

2024

## Examining the ethics behind ICU admission during the COVID-19 Pandemic

Brian Eclarinal  
brian\_eclarinal@yahoo.com

Follow this and additional works at: <https://aquila.usm.edu/ojhe>



Part of the [Bioethics and Medical Ethics Commons](#)

---

### Recommended Citation

Eclarinal, B. (2024). Examining the ethics behind ICU admission during the COVID-19 Pandemic. *Journal of Health Ethics*, 20(1). <http://dx.doi.org/10.18785/jhe.2001.02>

This Article is brought to you for free and open access by The Aquila Digital Community. It has been accepted for inclusion in *Journal of Health Ethics* by an authorized editor of The Aquila Digital Community. For more information, please contact [aquilastaff@usm.edu](mailto:aquilastaff@usm.edu).

## **Examining the Ethics Behind ICU Admission During the COVID-19 Pandemic**

**Brian Eclarinal**

*New York City Health and Hospitals Corporation*

### **ABSTRACT**

During the COVID-19 pandemic surge, the demand for ICU beds far exceeds its supply in the hospitals. The healthcare team had to confront themselves with an ethical dilemma of distributing the limited beds to patients who required ICU admission and therefore needed to prioritize. This paper examines various ethical theories and principles that were used during the pandemic in assigning patients to ICU beds and proposes an algorithm to aid in decision making for ICU bed assignment in order to achieve a fair allocation of this scarce resource.

**Keywords:** COVID-19; Ethics; Distributive Justice; ICU Triage

### **INTRODUCTION**

The COVID-19 pandemic has brought several challenges in the healthcare sector. Hospitals faced a deluge of patients coming to the emergency rooms (ER) stretching out the capacity of hospitals for beds. More importantly, COVID-19 patients who needed a high acuity care also competed for the limited beds in the intensive care units (ICU). Amid all this chaos, was fair criteria used in admitting patients to the intensive care unit (ICU)? Were they morally acceptable? This paper aims to examine the ethics behind ICU admission during the height of COVID-19 pandemic when ICU beds were extremely limited in the setting of the United States.

### **THE TRIAGING PROCESS**

Triage is utilized in the healthcare community to categorize patients based on the severity of their injuries and, by extension, the order in which multiple patients require care and monitoring (Yancey & O'Rourke, 2021). Based on the Emergency Nurses Association Handbook (2020), the Emergency Severity Index (ESI), one of the most used triage algorithms in ER, uses four decision points to determine patient's order of priority. These questions are: Is this patient dying? Is this a patient who should not wait? How many resources will this patient need? What are the patient's vital signs? In simple terms, triage is a process that aims to prioritize patients based on their medical needs as they come to the hospital setting. Essentially, patients with life-threatening emergencies require the most immediate attention and resources as compared to those with less severe symptoms or medical condition. ER staff would assign patients to certain sections according to their triaging status. Necessary life-saving equipment and resources including emergency specialists, nurses, and other healthcare staff providers perform resuscitation measures and interventions to stabilize patients. Triage in ER is seen as a first step in prioritizing patient's medical needs. Ultimately, attending physicians in ER would determine whether patients will be discharged home, or will be needing admission considering patient's acuity or the level of care proportionate to their medical needs.

During the COVID-19 surge, all patients arriving at ER were presumed to be COVID positive until proven otherwise based on a negative test result. In fact, patients showing respiratory difficulty or symptoms were routinely placed in certain areas to isolate them from other patients to prevent cross infection. Most patients would require oxygen support and worst-case patients would need to be connected to mechanical ventilators to survive. To decongest the ER, mild to moderate COVID cases were stabilized and immediately transported to medical floors which by this time had been entirely converted into COVID floors. Severe COVID cases which require ventilator support and closer monitoring were transferred to ICU when bed availability permitted. With the surge of patients having the medical

necessity for ICU admission, hospitals had to double their ICU capacity and resources by converting medical-surgical beds to an ICU setting. During the surge, most, if not all, ICU beds were assigned to COVID patients.

