

EAHIL Workshop

Implementation of quality systems and certification of biomedical libraries
Palermo, June 23-25, 2005

Medical Information Centre of Tartu University Clinics – a partner for family doctors

Keiu Saarnit
Medical Information Centre of Tartu University Clinics
Marika Rosenthal
Medical Information Centre of Tartu University Clinics

The situation in Estonian healthcare has undergone profound changes since the beginning of the nineties in connection with the re-establishment of independence. Changes at the state level brought along changes in Estonian medicine as well. A project for the Estonian healthcare system was designed for 1993 – 2015.

Merging of hospitals

In the course of the healthcare project smaller hospitals were joined to central and regional hospitals with the purpose of more economical management. As the only medical faculty in Estonia is part of the University of Tartu, the hospitals of the town of Tartu merged forming Tartu University Clinics, the largest medical centre of Estonia, which has served as the base of medical, teaching and research activities for the Tartu University Faculty of Medicine.

Former district doctors – present family doctors

In the Soviet period the healthcare system was built on different principles. In polyclinics worked general practitioners (district doctors) and specialist doctors. Members of the population were registered with fixed district doctors on a residence basis. The patient had no choice for registering in the list of a particular general practitioner.

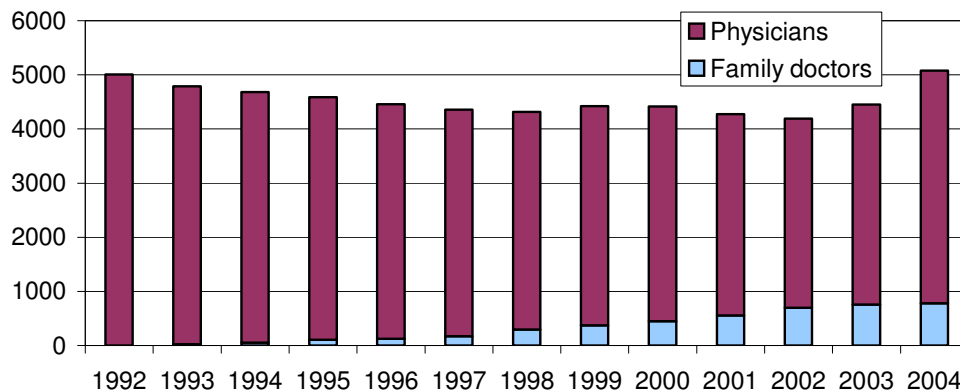
The main responsibility of the district doctors was to issue sick-lists, mostly in the case of common colds and their possible complications. They also made home visits if the patient had fever or some more serious complaint. Besides the district doctors for adults, there were also the district pediatricians. The children too were registered with fixed district pediatricians on a residence basis.

When a person had a more serious condition, for example, it was necessary to see a surgeon, an eye specialist or some other specialist, then he or she had access to them without a referral from the district doctor. In most cases, the need for a specialist's consultation was for the patient to decide.

By now, the situation has changed and a system of family doctors in Estonia was implemented in 1993. Family doctors work either in group practices (family doctor centres) or in solo practices (as natural persons-entrepreneurs). It is possible to specialise in family medicine after graduation from the Tartu University Faculty of Medicine. A large part of the physicians who worked as general practitioners in the Soviet period have passed special in-service training after which they have the right to practise as family doctors. Their age is 40 – 65 years and they are predominantly former district doctors or general practitioners. There are no district pediatricians any more as family doctors deal also with children. All younger family doctors have acquired their speciality in residency at the Tartu University Faculty of Medicine. For example, in 2005 there are 15 residency places in family medicine in the Faculty of medicine. There is a shortage of family doctors in Estonia.

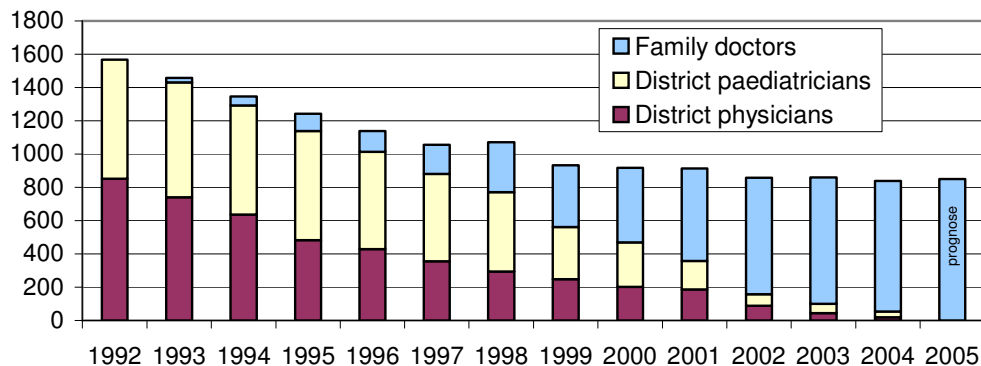
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Statistics about physicians and family doctors

The population of Estonia is 1,400,000. According to the data of the registry of the Health Board of Estonia, there are 5,079 doctors (1 doctor per 275 residents), 1,307 stomatologists, 9,762 nurses and 481 midwives in Estonia at the beginning of 2005. The number of family doctors according to the data of the registry of the Health Insurance Fund of Estonia as of 2004 was 783, of whom 67 worked in Tartu and 245 worked in Tallinn.



