

Iatrogenesis

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Summary

Safety is a global concept that encompasses efficiency, security of care, reactivity of caregivers, and satisfaction of patients and relatives. Patient safety has emerged as a major target for healthcare improvement. Quality assurance is a complex task, and patients in the intensive care unit (ICU) are more likely than other hospitalized patients to experience medical errors, due to the complexity of their conditions, need for urgent interventions, and considerable workload fluctuation. Medication errors are the most common medical errors and can induce adverse events. Two approaches are available for evaluating and improving quality-of-care: the room-for-improvement model, in which problems are identified, plans are made to resolve them, and the results of the plans are measured; and the monitoring model, in which quality indicators are defined as relevant to potential problems and then monitored periodically. Indicators that reflect structures, processes, or outcomes have been developed by medical societies. Surveillance of these indicators is organized at the hospital or national level. Using a combination of methods improves the results. Errors are caused by combinations of human factors and system factors, and information must be obtained on how people make errors in the ICU environment. Preventive strategies are more likely to be effective if they rely on a system-based approach, in which organizational flaws are remedied, rather than a human-based approach of encouraging people not to make errors. The development of a safety culture in the ICU is crucial to effective prevention and should occur before the evaluation of safety programs, which are more likely to be effective when they involve bundles of measures.

Key words: psychogenic iatrogenesis, medicinal iatrogenesis, traumatic iatrogenesis, infectious iatrogenesis, *medical errors, patient safety*

The term iatrogenesis means brought forth by a healer, from the Greek *ιάτρος* (iatros, "healer") and *γένεσις* (genesis, "origin"); as such, in its earlier forms, it could refer to good or bad effects.

Doctors were among the first to understand the danger of their professional activities for the life and health of people. Already in the IV. BC. E. In the oath of Hippocrates the doctor's promise was kept: "... I will protect the sick from everything harmful and unfit for them." About 2 thousand years ago this became the principle of treatment: "Primum nos noree" (First of all do not harm), "Nihil nosere" (Do not harm at all), which was perceived as the first commandment of a doctor. Later, diseases associated with the provision of medical care, began to be called iatrogenesis - a disease of medical origin.

With the development of scientific medicine in the 20th century, it could be expected that iatrogenic illness or death would be more easily avoided. Antiseptics, anesthesia, antibiotics, better surgical techniques, evidence-based protocols and best practices continue to be developed to decrease iatrogenic side effects and mortality.

Consequences of iatrogenesis.

Numerous literature data indicate that the medical, economic and social consequences of iatrogenesis are manifold and difficult.

Medical consequences are expressed, first of all, in increase of indicators of morbidity, lethality and death rate. Iatrogenic diseases often cause a prolonged loss of health and even disability. Especially it is characteristic for chronic infections, medicinal allergies and postoperative syndromes.

In 1999 the Institute of Medicine (IOM) awakened the nation with their landmark study "To Err is Human," which found that accidental deaths due to medical errors in hospitals account for as few as 44,000 and as many as 98,000 deaths per year in the U.S. Even at the bottom end of the spectrum, these preventable deaths, which include improper transfusions, surgical injuries, and wrong-site surgery, cause more deaths than either breast cancer or motor-vehicle accidents (News Target).

The Journal of the American Medical Association (JAMA) reported that iatrogenic causes of death -- medical errors in hospitals and adverse drug reactions to medications -- total approximately 225,000 deaths annually, making it America's #3 killer.

A University of Toronto study found that pharmaceuticals kill more people in the U.S. than motor-car accidents (as reported by the Cancer Cure Foundation). Of the two million hospitalized Americans, who suffered a serious adverse drug reaction within the 12 months prior to the study, 100,000 died from their reaction. Of those deaths, 75% were not due to allergic reactions, but were preventable.

Iatrogenic deaths don't always happen as a result of medical errors or dangerous pharmaceuticals. Physicians sometimes knowingly prescribe highly toxic drugs to people who are critically ill. Equipment failure has also been cited as an unavoidable error in some circumstances.