### **ICU AND ITS ADMISSION CRITERIA**

An ICU of a hospital is an organized system for the provision of care to critically ill patients that provides intensive and specialized medical and nursing care, an enhanced capacity for monitoring, and multiple modalities of physiologic organ support to sustain life during a period of life-threatening organ system insufficiency (Marshall et al, 2017). Because of the complexity of treatment in ICUs and the expensive resources needed to run them efficiently, most ICU bed capacity is limited in numbers. Admission to the ICU requires meeting certain elaborate medical criteria. Admission criteria to the ICU include three models: prioritization model, diagnosis model, and objective parameters model. According to the Guidelines from the Society of Critical Care Medicine (Nates et al., 2016): in the prioritization model, patients are categorized by four priority levels based on how likely they are to benefit from admission to the ICU. In the diagnosis model, a list of specific conditions and diseases is utilized in deciding which patients should be admitted to the ICU. In the objective parameters model, specific vital signs, laboratory values, imaging or electrocardiogram findings, and physical findings are considered in deciding which patients should be admitted to the ICU.

Patients with severe COVID-19 symptoms fit into the priority level which requires ICU admission. Based on the framework (Nates et al., 2016), COVID-19 patients belong to priority 1 or those critically ill patients who require life support for organ failure (in this case, mechanical ventilator for respiratory failure), intensive monitoring, and therapies only provided in the ICU environment. The most common admission criteria used were likelihood of survival (e.g., using Sequential Organ Failure Assessment (SOFA) or Pediatric Logistic Organ Dysfunction (PELOD) score), comorbidities, frailty (using Clinical Frailty Score (CFS), and age. There are often used in combination in aid of clinical judgment (Tyrrell et al., 2021).

### **THE ETHICS BEHIND ICU ADMISSION DURING THE COVID-19 PANDEMIC**

In the pre-COVID period, there was usually an adequate number of available beds and resources for these patients. However, COVID-19 pandemic had placed healthcare organizations in a position that required them to prioritize certain patients more than the others. Thus, for instance, if there is only one ICU bed left for three patients needing them, which patient should be assigned to this bed? How should ICU bed assignment be done in a morally acceptable manner that can be considered fair and just? According to Maguire & Fargnoli (1999), justice is fairness, and it means giving others their rightful due as persons. There are three kinds of justice: individual justice, distributive justice, and social justice – and with the question above on ICU bed assignment, distributive justice appears to address the issue at hand. Distributive justice directs the fair distribution of goods and burdens to the citizens by those who hold power and the wealth that accumulates in any political and economic community (Maguire & Fargnoli, 1999). Much moral burden is assigned to the healthcare team as the agent of distributive justice to discharge their duties (triaging process in ER and ICU bed assignment) more so when these goods (ICU beds) are scarce.

To achieve fairness in ICU bed assignment, all patients needing ICU level of care should be provided with ICU beds. The ICU bed assignment should consider each patient with equal moral worth to begin with. This notion aligns with the egalitarian view that sees individuals should enjoy equal benefits and equal chance. This is consistent with Rawls's first principle of justice ("Distributive Justice", n.d.) that states: "Each person has an equal claim to a fully adequate scheme of equal basic rights and liberties, which scheme is compatible with the same scheme for all; and in this scheme the equal political liberties, and only those liberties, are to be guaranteed their fair value." With this contention, healthcare providers

are presumably egalitarian, and they are obliged to treat each COVID-19 patient according to their clinical needs. Therefore, COVID-19 patients should be treated equally regardless of their social or economic status, ethnicity, gender, and age, highlighting the paramount value of each human life.

