet the health needs of our patients, we need to have a plan if needed resources become unavailable. If this occurs, we will need to shift our focus from a single patient centered approach, to one that prioritizes both the common good and the real needs of individual patients, and implement a Triage Protocol.
- D. Respecting patient autonomy in medical decision making is always an important principle that must be upheld, but autonomy is never absolute and must be considered within the context of public health and the common good, especially when a scarcity of resources exist.
- E. A Triage Protocol is a clinical criteria-based method to guide decision making in the use of limited available treatment options in order to promote equity and consistency.
- F. Allocation of limited resources by an established Triage Protocol is an ethically sound approach when faced with difficult decisions in times of overwhelming need. The ethical principles we utilize:
 - i. Respect for the inherent value of Human Life and Dignity.
 - ii. Objectivity, Justice, and Proportionality
 - iii. Duty to Care
 - iv. Stewardship
 - v. Consistency, Accountability, and Transparency
 - vi. Need for prayer and support
 - vii. Prudence
 - viii. Charity

- G. Our call to reveal the healing love of Jesus to all requires us to safeguard the inherent dignity of each person. Limitation of resources does not mean we limit the basic care and respect for the inherent dignity that is due to and must be provided to every patient.

II. Initiation of the Triage Protocol- Underlying Principles

- A. The decision to start a Triage Protocol is not one made easily, because it means a shift away from our normal way of giving each patient what they need, to one where we need to prioritize the needs of the community of patients and those who are most likely to survive and benefit from a given resource. It never entails weighing the inherent value of one patient against another; all patients have equal inherent dignity and value.
- B. A Triage Protocol is specific to the resource that is unavailable, will soon be unavailable, or has a very limited supply to begin with. If we have a large capacity of ventilators and the Health Care Workers (HCW) to operate them, then there is no need to limit their availability only to those who are most likely to survive and benefit from the resource, we continue to function on our usual practice of providing the resource to those who need it.
- C. While there are many resources that have the potential to be in short supply during this crisis, we will focus on the most critical resource, ventilators. These same principles and guidelines can equally apply to other scarce resources, such as renal dialysis.
- D. All means of obtaining more resources or the creative adaptation of current resources has already been maximized.
- E. The determination of our maximum available resources at each of our sites is critical to being able to formulate a Triage Protocol. If certain resources are not considered “available”, then they are to be excluded from the list of available resources. This must be agreed upon in advance and the reasons clearly stated.
- F. When resources become available, the Triage Protocol will be ended.

III. Initiation of the Triage Protocol for VENTILATORS - Operational Details

- A. Definitions:
- i. Total Ventilators (TV) = Total of all ventilators in Catholic Health
 - ii. Total Ventilators in Use (TViU) = Total of all ventilators currently in use
 - iii. Excluded Ventilators
 1. Reserved Neonatal Ventilators (RNV)
 - a. A strong preference for saving babies is long-standing societal practice. Our institutional commitment to providing maternity and neonatal care is an integral part of our Mission.
 - b. Neonatal survival with ventilator support after 24-25 weeks gestation is over 80%, survival after 28 weeks is over 95%.
 - c. The unpredictability of preterm delivery only allows for an estimation of need for “reserved” neonatal ventilator, based on best estimates, Reserved Neonatal Ventilators (not in use but available) = 5.
 - iv. Total Available Ventilator (TAV) = TV - (RNV + TViU)
- B. Incident Command Center
- i. Will act as the central clearing house for all ventilator usage throughout Catholic Health
 - ii. Responsible for tracking the Total Ventilators in Use (TViU)

