Electronic medical records implementation

Submitted by

Course

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One of the key elements of such a system is electronic data on the state of health of citizens. The OECD as the central concept in this area suggests the term Electronic health record (EHR) - “electronic medical record” - which defines as a medical card in digital form, containing the entire history of a person’s interaction with the health system, including information from various medical institutions, information about current and past diagnoses and prescriptions, information on allergies and chronic diseases. Thus, a long and complete medical history of the patient is formed.

These data should be available to the doctor in any health care facility where a citizen addresses, which provides the most complete information when making a diagnosis and prescribing treatment, allows considering a greater number of factors, which ultimately increases the efficiency of the health care system. Such interoperability, from the OECD point of view, is the most important characteristic for all EHR systems. OECD sets the following objectives for the development of EHR:

1) With regard to the e-health system:

ensure the completeness, accuracy, relevance, timeliness and availability of data;

to ensure the completeness of statistical information;

improve health system performance;

improve the value and safety of medical care.

2) For individual patients; prevent adverse effects from conflicting treatments.

It facilitate the provision of medical assistance in emergency situations when the patient cannot make decisions and provide information on his own. On February 17, 2009, the United States adopted the Law on the Application of Medical Information Technologies in Economic Activity and Clinical Practice (HITECH), which is part of the American Recovery and Reinvestment Act. and promoting the adoption and targeted use of medical information technology.

“According to the Centers for Disease Control and Prevention, the United States spent about $ 2.6 trillion in health care in 2010. It is expected that by the end of the new decade, spending on health will double”. Adler-Milstein, DesRoches, Kralovec, Foster, Charles & Jha, 2015). The cost of US health care is three times the gross national income of India, and three times as many people live in India. In an effort to keep these costs from growing, the administration of President Obama, like the administration of its predecessor Bush, is making great efforts to switch to electronic medical records. To this end, the Office of the National Coordinator of the US Medical Information Technology was established, and financial incentives were introduced for health workers using the EHR.

The development and use of electronic medical record (EHR) data has great potential to support innovative health processes, improve the quality, safety and functioning of health systems. According to the Health Insurance Portability and Accountability Act (HIPAA) report, electronic medical records can also be used for secondary analysis for various purposes: monitoring and evaluating the effectiveness of the health care system, using data for clinical research purposes. Secondary analysis allows to identify the causes, risk factors and more effective ways of treating diseases, ensuring public safety in connection with an infectious or environmental situation.

It requires the development of specific, more detailed rules on privacy protection and security for personal information of a medical nature and used for medical purposes - in a word, the regulation should be more flexible and take into account the needs of the industry. In practice, the transition to an electronic medical record is associated with great difficulties, especially on the scale of a large country like USA. For this, a unified form is being developed. Another difficulty is to reach the entire population. As the director of the department of the Ministry of Health noted, not everyone visits our clinic or hospital every year. On average, for 4-5 years, each person will go to a medical facility at least once (Bjarnadottir, Travers, Castle & Stone, 2017).

The doctor to whom the patient is recorded gets access to his electronic map. The patient has access to his personal account with limited information. But in both cases, it is important to ensure the preservation of medical confidentiality, so these services will use encrypted communication channels. When will these services be available? “We have a roadmap for introducing electronic medical records,” said Blumenthal & Tavenner, (2016), by the end of the year, we will create a standardized set of fields that can be used for data exchange. But the number of these cards will be small. Full coverage will take time. "Patient Personal Account" is also planning to launch this year. " The mentioned “Doctor’s Workplace” will provide the doctor with access to all information resources related to his medical specialty. (Blumenthal & Tavenner, 2016).

In addition, PHR stores important information from patient care providers: laboratory tests, medical images, allergies, sugar levels, blood pressure, blood type, weight, height, vaccinations available, etc. PHR popularity is constantly increasing. In the US, about 70 million people use this or that form of PHR. Users are aware of the benefits of using PHR: simplifying communication with doctors, reducing the risk of medical errors. However, existing PHRs have privacy and security issues that both application developers and users need to understand. The unified nature of the EHR / ECR primes to the reality that the main purposes of the inventors are safety, confidentiality, and finding the conscious agreement of the user to agree data access. Nevertheless, the difficulty of current security manners may undesirable rise the cost of their amalgamation with medical IT-systems. For this purpose, EHR / ECR developers are obligatory to seek innovative and very cost-effective resolutions.

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