In the context of resource constraint, however, how should goods be distributed to achieve a fair and just allocation? As to the question, with one bed available for three patients necessitating them- it would be virtually impossible to have them occupy the bed at the same time. Obviously, there is a need to prioritize. Assigning the only bed to one patient at the expense of the other two patients who equally need them seems unjust. However, with resource constraint, this absolute principle is likely to be negotiated. Following the utilitarianism ethical theory which considers whether actions are morally right or wrong depending on their consequences, prioritizing a COVID-19 patient over other patients to achieve the highest utility, benefit, or the greatest consequence would be morally acceptable. In fact, during the COVID-19 pandemic surge, in all (ICU admission) guidelines the preferred justifying principle for allocating intensive care resources when there is insufficient capacity was utility; the phrasing of this principle varied, for example, "the greatest benefit to the greatest number of patients, or the "greatest life expectancy and chance of therapeutic success, and "prioritizing patients who will benefit from ICU admission. (Tyrrell et al., 2021). One of the four values in fair allocation of scarce medical resources during COVID-19 pandemic identified by Emmanuel et al., (2020) is maximizing the benefits produced by scarce resources which stated that priority for limited resources should aim both at saving the most lives and at maximizing improvements in individuals' post-treatment length of life. However, the National Catholic Bioethics Center believes that critical treatment should never be withdrawn without first establishing that such treatment is burdensome or futile, and without making some attempt to offer the patient or his surrogate the possibility of discontinuing treatment voluntarily (Tham et al, 2021). Daly (2020) affirmed that scarce resources should be distributed according to the expected medical benefit to the patient – patients who are most likely to benefit medically from an intervention should be prioritized for that treatment.

Furthermore, the principle of double effect could possibly be invoked to justify withholding the ICU admission to the two others in favor of the one patient if there is only one ICU bed available. This principle helps discern whether the bad consequences of doing triage or ICU admission are merely unwanted but tolerated side effects of attempting to do something good. The New Catholic Encyclopedia (Doctrine of Double effect, 2018) provides four conditions for the application of the principle of double effect: (1) *The act itself must be morally good or at least indifferent.* The act of admitting patient to ICU bed who will probably benefit most from it and will have the highest recovery potential as opposed to the other two patients who had little to none, would make this act morally good; (2) *The agent may not positively will the bad effect but may permit it.* Healthcare staff in the ER and ICU have taken the oath of saving lives and by doing triage and prioritizing patients would not mean they would not have positively will the bad effect. (3) *The good effect must flow from the action at least as immediately (in the order of causality, though not necessarily in the order of time) as the bad effect* – admitting one patient to ICU does not necessarily mean that the other two patients will not be treated with life-saving measures the ER also has; and (4) *the good effect must be sufficiently desirable to compensate for the allowing of the bad effect.* Admitting the patient at ICU with one available bed does not necessarily mean bad effect to the other two patients needing them too. With the pandemic, the ER had become an ICU setting that served as a temporary overflow area for those needing ICU admission.

One criticism of utilizing utilitarianism as appears in this instance is that, providing the only ICU bed to a person who has the strongest likelihood to recover runs contrary to the value of the other patients as human beings. As Grace (2018) puts it: when any one person becomes a means to achieving the good of another or others, all persons are in danger of becoming that person whose worth is being discounted. In addition, as utilitarianism heavily relies on the good consequence of the action, it overlooks the process on how the action was done. There could possibly be an issue as to the process on

how the healthcare team was able to predict the likelihood of survival of a certain human being by merely looking at their physical conditions, much more, on whether they are deemed qualified to carry out such task, and whether a neutral party is involved in the crucial ICU bed assignment.

As to the question - If one of the three patients is a 98-year-old woman with comorbidities while the other two are in their early thirties without significant health conditions, will the elderly patient be least prioritized from getting the ICU bed in favor of the other two? Based on the principle of fair innings – younger persons have a stronger claim to life-saving interventions. This principle states that every individual must have the same opportunity to experience all stages of life: childhood, young adulthood, middle age, and old age (Netters et al., 2020). Patients with younger age are prioritized first as they have had experience the least of opportunities as compared to elderly patients. This argument however can be criticized on the basis that some older people, especially women or people in poverty, may not have had the advantages that others experienced at earlier stages in life and that goods of life matter at any stage of life and that comparative judgments about what counts as having had more of the goods of life simply cannot be made (Farrel et. al., 2020).

