



CASE STUDY:

AETHRA® TELEVIDEOCONSULTING IN SWITZERLAND AT THE BELLINZONA AND VALLI REGIONAL HOSPITAL

Customer interviewed: Bellinzona and Valli Regional Hospital, Switzerland
Video communication System Used: Eykona™ Telemedicine System

Telemedicine is the most advanced frontier in the field of healthcare services. It uses video communications to break down geographical barriers and provide specialized medical care virtually anywhere in the world. Eykona 700, Aethra's PC-based telemedicine-videoconferencing system, has been specifically designed for multimedia medical applications. The system allows the creation and management of electronic medical records and also provides the necessary diagnostic support for virtually any specialized field of medicine.

In many countries, including Switzerland, children with heart disease often live far from specialist paediatric centers. The Bellinzona and Valli Regional Hospital in Bellinzona has been using Eykona 700 since 1998. It is 200km from the nearest paediatric cardiology department at the Ostschweizer Kinderspital in St. Gallen. With Eykona 700 the Paediatrics Department at Bellinzona can transmit young patients' echocardiograms to the paediatric cardiology center 200 km away where the paediatric cardiologist interprets the tele-echocardiogram and makes a diagnosis within hours. The echocardiograms are transmitted at a speed of 384 kbps (Eykona 700 can operate at 512 kbps over ISDN and 768 kbps over IP). Eykona 700 allows verbal and visual communication between the paediatric cardiologist, the sonographer and the general paediatrician, as well as the children's parents. All of them are able to observe and discuss the echocardiograph images online at the same time. Doctors using the Eykona 700 system confirm the high quality of the transmitted images which is invaluable in providing an accurate diagnosis.

The Televideoconsulting applications of telemedicine present numerous advantages for patients: the use of Eykona 700 makes specialist knowledge more accessible and means that children can have an echocardiographic examination within hours or days without having to travel to a specialist center, saving both time and money. During recent remote cardiological examinations of 65 children, due to the use of Eykona 700 it was possible in six cases to avoid urgent transfer of the young patient to a specialist center.

According to Professor Gallino from the Cardiology Division, "Following the introduction of Aethra's Televideoconsulting System we have experienced a considerable improvement in our work due chiefly to these virtual hospital facilities." There are now plans to develop telemedicine in other healthcare centers including the Regional Hospital in Lugano, La Beata Vergine in Mendrisio and La Carità in Locarno.

Eykona 700 Technical Notes

- Network Interfaces: ISDN, IP and leased lines
- International standards supported: H.320/323, T.120
- DICOM3 Compatibility
- Patients Archive
- FTP Client Procedures for PACS connectivity

Eykona 700 allows the creation and management of electronic medical archives and the transmission of medical images. Accurate diagnostic information can be obtained quickly and efficiently due to application sharing of medical information and the “store and forward” feature of the electronic archives. The system architecture is specially designed for the connection of medical instruments such as scanners, ultrasound and CT devices and microscopes.

January 2002

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