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Family medicine in Slovenia: overview of the state of affairs and suggestions for improvement

Družinska medicina v Sloveniji: pregled stanja in predlogi izboljšav

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Abstract

Primary healthcare and family medicine represent the cornerstone of any healthcare system. In Slovenia, we have a primary healthcare system, the concept of which is internationally recognized as very good by renowned experts and organizations. Nevertheless, we are faced with serious criticism and difficulties. The article presents an overview of the problems that family medicine in Slovenia is facing today. Nine points summarize action proposals which should be met if the situation in the field of family medicine is to be maintained and improved.

Izvleček

Osnovna zdravstvena dejavnost in z njo družinska medicina je temelj vsakega zdravstvenega sistema. V Sloveniji imamo sistem osnovne zdravstvene dejavnosti, ki ga po svojem konceptu priznavajo kot zelo dobrega mednarodni strokovnjaki in organizacije. Ob tem pa se soočamo z resnimi kritikami in težavami. Prispevek pregledno prikazuje probleme, s katerimi se sooča družinska medicina v Sloveniji danes. V devetih točkah so zbrani predlogi za ukrepanje, ki bi jih bilo potrebno izpolniti, če želimo, da se stanje na področju družinske medicine ohrani in izboljša.

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1 Introduction

1.1 Overall considerations

The European Commission's Expert Panel on Effective Ways of Investing in Health defines primary healthcare (PHC) as providing universally accessible, person-centred, comprehensive health and community care.

Healthcare should be carried out by a group of experts responsible for dealing with the vast majority of personal health needs. It takes place in a long-term

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partnership with patients and informal caregivers within the family and community and plays a central role in the coordination and continuity of care for people. Specialists included in the primary medical care team may be, among others, dentists, dieticians, general practitioners or family physicians, midwives, nurses, occupational therapists, opticians, pharmacists, physiotherapists, psychologists and social workers (1).

The vision of PHC for the 21st century, according to the World Health Organization (WHO) and UNICEF in 2018, is an approach to the health of society as a whole, which aims to maximize the level and distribution of public health and well-being by focusing on the needs and preferences of people (individuals and communities), from health promotion and disease prevention to treatment, rehabilitation and palliative care as close as possible to the population and its everyday problems (2).

PHC is the foundation of any healthcare system. This principle was first explicitly presented at a conference in Alma-Ata more than forty years ago (3). Since then, a number of declarations have been written, re-emphasizing known facts and principles (4,5). Good basic healthcare has been shown to help combat inequalities through better financial access to care, improve health through targeted prevention measures within the community and disease management programmes, promote patient empowerment, improvement of health literacy and person-centred care, and increase health system efficiency, e.g. by reducing avoidable hospitalizations and, in particular, unnecessary hospitalizations (6,7).

According to the World Health Organization (WHO), a well-designed PHC plays an important role in reducing health inequalities, so the WHO is working to establish health systems that emphasize universality, equality, sustainability and high quality (1).

The European Association for Quality in General Practice/Family Medicine (EQuiP), one of the organizations of the European Society of General Practice/Family Medicine (WONCA Europe), has issued a special declaration on equality. In it, they expressed the view that equality, just like efficiency, capacity, safety, timeliness, and person-centredness, is an essential dimension of the quality of healthcare (8).

To ensure quality PHC, it is necessary to ensure appropriate conditions, which means that countries must ensure adequate organization and human resources. Despite fairly clear positions and guidelines, the OECD states in its recommendation on guidelines that many countries still devote a lot of resources to specialist and disease-oriented healthcare, while primary healthcare, in particular, is neglected (6).

In Slovenia, the healthcare system is based on principles supported by the WHO. In a comparative study on PHC in European countries, researchers found that PHC in Slovenia is very good in most areas (9). The OECD report on the country's health profile from 2017 also states that Slovenia has efficient and strong PHC, but we also have several problems in the health field, among which long-term fiscal instability and shortage of doctors are mentioned (10).

Slovenia has not yet adopted a declarative document that would represent a strategy for the development of PHC. The production of such a document is the task and responsibility of the profession and health policy. Slovenian experts in the field of family medicine participated in the preparation of a series of documents that formed the basis for the development

of such a strategy. It is true, however, that these documents are not generally known because they were not published and made available to the public. The only article that addressed this area and that was published in a professional journal was an article on the vision of a health centre published almost ten years ago (11).

