Establishment of the Mobil Documentation System to Solve the Problem of Immediate Data Entry for Anaesthesia and Critical Care and Adapting it to Retransplant Project

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BACKGROUND
One of the most instrument demanding and expensive supplying sectors of the Health Care Systems is the anesthesia and the intensive therapy. In this professional sector with the support of our work a precise information system would be carried out and with the support of it not only the quality assurance and control but after applying a suitably elaborated standards, and indices financial analysis could be carried out.¹

OBJECTIVE
Our main aim was to establish an easy data entry at the place where it's originated. In the field of anesthesia and critical care we can find a several systems² but using the mobile computing systems that can solve this aim not so frequent.

METHODS
We have selected a suitable equipment to solve this problem. This is an intelligent remote terminal with touch screen using 2.4 GHz RF wireless networks for connection to wired LAN. The technical level makes the hardware usage in the theaters a routine job and either hygienic or applicable objections cannot be raised against it. It can be used at the preoperative examinations, at the intraoperative recording and the postoperative data entering as well. The application of this technical level we will try it to use in wards willingly and make the steps of development for its ward application e.g. in the Intensive Care Units. The advantage of its possible application either in a intensive or normal ward is not negligible because either at the doctor's rounds or medicine dispensation the medicine and instrument flow can be followed by a simple but at the same time precise instrument.

The structure of anesthesia and critical care LAN is simple. We use two servers and lot of thin and fat clients. One of the server consist Windows NT and SQL 7 software and the other server uses terminal server Citrix Winframe and health care applications. The clients are wireless remote terminal, desktop PC and notebook with PCMCIA radio LAN card.

RESULTS
We are in the testing period of our project. The early results are very promising. The system can provide sufficient data for the health care professionals in the Operating Room or in the Intensive Care Unit and it is able to reduce the workload of medical staff. The mobile computing systems are absolutely suitable to satisfy all requirements of point of care philosophy. Working in the large European project, RETRANSPLANT we extend our system to special application in the field of organ transplant.

CONCLUSIONS
At the completion of the project we can realize the electronic documentation systems in Anesthesia and Intensive Therapy as well, and we can create a useful and standard database. Because the system has modular and open architecture we can easy adapt it to special requirement e.g. RETRANSPLANT project.

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