INTRODUCTION OF TELEMEDICINE

Telemedicine is the use of telecommunications for medical diagnosis and patient care. It involves the use of telecommunications technology as a medium for the provision of medical services to sites that are at a distance from the provider. The concept encompasses everything from the use of standard telephone service through high speed, wide bandwidth transmission of digitized signals in conjunction with computers, fiber optics, satellites, and other sophisticated peripheral equipment and software.

Telemedicine can produce significant human, organizational and financial benefits even over short distances. Let’s think about access to all types of education, support and meetings irrespective of physical location or the possibility of increased numbers of staff able to attend professional development. Moreover, simultaneous delivery of training or information to large, geographically dispersed groups. Reduced costs associated with travel. Improved levels of care in the community, increased range of services available. Significant time savings and productivity improvements. Positive effects on recruitment and retention of health professionals, especially in regional areas where potential applicants are concerned about the effects of professional isolation and access to professional development.

THE VIDEOCONFERENCE APPLICATIONS

Based on our historical experience in the field of telehealth, we have come to the conclusion that five major applications are today carried out by the means of videoconference.

Continuing Medical Education (CME)

Specialty education can be taken regardless of the location where the class is delivered. The support of two-way synchronous communication allows a real and collaborative environment where the virtual class has high score acceptance and cost/time saving.

Specialty Access

Specialty access applies also to schools, nursing homes and county health offices where primary health support and medical education need to be delivered to rural areas or where transport at certain time of the year are cut-off by bad weather.

Collaboration and Grand Rounds

Hospitals and universities are increasing their ties to the need of knowledge sharing. The exponential growth of the research community requires more than ever an expert oversight.

Administration

Cost-effectiveness has become a catch-word in the clinical literature where resources are limited and an appropriate business plan that includes the usage of videoconference for board and faculty meeting is increasing in demand.

Clinical Specialist Consultations

This is the more widely accepted concept of a patient at one end of videoconferencing link and a specialist physician at the other. Clinical specialist consultations are perceived as a tool with which to reduce the medical and economic risks that are associated with delivering healthcare to patients in rural areas and to provide remote, low-cost specialty services where full time staffing is impractical.

THE MARKET FOR TELEMEDICINE

As telemedicine moves from the realm of a new technology to a more established one, it is expected to become commonplace in diverse clinical areas. Not only are the resistances to telemedicine in the medical profession dissolving but most European Union (EU) governments are more open to funding health-care technology that creates noticeable improvements in service quality at no extra cost or at reduced costs. Therefore, the videoconference applications, as above described, are making their way into the mainstream market with their ability to provide cost savings and
convenience to healthcare providers. Additionally, the proliferation of more affordable broadband Internet access, and high quality telephony and videoconferencing throughout Europe drives the continued expansion of transmission technologies such as telemedicine.

Europe has a wealth of telemedicine experience in the form of pilot projects and small specialist applications. However, end users are demanding proof of the positive impact of telemedicine in terms of not only return on investment and cost savings, but also its long-term viability.