1.2 The purpose of this article

This article aims to give an overview of the situation in PHC, which is covered by family medicine in Slovenia, and to present a vision of the future development of Slovenian PHC. This would allow health policy-makers to take clear positions on the direction of development of the family medicine profession. With this article, we also want to inform the Slovenian professional and general public about professional positions and views on the development of the family medicine profession and thus separate them from political and trade unionist views on the organization of PHC.

2 The state of affairs in Slovenia

2.1 System management and decision-making

Primary health care is supposed to be managed by the Ministry of Health of the Republic of Slovenia (MH), which is also formally responsible for it at the strategic level (12), but otherwise, decision-making is left to the municipalities. Unfortunately, the MH itself does not have an appropriate staff structure that would enable it to manage the healthcare system strategically. In the field of public health, the MH has a complete directorate with a number of public servants who cooperate with the National Institute of Public Health and deal with public health issues. Such an arrangement has proved useful in the past, as many useful public health measures have been implemented in the primary healthcare system. Unfortunately, in Slovenia, public health measures are too often equated with measures at the level of PHC that belong to the field of family medicine, which is to the detriment of PHC. As a rule, measures in PHC that do not belong to the field of public health are much more challenging to implement because PHC does not have a real representative at the Ministry of Health. When the model practices project was introduced, the Ministry of Health had a special advisor for primary healthcare, but this is significantly insufficient. The MH does not have an institution that could help with professional solutions for resolving dilemmas in PHC. This has been shown in the past, e.g., in the modernization of preventive methods in paediatrics and in the system of work reorganization in family medicine clinics (the so-called family medicine model practices), the introduction of which took significantly longer than was planned at the beginning of the project.

A particular problem is that the responsibility for implementing PHC is left to the municipalities, which are often understaffed and unable to carry out the development of PHC. The transfer of a large part of decision-making on PHC to the level of municipalities means that the MH finds it difficult to enforce long-term policy in this area and influence the implementation of this level of healthcare. Thus, the directors of health centres are responsible to the mayors of municipalities, not to the MH, even though PHC is a key part of the comprehensive healthcare system.

The decision-making system on the implementation of healthcare activities is based on the so-called General Agreement, which takes place every year

between stakeholders in the healthcare system. The changes are agreed upon by the providers represented by their organizations, the Medical Chamber, the Ministry and the payer. This way of negotiating prevents any important introduction of innovations because it plans the scope of annual services in advance, which prevents the professional development of PHC and the flexibility of individual providers. Above all, it prevents a response to current healthcare needs. It is a system that works as an indexation of previous years with minimal changes.

2.2 Payment system

The method of payment for primary healthcare greatly influences the way providers work. In Slovenia, the method of payment from public funds is regulated in the General Agreement, which determines the scope of the programme and the price of services. Based on the Agreement, the main payer, the Health Insurance Institute of Slovenia (ZZZS), concludes contracts with individual providers. The contract therefore prospectively determines the number of services and their prices. The basic method of paying for services in family medicine is a combination of capitation and payment for services, each of which represents about half of the financial resources. In previous years, funds have been added to the payment system from time to time to promote the achievement of health policy objectives. Between 2001 and 2011, special incentives were provided for the provision of preventive services. If the doctor and his or her team did not implement a cardiovascular prevention programme, the clinic could lose up to 4% of its revenue. This arrangement changed with the introduction of model practices in 2011, when graduate nurses took over the provision of preventive services for the adult population.

The capitation system and the service payment system each have their advantages and disadvantages, neither of which in itself promotes the quality of the work performed (13). Also, the family doctor has to perform many administrative tasks that make their daily work difficult, especially if their usefulness is small. One of them is the Health Insurance Institute of Slovenia (ZZZS) requirement that upon a patient visit, the payer pays for the service for only one health problem, even though patients often need management for several health problems at the same time. The incidence of multiple co-morbidities has in recent decades become quite common as the population ages. Better solutions to facilitate the work of family doctors could also be found in the referral system and in the system of issuing sick leave, and in the consistency of criteria for the supervision of both. Also, family doctors could provide more services with appropriate financial incentives, which would reduce the number of referrals to a higher level. The treatment of the patient could, thus, become more comprehensive. Team consultations, self-assessment of work quality, consultations with specialists, quality circles and above all a multidisciplinary approach to the patient have no place in the content of PHC funding. However, it is known that these approaches can significantly improve treatment content, satisfaction and the health outcome itself. Family medicine is also the only clinical profession that does not have a recognized and funded tertiary institution, which hinders the decisions of the young doctors who also plan academic development to work in PHC.

