# Ethics in Mass Casualty Incidents

# 18

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Ethics implications are at the core of preparation, policies, response, and recovery of MCI.

In order to understand more clearly the close relation of ethics and disasters, we have to answer three basic questions:

1. Why do we need to know the ethical basis of disaster preparation and response?
2. What is special about disasters that motivates people to act and respond ethically and how is this manifested?
3. What are the relevant ethical principles that form the basis of our actions and reactions?

There are three aspects of a disaster on man—physical, emotional, and spiritual. The specific mental health stressors are self or family member injury, life threat fear and panic during event, relocation, peri-traumatic responses, and horror separation from family and property damage or financial loss.

Persons with disabilities may experience personal vulnerability as well as protective factors. They may suffer systemic vulnerability or protective factors across environments and ecologies. Disaster response practices intend to diminish risk factors.

What is special about disasters that motivates people to act and respond ethically?

Ethics contains basic human values of compassion, empathy, respect for dignity of others, and professional codes of conduct.

Ethics is important and versatile and currently is very relevant to society because it includes social responsibility and requires governance.

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The roots of ethics relevance date from Ancient Greece "Do good work consider end use" (Aristotle) and Renaissance: "Evaluate both ends and means" (Kant) and are updated to plan holistically by the systems theory, contributing to knowledge.

The definition of ethics or the moral philosophy summarizing several definitions is "determining rights and wrongs, selecting actions to achieve good results, evaluating motives." Ethics is "the achievement of wisdom, choosing actions that are beneficial and acceptable long term or sustainable" [1].

"Ethics is not about what is—but what should be."

The basic theories and principles of ethics are ethical relativism: morality varies between people and societies according to their cultural norms and universal or objective moral theories: fundamental principles that are invariant throughout time and space [2].

The four "types" of ethics are:

1. Metaethics (what is good?)
2. Normative ethics (what should we do?)
3. Applied ethics (ethics in work and lives?)
4. Descriptive ethics (morals people follow)

Codes of ethics is the applying of ethics to a profession or discipline like engineering, medicine, law, journalism, psychology, etc.

The golden rule of symmetrical ethics is do to others what you want them to do to you, as well as, if you demand from others, demand from yourself (even more). The idea is to see yourself as the others, or transmitting empathy.

Asymmetrical ethics is when one party has more resources, knowledge, and power. Ethics compliance is applied in laws, standards, guidelines, and morals, where the "compliance officer" has to "follow standard". This ensures, that though difficult, response organization does not go wrong [3]. Positive ethics is when it is contributing positively to society organization, profession, or environment. According to Aristotle (384–322) (Fig. 18.1), the moralist states: my life view is superior; other views are inferior; I have the answers; I need no other authority. The ethicist claims: my life view is based on reflection; I evaluate life views; I have questions; I respect oath.

The basic principles of ethics are openness and privacy. Openness means to publish, register, compare, analyze, and find missing information, while privacy includes personal room integrity, harmful, embarrassmental, wrong or wrongly used information.

Ethical principles applied during MCI should be based on humanitarian assistance, information and participation during disasters, compulsory evacuation of populations, respect of dignity and persons, emergency assistance for the most vulnerable persons, measures to safeguard and rehabilitate the environment, strengthening resilience to the effects of disasters, protection of economic, social, cultural, civil and political rights [4].

**Fig. 18.1** Aristotle (384–322)

The relevant ethical principles are substantive and procedural. The substantive principles are individual liberty, protection of the public from harm, proportionality and reciprocity, privacy, duty to provide care, equity and solidarity, trust and stewardship. The procedural principles are reasonability, openness and transparency, inclusiveness, responsiveness, and accountability [5].

Disaster ethics is addressed in three phases [6]:

- Pre-disaster (pre-event) or preventive phase
- Disaster (event/crisis) and early response phase
- Post-disaster (post-event) or rehabilitation phase

The disaster ethics in the early response phase are those of non-maleficence, beneficence, justice, and the respect for autonomy. Reaching the disaster site as quickly as possible is the most crucial step. “Public health institutions should act in

a timely manner on the information they have within the resources and the mandate given to them by the public" [7].

