

Vaccine Covid 19: The Choice Based on Medical Ethics and Evidence-Based Medicine

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Abstract:

Evidence-based medicine (EBM) is as important as it is in developing countries as well as in developed countries as one of the ways in which the problems of health and knowledge poverty can be reduced, contributing to a sustainable life. Medical ethics (ME) is an ethics in the practice of clinical medicine and scientific research based on a set of values that professionals can refer to in the event of any confusion. Confusion and conflict are particularly relevant in decisions regarding involuntary treatment and involuntary commitment. The understanding of COVID-19 disease and the SARS-CoV-2 vaccine is limited due to the urgency of the pandemic, so this vaccine selection is the challenges. This article reviews the challenges of selecting a SARS-CoV-2 vaccine based on medical ethics and evidence-based medicine to contribute to the balance of effectiveness in tackling the pandemic.

Keywords: vaccine selection; medical ethics; evidence-based medicine; challenge; effective.

1. Introduction:

1.1 Medical ethics ME: Historical development: Some codes of conduct: 1. The Hippocratic Oath discusses basic principles for medical professionals. 2. The Declaration of Helsinki (1964) and the Nuremberg Code (1947) are both well-known and respected documents that contribute to the issue of medical ethics. More recently, new techniques for gene editing aimed at treating, preventing and curing diseases using gene editing, are raising important ethical questions about their application in medicine and methods. treatment as well as the social impact on future generations remains controversial due to their connection to eugenics. [1][2] Medical ethics include rights, autonomy, and justice as they relate to conflicts such as sense of death, patient confidentiality, informed consent, and conflict benefits in health care.[3] [4] [5] In addition, ethics and medical culture are interlinked as different cultures practice different ethical values, sometimes with more emphasis on ethical values, family values and downplaying the importance of autonomy. This has led to a growing need for culturally sensitive physicians and the introduction of ethics committees in hospitals and other healthcare settings. [6] [7] Since the 1970s, the growing influence of ethics in contemporary medicine can be seen in the increasing use of Institutional Review Boards to evaluate experiments on human subjects, the establishment of hospital ethics committees, the expansion of the role of clinician ethicists, and the integration of ethics into many medical school curricula. [8] Tom Beauchamp and James Childress in their textbook Principles of Biomedical Ethics (Principles of Biomedical Ethics 1978) recognize four basic ethical principles: [9] [10]• Respect for patient's autonomy. • Non-maleficence. • Patient's beneficence. • Patient's justice. Medical ethics is particularly relevant in decisions regarding involuntary treatment and involuntary engagement. In summary, medical ethics is a medical ethics in the practice of clinical medicine and scientific research based on a set of values that professionals can refer to in the event of any confusion or conflict.

1.2 Evidence-based medicine (EBM): Is important in developing as well as developed countries. The most noticeable forms of poverty are hunger and poor housing. Both are powerful killers, the poverty of medical and knowledge is also considerable. Evidence-based practice is one of the ways these problems can be mitigated. Potentially, the internet, one of the biggest benefits, is its ability to end knowledge poverty and in turn influence

all the factors that undermine wellbeing and sustainable lifestyles. Classification of degrees of evidence-based medicine [11]

1	Strongest	Randomized controlled trial, control, cohort.
2	Strong	Controlled clinical trial.
3	Average	Clinical Trials with mass cases.
4	Weak	Expert opinion in several cases based on basic medicine.

The need for evidence-based medicine: As an epidemiologist, the clinician serving individual patients or populations, must always seek to base his decisions and actions on the best available evidence. From evidence to practice: a difficult but not impossible journey: The advantage of evidence-based medicine is not only that doctors have a method to find relevant evidence and apply diagnostic and therapeutic processes, more importantly, that it has provided them with the only tool for true quality improvement, the critical appraisal of their own work. [12]

Through this article, we review the challenges of selecting a SARS-CoV-2 vaccine based on medical ethics and evidence-based medicine to balance the effectiveness of pandemic management for patients and policy makers.

