

Triage and Resource Allocation During Crisis Medical Surge Conditions (Pandemics and Mass Casualty Situations)

Prolegomena

The purpose of CMDA's position statements is not only to provide practical guidance on ethical issues, but also to provide a biblical and theological foundation for that guidance. Ethics in general is an exercise in justifying our moral decisions based on our most basic presuppositions and worldviews. Granted, most people don't possess formal philosophical, theological, or ethical training and are unfamiliar with most ethical terminology and theories. Most people navigate moral decisions without any deep reflective contemplation on the ethical justifications for those decisions, relying on a moral sense or intuition that may be informed by culture, tradition, or upbringing (religious or secular). The fact that we can even do so is a testament to what theologians and biblical scholars refer to as conscience, "common grace," or natural law (the law written on our hearts, Rom 2:14). The image of God, although bruised and battered by sin, remains in all human beings. But we must also recognize our own sinfulness and the way we all suppress in our hearts or reason away in our minds what is truly good and right (Rom 1:18). It is therefore important for us as Christians to be ever vigilant, examining our decisions and laying them at the plumb line of the Bible's witness.

As Christian health care professionals (HCPs), we are committed to the beneficence of our individual patients and doing everything in our power for them. In a fallen world, there will certainly arise situations when all our efforts or resources will be inadequate to care for each and every individual in a way we feel morally compelled to do. This will surely be difficult for us intellectually, morally, and spiritually as we come to grips with the reality of our finitude and limitations during tragedies of such magnitude. Jesus tells us that in this world we *will* have tribulation (John 16:33). Jesus' comfort to us is not that we will avoid that tribulation, but that he has overcome the world (ironically through his own tribulation and suffering). He assures us that we will have his peace in times of tribulation (and when we need to make terrifying decisions that we are unsure of) because he is with us just as his Father was with him.

The overall theme of CMDA's statement on triage and resource allocation is how Christian HCPs should deal with or appropriate what amounts to a utilitarian ethic that may be imposed when critical life-saving resources are not available to save all those who need them. This is a situation, by God's grace, few of us have had to experience, can imagine, or have even thought about, let alone prepare for.

Utilitarian ethics (or utilitarianism) is one of several influential secular ethical theories. It is a theory or method of moral reasoning that looks to the principle of utility, that is, the degree to which an act is helpful or harmful in the world as a whole, to determine the rightness or wrongness of an act. The goal of utilitarian ethics is sometimes bluntly and crudely stated as acting such that one's acts bring about "the greatest good for the greatest number," or, in these cases, "saves the greatest number of lives possible." As Christian HCPs, faced with a potential situation of not being able to save everyone, we can certainly resonate with this utilitarian goal. How can we not? We may even advocate for policies that look like, or superficially resemble in their actual implementation, policies developed by those who are taking a utilitarian approach to the ethics of patient care in these situations. Doesn't this make us all, at least practically, utilitarians? The answer is simply, "No!" Explaining why may take a little detour into definitions and ethical philosophy, but it is necessary to show exactly how a utilitarian approach to triage and resource allocation differs from what we see as a more biblical approach, which we refer to in this statement as "optimal stewardship" of critical resources.

One of the critical things to understand about utilitarian ethics is that, when a strict utilitarian ethicist advocates to save "the greatest number of lives possible" or produce "the greatest good for the greatest number," there is a lot of hidden baggage that necessarily goes along with those well-meaning statements. For one thing, the focus of utilitarian theory is entirely and exclusively on a particular outcome or consequence of one's actions. There is no privilege given to any form of inviolable moral rules (e.g., "thou shall not kill") or virtues, motives, or intent associated with a moral action. Many advocates of euthanasia, for instance, see no role for motive, intent, or inviolable rules in assessing the difference between letting someone die (by withdrawing treatment in a terminally ill patient) and actively hastening (killing/euthanizing) that person because the consequence (outcome) seems to be the same, i.e., a

deceased patient no longer suffering. We could give myriads of examples that similarly show the dangers of ignoring rules (principles)ⁱ and virtues (motives) and focusing solely on outcome, which is the inherent nature of utilitarianism. There are other problems with utilitarianism. For instance, how can we ever know the “good” of any of our actions, if that good is calculated based on its outcomes or consequences, when those outcomes and consequences are incalculable and/or unforeseen? From a human standpoint, none of us possesses a God’s-eye-view of the future or can foretell all the potential consequences of our actions. For that reason, the moral good or evil of any of our actions is, in a real sense, forever suspended in time and ignorance.

Christian ethics is not utilitarian ethics. But neither does it ignore goals, outcomes, and consequences of actions. Christian biblical ethics involves all aspects of moral living, including rules (e.g., the Ten Commandments, Exo 20), motives and virtues (e.g., the fruits of the Spirit, Gal 5, 1 Cor 13), and goals (e.g., to seek first the Kingdom of God, Matt 6:33). We have used John Kilner’s excellent way of stating this three-fold view of Christian ethics, which he presents as: 1) God-centered, 2) love-impelled, and 3) reality-bounded.ⁱⁱ God-centered ethics reflects our goals (God’s kingdom). Love-impelled ethics reflects our motives (God’s love). Reality-bounded ethics reflects God’s moral commands that guide us (God’s will) and provide the boundaries for living righteously as His image-bearers (reflecting God’s holy character).

What does this mean for approaching decisions related to triage and resource allocation during times of scarce resources? For one, it means we can share (on a purely superficial level) the same goals as a utilitarian, i.e., to “save the greatest number of lives possible.” But unlike a strict utilitarian, the “possible” in that statement is not only constrained by the material resources at hand, but also by the biblical principles we are to live by (“reality-bounded”) and by our intentions and attitudes (“love-impelled”). There are several principles that fall into the category of “reality-bounded” that put constraints on a Christian’s view of “saving the greatest number of lives possible.” These include, among others, the recognition that all human beings are created in the image of God and are of inviolable and incomparable moral worth. This speaks to us about comparing one life against another in terms other than objective medical criteria for what is most beneficent in a given situation. Therefore, we do not consider age, disability, or any host of other non-medical factors as conferring more “worth” on one human being compared with another in triage or resource allocation decisions.

There are also important implications for the “love-impelled” aspect of Christian ethics. Christian HCPs are to love by always seeking out the good of their patients, specifically by never using any individual as a “means” to the end of another. We also recognize the difference between allowing a patient to succumb to his or her own condition by withdrawing treatment versus actively hastening his or her death (euthanasia). We are never to kill or actively hasten the death of a patient (the “reality-bounded” aspect) as a means to end a patient’s suffering, even while recognizing that withdrawing treatment (or not beginning it in the first place) and allowing a patient to succumb to the natural course of his or her disease may be in his or her overall best interest and, therefore, morally proper (the “love-impelled” aspect).

