Perspective

Reflections on the Hippocratic Oath and Declaration of Geneva in Light of the COVID-19 Pandemic

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The entire world is confronting trying and uncertain times. We are in the era of COVID-19 (coronavirus disease 2019) and everyone is filled with questions—who, what, why, where, when, if, how, etc.—but the answers, at best, are piecemeal and superficial because much is unknown about this virus other than its membership in the family of coronaviruses and the toll it has already wrought. Coupled with the fear of infection and death is the concern about economic devastation for its survivors. Our healthcare providers—physicians, nurses, nurse practitioners, physician assistants, paramedical workers, and the like—are facing unprecedented stress as caring for sick patients at work and their families and loved ones at home strains our familial and societal bonds. In these difficult circumstances, all of us seek direction and guidance in balancing our personal concerns for the safety of ourselves and our families with our obligation to those in need. In this short treatise, we put forth our thoughts on how we can learn from historic precedents and explain how the modern Hippocratic Oath and Declaration of Geneva can provide the foundational ethical and moral foundations upon which we may make sound decisions, not only for physicians but for all healthcare providers.

We turn first to our collective history. Striking with surprising speed and appalling ferocity between 1918 and 1919, at the culmination of World War I, the H1N1 influenza pandemic felled between 25 to 100 million people worldwide, a large number of these being the most productive members of society, although aged and infirm individuals were not exempt, leaving behind baffled orphans and decimated families.[1] Remarkably, this disease traveled the globe with an astounding efficiency, despite the absence of rapid international transportation. Fast forward a little more than 100 years and we are facing another viral crisis. For the past several months, the world has watched as a public health calamity has lurched unpredictably from one country to another. In March, the source of the upheaval, severe acute respiratory syndrome-coronavirus 2 (SARS-CoV2), was declared an international pandemic and has since struck virtually every nation. It has created stresses and destabilizing influences in individual countries' governing systems and is placing unprecedented demands on the healthcare system worldwide as the numbers of afflicted and dying people mount daily.

Compared with 1918, today's world is much more connected, more easily traversed, and, unfortunately, better positioned to experience the terrible consequences of a vector as virulent as H1N1. SARS-CoV2 has proven to be such a vector; despite the fact that intercontinental travel patterns and populations have burgeoned multifold from 100 years ago, the COVID-19 mortality rate thus far has not reached the stratospheric numbers of 1918. Our hope is that it never will. That it has not is a testament to advances in medicine, the dedication of our healthcare providers worldwide, and the unprecedented steps taken in various countries to "flatten the curve" (ie, to disrupt completely or at least slow the anticipated exponential increase in the number of infected before it happens). In this, some nations have been more successful than others, but the fact is that each nation, state, or geographic region is on its own trajectory of spread of COVID-19 depending upon when and where their infection initially began. Moreover, highly variable factors such as population densities, numbers and distributions of more vulnerable individuals, supply of environmental cleaning tools and sanitizers, and the availability of and accessibility to sufficient healthcare infrastructure continue to play critical roles in the speed with which the disease spreads and its ultimate impact. As Parmet and Rothstein[2] wrote, almost presciently, in their editorial to a 2018 series of reviews of the 1918 pandemic in the *American Journal of Public Health*, "It is true that we live in the age of genomics, vaccines, antibiotics, mechanical ventilators, and other features of high-technology medicine that were unavailable in 1918. Nevertheless, our technology remains woefully ineffective in preventing influenza … as in 1918, we will remain dependent on a mix of biomedical interventions and social distancing measures when the next pandemic strikes."