2. Challenges in selecting a SARS-CoV-2 vaccine based on evidence-based/ethical medicine:

2.1 SARS-CoV-2 vaccines and evidence-based medicine: In the United States: mRNA vaccines are maintained to the same rigorous safety and efficacy standards as all other vaccines in USA. The only COVID-19 vaccines provided by the Food and Drug Administration (FDA) for use in the United States (under emergency use approval or authorization) that meet these standards. Although a vaccine against COVID-19 is being developed rapidly, all steps are taken to ensure its effectiveness and safety. The Centers for Disease Control and Prevention (CDC) does not recommend that one vaccine is better than the other because the results of clinical trials of these vaccines in different populations also vary, as different times. The US FDA has issued guidance to assist sponsors in the clinical development and licensing of a vaccine to prevent COVID-19. This guidance is intended to remain in effect during the time of the public health emergency of COVID-19 declared by the Secretary of Health and Human Services (HHS) on January 31, 2020, effective January 27, 2020.[13]

Other COVID-19 vaccines outside the United States: such as Europe, Asia also undergo clinical trials of 1, 2, and 3, but in some of these studies, the sample size is not strong enough, the population sample that is not representative...or shortens the period because of the urgency of the pandemic and is approved for use by the World Health Organization (WHO). Also due to the urgency of the COVID-19 pandemic, the SARS-CoV-2 vaccine has not been monitored for a long enough time in terms of safety and effectiveness as previous vaccines such as hepatitis B vaccine, measles vaccine, and polio vaccine. From January to May 2021 the adverse effects of the Oxford–AstraZeneca COVID-19 vaccine were canceled (South Africa, Norway), suspended (Denmark), halted the rollout of the vaccine (Canada, Indonesia) several times in different countries around the world before being widely used from June 2021. [14] This is one of the causes of the challenges. However, the advantage of vaccination is that the body will create acquired immunity through humoral immunity to create antibodies and through cellular immunity to help lymphocytes have a memory to attack when the virus invades.

2.2 SAR-CoV-2 vaccine and medical ethics:

The four basic ethical principles of medical ethics are:

- Respect for autonomy: Patients have the right to refuse or choose their vaccine after being explained on the basis of evidence-based medicine.
- No harm to the patient: not a cause of harm.
- Patient benefit: in the best interest of the patient and "Benefit" is to highlight the good over the harm between vaccination and not vaccinating for each person and for the community. Recently, the adverse effects of the Oxford–AstraZeneca

COVID-19 vaccine have been suspended many times before being widely used. This is the choice of many different countries around the world. [14] • Patient equity: Concerning the distribution of scarce vaccine resources and deciding who gets vaccinated. The use of vaccines for at-risk groups will be prioritized. These four basic principles need to be made clear to everyone in the process of vaccination towards herd immunity in the spirit of "One For All, All For One".[15]

- Conflict: Between autonomy and interests / does not cause bad consequences. Autonomy can conflict with interests when a patient disagrees with recommendations that healthcare professionals believe are in the patient's best interest. If you refuse to vaccinate without a valid reason, it can affect the general health of the whole community, show autonomy and rights, and cause bad consequences.

- Informed Consent: Ethical informed consent generally refers to the idea that a person should be well informed and understand the potential benefits and risks of choosing a method. their treatment. So is vaccination. [16]

- Confidentiality: An important issue in primary health care ethics, where physicians care for multiple patients from the same family and community, and where third parties often request information. Information from substantial medical databases is commonly collected in primary care.

- Cultural differences: Can create difficult medical ethics and ethics committees issues: In complex cases, a simple communication is not enough to resolve conflicts and The hospital ethics committee must convene to make a decision. For example, the United States proposes that the Research and Ethical Boards (REB Research and Ethical Boards); The European Region with the European Forum for Good Clinical Practice (EFGCP) and Australia with the Australian Health Ethics Committee (AHEC) recommendations 1996 who believe that medical lifestyle counseling and building healthy habits around our daily lives is one way to tackle healthcare reform. [17]

- Another challenge: Studies show that epidemiologists and clinicians can be swayed by temptations and benefits from the pharmaceutical company that makes the drug, vaccine. [18]

3. Vaccine selection is a balance between medical ethics and evidence-based medicine:

Medical ethics with its four fundamental principles is closely related to evidence-based medicine. The patient's right to autonomy is done after being explained by the doctor about the evidence-based vaccine. The remaining three principles of patient benefit, non-harm and patient justice also depend on low, average to high level of evidence-based medicine. Choosing a vaccine during the Covid-19 pandemic is a balance between medical ethics and evidence-based medicine for patients and policymakers alike. The hope that the Covid-19 infected population and the Covid-19 vaccinated population when reaching a rate of 70%-90% in community can create herd immunity in the spirit me for everyone, everyone for me.[15]

Conclusion:

Medical ethics includes the patient's autonomy, patient's non-maleficence, the patient's benefice, and patient's justice. Patient's autonomy after having been explained vaccine by a physician to the quality of evidence-based medicine. The remaining three principles of patient benefit, non-harm and patient equity in vaccine use also depend on low, moderate to high evidence-based medicine. Thus, choosing a vaccine based on medical ethics and evidence-based medicine (EM/EBM) is the basis to contribute to an effective balance in tackling the pandemic in the spirit of "One for All, All for One".

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