In the stark particulars of potential “reallocation” of scarce resources in times of mass casualty or pandemic situations, this means we should never look at the unilateral (i.e., without their permission or request) removal of treatment from a patient solely as a means to save another. That is why this statement does not endorse any reallocation protocols or guidelines that rank-order patients (in terms of any criteria), continually comparing one to another, in order to decide whom to remove from life-supportive treatment for the purpose of “reallocating” that treatment to another. The end result would simply be a macabre game of “musical chairs” with ventilators, with the sole “utility” of ending up with the most still alive at the end of the game, with the aged, the disabled, and the socially useless not even being able to play the game. Rather, this statement endorses treating all persons as having equal moral

ⁱ There are “rule utilitarians” that prioritize the outcomes of generalized rules of acting instead of individual acts. But these rules are not inviolable and are subordinate to desired outcomes.

ⁱⁱ John Kilner. (1992). *Life on the line: ethics, aging, ending patients’ lives, and allocating vital resources*. Grand Rapids: William B. Eerdmans Publishing Co.

worth, with an overall optimal stewardship of critical resources based on providing sufficient and optimal beneficence to each patient, without focusing on comparing one to another other than by objective medical criteria to predict likelihood of short-term survival. What “sufficient and optimal beneficence” means practically will necessarily depend on the gravity and nature of the situation and so will be changing all the time in response to how a particular situation changes and the resources available (it is impossible to provide this in exacting detail in any statement without knowing the specifics of the situation at hand). During times of severe mismatch between available resources and those who need them, the criteria for morally withdrawing or not offering life-supportive treatment may be more austere than HCPs are used to in times of perceived unlimited resource. But this alternative framework will shift the “love-impelled” focus back onto the patient, avoiding the temptation of making any patient a means to another’s end (“reality-bounded”). It instills a confidence in our patients that, even in times when society is compelled to focus on the health and safety of populations and communities over individuals, their HCP is solely concerned with their benefit and providing the best care and treatment possible (albeit constrained by the situation) without the worry that their HCP is always glancing over their shoulder, awaiting the possibility that someone younger, healthier, without diabetes or hypertension, etc., has arrived, potentially to take their life-supporting treatment away.

None of this is to say that this statement will solve all (or even most) of the difficult decisions that will have to be made in some situations and scenarios, and there are some who may find it in many ways inadequate or deficient in providing for real practical answers to all the specific clinical situations we can imagine. Even so, our general aim is to set biblically sound boundaries that can guide us as individual HCPs and potentially influence public policies and guidelines.

The Bible does not give us “proof texts” to guide us definitively through the myriad of all of life’s complexities and situations we may possibly encounter. It does, however, call us to use our God-given, Spirit-led, and Christ-like wisdom and discernment to “approve what is excellent” and to be “pure and blameless...filled with the fruit of righteousness that comes through Jesus Christ to the glory and praise of God” (Phil 1:9). As faithful Christians, we need to pray for this wisdom, discernment, and courage God has promised us in these difficult situations, with the underlying confidence and assurance that our salvation and God’s ultimate purposes are not dependent on our own weak efforts, uncertain choices, or limited success, but rest on the work of Christ alone.

Introduction

Health care systems and health care professionals (HCPs) need to prepare for mass casualty incidents (MCI) including disasters, epidemics, and pandemics, as have occurred throughout history and will certainly occur in the future.ⁱⁱⁱ The purpose of this statement is to provide biblically sound ethical guidance for the triage and allocation of limited life-sustaining and other critical resources (e.g., mechanical ventilators and effective medical therapies) during crisis medical surge conditions when the demand for these resources outstrips the supply. Instituting and putting into place broad population-based policies that drastically alter the normal patient-physician relationship should be implemented only if: 1) critical care (life-sustaining) capacity has been, or shortly will be, exceeded despite taking all appropriate steps to increase capacity, AND 2) a regional-level and duly-authorized authority has declared an emergency.

It is acknowledged that this statement, as all human-created systems, will not resolve all the dilemmas and painful situations that will necessarily arise in these situations in which precious lives will likely be lost. This statement is a prayerful endeavor to biblically engage the harsh realities of MCIs while respecting and protecting the inestimable and irreducible value of each human life as made in the image of God, while also attempting to best fulfill our duty and commitment to every patient caught in the maelstrom of these circumstances.

Contents

Rationale for Advance Planning

ⁱⁱⁱ This statement was prepared during and in direct response to the COVID-19 universal pandemic of 2020. For further information and reflections related to this topic, see CMDA’s statement Duties of Christian Health Care Professionals in the Face of Pandemics.

Utilitarian Ethics, Biblical Ethics, and Christian Health Care Professionals

Guiding Biblical Principles

Reality-bounded

Love-impelled

God-centered

Difficult Choices in a Fallen World

Guiding Ethical Principles

Justice

Fairness

Procedural Justice and Transparency

Categorical Exclusion Criteria

Reallocation of Life-Supportive Resources

Alternative to Reallocation: Optimal Stewardship and Care in a Time of Absolute Scarcity

Conscience Objections

Special Considerations

Priority of Medical Personnel

Physician Assisted Suicide (PAS) and Euthanasia

Christian Hope During Medical Crisis Situations

Appendix: Definitions

References

A. Rationale for Advance Planning

HCPs have an ethical duty to provide compassionate and competent care, including making life-and-death decisions with as much forethought and ethical clarity as possible.¹ This clarity must be maintained even during a crisis that creates stress for HCPs.² The only way to make this happen is to carry out advance planning, design decision-making tools, and prepare contingency protocols for dissemination. This will help to alleviate uncertainty and moral distress during a major healthcare emergency.

B. Utilitarian Ethics, Biblical Ethics, and Christian Health Care Professionals

Clinical and ethics literature in the past decade has proposed several useful and rational approaches to the allocation of scarce resources in times of mass casualty, local epidemic, and pandemic situations.

1. All understand that “business as usual,” that is, the delivery of care on a first-come, first-served basis, driven by the clinical judgment of physicians with regards to individual patients, will be rapidly supplanted in times of critical shortages (crisis surge conditions) by a utilitarian