In the early response phase—the triage, as the second most important step, is considered as critical in the distribution of limited medical resources, where highest priority should be given to the principles of beneficence and justice. The mass casualty approach follows the principle of decision-making for saving more lives. It is the "triage" principle, not life support.

World Medical Association statement on medical ethics in the event of disasters says that in selecting the patients, the physician should consider only their medical status, and should exclude any other consideration based on non-medical criteria [8]. Triage and ethics in MCI unite on saving more lives, where selecting and referring only the "red" coded patients is a rule without exceptions, which has proved its effectiveness through practice and research. In disaster medicine management, one must follow not only principles of triage, life support, and on time emergency treatment, but also go along with ethical issues. It is exactly like in surgery teaching and learning—acquiring and implementing knowledge, skills, and attitudes. Discussions on triage decisions with respect to the victim's age, gender, social status, ethnic origin, or profession (e.g., health workers) also conflict with the basic right to live at the individual level and justice principle, in general. "Ideological issues must not eclipse the humanistic priorities embodied in ethical rules" [9]. Practically, having 20 critically ill victims at open field, one have to "triage" all of them as fast as possible (15–20 s), giving them chance for life. One even may become unlikable, speak loud, cry to hear you, or obey orders. Here ethical issues are not obligatory—one does not choose children, pregnant, or disabled. All have the priority of the "red" code. The first one is the closest one. The second is next to him. One cannot afford spending time on observing all the 20 injured. There are reasons for excluding disabled in algorithms:

- Individuals will need resources for prolonged period of use.
- They are deemed to have a poor quality of life post-treatment.
- They have a limited long-term prognosis as a result of their disabilities.

Triage is a form of rationing care delivery. Rationing delivery of care is justified only in situations in which the amount of resources available is less than "adequate" (first and foremost, insufficient to meet the critical requirements) [10].

The traditional "transvertical" triage advocates with scarce resources to provide the maximum benefit to the population, even if it means that individual victims that can be saved under other circumstances are sacrificed for the greater good. The "longitudinal" triage necessitates sacrificing victims now, for the benefit of future victims. In mass casualty medicine, the clinical paradigm is replaced by the rescue paradigm in which it is necessary to save lives and minimize aggregate morbidity [11].

Questions of where consideration for the individual ends and the rights of the majority begin remain valid ones in the face of limited resources [12].

Triage decisions must not discriminate against terrorists, despite the highly emotional situation in which attackers and victims are treated simultaneously on-site [13].

Defining specified standards prior to the emergency response will methodologically enable improvement of the successful response to different types of emergency scenarios, regardless of their variable components [14, 15].

In light of the importance for expanding the science of disaster management, the complexity of acquiring informed consent while conducting studies in the realm of disaster medicine should be widely reviewed and weighed [16].

For daily triage decisions, a new model of resource allocation, known as accountability for reasonableness, claims that resource allocation should proceed on the basis of relevant criteria, that are public, that decision-making be accountable, and that an appeal process exists in cases of conflict [17]. Healthcare organizations can deploy a triage and scarce resource allocation team to oversee and guide ethically challenging clinical decision-making during a crisis period. The goal is to help healthcare organizations and clinicians balance public health responsibilities and their duty to individual patients during emergencies in as equitable and humane a manner as possible [18]. To understand whether disaster triage, as currently advocated and practiced in the western world, is actually ethical, we should clarify whether resources truly are limited, whether specific numbers should dictate disaster response, and whether triage decisions should be based on age or social worth [19, 20].

People affected by a disaster may not be capable of responding to human rights violations, so it is the first responders who must be cognizant of their responsibility to protect the victims' dignity and rights. Ethical treatment of survivors entails a crucial blend of knowledge about ethnic culture, religious beliefs, and human rights. A strong awareness of ethical principles is merely a beginning step to well-informed decision-making in disaster situations [21].

Research ethics should take the format of an iterative evolving and constructive learning process, with a time of reflection and critical debate [22]. Potential need for non-standard ethics review procedures for MCI settings is to ensure appropriate dissemination of disaster research results among researchers, to share information, and develop projects to evaluate how well the ethical issues are addressed in the research. Particular attention should be given to assessing participants' perceptions of how ethics is addressed in specific projects [23].

