

The Use of New Technologies such as Artificial Intelligence in the Healthcare System: Example – Hepatitis C Screening Test

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Background

The Artificial Intelligence (AI) and ChatGPT revolution has only recently entered our lives, yet healthcare systems in Israel and around the world are already beginning to implement the use of smart, machine learning-based algorithms for a variety of purposes.

There is no doubt that such systems can support physicians' work, reduce bureaucracy, reduce inequality, identify patients at risk, and even save lives. However, caution is required—improper implementation of these advanced technologies may harm the ethical principles of medical practice.

In recent years, with the emergence of medications capable of curing patients with hepatitis C, a national program for identifying carriers of the hepatitis C virus was launched in Israel. One of the country's health maintenance organizations (HMOs) introduced a smart algorithm-based tool that identifies individuals in risk groups and automatically generates a referral in the HMO's system. As a result, the next time a blood test is taken from the patient, a test for hepatitis C will also be performed. This referral is entered into the system without the patient's knowledge and without the treating physician's ability to approve or cancel it.

The Ethics Bureau held a discussion on whether the fact that this test can save lives outweighs the principles of patient autonomy and the absence of the treating physician's discretion. Based on this discussion, the following position paper was written:

Position Paper

1. The use of new technologies in general—and artificial intelligence (AI) in particular—can support physicians' work, reduce bureaucracy and inequality, identify at-risk populations, and save lives. Therefore, the use of such technologies should be encouraged, provided that their efficacy and safety are scientifically proven.
2. It is essential to remain vigilant and ensure that these technologies do not violate medical ethical principles.

3. AI and machine learning systems in the healthcare system must serve as decision-support tools, not replacements for the physician's clinical judgment.
4. As part of the principle of patient autonomy, patients have the right to participate in decision-making regarding their medical treatment. Thus, referring patients for lab tests, imaging, or any other diagnostic test without obtaining patient consent or without physician discretion is unethical and must be avoided.