- iii. Calculates the Total Available Ventilators (TAV) at each site in Catholic Health
 - iv. Responsible for tracking initial and timed assessments for each patient using a ventilators
 - v. Responsible for ventilator distribution, movement, and effectuation of allocation as specified by the triage protocol herein
- C. Total Available Ventilators ≤ 30 , the Incident Command Center will:
- i. Notify the Senior Medical Leadership Team of the situation.
 - ii. Contact other regional institutions to assess the possibility of transfer of patients as well as contacting state and federal agencies for needed resources and equipment.
 - iii. Huddle with the COVID-19 Medical Directors at each site to notify of them of the situation and determine if ventilator availability will change soon (extubations, etc.).
 - iv. Medical Leadership and the Incident Command Center will:
 - 1. Attempt to use transfers of patients if possible
 - 2. Attempt to use other temporizing measures, including use of anesthesia machines.
 - 3. Inform Triage Team Leader to prepare for possible activation
- D. Total Available Ventilators < 20 AND NO Ability to Transfer Patients
- i. Triage Team activated
 - ii. Initiation of Triage Protocol
 - iii. Attempt to transfer patients to other facilities will continue to be attempted
 - iv. All patients on a ventilator will be assessed utilizing the Triage Protocol.
 - v. Although the Triage Team is activated, Triage Decisions for allocation or removal of ventilators will not occur unless there are no Available Ventilators and no alternatives.
- E. After Triage Protocol has been activated
- i. When Total Available Ventilators > 20 → the Triage Protocol will be ended
- F. See Flow Diagram Triage Process: Initiation Process (Attachment 1)

IV. **Triage Protocol for Ventilators – Triage Team**

- A. Multidisciplinary Triage Team
 - i. Dr. Mark Jajkowski - Triage Team Leader
 - ii. The Multidisciplinary Triage Team makes the decisions based on the allocation of ventilator support, removing the difficult decisions from the bedside providers.
- B. Site Triage Teams
 - i. One team established at each site
 - ii. Responsible for date accuracy and availability for triage protocol

V. **Triage Protocol for Ventilators – Process for Triage Teams**

- A. Logistics regarding Implementation of the Guidelines
 - i. Once the Guidelines are implemented, there must be real-time data collection and analysis to modify the Guidelines based on new information.
 - ii. Based on local and regional experience with COVID-19 patients, the Guidelines have been modified to eliminate the 48 hour assessment, as patients with COVID-19 do not show improvement within 48 hours, the 120 hour assessment is a much better time-frame to determine whether patients are improving with ventilator therapy.

- iii. As our understanding of the COVID-19 disease process improves and our experience with implementation of these guidelines is reviewed, modifications to the time-frames and category assessments may occur in order to achieve our goal of saving the most lives possible.

B. The Triage Protocol consists of three steps

- i. Step 1 – Exclusion Criteria
- ii. Step 2 – Mortality Risk Assessment using SOFA
- iii. Step 3 – Time Trials

C. **Step 1 – Exclusion Criteria**

- i. Bedside providers will assess the patient for exclusion criteria, and this information is provided to the Triage Team.
- ii. A patient with a medical condition on the exclusion criteria list is not eligible for ventilator therapy. Instead, a patient receives alternative forms of medical intervention and/or palliative care.
- iii. The purpose of applying exclusion criteria is to identify patients with a short life expectancy irrespective of the current acute illness, in order to prioritize patients most likely to survive with ventilator therapy.
- iv. The medical conditions that qualify as exclusion criteria are limited to those associated with immediate or near-immediate mortality even with aggressive therapy.
- v. Exclusion Criteria Table

Step 1 - List of Exclusion Criteria for Adult Patients¹¹⁴	
Medical Conditions that Result in Immediate or Near-Immediate Mortality Even with Aggressive Therapy	
•	Cardiac arrest: unwitnessed arrest, recurrent arrest without hemodynamic stability, arrest unresponsive to standard interventions and measures; trauma-related arrest
•	Irreversible age-specific hypotension unresponsive to fluid resuscitation and vasopressor therapy
•	Traumatic brain injury with no motor response to painful stimulus (i.e., best motor response = 1) (See Appendix 1)
•	Severe burns: where predicted survival \leq 10% even with unlimited aggressive therapy (See Appendix 1)
•	Any other conditions resulting in immediate or near-immediate mortality even with aggressive therapy ¹

¹ This “catch all” phrase encompasses other possibilities because the list above is merely a guide and does not list every medical condition that would result in immediate or near-immediate mortality.