- or population-based model of medical ethics, concisely defined as “the greatest good for the greatest number,” where “good” is variably defined by lives saved, life-years saved, or some other calculus of population life/health preservation.
2. The goal is sufficient care, also referred to as crisis standard of care, rather than the normal standard of care.³ This refers to the best possible medical care when there are not enough resources to give all patients the level of care they would normally receive under non-crisis situations.
 3. During crisis surge conditions, Christian HCPs will be faced with a generalized appropriation and implementation of some form of utilitarian ethics and the consequent weighting of community justice concerns over individual patient autonomy and, in many cases, beneficence (according to the common approach of principlism). Many Christians, for good reasons, consider a pure utilitarian ethic contrary and inimical to deontological ethics (rule or law-based ethics, e.g., divine command ethics) or Christian virtue ethics.^{iv}
 4. How should Christian physicians promote the common good—the need to pursue the welfare of communities and populations—in these extreme circumstances in a biblically responsible manner, without sacrificing our commitment to protect the inherent dignity and value of every individual? An overall view of Christian biblical ethics will provide a helpful and useful perspective, both for practical and pastoral concerns, prior to addressing specific ethical concerns.
 5. Christian ethics is never one-sided, but involves rules (directives), virtues (moral character traits), and goals (intended outcomes) that need to be balanced in Spirit-led wisdom. The rules we live by are to reflect God’s holy character (the will of God). The virtues we live by (what kind of persons we ought to be, what impels us) are to reflect God’s love (the love of God).^v The goals we live by are directed towards God’s Kingdom.^{vi}
 6. This three-fold cord of ethical rules, motives, and goals is reflected in the writings of several prominent Christian thinkers and theologians. Jonathan Edwards speaks of all moral matters ultimately subject to Divine assessment, meaning what they’re worth in the sight of God. Neither natural beauty nor common morality can provide this assessment and no assessment should be separated from consideration of the love of God.⁴ C.S. Lewis speaks of ethics involving fair play between persons (rules), harmony in the person (virtue), and the purpose of life as a whole (goals).⁵ John Frame in his tri-perspectival Lordship ethics espouses the deontological (rule), situational (goal), and existential (personal) perspectives of Christian ethics.⁶ Geoffrey Bromiley writes that God is the ground of ethics (God is the “Good,” i.e., the goal), is the norm of ethics (His word, i.e., His will), and the power for ethical living (His Spirit provides our internal motivation and power).⁷ John Kilner cogently speaks of this three-fold cord as “God-centered,” “reality-bounded,” and “love-impelled.”⁸
 7. Scripture (the Old and New Testaments, the Holy Bible) provides ample and sufficient general principles and narratives to guide our thoughts and motives, coupled with God’s Spirit-led wisdom that we have been promised as His image bearers (John 14:16-30; 2 Tim 3:16-17; Jas 1:5; 1 John 4:13). Scripture teaches us that we must train ourselves to be wise and discerning in the complexities of life and in the myriad circumstances that it never directly addresses. This is our moral mission, to search out not only clear precepts in Scripture, but

^{iv} Utilitarian ethics is frequent used as a counterpoint to Christian and biblical ethics in many of CMDA’s policy statements.

^v In terms of both God’s love toward us and our love for God and consequently our neighbor (1 John 4:19). Richard B. Hayes offers exegetical insight into Jesus’s employment of what he refers to as a “hermeneutic of mercy” to insist on the need for “insight” in understanding the relationship between “rigor” and “mercy” in interpreting the law. Hayes, R.B. (1996). *The moral vision of the New Testament*. San Francisco: Harper Collins, pp. 101-114.

^{vi} Secular ethics, which focuses on the three paradigms of utilitarianism (consequentialism), deontology, and virtue, cannot combine these three paradigms in a unified and consistent whole and, because they are all ultimately human centered, are at odds with one another. Principlism, while useful, is not based on any particular worldview or ethical theory (in theory, but ultimately not in practice), but on a “common morality.” Common morality, while possibly reflective of a form of natural law or common grace, is a questionable and ultimately dangerous basis of universal morality given the nature of original and universal sin. Because God is One and Lord of all, only Christianity has a basis for unifying our rules, motives, and goals under His sovereign headship as creatures made in His image.

also to use our spiritual “perceptive faculties”^{vii} to address new and unique ethical dilemmas (Mic 6:8; Phil 1:9; Heb 5:14).^{viii}

8. Ethics is more than simple calculation. It is richer and deeper than finding an algorithmic rule etched in a tablet of stone that “gives us the answer” to the complexities of life’s dilemmas. As Christian physicians, our moral duty in these extreme, distressing, and challenging situations is to use our God-given, Spirit-led, and Scripture-bounded wisdom to the best of our ability to balance the biblical goals, motives, and directives of the Christian life within the complexities of living in a fallen and sinful world, submitting all our limitations to God’s love, mercy, and providence. A Christian “goal-oriented” ethic, when bounded and balanced by appropriate motives (virtues) and by appropriate (not blindly rigid, Mark 2:3–28; 3:1–6) use of God’s directives need not devolve into a “pure” human-centered utilitarian or consequentialist ethic despite the similarities these two forms of reasoning (human-centered and God-centered) may have on actual concrete decision-making in specific situations.^{ix} As Kilner notes, Christians may endorse a certain public policy advocated from a utilitarian perspective if, “among other things, it is within the bounds of reality and in accordance with the dictates of love. In that case a Christian can affirm, with a utilitarian, the importance of the consequences of *that policy*” (emphasis original).⁹

C. Guiding Biblical Principles

1. “Reality-bounded”

All human beings are created in the *imago Dei*, the image of God (Gen 1:27), and as such possess a sacredness that is based on their image-bearing status as creatures designed to be in relationship to their Creator God (see CMDA’s statement on the Sanctity of Human Life). This sanctity extends from conception through natural death, belongs to each individual, and is not diminished or made relative by illness, age, infirmity, disability, or disease. It is this sanctity that must be considered in any exclusion criteria or resource allocation in times of resource scarcity.

2. “Love-impelled”

- a. According to Jesus, the first and great commandment is to “Love the Lord your God with all your heart and with all your soul and with all your mind,” and “the second is like it: ‘Love your neighbor as yourself’” (Matt 22:36-40). “Like it” affirms the *imago Dei*, the sanctity of each human. This love is, in the mind of Christ, inseparable from loving God. You can’t love the one without loving the other (1 John 4:19-21). Love for one’s neighbor seeks the greatest possible wellbeing of all persons within the bounds of God’s directives.
- b. Christian love also requires justice. Justice flows from God’s heart and character and is demanded throughout the Old and New Testaments. Christian justice seeks to bring all things into the wholeness of God. Christian justice is best seen in the care for the marginalized, the most vulnerable, the socially, psychologically or economically disadvantaged (Exod 22:23-24; Deut 10:17-18; Isa 1:17; Prov 29:7; James 1:27). Jesus says in Matt 25:40 that, “Truly, I say to you, as you did it to one of the least of these my brothers, you did it to me. (Matt 25:40)” “The least of these” (*elachistos*) does not mean that some humans are less valuable than others. The

^{vii} An insightful summary on the biblical concept of “perceptive faculties” can be found in Payne, M. (2005). Re-thinking the ethics of parsimony, part two: “Cultivated deviance” (or *not* cheating contingency). *Westminster Theological Journal*, 67, 23-49.

^{viii} Phil 1:9: “And it is my prayer that your love may abound more and more, with knowledge and all discernment, so that you may approve what is excellent, and so be pure and blameless for the day of Christ, filled with the fruit of righteousness that comes through Jesus Christ, to the glory and praise of God.” “Knowledge” (*epignosis*) is that intensive religious and moral knowledge that one comes to know through faith in Christ. “All discernment” (*estheta*) is the moral act of recognizing distinctions and making a decision (perception, insight or capacity for understanding moral dilemmas). To “approve” (*dokimazo*) is to test, examine, or prove what is right (self-examination); cf. Rom 12:2: “Discern” through the faculty of intellect and moral perception (practical reason or wisdom), moral insight (*nous*). So also, Heb 5:14: “But solid food is for the mature, for those who have their powers of discernment trained by constant practice to distinguish good from evil.” “To distinguish” (*aestheterion*) is the ability to make moral decisions, the sense or ability to understand, the power to discriminate and nuance (it is an organ or faculty of “sense,” *aesthesia*).

