Updating the organisation and key stages in postgraduate medical education for interns in internal medicine

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Abstract.
Specialised postgraduate medical education is of great importance for the development of highly qualified interns in internal medicine. This article is dedicated to the organisation and key stages of such education in order to improve the professional competence and scientific training of future specialists. The article discusses the process of choosing a research topic, research methods and data collection, as well as analysing the results. These aspects are important for the development of critical thinking and scientific validity in medical practice. Special attention is paid to the preparation of scientific reports and publication of research results. This helps interns to promote knowledge sharing and research discoveries in the medical community, contributing to the improvement of medical practice. Overall, this article emphasises the importance of the organisation and key stages of medical postgraduate education for interns specialising in internal medicine. It provides practical advice and methodological information aimed at improving the quality of medical practice and stimulating research in this area.

Keywords:
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Introduction.

Medical education is one of the most important branches of higher education, and it is largely aimed at preparing future doctors for the challenges and responsibilities associated with maintaining and restoring the health of patients. Postgraduate medical education is an important step in the professional development of doctors, allowing them to specialise and deepen their knowledge in their field. In this context, interns specialising in internal medicine are faced with the need to conduct research and study relevant clinical issues.

This article is aimed at reviewing the organisation and key stages of postgraduate medical education for interns in internal medicine. The purpose of the article is to provide generalised information on important aspects of this process, including the choice of research topic, research methods, data collection and analysis, as well as preparation of scientific papers and presentation of results. The paper emphasises the importance of these aspects for improving the quality of medical practice and promotes the development of additional research in the field of internal medicine.

The article will also focus on the organisation and stages of experimental work aimed at improving the practical skills and scientific background of interns. In addition, the article discusses the aspects of preparing scientific reports and publishing research results at conferences and in specialised journals.

The overall goal of this article is to provide practical advice and methodological information to improve the quality of medical practice and to stimulate scientific research among interns in internal medicine.

The importance of postgraduate medical education for interns in internal medicine cannot be overestimated, as this degree provides an invaluable opportunity for professional growth, improvement of medical knowledge and enhancement of the quality of patient care. Interns specialising in internal medicine are exposed to a wide range of clinical cases and have a great deal of responsibility for diagnosing and treating various pathologies.

Here are some key aspects of the value of medical
postgraduate education for interns in internal medicine:
- Deepening medical knowledge: Medical education after graduating from medical school allows interns to gain more in-depth knowledge in a specific medical field. Internal medicine covers a wide range of diseases, and postgraduate education helps doctors understand their causes, symptoms and treatments.
- Practical experience: Medical postgraduate education includes internships and work in clinical settings. This provides interns with the opportunity to gain practical experience in various aspects of treating patients with internal medicine.
- Relevance: Medicine is constantly evolving, and new methods of diagnosis and treatment are emerging over time. Medical postgraduate education provides interns with the opportunity to update their knowledge and learn the latest advances in internal medicine.
- Communication and cooperation: During their training, interns interact with colleagues and other professionals in the medical field. This helps to develop communication skills and the ability to work in a team to solve complex medical problems.
- Improving the quality of medical care: Educated internal medicine interns have the ability to provide more effective and informed care to their patients. This has a direct impact on improving patient outcomes and overall quality of life.

In general, postgraduate medical education for interns in internal medicine provides an opportunity to acquire in-depth knowledge, practical experience and professional skills, which is reflected in the high quality of medical practice and benefits patients.

Medical postgraduate education has a number of main goals and objectives aimed at improving professional competences and developing medical specialists. Here are some of them:
- Main goals of medical postgraduate education:
  1) Deepening knowledge and understanding: One of the main goals is to provide doctors with the opportunity to expand their knowledge in their chosen medical field. This includes an overview of current clinical issues, new diagnostic and
treatment methods.

2) Practical experience: Medical postgraduate education provides an opportunity to gain practical experience in a clinical setting. Doctors have the opportunity to develop skills in diagnosis, treatment and patient care.

3) Research training: It is important to develop research skills in medical professionals. Postgraduate medical education provides an opportunity to learn how to conduct structured research and analyse data.

4) Development of professional skills: Medical education helps to develop important professional skills such as communication with patients, clinical problem solving, teamwork, etc.

5) Updating medical standards: Medical postgraduate education allows medical professionals to update their knowledge and get acquainted with new medical standards and guidelines.