vi. Appendix 1 Table

Determining Traumatic Brain Injury		
No Motor Response to Painful Stimulus (i.e., Best Motor Response = 1)		
Best Motor Response (1 to 6)	No Motor Response to Painful Stimulus	1
	Extension to Painful Stimulus	2
	Flexion to Painful Stimulus	3
	Withdraws from Painful Stimulus	4
	Localizes to Painful Stimulus	5
	Obeys Commands	6

**American Burn Association (ABA)
Triage Decision Table for Burn Victims Based on Anticipated Outcomes
Compared with Resource Allocation^{1&8}**

Age (yrs)	Burn Size (% total body surface area)									
	0-10%	11-20%	21-30%	31-40%	41-50%	51-60%	61-70%	71-80%	81-90%	91%+
5.0 - 19.9	Out-patient	Very high	Very high	High	High	High	Medium	Medium	Medium	Low
20.0 - 29.9	Out-patient	Very high	Very high	High	High	Medium	Medium	Medium	Low	Low
30.0 - 39.0	Out-patient	Very high	Very high	High	Medium	Medium	Medium	Medium	Low	Low
40.0 - 49.9	Out-patient	Very high	Very high	Medium	Medium	Medium	Medium	Low	Low	Low
50.0 - 59.9	Out-patient	Very high	Very high	Medium	Medium	Medium	Low	Low	Low/Expectant	Low/Expectant
60.0 - 69.9	Very high	Very high	Medium	Medium	Low	Low	Low	Low/Expectant	Low/Expectant	Low/Expectant
70.0 +	Very high	Medium	Medium	Low	Low	Low/Expectant	Expectant	Expectant	Expectant	Expectant

Outpatient: Survival and good outcome expected, without requiring initial admission.

Very high: Survival and good outcome expected with limited/short-term initial admission and resource allocation (straightforward resuscitation, length of stay < 14 – 21 days, 1 – 2 surgical procedures).

High: Survival and good outcome expected (survival ≥ 90%) with aggressive and comprehensive resource allocation, including aggressive fluid resuscitation, admission ≥ 14 – 21 days, multiple surgeries, prolonged rehabilitation.

Medium: Survival 50 – 90% and/or aggressive care and comprehensive resource allocation required, including aggressive resuscitation, initial admission ≥ 14 – 21 days, multiple surgeries and prolonged rehabilitation.

Low: Survival < 50% even with long-term aggressive treatment and resource allocation.

Expectant: Predicted survival ≤ 10% even with unlimited aggressive treatment.

Glasgow Coma Scale Score Criteria

Criteria	Adults	Score	Criteria Score
Best Eye Response (1 – 4)	No eye opening	1	
	Eye opens to painful stimulus	2	
	Eye opens to verbal command	3	
	Eyes open spontaneously	4	
Best Verbal Response (1 – 5)	No verbal response	1	
	Incomprehensible sounds	2	
	Inappropriate words	3	
	Confused	4	
	Oriented	5	
Best Motor Response (1 – 6)	No motor response	1	
	Extension to painful stimulus	2	
	Flexion to painful stimulus	3	
	Withdraws from painful stimulus	4	
	Localizes to painful stimulus	5	
	Obeys commands	6	
Total Score (add three subscores, range from 3 to 15):			

D. Step 2 – Mortality Risk Assessment Using SOFA

- i. The bedside attending provider will do clinical assessments, this data will be gathered to determine the SOFA, which may be used as a proxy for mortality risk, and will be provided to the Triage Team.
- ii. Sequential Organ Failure Assessment (SOFA)
 1. SOFA is used to assess mortality risk. It is simple to use, with few variables or lab parameters, and the calculation of the score (simple addition) is straightforward. It is a good tool to provide a consistent, clinical approach to allocate ventilators.
 2. The score is calculated only from clinical factors based on available medical evidence, not personal values or subjective judgments, such as quality of life.
 3. A SOFA score describes a patient's health status and assesses the patient's likelihood of survival.
 4. Sequential Organ Failure Assessment - SOFA Table

