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# Academic medicine in Slovenia: a drive of development or unnecessary luxury?

Akademska medicina v Sloveniji: gibalo razvoja ali nepotrebno razkošje?

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#### Abstract

Academic clinical medicine is the driving force behind the development of medical science and medical profession in every health care system. This field of medicine in Slovenia requires better regulation. The article presents the situation in this field in Slovenia and the reason why such a situation persists as well as the consequences that will arise if the situation does not change. The editorial concludes with a call to Slovenian professionals and politicians to solve this problem.

### Izvleček

Akademska klinična medicina je gibalo razvoja medicinske znanosti in stroke v vsakem sistemu zdravstvenega varstva. To področje medicine v Sloveniji terja boljšo zakonsko ureditev. Prispevek predstavlja stanje na tem področju v Sloveniji in razlog za to, da tako stanje vztraja, ter posledice, ki bodo nastale, če se stanje ne bo spremenilo. Uvodnik zaključujemo s pozivom slovenski stroki in politiki k reševanju tega problema.

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# **1** Introduction

this article talks about the work of healthcare organizations, in which, besides

The academic medicine discussed in health care, the teaching of medical students and research work are also carried out. Traditionally, this form of medicine akademske zdravstvene ustanove

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was practised exclusively in university teaching hospitals. With the development of medical education and the medical profession and making medicine more familiar to patients, there have been major changes in the functioning of these institutions. In modern society, the teaching of medical students and medical research are not limited to the university medical centre, but students learn clinical work and the basics of research in other medical institutions as well. It is the same with scientific research work. Teaching medicine and research have also been transferred from hospitals to basic health services (1). Such development is also reflected in the modern view of the medical profession that it is the duty of every doctor to pass his/her knowledge on to younger generations and at the same time to discover new knowledge in his/her field. Thus, the traditional boundaries between academic and conventional, patient-centred medicine have been gradually fading. Academic medicine is no longer the domain and privilege of a select few.

Notwithstanding all of the above, it makes sense, however, that every healthcare system has certain educational institutions that are firmly committed to academic medicine with their mission. The task of these institutions is to take care of the understanding and development of science and teaching. Typically, these institutions are also formally closely associated with universities. We know that academic medicine is the driving force behind the development of medical science and the profession because it constantly and exclusively pursues the goal of excellence. It is a place where new approaches to treatment start, mature and are implemented, and where the effectiveness of the latest medical technologies is tested. As a rule, these academic institutions are the largest hightech institutions in the country. Because of their special position, they need special attention and regulation, even by laws. Providing routine health care is far from their only goal. In responsible social environments, this is regulated so that some hospitals are owned by universities or have a special relationship with the university, which primarily enables the development of science. Due to their special status, such institutions have a different method of payment for their activities.

More than a decade ago, the medical profession began to point out that academic medicine was in crisis. Criticism was initially directed at academic medicine itself. The academic institutions did not respond to the needs of the community and often lost touch with the real problems of society. As a result, young people no longer opted for academic development but preferred to choose a different career that allowed them a more relaxed, predictable life, usually also associated with better earnings. Such dynamics can lead to serious problems, as the part of medicine that should take care of its development is losing the most promising young staff. This led to the international ICRAM initiative, which aimed to revive interest in academic medicine (2,3). The starting point of the project was to care for the fate of medicine.

After many years of discussions, the authors of this project have developed five scenarios that could provide a development path for academic medicine (4). All five have some features in common:

- The need to connect with the public.
- Global orientation.
- Increased importance of teaching and research.
- The importance of teamwork.
- Increased competitiveness between academic institutions.
- The need for business collaboration.
- Combining research (translational medicine).

- Greater diversity of academic institutions.
- Cooperation with other, non-medical disciplines (economics, law, ecology and humanities).
- Greater complexity of work in academic medicine.

During the discussion within the ICRAM group, it was repeatedly emphasized that in order to meet the stated challenges, certain conditions need to be met, which must be provided by the state. It is clear that academic medicine must not be left to capital market conditions and that it deserves a special status within the healthcare business.

# 2 Academic medicine in Slovenia

Slovenia is facing this problem in an organized form much later. It has been pointed out for several years that academic medicine is in crisis and that too much attention is being paid to the routine management of health challenges, and too little attention and money is being paid to development. Due to the organization of society in Slovenia, it is characteristic that academic medicine is embedded between two systems: the healthcare system and science. Each mentioned system has its own ministry, and coordination takes place through the government.

The healthcare system is fighting for its excellence by defining cutting-edge medicine as a tertiary activity. This activity receives special financing through a contract with the Health Insurance Institute. The assembly of the Institute or the employees of the Institute decide on which projects are worth such payment. At the time when such an arrangement was enshrined in law, it was not envisaged that the basic health services would also require such treatment, regardless of the fact that they had already proven to be an academic profession. This is undoubtedly one of the main limiting factors for their development (5).

In the education and science system, academic medicine is defined as part of universities and subject to the same criteria as other organizations in the field of science. Both faculties of medicine are members of universities where uniform employment conditions and staffing norms apply. They must defend their special position at universities, which is specific both in terms of staffing norms in teaching and the position of clinical researchers.