The Social Contract states: "Government has an obligation, to prepare citizens for survival in second states of nature caused by disaster. Such preparation requires implementation through public policy." (John Locke). These rights are presumed in the US Declaration of Independence and protected by the first ten amendments of the constitution [24].

Throughout the centuries there are many local and national (Figs. 18.2 and 18.3) as well as global (Fig. 18.4) documents which can be related to ethics in MCI.

Professional codes of ethics act as: "Professions governed by codes of ethics approved by their members function on the assumption that these codes will not be violated in practice" [24].


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**Fig. 18.2** Oath of Hippocrates 4c B.C.

1. Oath of Hippocrates 4th century B.C.E.
2. Oath of Initiation
3. Oath of Asaph
4. Advice to Physician
5. 17 Rule of Enjuin
6. Five Commandments and Ten Requirements 1617
7. A Physician's Ethical Duties from Kholasah al Hekman
8. Daily Prayer of a Physician (prayer of Moses Maimonidies) 1793
9. Code of Ethics AMA 1847
10. Declaration of Geneva, WMA 1948
11. Intl Code of Medical Ethics 1949
12. Principles of Medical Ethics AMA 1957
13. Oath of Soviet Physicians 1971
14. Oath of a Muslim Physician, Islamic Medical Assoc. of North America 1977
15. Islamic Code of Medical Ethics, Kuwait Document, Islamic Organization for Medical Sciences 1981
16. Regulations on Criteria for Medical Ethics and their Implementation – China –1988
17. Health Care Ethics Guide, Catholic Health Assoc. of Canada 1991
18. Solemn Oath of a Physician of Russia 1992
19. Code of Ethics, AmericanOsteopathic Assn 1998
20. Code of Ethics and Guide to Ethical Behaviour of physicians.
21. Canadian Medical Association1996
22. Code of Ethics Chile –1983
23. Code of Ethics Brazil -1988
24. Code of Ethics Norway –2000
25. Code of Ethics Japan 1991
26. Ethical and Religious Directives for Catholic Health Facilities 1971, rev. 2001
27. Declaration of Prof. Responsibility AMA2001
28. Charter on Medical Professionalism (2002)
29. New Zealand Medical Assoc. 2002

**Fig. 18.3** "Ethical Directives for the Practice of Medicine" from fourth century B.C.E till 21st c. [25]

1. Human Rights first declared internationally in 1948 in the United Nations'(UN's) Declaration of Human Rights. Not an international law – global paradigm
2. United Nations Charter earth for All in the 21st Century" World Health Organization (WHO)
3. 1985 Tokyo Declaration by the World Medical Association against physicians being involved in torture
4. 1988 United Nations Resolution, the "Right to Intervene"
5. International Humanitarian Law (IHL-comprises the Geneva Conventions and the Hague Conventions)
6. The Helsinki Declaration protects the patients' rights and integrity with regard to research. Ethics Landmark but not practical for disaster, endorsed at the General Assembly of the World Medical Association in Helsinki, Finland in 1964

**Fig. 18.4** Global ethics documents relevant to ethics in MCI are [26]

Biohazards can be considered in certain circumstances as MCI. Therefore, exportation of hazards constitutes both ethical and legal issues. Solidarity requires "deliberate and freely chosen unity among certain groups or populations." "When referring to healthcare, solidarity means the obligation to share the financial risks of illness and handicap with others not necessarily of one's own social group." Joint responsibility constitutes the shared responsibility between governments, communities, businesses, and individuals. Civil laws must assure non-discrimination principles of the law, which require equal access and prohibit discrimination against people with disabilities in all aspects of emergency planning, response, and recovery [27].

The principles of internal displacement adopted by the United Nations Commission and the General Assembly are aimed to protect all internally displaced persons in internal conflict situations, natural disasters, and other situations of forced displacement. The principle of impartiality states: "It makes no discrimination based upon nationality, race, religious beliefs, class, or political opinions."

The American Red Cross, as a member of the International Red Cross and Red Crescent Movement, adheres to the fundamental principles of the International Red Cross and Red Crescent Movement [28]. The code of conduct for International Red Cross and Red Crescent Movement and NGOs in disaster relief was drawn up in 1992 by the Steering Committee for Humanitarian Response (SCHR) to set ethical standards for organizations involved in humanitarian work [29]. In 1994, the SCHR adopted the code and made the signing of it a condition for membership in the alliance. "The cardinal virtues of disaster response are prudence, courage, justice, stewardship, vigilance, self-effacing charity, and communication."