Variable	0	1	2	3	4	Score (0-4)
PaO ₂ /FIO ₂ * mmHg	> 400	< 400	< 300	< 200	< 100	
Platelets, x 10 ³ /μL (x 10 ⁶ /L)	>150 (>150)	<150 (<150)	<100 (<100)	<50 (<50)	<20 (<20)	
Bilirubin, mg/dL (μmol/L)	< 1.2 (<20)	1.2 – 1.9 (20-32)	2.0 – 5.9 (33-100)	6.0 – 11.9 (101 -203)	> 12 (>203)	
Hypotension	None	MABP < 70 mmHg	Dop < 5	Dop 6-15 or Epi <0.1 or Norepi < 0.1	Dop > 15 or Epi > 0.1 or Norepi > 0.1	
Glasgow Coma Scale Score (see table)	15	13 - 14	10 -12	6 – 9	< 6	
Creatinine, mg/dL (μmol/L)	< 1.2 (<106)	1.2 – 1.9 (106 - 168)	2.0 – 3.4 (169 - 300)	3.5 – 4.9 (301 -433)	> 5 or RRT (>434)	
TOTAL (0-24):						

Dopamine [Dop], epinephrine [Epi], and norepinephrine [Norepi] doses in μg/kg/min (administered for at least one hour). SI units in parentheses ()

*If no ABG is available consider using the following modification

Variable	0	1	2	3	4
SaO ₂ /FIO ₂ or nasal cannula or mask O ₂ required to keep SpO ₂ >90%	SpO ₂ /FIO ₂ > 301 or room air SpO ₂ >90%	SpO ₂ /FIO ₂ 221 - 301 or SpO ₂ >90% at 1-3 L/min	SpO ₂ /FIO ₂ 142 -220 or SpO ₂ >90% at 4-6 L/min	SpO ₂ /FIO ₂ 67 - 141 or SpO ₂ >90% at 7-10 L/min	SpO ₂ /FIO ₂ < 67 or SpO ₂ >90% at >10 L/min

- iii. Process for Ventilator Allocation

1. The Triage Team examines clinical data from Steps 1 and 2 and initiates the ventilator allocation process using these color-coded priorities based on SOFA scores.

- a. Blue code patients (lowest access/palliate/discharge) are those on the exclusion criteria list or those who have a high risk of mortality.
 - b. Red code patients (highest access) are those who have the highest priority for ventilator treatment because they are most likely to recover with treatment (and likely to not recover without it).
 - c. Yellow code patients (intermediate access) are those who are very sick and their likelihood of survival is intermediate and/or uncertain. These patients may or may not benefit (i.e., survive) with ventilator therapy.
 - d. Green code patients (defer/discharge) are those who do not need ventilator therapy.
2. Patients with the red color code have the highest level of access to critical care resources because they are most likely to recover with treatment. Ventilator allocation protocols will not indicate removing a ventilator from a patient who is currently coded red.
 3. If resources are available, patients in the yellow category also have access to critical care resources.
 4. If resources are still available, patients in the blue color code, or with exclusion criteria, are reassessed and may become eligible for critical care resources.
 5. The green category represents patients who are most likely to survive without critical care resources or are eligible for ventilator weaning.
- iv. Triage Chart for Step 2 - Allocation of Ventilators based on Step 1 and Step 2

Step 2 – Mortality Risk Assessment Using SOFA ¹	
Color Code and Level of Access	Assessment of Mortality Risk/ Organ Failure
Blue No ventilator provided. Use alternative forms of medical intervention and/or palliative care or discharge. Reassess if ventilators become available.	Exclusion criterion OR SOFA > 11
Red Highest Use ventilators as available	SOFA < 7 OR Single organ failure ²
Yellow Intermediate Use ventilators as available	SOFA 8 – 11
Green Use alternative forms of medical intervention or defer or discharge. Reassess as needed.	No significant organ failure AND/OR No requirement for lifesaving resources

¹ If a patient develops a condition on the exclusion criteria list at any time from the initial assessment to the 120 hour assessment, change color code to blue. Remove the patient from the ventilator and provide alternative forms of medical intervention and/or palliative care.

² Intubation for control of the airway (without lung disease) is not considered lung failure.