Both faculties of medicine have also adapted to this situation through decentralization. In Slovenia, too, academic medicine cannot be linked only to tertiary healthcare institutions and not only to the two faculties of medicine. As a result, both faculties began to work with other teaching hospitals, as well as with health centres and private facilities. In this way, the faculties were able to expand the range of teachers and researchers. It has been shown that this has also raised the quality of health services in these settings. This also relieved the overcrowded teaching health care institutions and enabled students to learn more individually and acquire professional competencies. Working in a home environment or a small institution promotes a sense of belonging, which can have a long-term impact on further decisions about the professional path of young doctors.

Regardless of these positive experiences, it is necessary to point out several negative consequences of the regulation of academic medicine in Slovenia:

 Universities have no influence on the decision-making of tertiary institutions. Relations between faculties and clinical tertiary institutions are regulated by contracts in which the faculties are treated as any other business partner of hospitals. The faculty does not have the status of an institution that could, together with clinical hospitals, ensure their scientific development. The university does not have the opportunity to participate in decision-making, let alone invest and promote.

- 2. As the goal of the Health Insurance Institute is the stability of business, their method of payment hinders innovation instead of encouraging it. The introduction of sometimes revolutionary technologies and solutions clinical medicine is often prevented because it brings costs to the institution in the initial development phase that the contract had not forseen.
- 3. Due to different pay systems in the two sectors, the position of clinical teachers is unenviable, let alone stimulating. Therefore, young top professionals do not see a reason for pursuing their academic careers. The latter is at most a kind of additional hobby for their already strenuous routine work. The fact that learning and exploring is a privilege is no longer so important to young people that they would sacrifice their free time and financial security for it. As a result, young people are not opting for an academic career.
- 4. Research in clinical medicine is in severe crisis. Clinics, with their afternoon, evening, and weekend research in their spare time, find it difficult to compete in tenders with professionals who are full-time employees in institutions that are only research-based. The personal incomes of young researchers are so much lower than those in the field of medicine that young doctors do not opt for the research path, meaning that research groups suffer from a lack of offspring and their fresh ideas.

Slovenia is at a crossroads in terms of academic medicine.

One path is to continue with the current situation, which will lead to the separate development of the healthcare and medical education system, each with its own priorities and decision-making system. Medical faculties and tertiary healthcare institutions will cooperate on the basis of agreements that will regulate mutual relations at the formal level. Healthcare institutions will also regulate cooperation in the field of research with contracts in which medical faculties will be only one of the possible partners. Those employed at faculties will be allowed to be employed in a healthcare institution at the same time, but being employed in this way will not be encouraged because it will disrupt the process of providing routine health care. Clinical researchers will continue to be subordinate to those employed in purely research institutions. Their only significant advantage will be that it will be easier for them to do research on patients.

The second path is the path of meaningful cooperation. Tertiary clinical institutions and faculties of medicine regulate their mutual relations so that there is cooperation in each research and teaching unit, no matter how small and seemingly insignificant. They become two inseparable parts of the same whole, which together influence the development of science and the profession. Tertiary institutions recognize academic development as one of the essential goals of their business. For top professionals, employment at both institutions is a logical consequence of this connection, and such employment brings them many benefits, including material ones. The research collaboration of the two institutions is a logical consequence of such a connection.

We have pointed these dilemmas out on numerous occasions. Slovenian Academy of Science and Arts (SAZU) also tackled these challenges in an organized form, arranging a consultation on university hospitals discussing the problem of academic medicine in Slovenia in 2020. The consultation highlighted three key areas: the provision of infrastructure, the proper status of tertiary institutions and the position of staff (6). The University of Ljubljana and the University of Maribor addressed the government with identical demands when in 2021, it accepted a commitment to increase enrolment at the Faculty of Medicine, University of Ljubljana.

#### **3 Conclusion**

Slovenia as a country must set ambitious goals. If anywhere, then it is the field of science where we need to go beyond local frameworks and place ourselves in a wider space where we can be competitive. Medicine is not just the provision of health services but a profession based on the scientific development made possible by academic medicine. That can be a factor that will contribute to the emergence of the high-tech society of the future. By investing in development and enabling top medicine, we will also find it much easier to prevent the brain drain, which is one of the biggest catastrophes that can happen to Slovenian society.

Representatives of academic medicine have always understood that both universities need to adapt to changing conditions ,and we have been working in this direction all along. Divisions into "them and us" will be disastrous for the academic medical mind. We are chasing our last chances before "we and they" start experiencing "the Ice Age". Therefore, we call for the divisions to be overcome and for us to start working on joint research and teaching projects with sound starting points and new regulation in this important area.

- If we want to break the negative trends in this area, it is necessary to:
- Accept academic medicine as an important factor in medicine, which is crucial for its development.
- Allocate sufficient resources to this area of medicine to provide the infrastructure necessary for not only its existence but also development.
- Regulate the relations between the healthcare and education systems so that both branches support the development of science in the field of medicine.

We are convinced that this goal can be achieved, but it is also necessary for the government and its decision-makers to fulfil the basic tasks they are called to do and for which they are responsible.

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#### **Conflict of Interest**

The authors declare that there are no conflicts of interest, except perhaps those arising from the positions we hold in Slovenian medicine.

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