In 1992, i.e. shortly after the regaining of independence there were 852 general practitioners (district doctors) and 715 district paediatricians in Estonia.

Description of the Medical Information Centre

Databases

As early as 1995, TU Clinics purchased the most widely used database, OVID Medline, which provides references in the fields of biomedicine, nursing, pharmacology, organisation of healthcare as well as family medicine. Medline gives references to several journals whose target group is family doctors. It has been possible to work with Medline in online regime for already one year. Owing to this, medical news are available to Estonian physicians almost instantly as Medline is appended once a week. In case you have obtained the right from the TU Clinics for working with the OVID databases then news virtually reach you at home.

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StatRef Electronic Medical Library is a database consisting of 37 books on different medical areas. This database can also be used in online regime.

Starting from the current year, Estonian physicians have access to the network version of Harrison`s Principles of Internal Medicine.

HealthCare Information System comprises 8 large subdatabases of which TU Clinics have purchased four. This database provides information about new medications, additional data for specifying the diagnoses of rare diseases, etc.

Evidence Based Medicine (EBM) has also been made accessible to Estonian physicians.

Journals, books

The open shelves of the Medical Information Centre hold a stock of manuals on the paper carrier as well as the journals which arrive as supplements to their subscribed electronic versions. All literature on the paper carriers is covered by an electronic catalogue.

However, main focus at the Medical Information Centre is placed on electronic information, which ensures that as many people as possible could simultaneously use journals or books and that physicians need not leave their workplace (desktop) in search of necessary information.

Starting from 2004, TU Clinics have subscribed to 12 more electronic journals on different fields of medicine so that all fields practised in the Clinics are covered by specialist journals.

The homepage of the Medical Information Centre allows access also to the full text journals, published by Elsevier (Science Direct) and EBSCO which are subscribed by the Ministry of Education and Science of Estonia.

The Centre has compiled a collection of all information resources, provided via the Internet free of charge, which is supplemented regularly. Journals and books in the full text form can be searched both alphabetically and by systematised subfields of medicine.

Treatment guidelines

The database of guidelines consists of the guidelines which are used in Estonia as well as the guidelines in English which are available via the Internet.

The guidelines are supplied, as additional information, with the name of the compiler organisation or society, or with the name of the leader of the compiler team. The development of this database is in process.

E-library

The keyword of the future activity of the Medical Information Centre is the e-library.

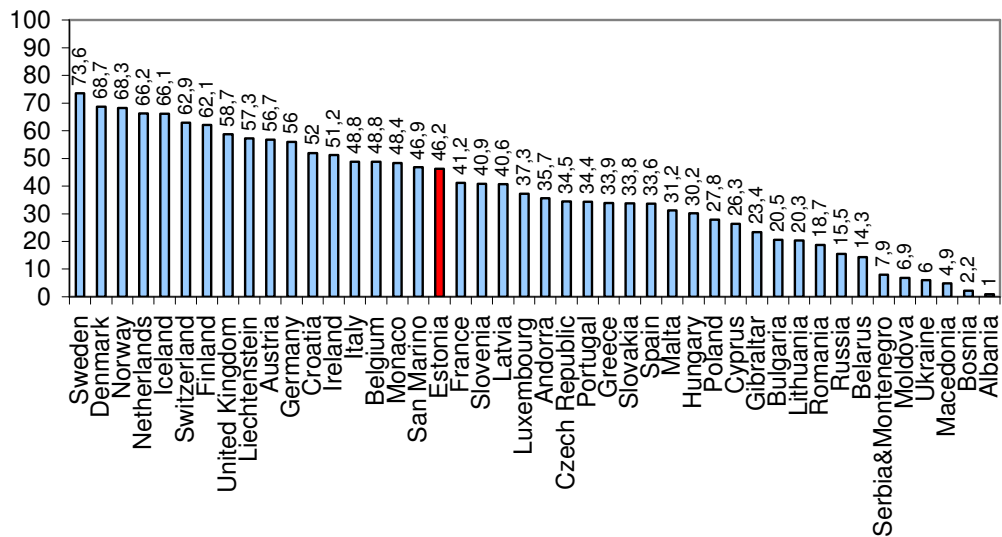
The main goal of the e-library is to bring specialist information directly onto each doctor`s desktop. In case the physician wants to specify the diagnosis of some rare disease when studying a patient, he or she can obtain relevant information via the desktop. This means a much higher quality of the doctor`s consultation.

