ICU-Cockpit:
IT platform for multimodal patient monitoring and therapy support in intensive care and emergency medicine

The problem:
• Data from multiple biosensors & devices, with a time-resolution of up to 1000 Hz cannot be integrated anymore for decision making in intensive care & emergency medicine.
• The conventional therapy approach of «evidence-based medicine» (EBM) is based on investigation of the largest possible patient population and manages the treatment according to a so-called «treatment failure approach».
• By contrast, personalized or precision medicine enables the potential success of an EBM-based therapy to be predicted for an individual patient, i.e. it enables preventive actions. Precision medicine embraces the gathering of numerous data throughout the therapy.

The solution:
• In 2014 the project ICU-Cockpit, an IT platform for multimodal monitoring and therapy support, was established at the Neurocritical Care Unit, University Hospital Zurich.
• Data are collected from video, genotyping, multiple biosensors and integrated with lab values as well as imaging data.
• Algorithms are developed for the prediction of critical complications as epileptic seizures, sepsis or renal failure in ICU patients.

Collaborators:

Supported by:

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