FROM TECHNOLOGIES TO SERVICES: THE TELEHEALTH SERVICES CODE OF PRACTICE FOR EUROPE

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Abstract: The presentation outlines the progress of the TeleSCoPE project (Telehealth Services Code of Practice for Europe).

The project reflects the desirability of defining the standards and a "Code of Practice" at European level that can coordinate the many devices and services that already allow a good application of telemedicine and remote monitoring, in particular for patients with chronic disease.

In this respect, the Telehealth Services Code of Practice for Europe that will be published in 2013, will provide a clarity of definitions, references to standards, some guidelines, good practices, the ability to test and relative test levels as well as respond to requests for training and education, and explicitly support the development of eHealth in all EU member states.

ОТ ТЕХНОЛОГИИТЕ КЪМ УСЛУГИТЕ: КОДЕКС НА ДОБРИТЕ ТЕЛЕМЕДИЦИНСКИ ПРАКТИКИ В ЕВРОПА

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Ключови думи: Телемедицината, европейски проект, добри практики

Резюме: Докладът очертава напредъка на проекта TeleSCoPE (Telehealth Services Code of Practice for Europe).

Проектът отразява необходимостта от определяне на стандарти и "Кодекс на добрите практики" на европейско ниво, за да могат да се координират множеството устройства, които вече са налични и позволяват едно по-добро прилагане на телемедицината и дистанционно мониториране, особено на пациенти с хронични заболявания.

В това отношение, "Кодексът на добрите практики" на проекта TeleSCoPE, който ще бъде публикувана през 2013 г., е от изключително значение, защото ще осигури яснота на терминологията и стандартите, ще включва редица насоки и примери за добри практики, начините за тестването им и относителните нива на изпитване, както и ще отговаря на исканията за обучение и квалификация, и ще спомогне за развитието на електронното здравеопазване в държавите-членки на ЕС.

Introduction: Telehealth and Related Terms

Telehealth is "the means by which technologies and related services at a distance are accessed by or provided for people and/or their careers at home or in the wider community, in order to facilitate their empowerment, assessment or the provision of care and/or support in relation to needs associated with their health (including clinical health) and well-being. Telehealth always involves and includes the service user or client. It includes also remote patient management" (TeleSCoPE, 2011). This term has been used recently in addition to the two other phrases - telemedicine and eHealth.

"Telemedicine" is used to describe the application of information and communication technologies (ICT) in healthcare. Defined as an application of ICT to provide and support healthcare and exchange healthcare information when a distance separates the participants, it is a combination of two Greek words τήλε = tele - meaning "at a distance" and "medicina" or "ars medicina" meaning

"healing". The introduction of the word telemedicine is ascribed to Thomas Bird, who in late 1960's had used it in order to illustrate health care delivery, where physicians examine patients at a distance through the use of telecommunications technologies. In 1980's and 1990's multiple working definitions of telemedicine were introduced. Some of them are very wide such as "something to do with computers, people and health", others – extremely narrow e.g. "the healthcare industry's component of business over the Internet".

With more involvement of the electronic communication systems, the major International Organizations - (WHO), European Union (EU), International Telecommunication Union (ITU) and European Space Agency (ESA) - have officially adopted the denomination "eHealth". "eHealth refers to the use of modern information and communication technologies to meet the needs of citizens, patients, healthcare professionals, healthcare providers, as well as policy makers" (EU, 2003).

In 2005, the World Health Assembly recognized eHealth as the way to achieve cost-effective and secure use of ICTs for health and related fields, and urged its Member States to consider drawing up long-term strategic plans for developing and implementing eHealth services and infrastructure in their health sectors.

What is the accurate terminology? Unfortunately, to this very moment, the terminology has neither been agreed in Europe nor at worldwide level. Paradoxically even between and within the countries from EU different terms are used to describe one and the same service. Positions differ and the preferences are usually influenced by individual experience, personal and professional viewpoints. Thus for some authors telemedicine and eHealth are synonyms. Others accept that eHealth is a broader term and includes telemedicine. A third group separate the terms, accepting that telemedicine incorporates telecardiology, teleradiology, telepathology, tele-ophthalmology, teledermatology, telesurgery, tele-nursing, etc, while eHealth comprises of e-Santé, Information and Communication Technologies in health (ICT-Health), all types of health communication services, PACS, patient information systems, e-education, e-prescription, etc.

