

Tele-intensive care

VIMED® TELEDOC-ICU

Telemedicine system for intensive care units



Boundary microphone, remote controllable PTZ-camera

Battery supply for network-independent operation

The VIMED® TELEDOC-ICU is a mobile telemedicine solution for intensive care units. Enabling an expert's opinion as well as to visualize and provide the key diagnostic data, in real time, to the remote center of expertise.

Designed especially for patients with an increased need for continuous medical monitoring who are usually accommodated in the special equipped and staffed intensive care units. Despite the high specialisation of such units the required medical specialists in different medical fields are not always available locally or on a 24/7 basis. For facilities without an intensive care unit this device can transform patient referral rates and treatment overcoming, unnecessary delays by deploying new technologies more effectively. The new telemedicine system VIMED® TELEDOC-ICU can be a significant contribution in this context.

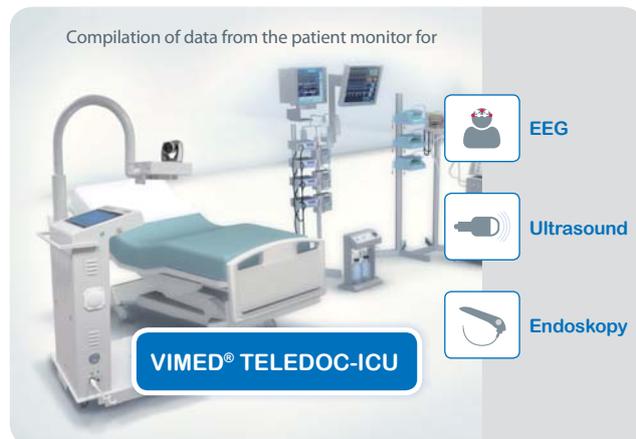
The multifunctional telemedicine system VIMED® TELEDOC-ICU is an essential link between medical teams on site and remote experts.

A typical deployment scenario of VIMED® TELEDOC-ICU is the collaboration between highly-specialised medical centers. The latest communication technologies, e.g. H.264 High Profile and

Scalable Video Coding (SVC) to ensure excellent image and sound quality* (similar system required) at the lowest transfer bandwidth.

Deployment scenario VIMED® TELEDOC-ICU

Intensive care unit (ICU) in the hospital



High-resolution PTZ video camera with a swivel arm

The VIMED® TELEDOC-ICU is equipped with a remote steerable PTZ video camera mounted on the flexible articulated arm. It produces excellent image quality in HD resolution with a high image rate (up to 1080p 60 fps). The strong optical zoom (up to 20x) enables the view of even the smallest details. Additionally to the pan and tilt functionality of the camera the mechanically articulated arm helps to find the optimal camera position.

In-built audio system

The integrated microphone delivers good audio quality* to the remote location through the use of echo cancelling technology, even in challenging environments with known poor quality acoustics and in case of long distances.

Touch screen control

The touchscreen monitor in HD quality will be used for control of the teleconsultation process. It can be also operated with medical gloves without problems.

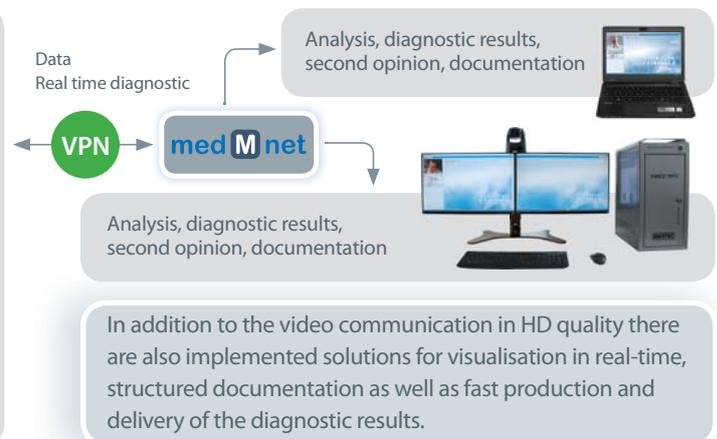
Medical Device Class I

VIMED® TELEDOC-ICU conforms in its construction and operation to the requirements of the regulation 93/42/EWG (MDD) and it is a medical device Class I. The device design is compact with high mechanical stability and electronic reliability. All electronic components of VIMED® TELEDOC-ICU are integrated into the robust metal case (acc. to the CE / EN 60601-1/EN 60601-1-2).

Mobility

The robust metal carrier and the handgrip allows easy in-house transportation to the patient's bedside by the clinical staff.

Decentral centers of expertise in the hospital or outside



The integrated battery power supply and standardized ports for easy data transfer (LAN, WiFi, USB) enables independent operation from mains electricity supply delivering flexible use within the hospital.

Data security

The exchange of data during the video consultation happens via secure Virtual Private Network (VPN) between authorized communication partners only. All case related data is processed in encrypted form only.

Deployment scenarios (option):

Telemonitoring of the vital data and ventilation parameters

VIMED® TELEDOC-ICU registers vital data and ventilation parameters using video technologies to provide them to the center of expertise for real-time diagnostic or second opinion. Additionally to the connection options for apparatus-based diagnostic such as ultrasound, EEG and endoscopy there is also video-based registration of data from the patient monitor made possible for documentation purposes and/or for assessment by experts.

Brain diagnostic

Additional to the imaging feature (Doppler sonography, CT angiography) there is also complementary apparatus-based diagnostics of the electronic brain activity via standardised ports of VIMED® TELEDOC-ICU. The diagnostic data is visualised on the integrated touchscreen display immediately and can be transmitted to the center of expertise as required.

*The actual quality of audio depends e.g. on the given acoustic conditions in the room and on the quality of the complete transmission path.

Last update: November 2018. All data without guarantee. Changes and mistakes reserve. All previous data sheets are invalid.

Please note: Pictures may differ from the original.