Classification of iatrogenesis:

Initially, the concept of iatrogenesis was expanded to diseases associated with erroneous actions of the doctor, and then to all diseases and injuries associated with any medical interventions. There are two definitions of iatrogenesis:

- 1) any new incidental disease (including functional) associated with the actions of medical professionals, whether they were right or wrong;
- 2) complications of the underlying disease caused by erroneous or inadequate actions of the doctor

Iatrogenesis diseases are all diseases and injuries that occur in patients and health care workers as a result of any type of medical care.

To denote diseases related to the provision of medical care, the following names were also offered: hospitalization, pathology of treatment and diagnosis, adverse (side effects) of diagnosis and treatment.

Iatrogenesis divided into 5 groups:

Psychogenic, Medicinal, Traumatic, Infectious and Mixed

Psychogenic iatrogenesis manifestations in the form of neuroses, psychoses, neurasthenia, hysteria, phobias, depressions, feelings of anxiety, depressive and hypochondria. They are caused by imprudent and misunderstood statements of the medical worker about the patient's health, acquaintance with his own medical history and special medical literature, listening to public lectures, especially on television. They are also called "disease of the word". This group of iatrogenesis also develops in cases of ineffectiveness of treatment, distrust to the doctor, fear of methods of diagnosis, treatment, a sharp transition from an active lifestyle to a passive, from the usual conditions of the family and work collective to a group of people with acute and altered personal perceptions. Joining of iatrogenesis complicates the course of the underlying disease, increases the likelihood of developing new ones, for example, within the hospital, diseases.

Medical iatrogenesis. For medicinal skin rashes was proposed the term "medical diseases". Since the main manifestation of the side effect of drugs is a disease, and the cause of the disease is a medicine prescribed by a doctor, the term "drug disease" can be extended to all clinical forms of diseases associated with the direct or indirect damaging effects of certain components of drugs and impurities to them. Objections to this term are based on understandable, but subjective, moreover, corporate considerations. Most medical diseases are of iatrogenic nature. Only for diseases caused by self-medication and violation of prescriptions of

the doctor, there are no grounds for inclusion in iatrogenesis, but, naturally, they enter the group of medical diseases.

Traumatic iatrogenesis. For diseases caused by the action of medical damaging factors of physical and mechanical nature, the term "medical injuries and their consequences" is usually used. In this group, surgical, manipulative and accidental medical injuries, burns (radiation, thermal, chemical) and the consequences of injuries are identified. Particularly serious and numerous are the consequences and complications of surgical and manipulation injuries and burns. To this group of iatrogenes it is possible to attribute conditionally the consequences of excessive intervention, interference without indications (the so-called surgical aggression) and, conversely, the abandonment of the patient without medical care and care of.

Infectious iatrogenia (iatrogenic infections). These include all cases of infectious diseases, the infection of which occurred in the process of providing any type of medical assistance. They are often called 'nosocomial' infections, which does not fully reflect the essence of the phenomenon, because, firstly, these diseases also arise when providing medical care in outpatient and also the home care, and secondly, they do not include diseases that are infected outside Hospital. The term "iatrogenesis" directly indicates the relationship of the disease or complications to the provision of medical care, which encourages the doctor to seek ways to prevent such phenomena in his practice. The term "nosocomial" can be preserved for iatrogenic infections that develop in hospitals.

Iatrogenic infections are manifold in their manifestations: bacterial, fungal, viral, protozoal and metazoal; Hospital, clinical etc. They are also shared in the place of localization of the pathological process: infection of the blood; Surgical wound infections; urinary tract infections; Infection of bones and joints; Infections of the cardiovascular system, etc.

Causes of iatrogenesis

The progress of medical science and technology, the expansion and improvement of medical care, the introduction of new highly active drugs and vaccines into medical practice, on the one hand, provided shorter terms and greater completeness of recovery of patients, reduced disability and mortality, and narrowed the range of their distribution. On the other hand, in parallel with this, the degree of danger of medical care, the number of iatrogenic diseases and mortality from them grew. Medicine has come to such a point, when any call to a doctor is not only good, but also a risk of loss of health and even life.

A thorough scientific analysis of the causes of growth and severity of iatrogenic diseases is yet to be carried out. But all the reasons listed in the literature can be combined into four groups.