No doubt, telehealth is the broadest possible expression when the support of users/citizens is concerned.

The TeleSCoPE Project

Consistency with EU policy
"Telehealth Services Code of Practice for Europe" or shortly TeleSCoPE is the title of an ongoing project, funded under the European Commission (EC) "Program of Community Action in the Field of Health". This is EC main instrument for implementing the EU health strategy and is focused on improving citizens' health security; promoting health, including the reduction of health inequalities and generating and disseminating health information and knowledge throughout the Community.

TeleSCOPE directly responds to the EC Action Point (in COM2008:689) to "improve confidence in and acceptance of telemedicine" as well as to EC and national agendas (i2020). It also contributes to the Action Points to collect "good practice on deployment of telemedicine services" and the addressing of issues (requiring for member states) around accreditation, privacy and data protection.

The project also fits with European Union initiatives promoting healthy lifestyles, healthy workforce and healthy life-years, social inclusion and engagement, economic and social development, information and communication technology application and the co-ordination of policies and programmes within member states. The context includes i2020, the Ageing Well platform, the eHealth Action Plan, the Green Paper COM2008:725 on a European Workforce for Health, to list some.

In addition, the project supports EU strategy of "moving EU towards a "European eHealth Area" by coordinating actions and promoting synergies between related policies and stakeholders, so as to develop better solutions, prevent market fragmentation and disseminate best practices" and more specifically the EU strategy in:
- Setting up health information networks between points of care to coordinate reactions to health threats;
- Ensuring online health services such as information on healthy living and illness prevention and
- Developing teleconsultation, eReferral and eReimbursement capabilities.

Project objectives are:
- To analyze the existing terms in the field of Telehealth and its nearby areas and to present to experts an arrangement of concepts and a basis for taxonomy of subsequent activities;
- To identify potential users, user groups and other stakeholders of Telehealth applications;

- To gather information regarding the effectiveness, costs benefits and financial aspects of different forms of Telehealth;
- To identify the technological solutions;
- To analyze the decisions and results that are advertised as examples of good practice;
- To review existing standards and their application;
- To identify legal and ethical principles for applying any forms of Telehealth.

The project relates to an understanding of telehealth services addressing five areas:
- Response and event recognition (using social alarms, fall and seizure detectors),
- Medication compliance (using pill dispensers, pagers, automated prompting),
- Care management (activity monitoring and assessing),
- Disease management (vital signs monitors),
- Health and fitness / Lifestyle (telephone and video consultations).

The context is one where telehealth is seen as facilitating delivery of health related care and support services in people's homes.

The primary objective of TeleSCoPE is to develop a comprehensive Code of Practice for Telehealth Services.

The reason to choose such a goal is that the need for telehealth responds to most people's wish to stay at home. Telehealth contributes to the growing needs of people with chronic and long-term conditions (by for example making sure that hospital or institutionally based services are better targeted); and to the preventative health agenda (by helping people to better manage their own health).

The aims of the project are to influence European-wide confidence and acceptance by influencing common approach on political level (harmonization), semantic level (agreeing common priorities), level of education and awareness raising (evaluation, monitoring and analysis and reflection on good practice). In more general terms, TeleSCoPE will, through establishing service standards, help establish relationships of trust between patients and providers and contribute to overall health and well-being. The standards will provide a quality benchmark for service regulation in EU member states.

Material and Method

A robust, but simple, methodology is proposed. The main components of the methodology relate explicitly to project objectives and are as follows:
- Drawing together the evidence base;
- Developing the Code;
- Validating the Code;
- Publishing the Code and
- Establishing the prerequisites for mainstreaming the Code.

The Outcomes

A precondition of developing the European Telehealth Service Code of Practice is the shared understandings of the sometimes confusing terms as telemedicine, telehealth, eHealth, now extending to telecare, mHealth (mobile) and uHealth (ubiquitous health) (Fisk, 2010). The task is already achieved and the results are the following documents (Foundation papers) (Fig. 1):
- Foundation paper 1: Glossary of Terms;
- Foundation paper 2: Ethics and Good Practice;
- Foundation paper 3: Overview of Literature.