The standard of care is a case- and time-specific analytical process in medical decision-making, reflecting a clinical benchmark of acceptable quality medical care [30]. Professional ethics is the accepted principles or moral codes that conforms to the accepted standards of that profession [31].

Disasters vary considerably with respect to their time, place, and extent; therefore, ethical questions may not always have "one-size-fits-all" answers. On the other hand, embedding ethical values and principles in every aspect of healthcare is of vital importance. Reviewing legal and organizational regulations, developing

healthcare related guidelines, and disaster recovery plans, establishing on-call ethics committees, as well as adequate in-service training of healthcare workers for ethical competence are among the most critical steps. It is only by making efforts before disasters, that ethical challenges can be minimized in disaster responses [32]. The Japan disaster mental health guidelines provide a comprehensive description on what to do and say in times of disaster. With dissemination and use of guidelines, local mental health systems can be improved and will be better prepared ahead of future disasters [33]. The Delphi technique can be used for reaching consensus of data, comprising process, structure and outcome indicators, identified as essential for recording indicators essential for data reporting from the response of major incidents. It can serve as a basis for a generally acceptable national register [34].

Ethical principles applied prior to disaster are prevention measures, good quality healthy environment, education, training and awareness, participation—public input at national and local level, freedom of expression, and access to justice [4]. Ethical approach to allocation of scarce resources and triage should be based on fairness, transparency, consistency, proportionality, accountability, and a duty to attempt to obtain best outcome for the greatest number of patients with available resources—it does not mean to save the most lives, because a comfortable death may be a good outcome (Fig. 18.5) [35]. Ethical dilemmas and codes of conduct in MCI include announcing bad news under pressure to patient (if conscious), to relatives, friends and to media (Fig. 18.6).

Responsible for ethical information in disasters are the local emergency management command centers, including police, fire, EMS, public health agencies and departments, bioethics committees, physician, and nursing education teams. The leader in MCI acting under pressure must address the team in brief, precise, encouraging, positive, and definite manner.


**Fig. 18.5** Ethical approach in triage

**Fig. 18.6** Announcing bad news to relatives

The code of professional ethics for rehabilitation counselors contains primary responsibility, proper diagnosis of mental disorders, respect for confidentiality and adapting to work environment. They should maintain roles and relationships, appropriate termination, referral and transfer of services based on competences like preparation and response, cultural diversity, advocacy and accessibility, scientific bases for intervention, technique/procedure/modalities skills and finally yet importantly—monitor effectiveness. Strategies to maximize care concern space, structure, medications and staff. Common activities are put patient beds in hallways, conference rooms, tents, use operating rooms only for urgent cases, supply/sterilize and reuse disposable equipment, limit drugs/vaccines/ventilators to patients most likely to benefit, prioritize comfort care for patients who will die/ and have family members help with feeding and other basic patient tasks.

The future objectives before ethics in MCI are:

- Encourage and consolidate knowledge networks
- Mobilize and train disaster volunteers—army, police firemen, scouts and guides, civil defense, guards
- Build capacity and learn from best practices

The future directions are:

- Anticipatory governance—simulation exercises, and scenario analysis
- Knowledge systems and coping practices
- Living with risk—community-based disaster risk management
- Inclusive, participatory, gender sensitive, child friendly, eco-friendly and disabled friendly disaster management
- Technology driven but people owned
- Knowledge management—documentation and dissemination of good practices
- Public private partnership

What to expect? A killer asteroid, coronal mass sun ejection (Fig. 18.7), a massive quake, thermohaline circulation shutting down, global pandemic (Fig. 18.8), wrong genetic manipulation etc.?

Why do so many major world disasters happen on the 26th? Is "26" the new "13" (Fig. 18.9).

The challenge of disaster preparedness is how we give the best care possible under the worst possible circumstances.

Investments in preparedness and prevention (mitigation) will yield sustainable results, rather than spending money on relief after a disaster because most disasters are predictable, especially in their seasonality and the disaster-prone areas, which are vulnerable.

