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Translating
Science into Life

OXYPREM

OXYPREM: UNCOVERING BRAIN OXYGEN IN HIGH-RISK PATIENTS

Problem – Challenge

Pre-term babies often require early oxygen therapy to survive and avoid chronic disabilities; however, existing devices for monitoring oxygen supply often struggle to achieve the necessary precision for these special patients. OXYPREM has developed a novel sensor for measuring oxygen levels in the brain of neonates.

Solution

OXYPREM 1.4 is a CE marked, non-invasive, reusable sensor which continuously measures the oxygen level in human tissue in real time. Clinicians can monitor at-risk body parts such as the brain and consider this information when they decide on the treatment of their patients. It uses harmless light and has been specifically designed to work well in pre-term children, resulting in independence of blood volume and perfusion. Currently, OXYPREM is used in over 25 European hospitals, contributing to the "SafeBoosC-III" trial.

With its soft and flexible silicone design, OXYPREM can be applied smoothly to the skin, using bandages or CPAP caps. So no adhesives are needed, which would cause further stress on the patient's sensitive skin. A small bending aid accessory provides support to fixate the sensor on very tiny heads. Simple disinfection of the reusable sensor with alcoholic wipes enables cost-efficient routine use.

No preparation or calibration is needed before use, providing immediate information. OXYPREM readings are shown on an accompanying "OXYPREM Monitor" tablet PC, making it feasible also for professional medical environments outside hospital units.

OXYPREM is a spinoff of the University of Zurich, with a strong background at the University Hospital Zurich and support by renowned institutions such as Wyss Zurich and Venture Kick.



Application area: MedTech
Partners: University of Zurich, Wyss Zurich, OxyPrem AG