Data evaluation on the intraoperative heart-lung machine in paediatric and adult cardiac surgery

Complex heart surgery cannot be performed on a beating heart. During this time, the heart-lung machine (HLM) takes over the vital perfusion of all organs as a circulatory replacement procedure. Accordingly, the HLM supply has a decisive influence on the patient's peri- and postoperative condition.

Since 2022, intraoperative data consisting of vital signs and laboratory parameters, medication and HLM therapy have been recorded in a standardised manner. Currently, more than 600 data sets from adults and children are already available for evaluation.

The planned data analysis aims to optimise HLM therapy.

Responsibilities

- Processing and analysis of intraoperative data.
- Collaboration on the publication of research findings.

Requirements

- Currently enrolled as a student in Medicine, Medical Engineering, Computer Science, or related fields.
- Interest in cardiothoracic research, with ideally some experience in handling medical data.
- Willingness to be present during heart surgeries under the guidance of Cardiothoracic and Pediatric Cardiology specialists.
- Sensitivity in handling confidential patient data.

Conditions

- Employment as a student assistant.
- On-site data processing at the Universitätsklinikum.

Project Supervision
The position will be closely supervised by experts in Cardiothoracic Technology (Sven Maier), Pediatric Cardiology (Christoph Zürn), and Computer Science (Joschka Bödecker).

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