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Telemedicine holds great potential to revolutionize medical and paramedical services, not only for primary care physicians in remote areas but also for teaching students and for continuous medical education.

In the future, consulting and asking for second opinions will be the gold standard of medical care. Disease monitoring will become another telemedical application for patients with heart disease, metabolic diseases, and high blood pressure, etc.

Depending on the local requirements and geographical distribution of the partners in a telemedical network, different logistics may be implemented, including real-time, store-and-forward or other hybrid technologies. The implementation of these modern forms of healthcare will probably not save costs, but rather offer better healthcare at the same price. The reliability of telemedical procedures and the cost-effectiveness of face-to-face vs. telemedical care will have to be compared and evaluated by appropriate studies.

The term e-health only poorly defines the nearly unlimited number of communication procedures and technologies ranging from telephone and fax through e-mail and digital data transmission of any kind of information in the healthcare market, including telemedicine. Telemedicine, however, refers to a more stringent definition of e-health. Telemedicine is defined by the World Health Organization (WHO) as ‘the practice of healthcare using interactive audio, visual and data communications. This includes healthcare delivery, diagnoses, consultation and treatment as well as education and transfer of medical data’.

Considering this definition, those medical disciplines that rely heavily on imaging techniques are suited especially well for telemedicine, namely radiology
and related disciplines such as surgery and orthopaedics, pathology, dermatology, telecardiology, diabetology, neurology, oncology, otorhinolaryngology, ophthalmology, psychiatry, and many other specialities.

This book covers part of the broad spectrum of telemedical applications with special emphasis on teledermatology. The articles were kept relatively short so that various aspects could be covered, including technology, teleteaching, teleconsulting relating to legal, ethical and consumer aspects, and the fields of application in the context of various disciplines. Each article provides a brief overview rather than comprehensive information on details.

Telemedicine will certainly add a new dimension to the medical and paramedical healthcare services. Quality will be improved without saving direct costs. However, indirect costs such as time and effort for the patient will be reduced, providing a tremendous benefit for the patient in a modern healthcare system.

Telemedicine still encounters some resistance on various frontiers, including physicians, patients, the general population, politicians, insurance companies and healthcare providers. The evolutionary process, however, will proceed. There is no doubt that within 3–5 years, telemedicine will be an established part of modern healthcare.

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