They all are available for free at the project website.

The preliminary draft of the Code is also ready and available on the website http://www.telehealthcode.eu/component/content/article/70. This Code of Practice provides a framework by which service providers in all 27 member states of the European Union can aspire to or ensure the maintenance of minimum standards for telehealth services. It also gives the bases for regulation of telehealth services through appropriate monitoring and auditing. Thus the Code helps to nurture trust in a context of high quality telehealth service provision.
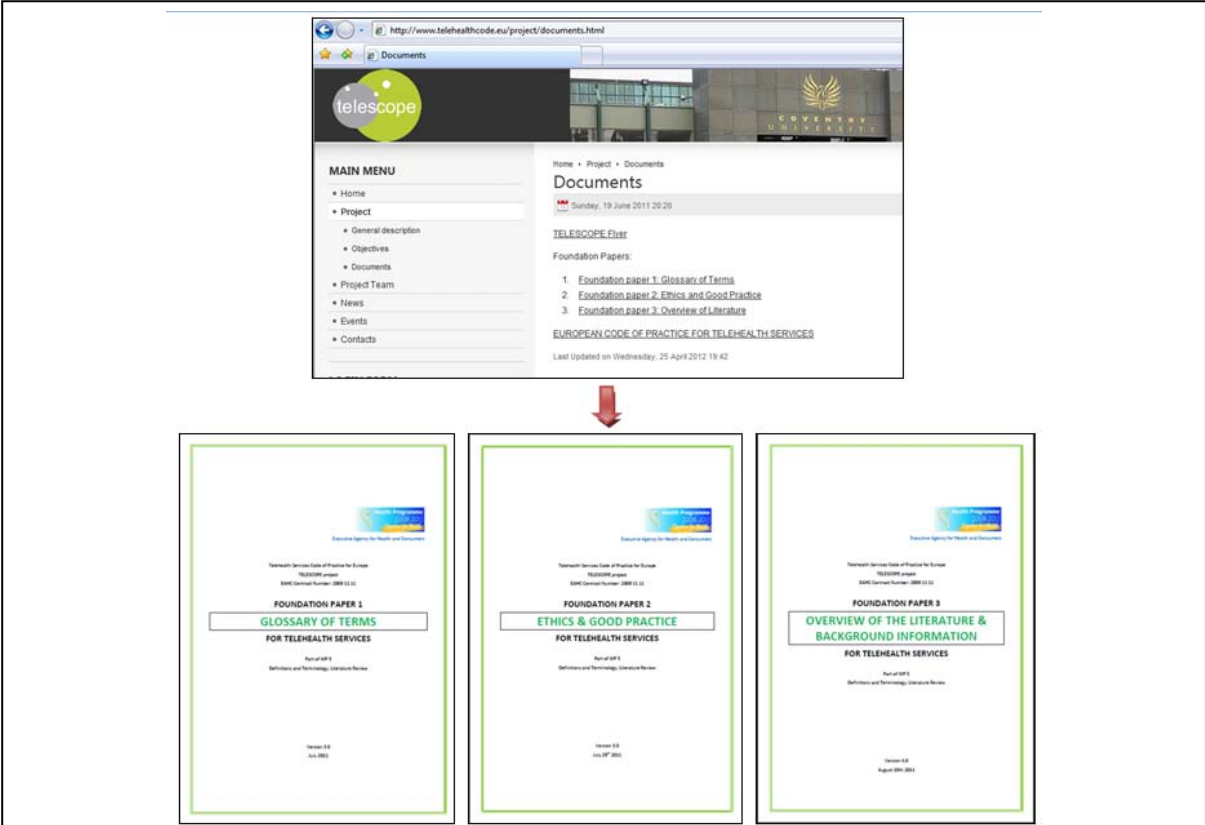
Fig. 1. Foundation papers available at www.telehealthcode.eu/project/documents.html
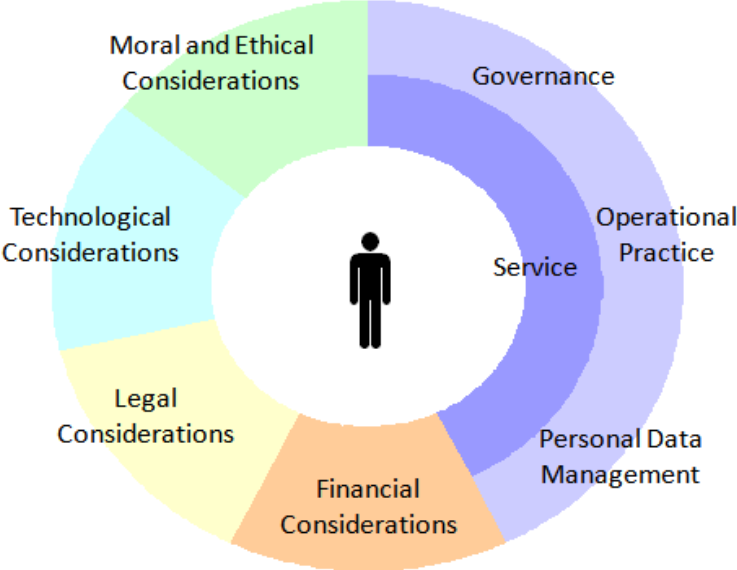