In summary, egalitarianism provides the most important paradigm that each patient has an equal chance of ICU treatment, and therefore should be the primary basis of ICU admission. With scarce resources, however, distribute justice in the manner of rationing, brings the idea of distributing limited ICU bed among equally needy patients. In this sense, despite justice telling us to be fair, it is a reality that there could be some sort of inequality which may be permissible to distribute limited goods accordingly. Utilitarianism postulates that ICU bed should be allocated to patients who will benefit and recover from treatment. The rest of the patients could be admitted to other medical-surgical floors without necessarily sacrificing the standards of care. The principle of double justice can be adhered to in extreme cases for ICU placement and this could be morally acceptable when its conditions are met. Fair innings, on the other hand, though it should be the last resort for ICU prioritization, appears to be morally acceptable when all other above justifications have been exhausted. Despite the available theories and principles above, there should be an algorithm that will ensure fairness in ICU bed placement for COVID-19 patients during the pandemic. The author would like to propose this algorithm to guide clinicians on ICU bed assignment.

The algorithm (*see Annex 1*) takes into consideration the various ICU admission criteria from available guidelines and incorporate these criteria to establish a prioritization mechanism. It starts with COVID-19 patients coming in for symptoms and thereby undergoing the triage process in ER. During triage, the healthcare team after careful medical evaluation determines whether the patient needs to be admitted to the hospital. Patients who do not need admission are being treated according to standards of care and then eventually released when condition is deemed safe for discharge. Patients who were triaged for admission will be further evaluated for medical necessity to be placed in ICU. Prior to this however, patients and/or their next of kin would be offered with alternatives to ICU admission such as a medical-surgical floor in cases when they refuse ICU placement, do not want more aggressive treatment, and/or those patients who have a “Do not Intubate” (DNI) and “Do not Resuscitate” (DNR) status. It is to be noted that despite the DNR/DNI status, patients remain candidates for ICU admission. If there is no scarcity of ICU beds, patients will have an equal chance of being admitted in the said unit.

However, when there is a scarcity of ICU beds (meaning there is not enough beds to accommodate the number of patients necessitating placement), several trigger questions to prioritize eligible patients can be utilized. The first trigger question which would lead to prioritize patients for ICU admission would ask: who among the patients has the most immediate life-threatening condition? This means patients are in emergent life and death situation hence should immediately be treated in ICU such as patients with severe respiratory failure. The second trigger question would ask: who among the patients will benefit most from ICU admission? This pertains to patients who would more likely require

closer monitoring and complex treatment. The third trigger question would ask: who among the patients would have the highest likelihood of recovery? This question requires medical understanding of patient's prognosis based on available evidence-based medical criteria. The fourth trigger question would be: who among the patients have a better survival outcome? Obviously, patients with poor score on survival likelihood and with significant comorbidities and frailty such as those with end-stage disease and multiple organ failure could end up less prioritized. The last and fifth question is asking if the patient is 90 years old and below. This would be the last resort question if prioritization was not successfully done based on the first four questions. The arbitrary selection of 90 years old and below seems to be a fair number considering the prevailing life expectancy in developed countries. COVID-19 patients maybe prioritized based on these five questions. Patients who have more affirmative answers to these questions would most likely be prioritized for ICU bed assignment. Patients who did not arrive at any affirmative answer to the trigger questions would be alternatively admitted to medical surgical floors.

