

Mobile Visit Terminals for Healthcare



Doing the Rounds

The Meepl Medicus communication terminal developed by GK zwo GmbH, Polygon GmbH and TBZ GmbH is a mobile telematics solution for hospitals.

We are living in an ageing society. More people are requiring long-term care and chronic illnesses are increasing, as are the mountains of paperwork in our hospitals. Health professionals now spend a fifth of their day on administration. To maximise process efficiency in hospital environments, patient and treatment data obtained from a variety of different sources should only be recorded once and then made available for a variety of different uses. Technology must help to improve both medical care and the swift and efficient processing of administrative tasks.

About five years ago, the manufacturers of the Meepl terminal entered into a close collaboration with doctors and nursing professionals in order to develop a communication terminal for use specifically in hospitals and clinics. The terminals comply with the requirements of the German Medical Products Act and also offer the required data security.

In most hospitals, every administrative procedure is still performed twice: the data is first recorded on paper in the

patient record and then entered into the electronic documentation system. Often, the patient record is only required by doctors when actually doing the rounds, for the epicrisis and for archiving. This process was analysed at the St. Bernhard Hospital in Brake, and the analysis revealed that, on average, about 13 minutes are spent on each patient visit conducted as part of the doctor's rounds; including the preparation and subsequent completion of the patient records. Consequently, in a hospital with 200 beds and three visits per week, healthcare professionals currently spend 6,760 hours per year on administration. At an internal hourly rate of €18 for the healthcare staff, this generates costs of €121,680 per year.

Using a computerised, mobile visit terminal drastically reduces the amount of time medical staff spend on administration to just 1,560 hours. Thus, with a mobile visit terminal with W-LAN connection, the annual personnel costs for healthcare professionals working on administrative tasks are cut to €28,080. This is a potential cost reduction of €93,600 per year, minus the costs of the

communication terminal itself.

The communication terminal is a cordless application, whose features include impact and tilt-resistance, easy-clean surfaces, a monitor that can be rotated by 300° and tilted by 70°, as well as a fully mobile keyboard with integrated mouse. All patient-related activities can be viewed, completed or modified at the patient's bedside, and findings are saved in the electronic patient record and immediately accessible. For example, when a patient returns to the ward after a medical examination, the findings are available at the patient's bed in real time.

The communication terminal also features innovations that make everyday life in the clinic a whole lot easier. These include a medical digital camera with 100x magnification, for taking high-resolution photos of wounds in order to document the healing process. X-ray images can also be viewed onscreen at the patient's bedside. Ideally, they are saved as an image file in the electronic patient record under findings and can then be called up via the network. Laboratory values can be requested directly via the laboratory communication system, and cumulative findings and clinical courses are all available at the push of a button.

Standard PCs and notebooks are not suitable for use with patients and alongside medical equipment, as their fans spread airborne bacteria around the ward and their electromagnetic emissions can impair the correct functioning of diagnostic and therapeutic medical equipment. This could result in incorrect measurement results or changes to dosages. Also, for clinical reasons, hygiene officers cannot allow the use of such equipment in hospitals since it cannot be adequately cleaned and disinfected. The Meepl Medicus communication terminal fulfils safety and EMC requirements for medical devices. It also meets the requirements of standard DIN EN 60601-1 for medical electrical equipment, which governs the admissibility of electromagnetic emissions.

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