Over time, a better understanding of the virulence of this new disease and its molecular secrets of destruction will emerge. It is only in the recent past that specifics about the H1N1 virus are beginning to be revealed from studying tissue samples derived from the lungs of its victims.[3,4] Time, however, is a commodity that is always in short supply when the enemy is at the gate. The entire US population is in turmoil as pronouncements and policy changes are being made and or implemented daily at national, state, city, and even regional or local healthcare entity levels. The uncertainties regarding how best to prevent the spread of COVID-19 and to treat infected people, coupled with an awareness of its potentially devastating respiratory impact on traditionally high-risk and healthy individuals alike, have left healthcare professionals uncertain about how to address rapidly

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changing personal and patient care challenges. Included among the many questions being raised in our minds are the following:

- What are our responsibilities as physicians in the prevention of disease and the care of patients in this pandemic, particularly when guidelines and knowledge are in flux or lacking completely?
- How should we deploy our medical resources most effectively as the number of the symptomatic infected increases exponentially? Will we focus primarily on treating younger and middle-aged patients (who presumably have a longer and potentially more productive life remaining) or do we also care for older adults and chronically ill individuals who are more immediately vulnerable to the infection?
- How do we balance our duties to patients while recognizing the need to maintain our own health (both to remain capable of rendering care and to prevent unknowingly spreading the disease to uninfected patients or family)?
- Should healthcare workers with known "higher risk" (for example known diabetics) and those who are still in training or are students be assigned to the sidelines rather than the frontlines of care in this pandemic?

These questions were undoubtedly on the minds of many in 1918. What professional and ethical guide did the physicians of the early 1900s turn to as they faced a defining moment in their lives and the lives of their patients? They could not offer their patients antibiotics, antivirals, or ventilators and had only the barest beginnings of knowledge of infectious disease. What they did was to offer them basic medical care and the willingness to be available to their patients.

In their review of Albert R. Jonsen's book *A Short History of Medical Ethics*, Meyer et al[5] point out the author's emphasis that before modern bioethics,

"A long tradition of common ideas about medical ethics emerged wherever formal written healing systems developed … respect for life, competence, compassion, politeness, and nondiscrimination are among the most important elements of this tradition … organized … into three core categories: first, "decorum," the character and virtues displayed by a moral healer; second, "deontology," the duties and principles a good physician must obey; and third, … "politic ethics," the relations between healer and society, including justice, professionalism, and health policy. Over time, the emphasis changed, from ancient Greek preoccupation with decorum, to medieval Catholic stress on deontology, to the post-Enlightenment rise of politic ethics. But despite such shifts, and the many cultural differences among the diverse societies … the basic similarities remained central."

Although Western medical ethics may have arisen from the original oath of Hippocrates in the 5th century BCE, it is evident that the physicians of the 1900s were following a long-established tradition of compassionate and professional care for their patients, passed down from one generation of practitioners to another.

Hippocratic Oath - Modern Version

I swear to fulfill, to the best of my ability and judgment, this covenant:

I will respect the hard-won scientific gains of those physicians in whose steps I walk, and gladly share such knowledge as is mine with those who are to follow.

I will apply, for the benefit of the sick, all measures [that] are required, avoiding those twin traps of overtreatment and therapeutic nihilism.

I will remember that there is art to medicine as well as science, and that warmth, sympathy, and understanding may outweigh the surgeon's knife or the chemist's drug.

I will not be ashamed to say "I know not," nor will I fail to call in my colleagues when the skills of another are needed for a patient's recovery.

I will respect the privacy of my patients, for their problems are not disclosed to me that the world may know. Most especially must I tread with care in matters of life and death. If it is given me to save a life, all thanks. But it may also be within my power to take a life; this awesome responsibility must be faced with great humbleness and awareness of my own frailty. Above all, I must not play at God.

I will remember that I do not treat a fever chart, a cancerous growth, but a sick human being, whose illness may affect the person's family and economic stability. My responsibility includes these related problems, if I am to care adequately for the sick.

I will prevent disease whenever I can, for prevention is preferable to cure.

I will remember that I remain a member of society, with special obligations to all my fellow human beings, those sound of mind and body as well as the infirm.