^{ix} A Christian “goal-oriented” ethic can never appropriate a utilitarian maxim that “the outcome justifies the means.” God is both sovereign over the means as well as the outcomes. Furthermore, the “greatest good” is always oriented toward God’s sovereign will, love, and mercy rather than human-centered “goods.”

phrase is better understood as “however humble” (New English Bible) or undervalued in the estimation of others¹⁰ (cf. Paul’s estimation of himself in Eph 3:8).

- c. There is no hierarchy of worth in human beings made in the *imago Dei*. All human beings share the same inherent moral worth or value.^x
3. “God-centered”
All authority and content for righteousness are rooted in God and are dependent on God’s enabling power. As Lord and Creator of all, God has entrusted the goods and resources of His creation to our stewardship, to have dominion over His works (Ps 8:6). This stewardship encompasses not only material goods, but all human life (Gen 4:9; 9:6; Exod 20:13; Deut 5:17). As stewards of life Christians are to protect, preserve, and honor every human life. Christian stewardship of human life not only applies to our individual neighbors, but to society as a whole (Jer 29:7).
4. Difficult Choices in a Fallen World
God is able to bring all circumstances and evils in the world under His sovereign ordering to accomplish His good purposes and for the good of all who trust in Him (Gen 50:20; Acts 2:34; Rom 8:28). As faithful Christians we need to pray for wisdom, discernment, and courage in these difficult situations with the underlying confidence and assurance that our salvation and God’s ultimate purposes are not dependent on our own weak efforts, uncertain choices, or limited success, but rest on the work of Christ alone.

D. Guiding Ethical Principles

1. Triage in times of medical crisis surge conditions and mass casualty incidents (MCI) is directed to the saving of as many lives as possible, seeking to maximize good outcomes for the greatest number of people possible. In shifting the ethical emphasis for pragmatic reasons, it is important not to lose sight of higher moral values. Utilitarian goals, while important, must not be absolutized or sought at the expense of respect for the intrinsic value of all human beings as unique bearers of the image of God.
 - a. Triage policies should only be implemented if: 1) medical and life-saving capacity has been, or shortly will be, exceeded despite taking all appropriate steps to increase capacity, AND 2) a regional-level authority has declared an emergency necessitating such policies.¹¹
 - b. All health care facilities should have a formalized emergency operation plan in place under these conditions.
 - c. During these periods (e.g., mass casualties, pandemics), there is an imposed shift in a HCP’s duty from providing the most definitive and beneficial treatment to individual patients (standard of care) to the priority of populations or groups of patients who are most at risk and will most likely benefit with an appropriate stewardship of limited resources (sufficient care). Triage and resource allocation decisions should be objective, formalized, open, and transparent to both HCPs and to the public.
 - d. As a given medical surge condition mounts and progresses from a conventional to a contingent surge condition (see Appendix for precise definitions of these terms), it may be tempting for HCPs to begin enacting crisis triage and resource allocation decisions unilaterally or on their own, i.e., moving from patient-oriented medical care and ethics to community- and population-prioritized medical care and ethics. However, until a crisis surge condition or MCI has been declared and formal, published protocols have been enacted, standard patient-oriented care and ethics continue to apply to all HCPs.
 - e. It is important that HCPs understand when there is a definitive “all clear” moment when crisis surge conditions have been abated so that standard medical care and ethics become operative once more. This underscores the necessity for advance planning and decision-making tools and protocols prior to any foreseen or unforeseen MCI.

^x The relationship between Christian morality, justice, and specific legislation is complex. They are distinct but not completely unrelated. Christians, however, are called to reflect on how the justice of God’s kingdom influences our involvement in matters of government.

2. Justice

- a. Public health decisions should be based on objective factors, rather than on the choice of individual leaders, HCPs, or patients. All individuals should receive the highest level of care required for survival or limitation of long-term disability given the resources available at the time. Elective, non-essential interventions lack priority in these circumstances.
- b. In accordance with the Christian duty to respect all life as sacred, in times of medical crisis surge conditions triage and resource allocation decisions must be equitable and based on objective and justifiable medical criteria, with the understanding that in unprecedented or unique circumstances these criteria may not have been fully validated for the current situation. They should nevertheless be based on the best medical evidence available as well as informed clinical judgment. All other considerations based on non-medical criteria should be excluded. Such decisions must be non-discriminatory and never based on perceived social worth, social class, ethnicity, age, gender, sexual orientation, religious convictions, political affiliation, economic status, nationality, disability, or any other medically non-relevant trait that does not impact immediate crisis-related prognosis or survivability.^{12,13}
- c. Appropriate stewardship of scarce critical resources requires triage and resource allocation decisions to be prioritized on the basis of medical need and likelihood for survival. Survival is defined by examining a patient's short-term likelihood of surviving the acute medical episode rather than a patient's long-term prognosis related to chronic medical conditions or disabilities.
- d. Devising a just and equitable protocol means more than merely maximizing the absolute number of patients who survive to hospital discharge. Other criteria that may be employed include:
 - i. Prospects for short-term survival. The most straightforward measure of whether a patient will benefit from life-supportive treatment is whether a patient survives to discharge because of this care.
 - ii. Prospects for long-term survival. This measure considers how much benefit treatment produces in terms of survival *after* discharge. Although important, placing too great a priority on this criterion may, in certain circumstances, further disadvantage those who already face systemic disadvantages (i.e., this may be discriminatory).
 - iii. Pregnancy. Preferences are to be considered for pregnant women.
- e. When objective medical criteria do not clearly favor a particular patient (all things being equal), then "first come, first served" rules of allocation or a lottery system should apply.
 - i. "First come, first served" and lottery systems, both based on a theoretically random selection of equally qualified patients, acknowledge that each person is irreducibly valuable and that social value and other subjective factors are irrelevant.^{xi} It also invokes the concept of justice, in that when a basic human right such as life is at stake, justice requires that all persons be treated equally. "For a right to be called human entails all humans have it equally."¹⁴
 - ii. A "first come, first served" rule, as a type of "natural" lottery, has the advantage of reflecting the normal course of the medical system. It also has the advantage of not requiring the time necessary to set up a lottery system in times of public health emergencies. It has the disadvantage of selecting patients who enter the system earlier, possibly discriminating against those populations who have limited physical access to the medical system or limited knowledge of when to enter the medical system (e.g., the economically, physically, and psychosocially disadvantaged). A lottery system may be more purely "random" but may be impractical based on the

^{xi} Even then, random selection or events should not be considered outside of God's providential control: "The lot is cast into the lap, but its every decision is from the LORD." (Prov 16:33; cf. 18:18).

logistics of putting one into place in an equitable and fair system in a timely manner during times of public health crises.