With this proposed algorithm, will the distribution of scarce goods (ICU bed) be considered fair? Not yet. Apart from following the algorithm's trigger questions to prioritize, it should be stressed that the medical team must review the medical necessity of patients requiring admission to ICU or those who met the criteria to be downgraded (can be transferred to non-intensive care unit) when patient conditions merit. Patients who were temporarily assigned at medical-surgical floors could be given the priority slots as soon as ICU bed becomes available. Another issue to consider in aid of using this algorithm is for the healthcare team to strive to comply with Daniel's contentions on how to fairly distribute resources when they are not enough. Daniel (2008) suggested that in a resource-strained setting, healthcare distribution is just when these conditions are met: *publicity* (ICU admission criteria and prioritization guidelines and decision making should be shared to the healthcare team, to patients and their families as deemed necessary), *relevance* (triage ICU admission should be fully explained to the patient and families to the level of their understanding), *revision and appeals* (patients progress in ICU including those in the waiting line for ICU admission should be reviewed at least daily. Patient and families have the right to appeal such decision without any retaliation or negative impact on their care) and *regulation* (clinical decisions made by the healthcare team should be reviewed by a patient advocate staff or by the medical ethics committee for checks and balances). The proposed algorithm serves only as a guide for ICU bed allocation during COVID-19 pandemic when resources are not adequate, and it is not meant to replace the best clinical judgment of the healthcare team. It is however important that patients should be evaluated on a case-to-case basis to determine the necessity of ICU admission. If the healthcare team finds an ethical dilemma in such cases, Maguire & Fagnoli (1999) wheel model of ethical method would provide helpful insights through the reality-revealing questions to uncover all the morally relevant circumstances, alongside with the spokes of the wheels which portray the multiple ways available to evaluate moral matters personally and socially.