Fig. 2. Scheme of the Code (Fisk, Roze, 2011)

The critical areas that the Code is focusing on are outlined on Fig. 2. The person who accesses telehealth services is represented by the figure at the centre. This position symbolizes the paramount importance of service users. Codes items are grouped in the following subdivisions:

Technology consideration – these includes from open source solutions to hybrid decisions. The main questions to be answered within this area are:

Is the chosen technology adequate for the purposes? Is it safety? What about its configuration? Are the range of choice and the personal control satisfactory? Is the interoperability a reality? Are the consumer choices and needs considered?

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Data management is the next section. This is extremely sensitive problem as all data related to health issues are in fact personal data and have to be managed rather carefully. The security and confidentiality of personal data are of top priority. General rules for access and management of data as well as of the level of technology expertise of the staff dealing with personal data are proposed.

Regulatory challenges are treated in a separate part. Regulations are important as despite of wide discussions and decades of investment in Telemedicine/eHealth European Union has not yet adopted specific eHealth regulations valid for the entire community. On the other hand, the increasing mobility of EU citizens makes it a must to ensure quality medical care beyond national borders. That's why EU-27 and the members of the European Economic Area (30 countries) adopted, on 19 April 2007, a common declaration on their commitment to pursue structured co-operation on cross-border electronic health services across Europe. Telemedicine/eHealth/Telehealth services are partially included in two important documents – the European Innovation Partnership announced in October 2010 and especially in Digital Agenda for Europe, adopted in May 2010 by the European Communication. Developing the Telehealth Service Code of Practice, the project is facilitating the development of pan European regulations in telehealth.

The code is also focusing on the **Governance** and more specific on:
- Clear and adequate management structure: How determined it? What components in must include?
- Business continuity plan and considerations of any requirements for the plan content;
- Sustainability of the telehealth service.

Last but not least the Code discussed the main regulations for the **Operational Practice,** including:
- Sufficiency and number of qualified staff;
- Qualifications, training, skills of the staff;
- Attitudes and Ethos, customer skills, etc.
- Timely action on receipt of information;
- Record keeping, protocols for informed consent, etc.

The draft of the Code is opened to public. Everyone who is interested may read it and post his/her remarks or suggestions using the online questionnaire at https://www.surveymonkey.com/s/9KQ6MSM.

Till the end of 2012 it will undergo a validation in several EU countries. After reduction and adaptation, based on the validation results and received recommendations, the final version will be ready and has to be published in April 2013.

Conclusion

The Telehealth Services Code of Practice for Europe seeks to support the development and recognition of good practice in telehealth services. That is why it has a 'dual focus' and embraces services that are concerned with, on the one hand, personal wellness (well-being), lifestyles and preventative health; and with, on the other hand, health in its more clinical sense.

The development of the Code will help in building trust and establish quality standards within EU, will offer a framework on basis of which auditing and certification can take place and will support the wider application of telehealth services for the benefits of all members of the European society.

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