- iii. Both “first come, first served” and lottery systems must be scrutinized to be free from manipulation and to not disfavor disadvantaged and marginalized subgroups. The rationale and procedures for such systems of triage and allocation must be made clear to the public and understandable.
 - f. Triage and allocation protocols must be established to give guidance to all HCPs and to provide for objective standards to ensure fairness and justice during difficult decisions that may be influenced by subjective and personal concerns. It is also important that HCPs understand when there is a clear and well-communicated moment that a crisis has abated sufficiently to shift focus back to prioritizing individual patient concerns.
 - g. In times of limited critical resources, decisions must be made regarding who and who will not receive specific therapies, even life-saving therapies. All patients are still to be afforded the maximal care and comfort that is available, and patient-centered principles of medical ethics still apply. HCPs have a paramount duty to care for the individual patient and to seek appropriate and indicated treatment for each patient. This duty persists in a surge crisis.
 - h. If resources are available, they should be deployed as indicated regardless of the prognosis of the individual patient. “Decision tools should not be used to exclude patients preemptively from use of life-saving resources when these resources are available.”¹⁵
 - i. The capacity and need for treating physicians to reach routine decisions and recommendations regarding the indications for and the appropriateness of treatment are not altered by a surge crisis and not removed by triage and resource allocation restraints.
 - j. Patients who are no longer eligible for life-saving resources (e.g., mechanical ventilation) are never to be abandoned and should continue to receive intensive symptom management as well as psychosocial and spiritual support. Where available, specialist palliative care teams should be involved.
 - k. Triage and resource allocation decisions that apply to individual patients should be the responsibility of parties other than the treating physician. This is best accomplished through a triage officer or a triage team who are removed from direct patient care and work in close partnership with a facility’s ethics committee.
 - l. Communicating triage decisions, particularly when a patient is excluded from receiving life-saving resources, should be the responsibility of the deciding triage officer(s) or appointed representatives of a triage committee, along with the treating physician.
3. Fairness
- a. Fairness concerns require triage and resource allocation to pay particular attention to the needs of at-risk and marginalized persons, including the poor, the aged, and persons with disabilities.
 - b. Several justifications for pure chronological age-related criteria have been proposed, but each is morally problematic.
 - i. Strict chronological age criteria can serve as a convenient and objective, albeit hidden, form of social-value criterion.¹⁶ The elderly may also be the weakest, marginalized, and least able to resist. Age *per se* is not a medically relevant factor in that the elderly can have different medical problems and states of health that make one a better candidate than another, or even a better candidate than younger, less-healthy candidates. Age-related medical conditions may be potential reasons for exclusion, but not age itself. Age should be seen in the context of overall objective medical predictors of outcome, not as a sole independent criterion itself.
 - ii. An “equal opportunity” justification prioritizes “life-years saved” by giving younger persons an equal opportunity to live a longer number of years. However, persons are more than sums of accumulated life-years. All persons

are of equal value and must be treated as such. Life is equally precious at any age.

- iii. A “life span” justification defends an age criterion by assuming that at a given age everything of significance has been “accomplished” and “achieved.”¹⁷ Implicit in this argument is that what matters most is “doing” not “being” (a productivity view of human value).^{xii}
 - iv. God commands us to honor, respect, and value the elderly. “Rise in the presence of the aged, show respect for the elderly and revere your God. I am the LORD.” (Lev 19:32, NIV); “Is not wisdom found among the aged? Does not long-life bring understanding?” (Job 12:12, NIV). See also Deut 32:7; Job 32:7; Isa 46:4; Psa 71:9, 18; Prov 16:31; 20:29; 1 Tim 5:1.
4. Transparency and Procedural Justice
 - a. Governments and institutions have an ethical obligation to plan allocation of critical scarce resources through a process that is transparent, open, and publicly debated to the extent time permits.
 - b. In order to ensure procedural justice, any triage operation should be regularly and repeatedly evaluated to guarantee that the process has been followed fairly, that the need for triage operations still persists, and that current objective criteria continue to be based on the best available evidence.¹⁸
 - c. Physicians should have a formalized procedure to advocate for their patients with regard to individual triage decisions, including an expedited appeal process. However, decisions authorized by appointed triage officers or teams should generally prevail.
 - d. Triage decisions for individual patients should be revisited periodically and upon request of the treating physician to consider patients with initial low physiological acuity who may subsequently deteriorate and require more urgent need for critical life-saving resources.
 - e. For patients with very severe illness, an urgent clinical appeal process should be available when a treating physician believes that patient improvement would alter the triage decision.¹⁹
 5. Categorical Exclusion Criteria
 - a. Criteria that are “hard stops” (e.g., age > 85 years) that prevent a patient from even reaching the triage decision-making stage and identify individuals to be excluded from access to critical services under any circumstances during an MCI should not be used. Categorical exclusions may be interpreted that some groups are “not worth saving.” Any triage or allocation system must make clear that all individuals are “worth saving.”
 - b. Rather than providing categorical exclusion criteria (even some that would seem ethically founded, e.g., hospice care patients, and patients with existing do-not-resuscitate (DNR) orders or with advance directives that prohibit intubation or mechanical ventilation),²⁰ HCPs should not exclude any patient who would under normal clinical circumstances be eligible (e.g., for mechanical ventilation) and allow the availability of critical resources (ventilators) determine how many eligible patients receive it.²¹
 - c. Critical care physicians all recognize that some conditions lead to immediate or near-immediate death despite aggressive therapy and that under routine clinical conditions certain critical care services are not warranted or offered (e.g., cardiac arrest unresponsive to appropriate ACLS, overwhelming traumatic injuries, massive intracranial bleeds, intractable shock, multi-system organ failure, advance states of cancer, etc.). HCPs should not be obligated to provide non-recommended, potentially

^{xii} God values and has repeatedly called individuals in advanced age, sometimes beyond what would be reasonable to expect them to accomplish, for his purposes and the advancement of His kingdom and covenant promises. For example, Gen 21:2: “And Sarah conceived and bore Abraham a son in his old age at the time of which God had spoken to him,” and Heb 11:11: “By faith Sarah herself received power to conceive, even when she was past the age, since she considered him faithful who had promised.”

