



KEY ASPECTS OF DIGITALIZATION IN MEDICAL TOURISM

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Abstract

Medical tourism is becoming an important economic sector for Central Asian countries, including Uzbekistan. Digitalization plays a key role in improving the efficiency, transparency, and accessibility of medical services. This article examines electronic health records (EHRs), integrated digital platforms, and international experience, as well as prospects for their implementation in the region.

Keywords: Medical tourism, digitalization, electronic health records, integrated platforms, Uzbekistan, Central Asia.

Introduction

Medical tourism is the movement of patients between countries to receive medical services. The success of the industry largely depends on high-quality medical records management. Digitalization makes it possible to speed up data processing, improve the accuracy of records and create trust among international patients.

With the development of information technology, digitalization has become an important aspect of the transformation of various fields, including healthcare. The introduction of digital technologies into medical practice not only improves the availability of medical care, but also increases its effectiveness and personalization. The digitalization of medical services begins with the creation of an electronic medical history (EIB). Electronic medical records simplify data storage and transmission, minimize the risk of errors, and ensure reliable communication between doctors. This allows patients to receive more comprehensive and personalized medical care. Remote monitoring of patients is



an important aspect of digital transformation. Wearable devices and mobile apps allow doctors to monitor patients' health in real time, which is especially important for people with chronic diseases. This not only reduces the need for private doctor visits, but also increases the effectiveness of treatment. The introduction of digital technologies into the medical field has also led to the flourishing of virtual consultations and telemedicine, which in turn is developing the expansion of medical tourism.

The introduction of digital technologies also contributes to improving the efficiency of medical institutions, reducing the risk of errors and improving the quality of customer service. Electronic data analysis systems and storage of patients' medical history help doctors to make more accurate diagnoses, offer individual treatment methods and monitor the dynamics of the disease.

Electronic medical records (EHR) replace paper records, allowing for a centralized patient database. Like South Korea, for example: EHRs are implemented in almost all major clinics. South Korea is one of the leading countries in healthcare digitalization in Asia. The introduction of electronic medical records (EHR) began in large medical institutions in the late 1990s and early 2000s and gradually spread to medium and small clinics. Today, almost all major hospitals and specialized centers use EHR. In Germany, the process of digitalization of healthcare and the introduction of electronic medical records (EHR) began to actively develop in the early 2000s, but the massive spread of electronic cards occurred relatively recently. The country has a strict legislative framework governing the processing and storage of medical data, which affects the pace of EHR adoption. Since 2009, Germany has had a law on digital healthcare infrastructure (Telematics Infrastructure), which creates the basis for the secure exchange of medical data between institutions. In 2021, the program for the introduction of the electronic patient card (Elektronische Patientenakte, ePA), accessible to all insured persons in the compulsory health insurance system, was activated. Germany: A centralized data exchange platform is used between hospitals and insurance companies. In Uzbekistan, healthcare digitalization has become a priority in recent years, especially after 2017-2018, when the government began actively implementing electronic systems in medical



institutions. According to Presidential Decree No. UP-5590 dated December 7, 2018 “On comprehensive measures to radically improve the healthcare system of the Republic of Uzbekistan”, which outlines the main directions for further development of healthcare. And the second document, Presidential Decree No. UP-6110 dated 11/12/2020 "On measures to introduce fundamentally new mechanisms into the activities of primary health care institutions and further improve the effectiveness of the reforms carried out in the healthcare system" defines additional major tasks for healthcare reform, an integrated e-health system.

On the basis of which the following new opportunities have been created for the population:

1. The possibility of obtaining information about medical institutions and medical services;
2. The possibility of obtaining information about doctors, their qualifications, length of service, and work schedule;
3. The possibility of using electronic registration for outpatient services;
4. The ability to evaluate the quality of services provided;
5. Widespread use of mobile networks for electronic public health services.

New opportunities are being presented for medical organizations and health authorities, such as:

1. Ensuring the possibility of transition to an innovative socially oriented type of activity;
2. Implementation of the standardization system;
3. Improvement of activities through the introduction of an electronic file system
4. Accounting and monitoring of medical personnel, medicines, medical equipment, reagents and consumables;
5. Financial transactions, monitoring of free medical care activities;
6. Maintaining health statistics, accounting and reporting, as well as supporting the system of national health accounts;
7. Data exchange between medical institutions and health authorities. The documents define that the use of information and communication technologies should become the main mechanism for monitoring the performance of medical



institutions and the development of the system as a whole. The main goal is to increase the efficiency of medical institutions, improve the quality of medical care and create a unified patient database. Uzbekistan is developing a national DMED system for storing medical data.

Recently, the use of integrated digital platforms and international experience has been developing more and more, which in turn combines patient data, access to diagnostic and laboratory results, and telemedicine consultations. An example of an international level, the UAE has an integrated digital Health Information Exchange (HIE) platform that connects clinics and insurance companies, facilitating medical tourism. Germany and South Korea use platforms that allow foreign patients to access their medical data remotely.

Digitalization of medical services plays a key role in the transformation of the modern healthcare system. This is not just about improving efficiency, but also creating more accessible, personalized, and high-quality medical care for every patient. Digital transformation in medicine is the path to more caring and technologically advanced healthcare. Successful digitalization will allow Uzbekistan to become competitive in the international medical tourism market.

References

1. Belchik T.A., Kolesnikova E.V., Khvorova E.S. (2021). Digitalization of the activities of medical organizations as a factor in improving the quality of services provided. *Beneficium*, 2 (39), 5-11.
2. Khalilov D.A., Odilov Zh.A. Digitalization and implementation of medical services for clients in the healthcare system// *Universium: technical sciences: electron. Scientific Journal* 2023.12(117).
3. World Health Organization. *Medical Tourism and Health System Governance*. Geneva, 2022.
4. Joint Commission International. *Standards for Hospitals*, 2023.
5. ISO 9001:2015. *Quality Management Systems – Requirements*.
6. European Union. *General Data Protection Regulation (GDPR)*, 2018.
7. Ministry of Health of the Republic of Uzbekistan. *Strategy for the development of medical tourism until 2030*, Tashkent, 2024.



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8. Kholmatova B.T., Urazalieva I.R., Eshbaeva K.U., Kasymova D.I. Nursing medical history. Interpersonal communication skills in nursing practice: an educational and methodological recommendation for students of the Faculty of Higher Nursing Education of medical institutes. – Tashkent, 2010.