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**CLINICAL THINKING A COMPETENCE-ORIENTED PROFESSIONAL SKILL OF A FUTURE DOCTOR****КЛІНІЧНЕ МИСЛЕННЯ ЯК КОМПЕТЕНТНОСТНО- ОРІЄНТИРОВАНІЙ ПРОФЕСІЙНИЙ НАВИК МАЙБУТНЬОГО ЛІКАРЯ****Davydenko O.M./ Давиденко О.М.***c.med.s., as.prof./ к.мед.н., доц.*

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**Annotation.** *The strategic purpose of preparation of future doctors of specialists on the modern stage is readiness of graduating students after completion of studies in a medical university to professional activity in accordance with world standards.*

**Purpose of work.** *An analysis of developments, introductions and innovative technologies, is in medical education, skills of clinical thought directed on forming.*

**Basic text.** *There are such operations in basis of clinical thought, as authentication of signs, analysis and synthesis, comparison and differences, abstraction and generalization, inferencings, induction and deduction, knowledge and experience.*

**Conclusions.** *Thus, the problem of quality of forming of clinical thought, as lead kompetentnosno-oriented skills, existed always and kept in a present tense. It can be decided on the basis of innovative educational technologies, which are oriented to the use of facilities of forming of creative, system thought, which must not only reproduce the got knowledges but also settle non-standard situations.*

**Key words:** *jurisdiction, clinical thought, practical skills, future doctor.*

**Introduction.** The problem of improving the quality of training of the future doctor is becoming increasingly relevant in the framework of the integration of Ukraine in Europe. The strategic goal of training such specialists at present is the readiness of graduates after graduation for professional activities in accordance with international standards [1,2].

In relation to the training of medical specialists, it is important to form from the first years of training the ability to collect clinical information, analyze it, synthesize the obtained information in the form of new knowledge: a syndromic and nosological diagnosis, prognosis, and construction of an individual treatment plan [5].

The formation of this ability requires not only a sufficient amount of knowledge, but also a certain practical experience, which begins to be acquired in the process of supervision of patients in an educational institution and continues in the process of clinical work within the framework of all subsequent professional activities [3,4]. The



ability to collect information about the patient, analyze it, conduct medical diagnostics, plan treatment and preventive measures is traditionally referred to as clinical thinking.

**Purpose of work.** Analysis of developments, introductions and new innovative technologies in education and self-education aimed at the formation of clinical thinking skills.

**Basic text.** Clinical thinking is based on operations such as identification of symptoms, analysis and synthesis, comparison and difference, abstraction and generalization, logical conclusions, induction and deduction, knowledge and experience, and so on. This is due to the fact that insufficient ability to apply acquired knowledge in practice often lies at the basis of medical errors and ineffective treatment measures. In addition, the constant increase in the volume of medical information and the relative limitation of time for its analysis dictates the need to optimize synthetic thinking skills, which often must be performed at a "subconscious level", automatically. The main algorithm for the practical implementation of clinical thinking and decision-making in the form as clinicians usually understand it, is as follows [4]:

- the study of the symptoms of diseases at the first stage (collection of complaints, medical history and physical examination);
- a preliminary conclusion on the nature of the pathology, disease in a particular situation;
- the appointment of diagnostic tests to verify and clarify the diagnosis;
- a brief interpretation of all the results of the examination of the patient in the form of a detailed clinical diagnosis and prognosis;
- planning of preventive and rehabilitation measures.

Clinical thinking is based on a certain professional set of knowledge, in particular knowledge of a large number of disease symptoms. In addition, the ability to identify symptoms in a specific, individual, and therefore non-standard situation, formed as a result of training and practical experience, takes place. Identification of internal pathogenetic relationships between symptoms, their association in syndromes and nosological forms. The most significant practical result of clinical thinking is timely medical diagnosis and minimization of medical errors. Formed on the basis of great practical experience, this ability is often realized on a subconscious level - intuition [2].

In the process of implementing the algorithm, the doctor is faced with problems that require a sufficiently large cognitive resource, since it is necessary to solve non-standard, problematic tasks. Signs of problem tasks are set out in the monograph by I.M. Feigenberg. These include the uncertainty, redundancy or inconsistency of information, the need for its probabilistic assessment, adherence to a sequence of actions, time limit when making decisions, and more. These signs fully take place in the doctor's professional work when he is faced with the variety and variability of the manifestation of disease symptoms, the need for their probabilistic assessment, the change in the clinical picture over time, and the atypical nature of individual pathological conditions. In this regard, there is always a difficulty in identifying pathogenetic relationships between symptoms, establishing a syndromes and



nosological diagnosis. An essential feature of the doctor's professional thinking is the constant solution of new problems for which there are no specific algorithms, the need to look for what is natural in the individual, and create a holistic picture of the disease, on the basis of which therapeutic measures are built.

Clinical thinking is "the ability to capture, analyze and synthesize all patient data obtained in various ways, while simultaneously comparing with previously encountered observations, book knowledge and intuition (experience) to establish an individual diagnosis, treatment tactics". Clinical thinking is a creative process implemented within the framework of a specific professional activity.

As can be seen from all the data presented, the features of clinical tasks impose certain requirements on the professional thinking of a doctor. Clinical thinking is based on procedures for solving problematic problems associated with the search for and identification of disease symptoms, their analysis, medical diagnostics, and the planning of treatment and preventive measures. Repeated implementation of these procedures in the process of professional activity and constant assessment of the results obtained is the basis for the accumulation of clinical experience and the development of intuition.

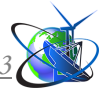
**Conclusions.** Thus, the problem of the quality of the formation of clinical thinking, as the main competence-oriented skill, has always existed and remains at present. In many ways, it can be solved on the basis of innovative educational technologies, focused on the use of techniques for the formation of creative, systemic thinking, designed not only to reproduce the knowledge gained, but also to solve non-standard tasks.

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**Анотація.** Стратегічною метою підготовки майбутніх лікарів спеціалістів на сучасному етапі є готовність випускників після завершення навчання в медичному університеті до професійної діяльності у відповідності до світових стандартів.

**Мета роботи.** Аналіз розробок, впроваджень та інноваційних технологій в медичній освіті, направлених на формування навичок клінічного мислення.

**Основна частина.** В основі клінічного мислення є такі операції, як ідентифікація ознак, аналіз і синтез, порівняння і відмінності, абстракція і узагальнення, логічні висновки, індукція та дедукція, знання та досвід.

**Висновки.** Таким чином, проблема якості формування клінічного мислення, як провідного компетентно-орієнтованої навички, існувала завжди і зберігається в теперішній час. Вона може бути вирішена на підставі інноваційних освітніх технологій, що орієнтовані на використання засобів формування творчого, системного мислення, яке повинно не тільки відтворювати отримані знання, але й вирішувати нестандартні ситуації.

**Ключові слова:** компетенція, клінічне мислення, практичні навички, майбутній лікар