- inappropriate interventions that have no reasonable possibility of beneficial effect solely because a patient or surrogate requests them.
- d. During an MCI involving a crisis surge condition, physicians should still make clinical judgments about the appropriateness of utilizing critical resources using the same criteria they use during normal clinical practice.
6. Reallocation of Life-Supportive Resources
 - a. During an MCI, reallocation is the non-consensual withdrawal of life-supportive treatment (in the absence of a properly executed advance directive or decision of a properly authorized surrogate) with the direct intent of transferring that same life-supportive treatment to another patient who is considered a more worthy candidate for such treatment (by any criteria or bias) when the same or equivalent treatment is currently not available.
 - b. Non-consensual withdrawal of life-supportive resources (e.g., mechanical ventilation) involves an active, intentional, and direct taking from a vulnerable person incapable of resisting. Except in cases authorized by court order, such withdrawal is recognized as legal in only one jurisdiction in the United States.²²
 - c. CMDA rejects any form of reallocation as defined above, whether by individual HCPs or by triage officers/committees. These utilitarian reallocation decisions tend to be based on notions of quality of life or social value (including age and disabilities not directly contributing to a patient's short-term prognosis) in which one individual's "worth" is pitted against another known individual's. Withdrawal of life-supportive resources from a vulnerable patient should never be used as a means to another's end but should always be decided based on the clinical ends of that individual patient (e.g., reducing the burdens and suffering involved with a given treatment). Withdrawal of life-supportive resources should ideally not occur without the patient's consent (including authorized surrogate consent or through an advance directive). However, if the treatment is deemed non-beneficial to achieving the goal of surviving the medical crisis, urgent circumstances may dictate the necessity of withdrawing life-sustaining therapy according to procedures outlined in this statement. See paragraph 7.d.
 7. Alternative to Reallocation: Optimal Stewardship and Care in a Time of Absolute Scarcity
 - a. During an MCI or officially declared medical crisis surge situation, when the demand for critical life-supportive resources has surpassed the supply and availability of those or equivalent resources, HCPs, along with hospital administrators, ethicists, and governing authorities, will be required to make difficult decisions with regards to balancing optimal stewardship of critical scarce resources and the treatment of individual patients who can best benefit from those resources. Those decisions must be made recognizing the inherent and irreducible value of each human life.
 - b. The difference between reallocation and optimal stewardship is that the former is based on a utilitarian calculus comparing the "worth" or "benefit received" *between* patients where life-supportive treatment is unilaterally removed from one patient based on their prognosis at the time, and may be given to another. The latter is based on the beneficent/non-maleficent treatment and care of each individual patient irrespective of the immediate needs of other patients. Even in an MCI, the good of the individual patient remains paramount.
 - c. Even when life-supportive treatments are readily available, many patients on life-supportive treatment may become terminally and irreversibly ill with little or no reasonable hope of recovery, from a medical standpoint. All fifty states and the District of Columbia recognize advance directives that permit direct withdrawal of life-supportive treatment under these circumstances.²³ Withholding or withdrawal of life-support in patients is also ethically permissible when:
 - i. The medical treatment becomes detrimental or no longer is contributing to the patient's expected goals and outcomes; and
 - ii. The suffering and burdens of a treatment outweigh the intended and foreseen benefits (the intention is to avoid those sufferings and burdens, and even if death is foreseen, it is not intended as a means or as an end, but is

accepted as the natural course of the underlying illness.). See CMDA's statements on Double Effect and Euthanasia.

- d. During worst-case extremes of crisis surge conditions, optimal stewardship of scarce life-supportive resources, such as mechanical ventilation, may require that a more stringent standard (more so than what would occur under normal circumstances of perceived unlimited resources) apply for what constitutes optimal beneficent and sufficient treatment. The ethical appropriateness of continuing or discontinuing treatment ~~is~~ must be equally applied to all patients. The relative stringency of these clinical standards (e.g., length of a trial of ventilation before a patient improves, percentage estimate of short-term survivability, level of acuity, SOFA or APACHE II score, and similar markers of survivability and benefit from treatment) will vary depending on the severity and magnitude of the MCI or crisis surge condition.
- e. Further allocation of available life-supportive resources should be offered only within the bounds of well-communicated time-limited trials appropriate for the patient's medical condition and the severity and magnitude of the current MCI or crisis surge condition.
- f. Any decision to apply more stringent standards for what constitutes optimal beneficent and sufficient treatment should be impartial, based only on standard objective medical acuity including short-term prognosis scoring systems (such as SOFA and APACHE II scores) and not based on long-term survival prospects, age, disability, or social value. These decisions must, whenever possible, be the responsibility of an appointed triage officer or triage committee and not the treating HCP, recognizing the limitations of smaller institutions.
- g. During an MCI or crisis surge condition, persons with disabilities possess the same dignity and worth as others and should not be denied treatments based on stereotypes, assessments of quality of life, or judgments about their relative worth. Treatment decisions should be based on individualized assessments based on the best available medical evidence. For instance, patients with certain spinal cord injuries or neuromuscular disease who are otherwise stable but require long-term use of ventilators should not have their ventilators removed for the purpose of reallocation. Preexisting terminal diagnoses, such as metastatic cancer, end-organ failure (lung, liver, kidneys), or severe dementia,²⁴ are not considered a disability, but rather a medical condition.
- h. These situational standards of beneficence should apply to all patients equally. Withdrawal of treatment for any patient should be based solely on those objective medical criteria appropriate to the situation and without deference to another patient who may benefit from subsequent resources that would be made available. Unless continued treatment is determined to be medically non-beneficial with no objective reasonable hope of short-term survival, decisions to withdraw treatment should never be unilateral or against the patient's or their family's wishes but remain a shared decision. Unlike many utilitarian reallocation schemes, these standards and criteria are not to be used to stratify or rank one patient against another, but to optimize the stewardship of limited resources by providing the best possible treatment to each and every patient, constrained by the contingencies of an MCI.
- i. HCPs withdrawing treatment according to these more stringent situational standards should consider consultation with their hospital's ethics service/triage committee along with the patient's family/surrogate in order to avoid misunderstandings.
- j. Triage teams *ideally* should have no direct role in the treatment of patients nor in the withdrawal of resources, even when they are in accordance with advance directives, recognizing that this may not be practical in small institutions where those making triage decisions may necessarily also be involved in direct patient care.
- k. It is well established that in trauma mass casualty and resource-limited mission situations, triage and stewardship decisions are based on split-second intake and processing of relative clinical and situational data, but never on any "relative worthiness" criteria.

8. Conscience Objections

- a. During worst-case extremes of crisis surge conditions when an officially declared emergency exists and population-based ethics dominate, non-consensual withdrawal and reallocation of life-supporting resources and/or unilateral decisions not to resuscitate (based on either patient condition or health care provider safety) may be dictated by government public health authorities, by designated triage officers/teams, or by published protocols. CMDA rejects any form of reallocation.
- b. Some HCPs may experience moral distress based on their professional commitment to be patient advocates. Treating HCPs should be provided a formal means to appeal and advocate for their patient and/or to conscientiously object to complying with a triage order. At a minimum, HCPs should be provided with the option to step aside and allow another HCP to comply with the order when such appeals are denied. For further information and reflections, see CMDA's statement Duties of Christian Health Care Professionals in the Face of Pandemics.
- c. Jesus calls us to love one another, so if differences of opinion about ethical issues arise during MCI, Christian HCPs should work hard to maintain the unity of the Spirit through the bond of peace

E. Special Considerations

1. Priority of Medical Personnel

Should medical personnel, particularly front-line HCPs, receive preferential priority (e.g., subtracting points from their priority score or using it as a tiebreaker criterion) for scarce life-saving resources during a medical crisis surge? This is a controversial issue in the ethical and medical literature. Three arguments are usually given to advocate for their priority.