- v. Decision-Making Process for Selecting an Eligible Patient for a Ventilator

1. During the randomization process, there will be no access to demographic information on the patient, all adult patients (18 years and above) will be evaluated by the criteria specified herein. Because of a strong societal preference for saving children, *young* age (<18) may be considered as a tie-breaking criterion. Factors such as age, race, socioeconomic status, disability, marital status, and demographic factor will not be considered in the Triage decision.
2. Persons who perform essential public health functions, deemed indispensable to the continued provision of public health services to the community will be prioritized within their designated color category, not because of an inherent greater dignity over others, but because saving lives under circumstances of a pandemic or epidemic can only occur with certain irreplaceable workers. If there is convincing evidence that individuals who perform tasks that are vital to the public health response are likely to recover in time to again fulfill those roles during the current crisis, then these individuals should be given heightened priority.
3. In general, it is not appropriate for the Triage Team to further compare patients within the same color category beyond the parameters specified in this protocol, and randomization will occur when all other specified criteria have been completed and documented.
4. If all the eligible patients are adults, and includes essential public health persons, then the status as an essential public health person may be considered a tie breaker, and they would be eligible for ventilator therapy. Otherwise, a randomization process (i.e. lottery) should be used to choose an adult patient for critical care resources when there are more eligible patients than critical care resources available.
5. This same process is used for distribution each time resources become available as well as each time new resources are needed.
6. Patients waiting for critical care resources wait in an eligible patient pool and receive alternative forms of medical intervention and/or palliative care until critical care resources become available.

E. Step 3: Periodic Assessments for Continued Ventilator Use (Time Trials)

i. Rationale

1. Periodic clinical assessments at 120 hours using SOFA are conducted.
2. The decision whether a patient remains on a ventilator is based on his/her SOFA score and the magnitude of change in the SOFA score compared to the results from the previous official clinical assessment.
3. It is necessary to determine whether the therapy is effective for that patient while allowing for efficient allocation of scarce ventilators.
4. Gives the Triage Team valuable information about the status and real-time availability of ventilators

ii. Process for Step 3

1. At 120 hours, the bedside provider assesses the patient using SOFA and this information is provided to the Triage Team.

2. The color code assigned is dependent on the SOFA score and the extent of change between the SOFA score at the current assessment and the SOFA score from the previous assessment.
3. **At 120 hours**
 - a. Because of the COVID-19 disease process, patient need at least 120 hours to benefit from ventilator therapy, the progress required to justify continued ventilator use is not expected to be dramatic.
 - b. Criteria for each color code at the 120 Hours

Step 3 – Ventilator Time Trial (120 Hour Assessment)	
Color Code and Level of Access	Assessment of Mortality Risk/ Organ Failure
<p style="text-align: center;">Blue</p> <p style="text-align: center;">No ventilator provided.² Use alternative forms of medical intervention and/or palliative care or discharge. Reassess if resources become available.</p>	<p style="text-align: center;">Exclusion criterion</p> <p style="text-align: center;">OR</p> <p style="text-align: center;">SOFA > 11</p> <p style="text-align: center;">OR</p> <p style="text-align: center;">SOFA 8 – 11 <u>and</u> No Change in SOFA Score Compared to the Initial Assessment³</p>
<p style="text-align: center;">Red Highest</p> <p style="text-align: center;">Use lifesaving resources as available.</p>	<p style="text-align: center;">SOFA < 7 <u>and</u> Decrease in SOFA Score Compared to the Initial Assessment⁴</p> <p style="text-align: center;">OR</p> <p style="text-align: center;">SOFA < 11 <u>and</u> Decrease in SOFA Score Compared to the Initial Assessment⁵</p>
<p style="text-align: center;">Yellow Intermediate</p> <p style="text-align: center;">Use lifesaving resources as available.</p>	<p style="text-align: center;">SOFA < 7 <u>and</u> No Change in SOFA Score Compared to the Initial Assessment</p>
<p style="text-align: center;">Green</p> <p style="text-align: center;">Use alternative forms of medical intervention or defer or discharge. Reassess as needed.</p>	<p style="text-align: center;">No longer ventilator dependent / Actively weaning from ventilator</p>

¹ If a patient develops a condition on the exclusion criteria list at any time from the initial assessment to the 120 hour assessment, change color code to blue. Remove the patient from the ventilator and provide alternative forms of medical intervention and/or palliative care.