2.3 Infrastructure and staff

The primary healthcare system in Slovenia is based on a system of health

centres, which enable the possibility of teamwork and interprofessional cooperation. In addition, they are adequately equipped and provide a sound basis for establishing a well-functioning health system. They have also become part of the Slovenian healthcare culture, which patients accept and are accustomed to. The network of concessionaires is a good complement to this system (14).

The educational structure of staff working in primary healthcare in Slovenia is at a high level compared to other countries (9). Recently, graduate nurses have also been employed to a greater extent in primary healthcare, which has further raised the staff educational structure and the quality of patient care (15,16).

With the establishment of the Department of Family Medicine at the University of Ljubljana more than 20 years ago and the active efforts of its members, the academic development of family medicine has also been made possible. Family physicians achieve the highest academic titles and take leading positions in academic and research fields at home and abroad (17). The academic position of family medicine in Slovenia was further strengthened with the establishment of the Department of Family Medicine at the University of Maribor.

Both departments provide family medicine classes for medical students and are integrated into the curricula of both faculties with their teaching methods.

The specialization in family medicine was formed in 2000. Prior to that, Slovenia had a specialization in general medicine, which was among the oldest in Europe (18,19). Its implementation serves as a model for other countries to which we have exported this programme (Macedonia, Montenegro) (20). It is also possible to earn a doctorate in the field of family medicine (21).

A particular problem, however, is the reduced interest in working in family medicine (22). This is a complex problem that is not easy to solve (23). During undergraduate classes, students have contact with family medicine from the first year on (24). During their studies, they find family medicine interesting and attractive (25). However, when students face the reality of Slovenian healthcare after graduating from university, their interest in deciding to become family medicine specialists declines. The main reason for the decrease in enthusiasm for work is the rigidity of the system, excessive bureaucratization and the inability to influence changes, while personal income figures to a lot lesser extent (26).

2.4 Population orientated

A characteristic of Slovenian PHC is a pronounced focus on the population, reflected in various ways. From the structural standpoint, in Slovenia, we have, e.g., a network of health promotion centres aimed at improving health in the local community. There is a long tradition of the involvement of family physicians in such activities, dating back to the times of the CINDI project.

The education system is also such that it emphasizes population-orientated primary healthcare in the education of all staff working at this level.

Health Education Centres (ZVC) or now health promotion centres (CKZ) are independent organizational units in health centres, although they do not fully operate in all health centres. They employ graduate nurses, but also physiotherapists and psychologists, and partly doctors. They organize group workshops and individual counselling, where citizens can gain professional information, skills and support for a long-term change of life habits (diet,

physical activity, smoking, drinking alcohol) and management of non-communicable chronic diseases and conditions (blood pressure, being overweight, fats in the blood, diabetes, stress, depression, anxiety). Along this, children and young people's health and dental education (from kindergartens onwards), which has been established for several decades, also normally takes place. These centres should also connect with the local environment - with associations, work organizations, educational institutions and others that can contribute to the health of the population in the local environment (27).

2.5 Team work and interprofessional cooperation

Teamwork is a prerequisite for the proper functioning of the healthcare system, especially in primary healthcare. In Slovenia, we have an established tradition of teamwork, a legacy from the times of the Croatian doctor Andrija Štampar.

Slovenia has introduced a number of services that deal with individual elements of PHC: emergency centres, palliative care, and diabetic and anticoagulation clinics. In Slovenia, the work of clinical pharmacists began to be introduced in health centres in 2012 (28).

We, the authors, see the side effect of these projects in the fact that instead of supporting comprehensive solutions, partial problems are being solved. This impoverishes the doctor's basic mission, or may cause the neglect of the integrated approach, which is the foundation of work in PHC. The family medicine profession leaves part of its mission to other professions and programmes that are evolving.

The project of family medicine model practices in 2011 represents an important innovation (29). It is the only project intended for the development of primary healthcare and was also accepted for funding at the state level. Its sequel was the CPC+ project, which aimed to strengthen teamwork and to expand it (30). Unfortunately, the model practices project has not received a scientific evaluation of its effectiveness.

