Asian Journal of Multidimensional Research
ISSN: 2278-4853 Vol. 12, Issue 4, April 2023 SJIF 2022 = 8.179
A peer reviewed journal

THE ROLE OF INFORMATION TECHNOLOGY IN THE TREATMENT OF CANCER

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DOI: 10.5958/2278-4853.2023.00053.8

ABSTRACT

Although the teaching of the course of information technology in medical education is aimed at developing students' knowledge about the role of information technology in medicine. It is necessary that future medical workers have the ability to correctly set a goal and choose priority areas in solving their professional problems. General computer science and information technology occupy a special place among the disciplines important for study. The problems of teaching natural sciences in medical schools are primarily associated with close interdisciplinary links with other disciplines taught at the university.

KEYWORDS: *Healthy Person Model, Data Bank, Human Health.*

INTRODUCTION

Information support systems using modern computer technology are increasingly being used in various branches of medicine and healthcare. The Oncology Service is no exception. However, there is no systematic approach or unified ideology in the informatization of the oncological service.

The need to develop a system of information support for medical technologies (examination – treatment – rehabilitation) is obvious. All issues of management, resource provision, expertise should be resolved on the basis of the information reflected in the medical technological process. Informatization and computerization of medical technologies in some cases involves a radical change in the technology of the doctor's work with the patient, algorithms, and methods of collecting, processing information and making management decisions.

There is a need to integrate automated information systems, when creating which it is necessary to take into account the following general principles:

The implemented developments should become part of an automated health information system, provide for the exchange of information of scientific importance and the creation of high-class expert systems.

New forms of organization and functioning of healthcare industries, including oncology, in modern socio-economic conditions establish increasingly stringent requirements for the regulation of medical and organizational and managerial actions and responsibility for decisions taken at all technological stages.

It becomes obvious that system engineering and a systematic approach should become part of a methodology capable of covering the entire issue and providing guidance in a complex of problems, including: methodological justification and formulation of goals, determination of indicators of the final result of service, material resources (medicines, medical equipment, tools, equipment), intangible resources (diagnostic methods, prevention and treatment, information and intellectual support, control methods), technological support, equipment and systematics.

We have developed a concept and a project of an information and analytical management system for the treatment and diagnostic process of an oncological clinic. The most important task of the project is the development and implementation of integrated information and diagnostic systems, which, based on already created database structures, give the doctor an intelligent tool for decision-making, taking into account all sections of the analyzed information.

The doctor gets the opportunity at various stages of work to visualize and objectify high-quality information, create and maintain a data bank associated with various information medical. The doctor gets the opportunity at various stages of work to visualize and objectify high-quality information, create and maintain a data bank associated with various medical information systems, have access to expert diagnosis systems.

The concept of a lifelong personal information atlas of cancer patients and those predisposed to cancer is based on the comparison and analysis of diagnostic signs and clinical symptoms of the disease with a computer model of a normal person.

The functional structure of the system includes:

- A model of a healthy person – a computer medical atlas of the typical structure of organs and diagnostic signs in normal;

- A model of a real person of a given age, gender, etc. – a modified computer atlas with corrections for the current condition of the patient, determined using various diagnostic methods;

- Diagnostic rules and criteria for detecting preclinical signs of diseases based on an integral and differential analysis of all deviations from the norm.

Medical informatics plays an important role in the formation of a medical history, related to the modeling of the process of oncological disease, the development of changes under the influence of pathogenic factors and normalization under the influence of therapeutic factors and the external environment, as well as the activities of medical institutions to ensure the medical and technological process. With its help, the tasks of objectification and formalization of the routine part of the medical and technological process (measurements, research, diagnostics and documentation) are already being successfully solved.

Work in the system is carried out throughout the entire treatment process – from the patient's admission to the clinic to post-treatment monitoring, up to lifelong observation.

REFERENCES:

1. Anesthesiology: national guide / ed. A. A. Bunyatyan, V. M. Mizikov. - M.: GEOTAR-Media, 2014. - 1104 p.

2. Atlas on the classification of stages of malignant tumors: an appendix to the 7th edition of the "Guidelines for (TNM) classification of stages of malignant tumors" and "Handbook" AJCC: per. from English. - 2nd ed. / ed. A. D. Kaprina, A. Kh. Trakhtenberg. - M.: Practical medicine, 2014. - 649 p.

3. Blank M. A., Blank O. A. Phytotherapy in oncology. - St. Petersburg: Rose of the Winds, 2012. - 480 p.

4. Pain syndrome in oncology / ed. M. E. Isakova. - M.: Practical medicine, 2011. - 384 p.

5. Vvedenskaya E. S. Palliative care: to be close to the patient to the end ... - Nizhny Novgorod: Publishing house of NGMA, 2011. - 356 p.

6. Venediktova M. G., Dobrokhotova Yu. E. Oncogynecology in gynecology practice. - M.: GEOTAR-Media, 2015. - 288 p.

7. Gantsev Sh. H., Starinsky V. V., Rakhmatullina I. R., Kudryashova L. N., Sultanov R. Z., Sakaeva D. D. Outpatient oncology: a guide for doctors. – 2nd ed., editor. And dop. - M.: GEOTAR-Media, 2014 p. - 448 s.

8. De Francis R., Lewis B. S., Mishkin D. S. Capsule endoscopy in plain language: per. s English - M.: Practical medicine, 2012. - 128 p.

9. Pediatric oncology: national guidelines / ed. M. D. Aliev, V. G. Polyakov, G. L. Mentkevich, S. A. Mayakova. - M.: RONTS, 2012. - 684 p.

10. Diagnosis and treatment of malignant neoplasms: clinical protocols / ed. V. I. Chissov. – M.: MNIOI im. P.A. Herzen, 2013. - 599 p.

11. Muidinov, F. F., & Abdumanonov, A. A. (2020). Cloud Technologies in the Educational Process of Medical Universities. In University Science: Looking To the Future (Pp. 784-786).

12. Karimov, U., Khakimova, D., & Khalilov, L. (2018). Information and Communication Technology Influence on Education in Maintenance. World Science, (10 (19)), 193-197.

13. Karimov, W. W. (2017). (2017). The role of mass media in the process of globalization.

14. Karimov, U. (2017). Infocom technologies (Ict) Formation of Spiritual Characteristics of a Personality. *Advanced Information Technology (PIT 2017)*, 1160-1163.

15. Qurbonov, P., Ataxonov, S., & Sharofiddinov, S. (2022). MASOFAVIY TA'LIMNI TASHKIL ETISHNING USLUBIY ASOSLARI. *Eurasian Journal of Mathematical Theory and Computer Sciences*, *2*(13), 43-47.