

The development of Information and Communication Technologies (ICT), even in healthcare, characterizes the Information Society with a great impact on many involved structures (hospitals, clinical centres, General Practitioners, etc.). These technologies improve the integration within hospitals, between hospitals, clinical and ambulatory centres; allow the exchange of clinical data and most of the information and medical knowledge, useful for diagnosis and care processes; permit the completeness of information on patients and the rationalization of health structures and their activities.

Over the last few years, the development of telematics systems in health care and in bio-medicine has placed increasingly greater emphasis on the possibility of interconnecting hospitals and health services in and between countries in such a way as to eliminate distances and harmonise different systems of health organisation, treatment with the aim of contributing towards improving the quality of care, and homogenising diagnostic and therapeutical procedures.

Medical informatics and telemedicine respond to a variety of objectives and needs, as:

- The circulation of knowledge, information and data in order to reach objectives of productivity, management control of activities and resources, quality standards, etc.
- The need for continuous and better quality care for an aging population that also takes into account the mobility and/or the need for home care.
- The internationalisation of health (seen as a market) and the demand for increasingly qualified medical services coming from different parts of the globalised world.
- The continuous training of health workers, in particular remote training (e-learning).

Medical networks between hospitals can improve the dissemination and exchange of health care information between the clinicians of various hospitals located in Mediterranean countries. This networks can facilitate access to clinical databases and the sharing of therapeutical/ diagnostic protocols and medical guidelines, and can allow to medical specialists to discuss and examine together difficult clinical cases in order to obtain a better diagnosis and establish good therapies for their patients. This networks can also permit teleconsulting and telediagnosis for some major diseases (i.e. in the fields of cardiology/ cardio-surgery, oncology, neuroscience, orthopaedics, infectious diseases, paediatrics and other areas of medical sciences), moreover it can stimulate cooperative learning and training of physicians. This medical networks can use common, standard and accessible technologies Internet based.

The potential of Internet technology in health care has generated enormous interest because it offers unique technical advantages in addressing health care information system problems. The fact that the Internet is a widely available and popular means of communication makes it extremely useful for transmitting clinical data and audio/visual information between medical sites via e-mail or videoconferences. By permitting teleconsulting and/or telediagnosis, an Internet-based system could provide worldwide patient support.

The use of the Internet in health care can offer on-line consultant selection and appointment scheduling, facilitate the transmission of clinical information from community physicians to consultants, and allow the referring physician's office to monitor the process and report the results and follow-up instructions. Internet-derived technologies (the worldwide web, e-mail, chat groups and other forms of messaging and collaborative computing) have demonstrated to users that medical technologies can also be tied together. In particular, Internet Web technology is also revolutionising the way health care organisations approach internal communications and information management. Intranets permit the integration of clinical data at "presentation" level, allowing caregivers to view the information from multiple and disparate legacy systems on one screen.

The Internet services in the Mediterranean region are qualitatively and quantitatively improving.

Egypt is providing a number of added value information services in the areas of S&T, education, trade and Internet services, and full Internet services (including e-mail, gopher, and WWW servers) are available in the academic, governmental, commercial and private sectors. Tunisia and Cyprus also provide full Internet services in the academic sector with gopher and WWW servers via RNRT.

The difficulties of integrating different types of information and protocols are greatly simplified by the Internet/Intranet model. Intranets are already well established in the business environment and continue to proliferate on a worldwide basis. Their growth is likely to be even greater than that of the Internet (a factor of five), and the use of this technology in health care offers the considerable leverage of many other better capitalized business markets.

Telecommunication infrastructures are spreading and becoming more powerful in Europe and in the other countries of the Mediterranean area: Europe is moving towards more advanced technology, with the optical fibre cabling of cities and regional geographical area (WAN), whereas the non-European countries of the Mediterranean basin are developing initiatives and investments aimed at improving their existing telecommunication networks (which already make some use of ISDN lines, optical fibres and mobile telephony).

A number of initiatives for regional communications networking have been undertaken by the Arab countries in the region. The Regional Arab Information Technology Network (RAITnet) was launched in Cairo in December 1994 to bring IT professionals in the region together. Its main objectives can be summarised as follows:

- To support the acceleration of the software industry in the Arab region
- To maximise the use of the technical resources available for the software industry in the member countries
- To facilitate the exchange of experiences among IT professionals
- To follow state-of-the-art international developments in software-related fields.

Egypt has made significant advances in data communications, and Tunisia and Morocco have accelerated their technological progress (Tunisia forecasts to draw up over 10.000 Km of optical fibres in next few years). They have well-developed telephone infrastructures and most of this telecommunications equipment is modern and offers a variety of basic and added value services.

In many non E.U. Mediterranean Countries ISDN / ADSL lines are more or less common in the large cities of these countries, with still diversified but sufficient bandwidths for a series of healthcare networking and telemedicine services.

In the Mediterranean area there are both developed countries (most of European Union States) and developing countries (as some states in North Africa). These countries are characterised also by an health situation due to elderly population, prevalence of cardiological, neurological, oncological and some infectious diseases, etc.

In the Mediterranean bacine, it also necessary to consider the no less relevant aspect of large-scale immigrant movements, which means that many European hospitals now have to contend with diseases typical of developing countries; another factor is the increasing flow of European tourists and workers.

The 1st EMMIT (Euro-Mediterranean Medical Informatics and Telemedicine) Conference has been held in Genova (Italy) on November, 19-20 2004.

It has been an important appointment for several experts in this field in order to exchange relevant experiences, projects, studies. One result of this event has increased cooperation between specialists (doctors, engineers, informaticien, etc.) in order to create a real network in medicare able to connect health professionals and clinical centers in all countries of Mediterranean area.

Next EMMIT Conference will be in Alexandria (Egypt).

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