Infrastructure and IT

Although Estonia is a small state, it can be considered as belonging to developed states with respect to the level of information technology. In 2005 there were 46,2 Internet connections per 100 inhabitants.

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The development of information technology in Estonia allows high level provision of the Estonian medical community with medical information resources and with services in the field of medical information.

Family doctor as the customer of the Medical Information Centre

Six years ago it was studied in the USA which information resources family doctors used. It was found that only 27 of the 103 interviewed family doctors used the computer for obtaining additional information in treatment of patients. The rest used various manuals in their work. The interviewed doctors used manuals mostly when writing prescriptions and when managing internal diseases and infectious diseases in adults. It would be interesting to know if the choice of the manuals used by American family doctors is similar to that of their Estonian counterparts.

In Estonia, the family doctor cannot work without using a computer, as the health insurance of patients is checked via the Internet and actually all information exchange between the family doctor and the Health Insurance Fund is arranged via the Internet. Having a computer at the family doctor's disposal enables him or her to use all information resources and all services, available via the Medical Information Centre of TU Clinics, for obtaining additional information for treatment of patients. The number of the users registered at the Medical Information Centre as of January 2005 was 3992, among them only 83 family doctors. However, it should be noted that the share of family doctors in the customer population of the Centre is constantly increasing. Once a family doctor is used to work with the computer in daily practice, then next he or she will already visit the Medical Information Centre for obtaining specialist information or for signing up for in-service training in order to acquire the know-how for working with databases.

The Medical Information Centre of TU Clinics has not conducted a separate study for finding out which information resources would be the most useful for family doctors or which services of the Centre they would require. Yet family doctors have been among the respondents of user study questionnaires.

The information contained in Medline, StatRef Medical Library, HealthCare Information System, Evidence Based Medicine (EBM) and other databases is as

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necessary for family doctors as it is for all medical specialists. In addition to licensed information resources, the Centre has collected from the Internet free links to journals and books, meant for family doctors, for the systematic catalogue of the e-library which contains also a section of family medicine.

There has been much discussion about the organisation of the work of family doctors, their large work load and patient dissatisfaction. However, the family doctor should also improve his or her knowledge. In the present time, patients cannot be underestimated – they can educate themselves relatively well via the Internet. The homepage of the Medical Information Centre includes a link to patient information. Moreover, the better the patient knows English, the more he or she will use additional information for the management of his or her health problem. This may even lead to argument with the family doctor when the patient tries to prove the correctness of his or her own opinion.

The Centre provides family doctors, besides the possibility to use its information resources, also in-service training on various topics: for example, introduction to the databases of the Clinics and use of their search systems, information resources available in the Internet, search systems of Medline and PubMed, etc. Family doctors from Tallinn, Tartu and Pärnu as well as from smaller regional hospitals have participated in the training courses organised by the Centre.

It is possible for family doctors to order, via the Medical Information Centre, copies of some interesting articles published in journals. Copies are usually in the electronic form and they are sent directly to the mailbox of the doctor.

When a family doctor requires additional information about some rare disease or other problem, he or she can address the Centre. The Centre conducts search and the results are sent to the doctor's mailbox.

Starting from 2004, a new tool of servicing customers in the Medical Information Centre is an electronic newsletter which is sent to the mailbox of each physician of Tartu University Clinics. The newsletter provides data about hot topics in medicine, about the possibilities of continuing education as well as about other interesting issues in the field of medicine. The newsletter can be sent also to the mailboxes of family doctors in case they express such wish.

Estonian family doctors have access to the database of the radiographs of the TU Clinics if they have concluded the required user agreement with the Clinics.

In case the pocket PC is used in daily work it is possible to save medical information from the databases of TU Clinics to the pocket PC when needed.

Active use of information resources is a must for the physician who is also engaged in research. Regarding the research activity of family doctors, the results are still modest in Estonia. During one decade, Estonian family doctors have published 10 papers in the peer-reviewed journals covered by Medline. According to the data from the period of 1994 – 2004, the first paper by a family doctor was published in 1997. In 2004, Medline included 3 papers published by the family doctors of Tartu. Only the family doctors who are teaching at the TU Faculty of Medicine conduct research. The fact that family doctors are not engaged in research activity seems quite natural as they have neither time nor the imminent need for it.

However, it should be noted that family doctors are much more productive regarding the writing of popular scientific papers. As these are published in Estonian medical journals (Lege Artis, Hippokrates, Medical News) they are only available in the Estonian language.

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Conclusion

The Medical Information Centre of Tartu University Clinics has been, over the years, and will continue to be a partner for the family doctor in the field of medicine. The family doctor as the customer of the Medical Information Centre has similar rights with the other physicians.

The homepage of the Medical Information Centre of Tartu University Clinics is a portal to knowledge, which offers a wide range of resources and services. The homepage can be visited at the following address :

<http://www.kliinikum.ee/infokeskus>

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