2.6 Quality and safety system

A good PHC system needs specific controls. Patient safety at the primary care level is very different from patient safety at the secondary or tertiary level. At the primary level, there are many patient contacts, which are often complex interactions, where managing uncertainty is very important. This is one of the essential features of primary healthcare, as patients often come with undifferentiated complaints or early in the onset of the disease, so teams at the primary level have to face a great deal of uncertainty every day (31). The nature of work in family medicine often makes it impossible to measure quality and effectiveness in a simple manner, as key competencies in family medicine, e.g. person-centred care or long-term care, are difficult to measure (32,33).

In Slovenia, the quality of work of family medicine clinics is currently being assessed with the help of 28 quality indicators, which are collected monthly in the central electronic database. Structural (9 indicators) and process indicators (15 indicators), as well as outcome indicators (4 indicators), are defined (33). The indicators cover the area of prevention (6 indicators) and the most common chronic diseases (22 indicators). They are defined at the level of one clinic and the level of all family medicine clinics in Slovenia. A review of internationally recognized indicators also showed that most quality indicators on primary level are process indicators and cover the management of

patients with chronic diseases (34). For example, for assessing the management of diabetic patients, internationally the main indicators are process ones, , namely the appropriate frequency of blood sugar or glycated haemoglobin measurements, measurements of lipids, blood pressure and renal function, and the examination of the ocular background and diabetic foot. Most often, the outcome indicators show the value of blood sugar or glycated haemoglobin, lipid values, and values of renal function tests (35,36). Slovenian quality indicators in this area are similar: the existence of a register of patients with diabetes, the value of glycated haemoglobin determined at least once a year, the foot examination at least once a year and the proportion of patients with measured glycated haemoglobin below 7%. It is similar with other quality indicators used in Slovenia, so we believe the indicator sets are appropriate.

Data on quality indicators from 2011 to 2019 show a gradual increase in their levels, but for the most part, quality standards (except for chronic patient registries) have not yet been met. The causes are multifaceted, from systemic factors, the method of financing, the organization of the healthcare system and its capacity, cultural factors, and disease epidemiology, to information system operation, accessibility, systematic detection of quality and safety problems and duration of the consultation (37-40).

Quality indicator values are analyzed once a year. The report is published and is available to all clinics. All clinics also have access to an aggregated database with quality indicator values, where they can see the values for their clinics and the average value for their region and for the whole country. Thus, individual clinics can compare the quality of their work with others at any time, which is an important method of (self) improving quality (41). However, systemic measures are needed to improve quality effectively and continuously (see Proposed Guidelines). This requires adequate infrastructure and financial support, which is currently not provided.

A similar situation is in the area of patient safety. Important for improving patient safety is the first step, i.e. discussing and understanding the organization's safety culture, which is not yet systematically regulated in our country (42-44). Quality assessment must be aimed at improving the quality of work in healthcare and not at control and punishment, which, unfortunately, still prevails in Slovenia. The culture of punishment or fault-based liability strongly limits the improvement of patients safety.

2.7 Computerization

With the development of medical science and technology, family medicine is undergoing many changes. This is a new revolution in medicine that will require physicians to become a data managers for their clients. Genomics brings new possibilities for prevention, but also other influences (e.g. pharmacogenomics) (45). Slovenian family medicine will have to adapt to this technical development. Extensive databases (Big Data), which are already knocking on clinic doors, will require significantly better digitalization of Slovenian healthcare. The amount of data is rapidly increasing, which requires significant changes both in education and in the field of purely organizational approaches (increased computing capacity, new team members who will be able to analyze and interpret data).

The information system does exist in Slovenia, but it is distinctly adapted to the needs of the payer and does not consider the needs of the healthcare providers. The

digitalization of Slovenian healthcare follows the needs of the administration, not the needs of the profession. Therefore, the providers do not experience this system as an assistance in their work, but rather as another obstacle. The innovations offered by technologically advanced firms do not find their way into patient's health care and service fees. When introducing these changes, the opinion of the medical profession has usually been overlooked or presented a mere token that was supposed to meet the formal requirements for the implementation of the project. Actual electronic medical records have still not been put into practice. In PHC, family doctors still keep paper records in addition to the electronic ones, as required by law.