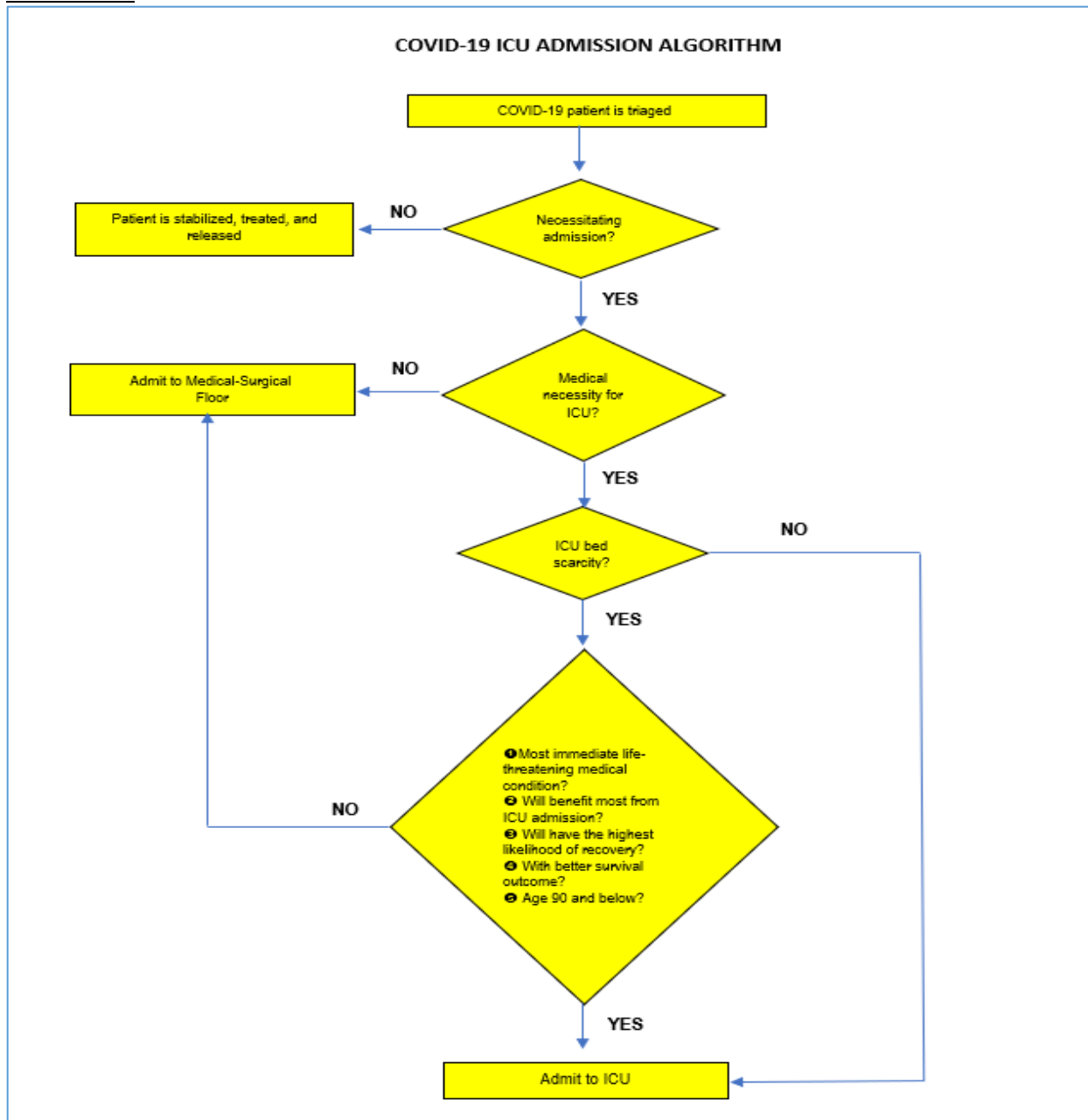
## **CONCLUSION**

There is a saying that desperate times call for desperate measures. During the COVID-19 pandemic surge when the entire healthcare sector was in a quandary as the demand for ICU beds far exceeded the available supplies, healthcare team had to face a heart-breaking dilemma. This pertains to the decision making that must be made - from among the patients requiring ICU admission, who should be given the top priority? While the pandemic was a desperate overwhelming time, it should not necessarily lead to adapting desperate (haphazard) measures. Thanks to the various ethical theories and principles which healthcare team invoked in clinical decision making. To arrive at a morally acceptable decision, the healthcare team should consult their personal morals and values to guide them during ethical dilemmas in achieving a fair and just ICU bed allocation.

Although it would be impossible for goods to be equally distributed during pandemics due to their limitations, to a certain extent however, attaining a sense of fairness in triage and assigning

patient’s priority to limited ICU beds is achievable. Patients with the most need and would benefit most from ICU admission should be prioritized. Clinicians could therefore benefit from the proposed algorithm in achieving fairness during resource-strapped pandemics. In the end, the COVID-19 pandemic ethically challenged us to look at the basic of our sense of fairness and justice -- how to be human in a distressing situation. For someone to act fair and just during a situation, much more during a crisis, is a good reflection of treating humans as valuable individuals, and therefore this exemplifies the truest sense of humanity.