If I do not violate this oath, may I enjoy life and art, respected while I live and remembered with affection thereafter. May I always act so as to preserve the finest traditions of my calling and may I long experience the joy of healing those who seek my help.

Fig. 1. Modern version of the Hippocratic Oath.[8,9]

The Physician's Pledge
AS A MEMBER OF THE MEDICAL PROFESSION:

I SOLEMNLY PLEDGE to dedicate my life to the service of humanity;

THE HEALTH AND WELL-BEING OF MY PATIENT will be my first consideration;

I WILL RESPECT the autonomy and dignity of my patient;

I WILL MAINTAIN the utmost respect for human life;

I WILL NOT PERMIT considerations of age, disease or disability, creed, ethnic origin, gender, nationality, political affiliation, race, sexual orientation, social standing or any other factor to intervene between my duty and my patient;

I WILL RESPECT the secrets that are confided in me, even after the patient has died;

I WILL PRACTISE my profession with conscience and dignity and in accordance with good medical practice;

I WILL FOSTER the honor and noble traditions of the medical profession;

I WILL GIVE to my teachers, colleagues, and students the respect and gratitude that is their due;

I WILL SHARE my medical knowledge for the benefit of the patient and the advancement of healthcare;

I WILL ATTEND TO my own health, well-being, and abilities in order to provide care of the highest standard;

I WILL NOT USE my medical knowledge to violate human rights and civil liberties, even under threat;

I MAKE THESE PROMISES solemnly, freely, and upon my honor.

Fig. 2. World Medical Association's Declaration of Geneva, 2017 (Reproduced, with permission, from: World Medical Association (WMA). WMA Declaration of Geneva. https://www.wma.net/policies-post/wma-declaration-of-geneva/).

Included in their guiding ethical principles were likely Percival's code for hospitals and charities, dating from 1803, and the American Medical Association's code of medical ethics, adopted in 1847.[6] To our advantage, we also have the searing lessons learned from the Nuremberg trials and the Tuskegee syphilis study, events leading to the three core principles codified in the Belmont Report: respect for individuals, beneficence, and justice.[7] Although the Belmont Report focused on the conduct of ethical medical and scientific research, its principles also have become central to the modern practice of medicine.

In addition, we have the modern version of the Hippocratic Oath (Fig. 1), dating from 1964, and the Physician's Pledge, dating from the 2017 Declaration of Geneva (Fig. 2).[10,11] We believe that both can serve as additional frameworks for medical personnel as they work tirelessly to ethically and morally care for a fearful population facing disease, death, and uncertainty. Both the Hippocratic Oath and the Declaration of Geneva strongly emphasize care providers' responsibilities that are relevant to our current situation, *viz.*:

I will prevent disease whenever I can, for prevention is preferable to cure.

I will remember that I remain a member of society, with special obligations to all my fellow human beings, those sound of mind and body as well as the infirm.

I SOLEMNLY PLEDGE to dedicate my life to the service of humanity.

THE HEALTH AND WELL-BEING OF MY PATIENT will be my first consideration.

I WILL NOT PERMIT considerations of age, disease or disability, creed, ethnic origin, gender, nationality, political affiliation, race, sexual orientation, social standing or any other factor to intervene between my duty and my patient.

In these critical times, the medical community needs strong, level-headed leadership, leadership that inspires and catalyzes the actions of the rest of us as we cope with the crisis at hand. In looking forward, we must gain insight from the past so that difficult decisions can be made in an ethical and moral fashion as we collectively battle our way through this pandemic with our patients.

In conclusion, we believe that the modern Hippocratic Oath and the Physician's Pledge are relevant, not only to physicians but also to all of our healthcare colleagues working on the frontlines of this pandemic. We believe that these documents, together with the long tradition of medical ethics, provide a concrete and current basis through which we can navigate the many ethical and moral dilemmas that we may already have faced or will face in the future as this pandemic affects the world.

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