- a. A policy that prioritizes at-risk front-line HCPs will increase their morale and motivation to "show up." This argument is unwarranted because HCPs possess a higher calling and duty than the general public and should not be induced by such preference. See CMDA's statement on The Christian Health Care Professional's Duties in the Face of Pandemic Infection.
- b. Front-line HCPs deserve preferential treatment "just because" of their valuable contributions in the past, present, and future to the health of society. This argument is also unwarranted because it assumes that the lives of HCPs are somehow intrinsically more valuable than any other lives.
- c. A stronger argument is based on the calculus of medical crisis surge conditions that the increased risk taken by front-line HCPs will create a further reduction in important skilled personnel resources thereby contributing to an increased overall loss of life. This cannot be a blanket argument, but must take into account several additional factors such as the absolute necessity and irreplaceable skill a particular HCP possesses, how long they will be removed from the pool of necessary personnel even if given treatment (including mandatory quarantine time), and the projected overall total impact on available personnel resources.
- d. While it would be a very extreme and unique situation where such preferential treatment would make a significant impact on overall outcome, there may be some scenarios where this may be a consideration and will depend on the exact nature of the mass casualty incident (MCI).
- e. Aside from the argument for preferential treatment or having an absolute higher priority in triage decisions, it is still imperative for front-line HCPs with direct patient contact to receive preferential allocation of scarce personal protective equipment (PPE) resources in order to protect and preserve important personnel resources.

2. Physician Assisted Suicide (PAS) and Euthanasia

- a. CMDA opposes the active intervention with the intent to produce death for the relief of suffering, economic considerations, or convenience of patient, family, or society. See CMDA's statement on Euthanasia. CMDA is equally opposed to all active interventions that intend to hasten or produce death in a patient as part of any population-based ethic during a public health emergency or medical crisis surge. Withdrawal of a life-supportive resource may be ethically permissible, however, in some situations where imminent death is foreseeable but not intended.

- b. Christian HCPs, administrators, and legislators should be aware of and oppose any protocols, policies, or legislation put into place or activated during a public health crisis or medical crisis surge that promote or seek to make the acceptance of PAS and euthanasia more palatable or more easily accessible either during the crisis or afterwards.

F. Christian Hope During Medical Crisis Situations

1. It is all too evident that this present age continues to suffer the effects of the fall. Suffering, pain, death, and injustices are ever-present realities. While Christ has redeemed creation through his life, death, and resurrection, there remains an “already and not yet” aspect to this redemption. In one sense it is complete in that believers are fully forgiven, redeemed, and possess eternal life. In another sense creation awaits a final perfection, a “not yet.” All believers suffer with the world the continuing effects of the fall, such as temptation and sin, disease, disasters, and physical death. There is both joy and assurance, but continued struggle as well. Understanding this Christian *telos*, or where history is ultimately headed, has a powerful impact on a Christian’s hope during suffering, illness, and anticipated death.
2. For Christian HCPs, this “already and not yet” aspect of redemption gives an eternal as well as present perspective to the relief of suffering and illness to which they have been called in times of great distress. For the Christian, death is no longer the enemy, having been conquered through Jesus’ own death and resurrection. While the eternal salvation of all believers is secure and brings a spiritual peace (*shalom*) with God, they must still await the final resurrection to bring full physical peace and a glorious eternity of embodied life and fellowship with God. In the meantime, physical death and suffering remain a reality. While medical science is a great good, it is limited and imperfect. Christian HCPs, informed by and living in the Christian hope of the resurrection, can still show the mercy and peace of God to their patients, even in the most distressing situations, here and now as a foretaste of the world’s ultimate future restoration at Christ’s return.
3. Christians look to Christ as both the Author of life (Acts 3:15) and the one who conquered death (2 Tim 1:10) to find true meaning, deliverance, and hope in the face of the present human condition. Christians live with the comfort and assurance that we have been “bought with a price” and called to “glorify God” in our bodies (1 Cor 6:20). This is what ultimately gives a Christian HCP true meaning, value, and purpose, even in times of great human distress and suffering. *The Heidelberg Catechism*, written almost 500 years ago, before the age of antibiotics and anesthetics, asks, “What is your only comfort in life and in death?” The answer begins, “That I am not my own, but belong—body and soul, in life and in death—to my faithful Savior Jesus Christ” and continues to affirm that “all things must work together for my salvation. Because I belong to him, Christ, by his Holy Spirit, assures me of eternal life and makes me wholeheartedly willing and ready from now on to live for him.”²⁵
4. Those who live in and for Christ, those who place their hope in the finished work of Christ, can experience the present reality and certainty of eternal life and communion with God. This allowed the Apostle Paul to exclaim in a joyous rhetorical outburst, “Oh death, where is your victory? O death, where is your sting?” (1 Cor 15:55). Physical suffering and biological death remain, even for those “in Christ” through faith. But the meaning and significance of physical suffering, pain, and biological death now take on new meaning, new significance, and new consequences within this new life in Christ (Rom 6:4).
5. Along with this hope and meaning, God recognizes that our own human sinful frailties can still cause us to be fearful. For this reason, He promises us His own abiding presence: “Have I not commanded you? Be strong and courageous. Do not be frightened, and do not be dismayed, for the LORD your God is with you wherever you go” (Josh 1:9). Though we walk through a valley overshadowed by death, “I will fear no evil, for you are with me” (Psa 23). Jesus, the Son of God, came into the world to be with us and to transform the foreboding darkness of a world alienated from God into one of radiant hope. Jesus has overcome our greatest fear—death itself—through his own life, death, and resurrection. The greatest comfort any of us can have, however frightening or dismaying the sufferings of this fallen world may bring, is that Jesus, the source of our salvation (Heb 5:9), is with us always, even to the end of the age (Matt 28:20).

Conclusion

- Broad population-based policies that drastically alter the normal patient-physician relationship should be implemented only if: 1) critical care (life-sustaining) capacity has been, or shortly will be, exceeded despite taking all appropriate steps to increase capacity, AND 2) a regional-level and duly-authorized authority has declared an emergency.
- As Christian physicians, our moral duty in these extreme, distressing, and challenging situations is to use our God-given, Spirit-led, and Scripture-bounded wisdom to the best of our ability to balance the biblical goals, motives, and directives of the Christian life within the complexities of living in a fallen and sinful world, submitting all our limitations to God's love, mercy, and providence. Jesus calls us to love one another, so if differences of opinion about ethical issues arise during these challenging times, Christian HCPs should work hard to maintain the unity of the Spirit through the bond of peace.
- Public health decisions should be based on objective and transparent factors, rather than on the choice of individual leaders, HCPs, or patients.
- Governments and institutions have an ethical obligation to plan allocation of critical scarce resources through a process that is transparent, open, and publicly debated to the extent time permits.
- CMDA opposes the active intervention with the intent to produce death for the relief of suffering, economic considerations or convenience of patient, family, or society.