**APPENDIX 1**



**REFERENCES**

- Daly, D. (2020). Guidelines for Rationing Treatment during the COVID-19 crisis: A Catholic Approach. *Journal of the Catholic Health Association of the United States Health Progress*. Retrieved from <https://www.chausa.org/publications/health-progress/article/pandemic-coverage/guidelines-for-rationing-treatment-during-the-covid-19-crisis-a-catholic-approach>.
- Daniels, N. (2008). *Just Health: Meeting Health Needs Fairly*, New York: Cambridge UP
- Distributive Justice. (n.d.). In *Internet Encyclopedia of Philosophy*. Retrieved November 11, 2021, from <https://iep.utm.edu/dist-jus/#SH2a>.
- Doctrine of Double effect. (2018) In *Stanford Encyclopedia of Philosophy*. Retrieved November 11, 2021 from <https://plato.stanford.edu/entries/double-effect/>.
- Emanuel, E. J., Persad, G., Upshur, R., Thome, B., Parker, M., Glickman, A., ... & Phillips, J. P. (2020). Fair allocation of scarce medical resources in the time of Covid-19. Available at <https://www.nejm.org/doi/full/10.1056/nejmsb2005114>.
- Emergency Nurses Association Emergency Severity Index Implementation Handbook: A triage tool for Emergency Department Care Version 4 (2020): Emergency Nurses Association. [https://www.ena.org/docs/default-source/education-document-library/esi-implementation-handbook-2020.pdf?sfvrsn=fdc327df\\_2](https://www.ena.org/docs/default-source/education-document-library/esi-implementation-handbook-2020.pdf?sfvrsn=fdc327df_2).
- Farrell, T.W., Francis, L., Brown, T., Ferrante, L.E., Widera, E., Rhodes, R., Rosen, T., Hwang, U., Witt, L.J., Thothala, N., Liu, S.W., Vitale, C.A., Braun, U.K., Stephens, C. and Saliba, D. (2020), Rationing Limited Healthcare Resources in the COVID-19 Era and Beyond: Ethical Considerations Regarding Older Adults. *J Am Geriatr Soc*, 68: 1143-1149. <https://doi.org/10.1111/jgs.16539>.
- Grace, P. (2018). "Philosophical Foundations of Applied and Professional Ethics" in *Nursing Ethics and Professional Responsibility in Advanced Practice* (pp. 3-43). Sudbury, MA: Jones and Bartlett. [http://samples.jbpub.com/9781449667429/9781449667429\\_CH01\\_PASS02.pdf](http://samples.jbpub.com/9781449667429/9781449667429_CH01_PASS02.pdf)
- Maguire, D. C. & Fargnoli, A. N. (1999). *On Moral Grounds: The Art/Science of Ethics*. New York: McGraw-Hill.
- Marshall JC, Bosco L, Adhikari NK, Connolly B, Diaz JV, Dorman T, Fowler RA, Meyfroidt G, Nakagawa S, Pelosi P, Vincent JL, Vollman K, Zimmerman J. What is an intensive care unit? A report of the task force of the World Federation of Societies of Intensive and Critical Care Medicine. *J Crit Care*. 2017 Feb;37:270-276. doi: 10.1016/j.jcrr.2016.07.015. Epub 2016 Jul 25. PMID: 27612678. <https://pubmed.ncbi.nlm.nih.gov/27612678/>
- Nates, J. Nunnally, M. Kleinpell, R., Blosser, S., Goldner, J. Birriel, B. Fowler, C., Byrum, D., Miles, W., Bailey, H.; Sprung, C. ICU Admission, Discharge, and Triage Guidelines: A Framework to Enhance Clinical Operations, Development of Institutional Policies, and Further Research, *Critical Care Medicine*: August 2016 - Volume 44 - Issue 8 - p 1553-1602 doi: 10.1097/CCM.0000000000001856. [https://journals.lww.com/ccmjjournal/Fulltext/2016/08000/ICU\\_Admission,\\_Discharge,\\_and\\_Triage\\_Guidelines\\_A.15.aspx](https://journals.lww.com/ccmjjournal/Fulltext/2016/08000/ICU_Admission,_Discharge,_and_Triage_Guidelines_A.15.aspx)
- Netters, S., Dekker, N., van de Wetering, K., Hasker, A., Paasman, D., de Groot, J. W., & Vissers, K. (2021). Pandemic ICU triage challenge and medical ethics. *BMJ supportive & palliative care*, 11(2), 133–137. <https://doi.org/10.1136/bmjspcare-2020-002793>.
- Tham, J., Melahn, L., & Baggot, M. (2021). Withdrawing critical care from patients in a triage situation. *Medicine, health care, and philosophy*, 24(2), 205–211. <https://doi.org/10.1007/s11019-020-09999-4>. Available at <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7780900/>.
- Tyrrell, C., Mytton, O. T., Gentry, S. V., Thomas-Meyer, M., Allen, J., Narula, A. A., McGrath, B., Lupton, M., Broadbent, J., Ahmed, A., Mavrodaris, A., & Abdul Pari, A. A. (2021). Managing intensive care admissions when there are not enough beds during the COVID-19 pandemic: a systematic review. *Thorax*, 76(3), 302–312. <https://doi.org/10.1136/thoraxjnl-2020-215118>. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7892390/>.



Yancey C.C., O'Rourke M.C. Emergency Department Triage. [Updated 2021 Jul 30]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2021 Jan-Available from: <https://www.ncbi.nlm.nih.gov/books/NBK557583/>