The future directions in meeting goals in legislation and recommendations are developing ethical guidelines. These require legislative task force, state committee, ethics board, studies and regulations with resolutions and considerations. The considerations for developing ethical guidelines comprise of resource owner, recognizable voice, big city and budget disaster allocation, public and research activities like discussions, presentations and conferences, ethics research and analysis center, and state agencies.

Education and training are especially important in [36]:

- Disaster planning and rehearsal
- Integration of local, regional, and national resources into a disaster system
- Hospital emergency incident command systems (HEICS)
- Communications and security
- Media relations
- Protection of healthcare delivery personnel and facilities
- Detection and decontamination of biological, chemical, and radiation exposure
- Triage principles and implementation
- Logistics of medical evaluation, stabilization, disposition, and treatment of victims
- Record-keeping and post-disaster debriefing, critique, and reporting

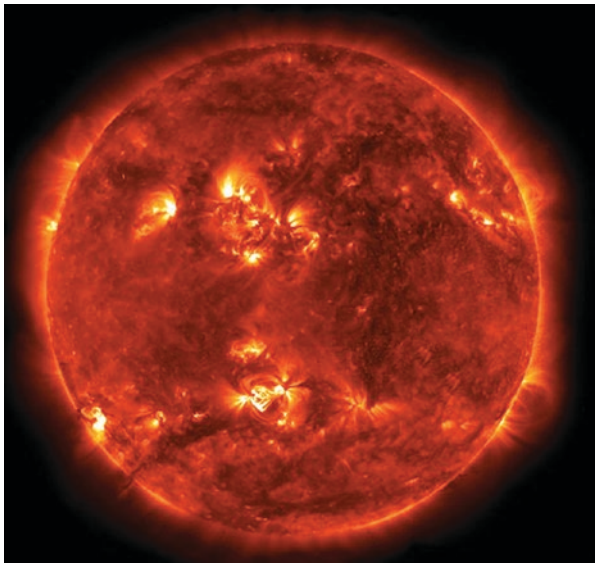

**Fig. 18.7** A coronal mass ejection can cause power outages and starvation

**Fig. 18.8** Major solar storm 2015–2025

**Fig. 18.9** The curse of 26th

1. North America earthquake 26 Jan 1700
2. Krakatau volcano 26 Aug 1883 (36,000 dead)
3. The Rhodes earthquake 26 June 1926
4. Kansu,China earthquake 26 Dec 1932 (70,000 d)
5. Turkey earthquke 26 Dec 1939 (41,000 dead)
6. Portugal earthquake 26 Jan 1951 (30,000 dead)
7. Yugoslavia earthquake 26 July 1963
8. China Earthquake 26 July 1976
9. Sabah Tidal waves 26 Dec 1996 (1,000 dead)
10. Gujrat Earthquake 26 January 2001
11. Bam, Iran earthquake 26 Dec 2003 (60,000 d)
12. Tsunami in Indian Ocean 26th Dec 2004
13. Aceh Tsunami 26 Dec 2004
14. Mumbai floods 26 July 2005
15. Tasik earthquake 26 June 2010
16. Taiwan earthquake 26 July 2010
17. Mentawai Tsunami 26 October 2010
18. Merapi volcanic eruption 26 Oct 2010
19. Japan Earthquake 26 Feb 2010
20. Nepal Earthquake 26 April 2015
21. Hindukush Afghan Earthquake 26 Oct 2015

- Critical incident stress management (CISM)
- Published research and experience in disaster management

Strategic international partnership is required to collaboratively share the risks and strengthen societal resilience towards MCI. Regional and global cooperation have to be developed to enhance preparedness to deal with large-scale hazards and mitigate sustainability, protection and empowerment, and recovery and rehabilitation programs based on the best and most robust scientific information and coordinated public programs in urban and rural areas [37].

In MCI, specific knowledge, skills, training, and teamwork are necessary to face the ethical dilemmas and implement the appropriate codes of conduct alongside with some simple moral human concerns like honesty, sincerity, sympathy, and trust (Fig. 18.10).

> "A physician's life is a constant and losing battle against obsolescence." Mark M. Ravitch, 1910–1989 (Fig. 18.11).

**Fig. 18.10** Teamwork in MCI

**Fig. 18.11** Mark M. Ravitch, 191

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