The first group is the ever increasing frequency of contacts between the population and medical workers, which has a direct correlation with the frequency of development of iatrogenic diseases. A sharp increase in the frequency of contacts is due, first, to the growth of independent appeals of the population for medical care, caused by a more attentive attitude towards their health and the increased opportunities for obtaining it; Secondly, the expansion of the scale of active preventive care for the population; Third, the transition to specialization, hyper-specialization and multi-stage medical care, as a result of which the patient is currently in contact with dozens of medical personnel in the process of treatment.

The second group of causes of iatrogenic growth is an expansion of the spectrum and an increase in the damaging force of mechanical, physical and biological factors that are used to prevent disease, determine health status and restore it. The doctor sees in these factors only positive value and does not know, forgets or ignores their negative side effect. Any medical factor, regardless of its nature under certain conditions, can become a factor of damage and lead to the development of iatrogenic diseases.

To the third group of risk factors for the development of iatrogenesis, it is legitimate to attribute the sensitization of many modern people to the factors of damage, especially of the mental, chemical and biological (infectious) nature.

The fourth group includes medical factors of a subjective nature, including the weak scientific development of the problem of the safety of medical care, especially the methods of iatrogenic prophylaxis; Inattention to it by health authorities; Low level of pre-diploma and postgraduate training and the degree of competence of medical personnel in safety matters; Ignoring the safety requirements for the construction and operation of medical facilities, the creation and use of medical devices, tools, care items, methods and means of diagnosis, treatment and prevention of diseases; A weak material base of a number of medical institutions; Lack of a system of accounting, reporting, analysis of most forms of iatrogenic diseases; Distrust of a significant part of the population to the activities of health authorities.

These groups of risk factors for the development of iatrogenesis have a definite value for the distribution of all iatrogenic groups, however, each of them has its own specifics.

Prevention of iatrogenesis

Iatrogenic diseases are manifested in neurotic reactions involving various variants of autonomic dysfunction. Depending on the nature of the psychotrauma and personality traits, vegetative disorders can have a generalized character or may be expressed by the predominant cardiovascular dysfunction (cardiac arrhythmia, changes in blood pressure, etc.), digestive (heartburn, vomiting, stool disorder) and other systems in combination with various pathologies.

Sensations and depressive state. The main method of treatment of iatrogenesis is psychotherapy, supplemented if necessary by symptomatic treatment - the use of tranquilizers, antidepressants and other psychotropic drugs. It is unacceptable to inform the patient that the disease is absent and should not be treated. Medical workers should remember that iatrogenesis is a disease that requires careful study of the personality of the patient, knowledge of his social environment. Need the help of a psychotherapist or psychiatrist. The iatrogenic prognosis is favorable in most cases, with timely and correct therapy, recovery occurs in a few weeks or months. Later, the recognition of iatrogenic diseases promotes its prolonged course and worsens the prognosis. Prevention begins with the highly moral, humanistic education of physicians in the process of their training and activities, with the profound assimilation by the future medical workers of the principles of honey. Deontology, based on a sensitive attitude, compassion for the patient. Health workers should be aware of the responsibility for "verbal asepsis", the need for constant monitoring of their behavior (intonations, views, gestures), which can be misinterpreted by the patient. Considered should be the content of the sick honey. Documentation. Particular care should be taken when providing medical care to health workers themselves, for whom iatrogenesis is relatively frequent, and their treatment presents difficulties in connection with the often increased resistance to psychotherapy. To prevent Ya. It is necessary to conduct systematic educational work with all personnel communicating with patients. System honey. Education of the population should exclude superficial, amateurish training in self-diagnosis, which promotes the spread of iatrogenic diseases.

Conclusion

The high risk of developing diseases in the process of receiving medical care, the use of psychiatry in pursuit of political opponents, the closed work of medical institutions, the patient's complete dependence on the doctor regarding his health and life, the corporate behavior of many doctors, the multitude of conflict situations between medical workers and patients led to Decrease and even loss of trust in some doctors and medicine in general. Trust in the doctor no longer fully fulfills the role of the moral regulator of the relationship between the doctor and the patient, between the population and health. The second moral regulator - the conscience and duty of a doctor - has, due to a number of circumstances, lowered its threshold and is no longer a sufficiently reliable criterion for the safety of medical care, inability to solve etc.

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