² A patient assigned a blue color code is removed from the ventilator and alternative forms of medical intervention and/or palliative care are provided.

³ The patient remains significantly ill.

⁴ These criteria apply to a patient who was placed into the red category at the initial assessment.

⁵ These criteria apply to a patient who was placed into the yellow category at the initial assessment but because a ventilator was available the patient began ventilator therapy.

- c. A patient initially in the red category, and to continue to be in the red color code, his/her SOFA score must be < 7 and the score must have decreased.
- d. For a patient initially in the yellow color code and on a ventilator to continue with treatment, they must qualify to be in the red category, meaning that their SOFA score must be < 11 and there must be a decrease from the initial SOFA score,
- e. If their SOFA score is < =7 and there is no change from the initial SOFA score, the patient is placed into the yellow code. The SOFA score of < =7 is good, but if there is no improvement, then the patient is no longer in the red code and the ventilator is subject to reallocation through the process herein.

- f. If a patient develops an exclusion criterion, has a SOFA score > 11, or the SOFA score has increased, or if the previous score between 8 & 11 has not changed (i.e., the patient remains significantly ill), the patient is assigned a blue color code and is no longer eligible for continued ventilator therapy.

4. **After 120 hours, Assessments every 48 Hours**

- a. After the 120 hour clinical assessment, a patient who is allotted another time trial for ventilator therapy is reassessed every 48 hours.
 - b. The decision to continue ventilator therapy may consider several factors, but first, a patient must continue to exhibit signs of improvement.
 - c. If there is clear evidence of deterioration, a patient may no longer be eligible for ventilator treatment.
 - d. After 120 hours, in order to continue ventilator therapy, a patient must demonstrate a pattern of further improvement.
5. Difference between the 120 hour and subsequent 48 hour assessments
- a. The *extent* of improvement in overall health prognosis and of the trajectory of a patient's health status is required to continue to be eligible for ventilator therapy.
 - b. After 120 hours, a patient must demonstrate a pattern of *further* improvement in health to be in the red color code.
 - c. To justify continued use beyond 120 hours requires a positive change in a patient's health; otherwise, the ventilator may be reallocated to an eligible patient if needed.
6. Flow Diagram of Process (see Attachment 2)

F. **Decision-Making Process for Removing a Patient from a Ventilator**

- i. In a scenario where there is an incoming red code patient(s) eligible for ventilator treatment a ventilator will be assigned to that patient, selected by the processes described herein, unless currently all ventilators are in use on red coded patients.
- ii. No formal triage decision or action may be taken until an official time trial assessment of the ventilated patient is performed, or when the patient develops a medical condition on the exclusion criteria list.
- iii. The Multidisciplinary Triage Team follows these steps to determine which patient should be removed from the ventilator in a site-specific process.
- iv. First, patients in the blue code are identified and randomized for ventilator removal.
- v. If there are no further patients in the blue category, then the yellow code patients are randomized for ventilator removal.
- vi. The randomization process does not compare the health of patients within the same color category, except as described in this protocol.
- vii. A patient expects that doctors provide treatment, to the extent possible, based on assessments of the patient's health as an individual. If ventilator use is primarily determined by the health of *other* patients, clinicians must abandon their obligation to advocate/care for their individual patient.

- viii. Such comparisons may intensify inherent biases in the health care system and the disproportionate and disparate provision of care for already disadvantaged populations.
- ix. The Triage Team utilizes the following framework to select which patient(s) is removed.
- x. The assumption is made that all patients in the same category (blue or yellow) category have substantially equal likelihoods of survival, therefore a randomization process such as a lottery is used to select which patient is prioritized to be removed from the ventilator so that another eligible (red code) patient has an opportunity to benefit from ventilator therapy.
- xi. Finally, if all ventilated patients at the 120, and subsequent 48 hour time trial assessments receive a red color code, then none of these patients discontinue ventilator therapy. The incoming red code patient(s) remains in an eligible patient pool and receives alternative forms of medical intervention and/or palliative care until a ventilator becomes available.

VI. **Collaboration with Other Regional Health Systems**

- A. Cooperation and collaboration between health systems, government agencies, and community members is critical in order to provide the best care to the population we all serve.
- B. The Incident Command Center is responsible for all such collaborative efforts and is committed to maximizing resources to satisfy our patient's needs wherever possible.