The consequences of all these weaknesses are mainly reflected in the dissatisfaction and greater provider burden. Their protests are being resolved by short-term measures, but over time the protests erupt again, as the root causes are never removed.

3 Proposed guidelines

3.1 System management and decision-making

In order to solve the problem related to system management, the MH would have to establish a national institution whose task would be to provide a professional basis for the development of the primary healthcare system. These tasks cannot be taken over by commissions already established by the MH. The initiative for the establishment of this institution has already been submitted to the ministry by the Slovenian family medicine profession several times.

Excessive regulation of the healthcare system needs to be simplified and the number of rules that family doctors and other primary healthcare providers now face daily needs to be significantly reduced.

The system of decision-making in the entire healthcare system, especially in primary healthcare, needs to be changed in such a way that it will be possible to introduce innovations and check their effectiveness. The current system does not allow this, as decision-making is mostly limited to the indexation of existing programmes, and there is no mechanism in the financial plans to systematically introduce professional solutions and innovations into the healthcare system.

The family medicine profession has repeatedly proposed the establishment of a tertiary institution for this level, but the initiative did not materialize. The initiatives were proposed by the Faculty of Medicine at the University of Ljubljana, as well as the Community Health Centres in Ljubljana and Maribor. The last two initiatives were rejected for formal reasons because Slovenian legislation does not allow for the primary healthcare level to have tertiarity as a concept.

Such a tertiary institution would be responsible for determining the professional basis for the development of PHC, for participating in the preparation of professional guidelines for work in PHC and for setting quality standards. It would exercise control over the quality of work in PHC. It would have to set up a system that would allow for a critical assessment of the technologies being offered and their easy and systematic transition to PHC. It would set research priorities in PHC and participate in the preparation and implementation of structural, organizational and legal changes in PHC. It would require both adequate staff and the necessary influence.

3.2 Payment system

The system of financing primary healthcare activity through a combination of capitation quotients and payment for services rendered seems appropriate at first sight, as the advantages of one method mitigate the disadvantages of another. The problem of capitation is mainly in the capitation quotients, which are not based on cost analysis. Therefore, they do not reflect the actual costs associated with treating patients. According to the quotients of some other countries, the capitation quotient is especially low for the oldest group (> 75 years). Also, the age groups are too wide. According to other countries, the differences in costs within such a broadly defined age group are significant. In addition to age, capitation quotients in developed countries also take into account the sex and the social status of the region the patient comes from (46). Revision of quotients would thus be necessary and would equalize the payment of doctors for the same work performed.

Another major shortcoming is the inadequacy of service funding. Although the planned number of quotients (points) that a team has to achieve by providing services is 27,488, the provider receives the full payment if they only complete half of the planned quotients (47). Such a low threshold does not in any way encourage providers to render more services at the primary level. Furthermore, the system of payment for services in no case depends on quality, which systemically is not measured. A provider who performs services excellently receives exactly the same payment as an inferior provider. The quality system in terms of measuring work results (not the work process and the number of services provided) needs to find a place in Slovenian family medicine. Despite the fact that the shortage of family doctors is critical, especially in rural areas, the payment system does not allow special incentives to work in socially disadvantaged areas (not to mention rural areas) and does not allow adapting the structure of a team to the needs of local people. The funding system must encourage teamwork and interdisciplinary cooperation and enable the development of IT support and mobile health to find a place in PHC.

3.3 Infrastructure and staff

Due to the ageing population and other related challenges (increasing multimorbidity, complexity of guidelines and protocols), we will have to increase the number of primary healthcare teams in Slovenia . In July 2019, there were 262 family medicine specialist registrars in the education system, which will not be sufficient to fill the shortage of family medicine doctors. The deficit will deepen with retirements in the coming years (48).

Since it is clear that the professional staff will not be able to address all the health challenges of the future, it is essential to ensure the transfer of health competences and responsibilities to patients themselves as well as to informal carers (transfer of competences vertically downwards). In part, we have already tackled this with the concept of model practices, when a graduate nurse also became part of the team. However, it would be advisable for each team to have a graduate nurse working full-time, not just part-time. Home care and other forms of caring for patients at home will need to be improved.