Appendix: Definitions

Categorical Exclusion Criteria – Criteria used to indicate patients who should not have access to critical care services under any circumstances during a public health emergency. Categorical exclusion criteria do not take into direct account the patient's own specific medical condition, specific circumstances, or prognosis.

Mass Casualty Incident (MCI) – An event that overwhelms the local healthcare system, with a number of casualties that vastly exceeds the local resources and capabilities in a short period of time.²⁶

Medical surge – A situation characterized by an imbalance between health care resource availability and demand. A medical surge can develop in a continuum from conventional to contingency to crisis with progressively increasing demands on progressively decreasing resources. Under conventional surge conditions delivery of usual care is uninterrupted with the full utilization of available resources. Under contingent surge conditions medical care is functionally equivalent to usual care but with staffing and supplies extended, adapted, and conserved. During crisis surge conditions facilities, staffing, and resources are insufficient to meet the demands and crisis standards of care need to be adopted. During a crisis surge of overwhelming demand and insufficient resources a HCP's duty to care and duty to steward resources (this is ethically referred to as dual agency) comes into immediate and critical conflict. In these crisis situations, benefits to individual patients and benefits to a larger population become competing aspects of ethical medical care. During crisis surge conditions sufficient care replaces the standard of care.

Non-Consensual Reallocation of Life-Sustaining Resources – In the absence of a properly executed advance directive or the decision of a properly authorized surrogate, the active, intentional, and direct taking of life-sustaining resources from a vulnerable patient incapable of resisting.

Resource Allocation – The process of prioritizing resources when it is difficult or impossible to provide everyone with all the services that they might want, need, or perceive they need.

Resource Rationing – The process of limiting the availability of or controlling the distribution of medical resources or procedures for certain populations (or all populations, depending on the efficacy of the procedure in question) based on factors that may include a combination of such factors as scarcity, expense, or efficacy.

Resource Reallocation – A procedure during crisis medical surge situations when scarce life-sustaining resources are removed from a patient to whom they have been initially allocated when that patient's condition has subsequently deteriorated or now has a worsening expected short-term survival. These life-saving resources are then reassigned to other patients with a more favorable prognosis or higher potential for benefit.

Resource Reserving – In medical surge situations, the holding in reserve or rationing scarce or projected scarce resources in anticipation of a critical shortage of supply versus demand.

Triage – The process of rapidly screening, evaluating, and sorting patients based on their medical status and likely outcome and subsequently making allocation decisions for life-sustaining resources and interventions.

Utilitarianism – An ethical theory (held by such thinkers as Jeremy Bentham and John Stuart Mill) maintaining that moral rightness is determined by what leads to the greatest good for the greatest number of people. The greatest good is defined by traditional utilitarian ethicists as "happiness," which is defined in terms of pleasure and the absence of pain. "Ideal" utilitarian ethicists are willing to include other goods than pleasure in their calculation of benefits.

References

- ¹ Ryus, J. and Baruch, J (2018). The duty of mind: ethical capacity in time of crisis. *Disaster Medicine and Public Health Preparedness*, 12, pp. 657-662. DOI: <https://doi.org/10.1017/dmp.2017.120>.
- ² *Ibid.*
- ³ Institute of Medicine Committee on Guidance for Establishing Crisis Standards of Care for Use in Disaster Situations. (2012). *Crisis standards of care: a systems framework for catastrophic disaster response*. Washington, DC: National Academies Press. <https://www.ncbi.nlm.nih.gov/books/NBK201063/> Doi: <https://doi.org/10.17226/13351>.
- ⁴ Edwards, J. (1989). The nature of true virtue. In P. Ramsey (Ed.), *The works of Jonathan Edwards, volume 8: ethical writings*. New Haven: Yale University Press, pp. 537-628.
- ⁵ Lewis, C.S. (1952). *Mere Christianity*. New York: MacMillan Publishing Co., pp. 69-73.
- ⁶ Frame, J. (2008). *The doctrine of the Christian life: a theology of lordship*. Phillipsburg: P&R Publishing.
- ⁷ Bromiley, G. (1982). Ethics: ethics and dogmatics. In G. Bromiley (Ed.), *The international standard Bible encyclopedia, volume 2* (pp. 185-190). Grand Rapids: William B. Eerdmans Publishing Co.
- ⁸ Kilner, J. (1992). *Life on the line: ethics, aging, ending patients' lives, and allocating vital resources*. Grand Rapids: William B. Eerdmans Publishing Co., pp. 13-29.
- ⁹ *Ibid.*, p. 48.
- ¹⁰ Thiele, F. (1971). *Mikros*. In C. Brown (Ed.) *The new international dictionary of New Testament theology, volume 2*. Grand Rapids: Zondervan Publishing, pp. 427-429.
- ¹¹ University of Pittsburgh School of Medicine, Department of Critical Care Medicine. (2020). *Allocation of scarce critical care resources during a public health emergency*. https://ccm.pitt.edu/sites/default/files/UnivPittsburgh_ModelHospitalResourcePolicy.pdf.
- ¹² Beauchamp, T.L. and Childress, J.F. (2019). *Principles of biomedical ethics*. Eighth edition. New York: Oxford University Press.
- ¹³ Edelstein, L. (1943). *The Hippocratic Oath: text, translation and interpretation*. Baltimore: The Johns Hopkins Press.
- ¹⁴ Kilner, J. (1990). *Who lives? Who dies? Ethical criteria in patient selection*. New Haven: Yale University Press, p. 194.
- ¹⁵ Institute of Medicine (2012), pp. 4-22.
- ¹⁶ Kilner, (1990), p. 92.
- ¹⁷ Callahan, D. (1987). *Setting limits: medical goals in an aging society*. New York: Simon and Schuster.
- ¹⁸ Devereaux, A.V., Dichter, J.R., Christian, M.D., et al. (2008). Definitive care for the critically ill during a disaster: a framework for allocation of scarce resources in mass critical care. *Chest*, 133, no. 5 Suppl 1, pp. 51S-66S. Doi: <https://doi.org/10.1378/chest.07-2693>.
- ¹⁹ Institute of Medicine (2012), pp. 5-20.
- ²⁰ *Ibid.*, pp. 1-81.

²¹ University of Pittsburg (2020).

²² Texas advance directives act (2020), *Texas Health and Safety Code* §166.046.

²³ FindLaw.com (2020).

²⁴ Chang, A. and Walter, L.C. (2010). Recognizing dementia as a terminal illness in nursing home residents. *Archives of Internal Medicine*, 170, no. 13, pp. 1107-1109. Doi: <https://doi.org/10.1001/archinternmed.2010.166>.

²⁵ Dennison, J. T. (Ed.) (2010). *Reformed confessions of the 16th and 17th centuries in English translation: volume 2, 1552-1556*. Grand Rapids: Reformation Heritage Books, p. 771.

²⁶ Ben-Ishay, O., Mitaritunno, M., Catena, F., et al. (2016). Mass casualty incidents – time to engage. *World Journal of Emergency Surgery*, 11, p. 8. Doi: <https://doi.org/10.1186/s13017-016-0064-7>.