VII. **Do Not Resuscitate and COVID-19 Patients**

- A. From The Catholic Health Association ***Code Status and COVID-19 Patients***

Catholic health care is committed to the healing ministry of Jesus recognizing the inherent dignity of all who seek care. For those patients who are facing life-threatening illness, we will remain true to our value of accompaniment. Even though critical care services may no longer be administered, we recognize the sacredness of these moments, and God's loving presence with us in them, and will continue to care even though we cannot cure.

While much remains unknown about COVID-19, particularly in regards to the U.S. population, it is clear the disease is often deadly in elderly patients with co-morbid illness. Care is largely supportive, to include oxygen and respiratory, including ventilator, support. Despite full supportive efforts, many critically ill patients with COVID-19 will die, generally of multi-organ failure, sepsis, and/or cardiomyopathy.

Beyond the clinical statistics of benefit, hospitals need to take into consideration the health and safety of their staff. Resuscitative measures often involve many members of the care team, use a large amount of personal protective equipment, and most importantly, have a high risk of aerosolizing bodily liquids. In light of COVID-19, it is advised that these procedures be examined and modified, if possible, to reduce staff exposure to the virus. Catholic health care's duty to care exists not only for the patient but also for the care team.

CPR may be medically inappropriate in a significant portion of elderly, critically ill patients with COVID-19 and underlying comorbidities. As per Parts 3 and 5 of the Ethical and Religious Directives for Catholic Health Care Services, if it is shown that the burdens exceed the benefits, it is morally acceptable to withhold such procedure. The clinical indicia for decision-making about any intervention are the same that they always are. This decision-making model was not developed in response to COVID-19; it's merely being applied and implemented in the current settings.

If treating clinicians, including more than one physician, determine that CPR is not medically appropriate, a Do Not Attempt Resuscitation Order (DNR) may be written without explicit patient or family consent. This will need to be in line with any state specific regulations or laws. In all cases, however, the patient and/or appropriate surrogate should be informed of this decision, along with the rationale in support. Patient or family "informed assent" should be sought, but is not required. Expert, compassionate communication with the patient and their family is necessary. We should also continue, or start, all comfort and palliative measures. Pastoral care should be consulted to provide spiritual support to the patient and the family. As during all patient encounters, we are committed to providing compassionate care.

VIII. **Alternative Forms of Medical Intervention and Palliative Care**

A. Alternative Forms of Medical Intervention

- i. Although ventilators are the most effective medical intervention for patients experiencing severe respiratory distress or failure, in emergency circumstances, alternative forms of medical intervention for oxygen delivery may be examined, if appropriate.
- ii. For example, various types of nasal cannula, oxygen face masks, BiPAP/CPAP, transtracheal catheters, or other supplements to breathing may be utilized if medically indicated and available.
- iii. While none of these treatments offer long-term support for a patient with severe respiratory distress, they may sustain the patient long enough for a ventilator to become available.
- iv. Furthermore, other pharmacological treatments may provide some benefit for patients.