- The main tasks of medical postgraduate education:
  - Ensuring the highest standard of medical practice: Education should ensure that doctors have the necessary knowledge and skills to provide high quality medical care to patients.
  - Developing leadership skills: Medical education also aims to develop leadership skills in doctors to make better managerial and organisational contributions to the healthcare industry.
  - Involvement in research: The objective is to encourage medical professionals to engage in scientific activities, conduct research and publish their results.
  - Improving the effectiveness of treatment and diagnosis: Postgraduate medical education should help improve the practical skills of doctors so that they can diagnose and treat patients more effectively.
  - Strengthening ethical norms and standards: Education should promote ethical norms and standards that are an integral part of medical practice.

Postgraduate medical education plays an important role in training highly qualified medical professionals who can provide effective healthcare and make a significant contribution to medical science and practice.
Choosing a research topic is a critical stage of postgraduate medical education for interns in internal medicine. Several steps should be followed to identify current issues in the field and select a research topic:

- Thoroughly review the scientific literature and the latest research in the field of internal medicine. Pay attention to topics that remain unexplored or require further research.
- Talk to your patients and consider their needs and questions. They can provide information about their concerns and point out what is relevant to patients.
- Discuss possible research topics with other physicians and internal medicine specialists. They may be able to provide additional insight and advice.
- Consider research topics that could have a positive impact on practice and that could improve outcomes in internal medicine.
- Choosing a topic that interests and excites you can be key. If you work on a topic that you are passionate about, you will be more motivated and productive in your research.
- Make sure you have access to the necessary resources and data to conduct research on your chosen topic.
- Consider the relevance of the topic and its importance to the medical community and patients. Choose a topic that has a real and positive impact.

In general, the choice of a research topic in internal medicine should be a deliberate and informed decision that takes into account the needs of patients, available resources and the opportunity to make a useful contribution to the medical field.

Research methods: selection and use of appropriate research methods.

The selection and use of appropriate research methods is a critical aspect of conducting research in internal medicine. The starting point is to understand the purpose of your research and the specific questions you are trying to address. Here are some typical research methods that can be used:

Clinical observations: The method involves systematically observing patients with internal medicine, recording clinical symptoms and treatment outcomes.
Experimental research: Includes controlled experiments to study the effects of certain treatments or interventions on patients with internal medicine.

Epidemiological studies: Investigates the prevalence, risk factors and outcomes of internal medicine in large populations.

Biomedical research: Includes biological analysis, laboratory tests, and the use of biomarkers to diagnose and monitor disease.

Psychosocial research: Investigates the psychological and social aspects of internal medicine, including the impact of stress, depression and quality of life.

Meta-analysis and literature reviews: These methods collect and analyse the results of previous studies and examine general trends and evidence.

Data collection and analysis: Methods and tools to effectively collect and process information.

Questionnaires: The creation of structured questionnaires to collect data from patients or healthcare professionals. Statistical methods are used for processing.

Clinical protocols: Developing and using standardised clinical protocols to collect clinical data and test results.

Laboratory tests: Collecting and analysing biological samples to determine indicators of health and body function.

Statistical software: Using specialised software such as SPSS, R, or Python to process and analyse data.

Content analysis: For textual data (literature review, clinical records, etc.), content analysis techniques are used to identify key themes and patterns.

Qualitative methods: Include interviews and focus groups to gather qualitative information that can help understand deep contextual aspects of internal medicine.

Data visualisation: The use of graphs, charts and other visual tools to illustrate research findings.

The choice of methods and tools depends on the specific issue you are researching and the resources available. It is also important to adhere to ethical standards and regulations when collecting and processing patient data.

Conclusion:
This article discusses important aspects of postgraduate medical education for interns in internal medicine. This
education is key to training highly qualified medical professionals who can provide effective medical care and advance medical science.

Postgraduate medical education contributes to several important goals. It ensures the acquisition of new knowledge and skills, allows interns to update their knowledge and improve their practical skills in internal medicine. The main objectives of such education are to improve the quality of medical practice, promote scientific research and introduce modern treatment methods.

Further development of postgraduate medical education for interns in internal medicine requires constant updating of topics and teaching methods. Focusing on the organisation and stages of experimental work will help to improve the practical skills and scientific background of interns.

Data collection and analysis is an integral part of the research process. Choosing the right methods and tools for collecting and processing information allows for objective results and evidence-based research decisions.

Publication of research findings in specialised journals and effective communication of research results expand knowledge and contribute to the development of the medical community. It is important to give priority to effective communication tools that allow to convey important results and achievements in the field of internal medicine.

All of these aspects together contribute to improving the quality of medical practice, developing science and overcoming challenges in the field of internal medicine. Medical postgraduate education is the foundation for achieving these goals and improving patient care.

References:
MEDICINE AND PHARMACY