

Alessio Vigani

When the pitfalls are unknown the abuse is inevitable | Alessio Vigani

Point-of-care ultrasound (POCUS) in emergency medicine offers rapid diagnostics but has pitfalls. Operator dependency and limited training can lead to misinterpretation. Poor image quality in unstandardized positioning and uncooperative patients hamper accuracy. Over-reliance on POCUS risks bypassing comprehensive assessments. Incomplete protocols and cognitive biases may result in diagnostic errors, impacting patient outcomes.

Extracorporeal therapies for CHF and diuretic resistance | Alessio Vigani

Ultrafiltration is a therapeutic option for acute congestive heart failure (CHF) with diuretic resistance or fluid overload. By removing excess fluid, it alleviates pulmonary congestion and improves hemodynamics. Ultrafiltration offers precise volume control, reducing hospitalizations and symptoms. However, it requires specialized equipment and expertise, carries risks like hypotension, and is costly. Careful patient selection and monitoring are essential to maximize benefits while minimizing complications in acute CHF management.

Extracorporeal therapies for sepsis | Alessio Vigani

Extracorporeal removal of cytokines and lipopolysaccharides (LPS) offers a novel approach in managing septic shock by targeting the dysregulated immune response. Techniques such as hemoadsorption and high-cutoff hemodialysis aim to reduce excessive pro-inflammatory cytokines, mitigating the cytokine storm. LPS removal via polymyxin B hemoperfusion directly neutralizes endotoxins, improving hemodynamics and potentially reducing mortality. While these therapies show promise, evidence remains limited, and clinical benefits vary. They require specialized equipment, carry risks like hypotension or clotting, and increase costs. Optimizing timing, patient selection, and integration with standard care is essential to harness their potential in improving septic shock outcomes.

ICU design | Tommaso Rosati & Alessio Vigani

Designing a modern intensive care unit (ICU) involves optimizing patient care, staff workflow, and safety. Key features include adaptable bed spaces, advanced monitoring systems, infection control measures, and natural lighting. Ergonomic layouts enhance efficiency, while integrating telemedicine and smart technologies supports decision-making. Collaborative spaces foster teamwork, improving outcomes in critical care.

ICU design Panel | Tommaso Rosati & Alessio Vigani

Q&A on design, shift plans, hygiene protocols, and IT integration of a modern small animal intensive care unit.