B. Palliative Care

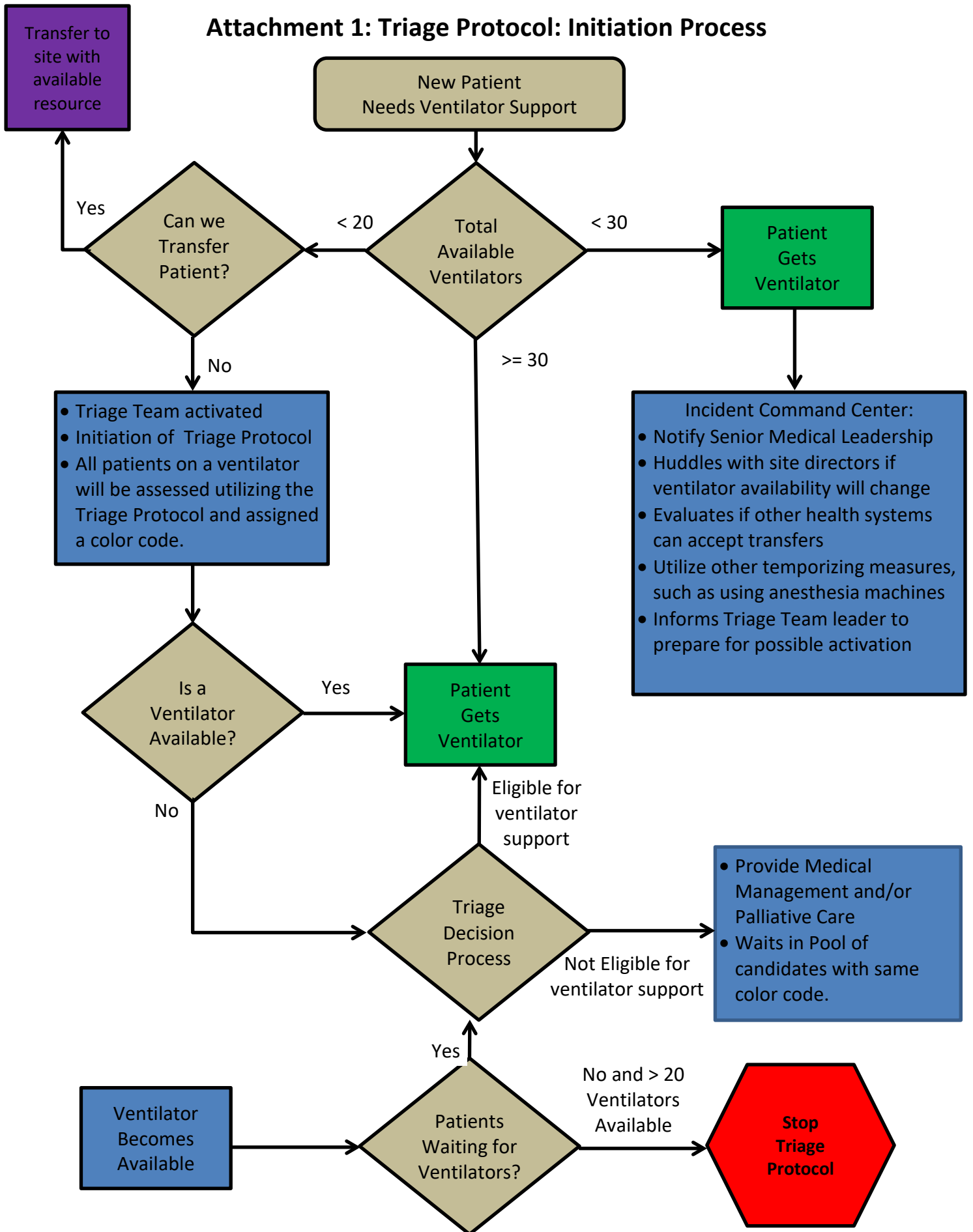
- i. Available forms of palliative care are offered to patients who are not eligible for ventilator treatment as well as patients who fail to meet clinical criteria for continued use of a ventilator.
- ii. Palliative care is an interdisciplinary service designed to ease the discomfort that can accompany serious or life-threatening illness. Its provision respects the dignity of a patient who does not or can no longer receive ventilator treatment.
- iii. Palliative care is aimed at providing comfort, physically, emotionally, and spiritually.

IX. **Communication about the Triage Protocol and Ventilator Allocation**

- A. Public outreach will inform people about the goals and steps of the clinical ventilator allocation protocols.

- B. Health care providers are doing their best with the limited resources, and the public must adjust to a different way of providing and receiving health care than is customary.
- C. Instead, a protocol based only on clinical factors will be used to determine whether a patient receives (or continues with) ventilator treatment to support the goal of saving the greatest number of lives where there are a limited number of available ventilators.
- D. Patients and families should be informed that ventilator therapy represents a *trial* of therapy that may not improve a patient's condition sufficiently and that the ventilator will be removed if this approach does not enable the patient to meet specific criteria.

Attachment 1: Triage Protocol: Initiation Process



Attachment 2: Triage Protocol: Algorithm for ICU/Ventilator Allocation