Lack of interest in family medicine is a complex problem that the profession cannot successfully solve independently. It is also necessary to involve young people in solving this situation, by having them explain what would attract them towards the decision to work in the family medicine

field, and to make decision-makers go a step further and tackle the problem holistically, taking into account the opinion of the profession.

3.4 Population oriented

In Slovenia, PHC already encourages person- or population-oriented treatment. A positive step in this direction is the introduction of the CCP (Centre for Clinical Psychiatry), which could be organizationally further improved. The content of the work of these centres is determined by the National Institute of Public Health, while the competent health centre is responsible for the employment of staff and the realization of programmes. This hinders the flexible adaptation of the programme content of these centres to the needs of patients. The programme designer bears no responsibility when the programmes are not of interest to patients, because the financial responsibility was fully transferred to health centres. It would make sense for the content designer, provider and employer to be the same legal entity, i.e. the National Institute of Public Health or the Health Centre, as this is the only way to close the so-called PDCA (plan, do, check, act) circle, which enables continuous development and adjustment of programmes.

The community mental health project is supposed to enable patients in Slovenia to be treated more often in their home environment and less often in hospitals. Although this is a trend that is recognized as necessary and has the WHO's support, Slovenia lags in this area (49).

3.5 Teamwork

Slovenia has done a lot in this area recently. It is necessary to continue to promote interdisciplinary cooperation and to include new staff in the primary healthcare system, while not forgetting the integrity of care. Opportunities are mainly in the area of collaboration with nurses, as demonstrated by the CPC+ project. At the same time, it is necessary to strengthen cooperation between different professions in this field and enable the coordination of their work, which must be permanent, but also formalized.

3.6 Quality and safety system

If we want to ensure the quality and safety of the healthcare system at a basic level and continuously improve the quality, it is necessary to ensure quality control based on professionalism. The purpose of assessing the quality of the work of family medicine clinics should be primarily to improve the quality, not to punish (31). At the national level, it is necessary to establish a professional institution that will take over the control of the quality of work in family medicine, which will allow for systematic and continuous quality control, analysis of quality indicators, feedback and verification of the implementation of changes and progress in the field of quality. The first step in this direction has already been taken: in 2017, the Ministry of Health of the Republic of Slovenia and the Department of Family Medicine at the Medical Faculty of the University of Ljubljana launched an initiative to develop a quality assurance and improvement system in the field of family medicine in Slovenia. This initiative was linked to the introduction of a new model of work in family medicine based on family medicine model practices. A plan for integrated, systemic and continuous quality control based on the principles of the quality improvement cycle has been prepared. It connects all stakeholders in patient care. The operational and contextual core of

the quality control system is based on the constant exchange of feedback between the family medicine teams and the quality control office (50).

In the field of security, it is necessary first to analyze the current situation, especially the security culture, and then propose appropriate measures. It is of key importance to abolish the policy of punishment or fault approach to safety deviations and introduce a non-fault approach that allows learning from errors and systemic changes in processes that prevent the recurrence of errors.

3.7 Computerization

Computerization should significantly streamline the administrative tasks of all team members in PHC and thus allow more time for a direct human interaction between the professional (doctor and nurse) and the patient. It is necessary to set clear conditions for the introduction of exclusively electronic data storage. It is also necessary to encourage the development of the electronic medical record, which should be intended primarily for healthcare professionals to work more efficiently with the patient, and to take advantage of the opportunities offered by computerization to simplify work and improve safety and quality.

4 Summary of actions required

- In order to maintain a quality primary healthcare system, the following measures are needed:
- Reinforcing the Ministry of Health in terms of staff in the field of primary healthcare.
- Establishing an institute for family medicine or authorizing one of the already existing institutions for this work.
- Changing the way of decision-making and introducing innovations.
- Changing the way of financing.
- Strengthening interdisciplinary cooperation.
- Increasing interest in family medicine through incentives for young doctors, including financial ones.
- Reducing administrative tasks.
- Updating computerization.
- Introducing a systematic way of monitoring and improving quality and safety.

5 Conclusion

If Slovenia wants to maintain a quality healthcare system, it must be constantly updated and adapted to new challenges. So far, Slovenia has been a shining example of a well-organized primary healthcare system in many areas. The proposed measures, developed by the family medicine profession, are supposed to help decision-makers in Slovenian health policy in continuing to be an example of a good healthcare system.

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