

5.1.6 Associated Groups

Intensive Medicine

Group leader

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Researchers

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Suarez Montero, Juan Carlos (FGS)

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Zapata Fenor, Luis (FGS)

Research Technicians

Serrano García, Maria Angeles (FGS)



DESCRIPTION

The Intensive Care Medicine Research Group was performed with the integration of different subgroups that cover the areas of knowledge and expertise of the set of pathologies that affect critically ill patients. In addition, it makes occasional collaborations with other groups associated with the Research Institute. The Critically Ill Research Group's main lines of research are described below; all of them have the same main objective: to advance in the knowledge and apply tools and treatments to improve critical care practice that will have a direct impact on patients. Our group is coordinated by Dr. Indalecio Morán and has the participation of different associate doctors from our service with recognition and consolidated scientific trajectory for each specific area of critical ill knowledge. Our way of understanding research from understanding the physiopathology applied to our patients to our participation in international multicenter studies shows our commitment to generating knowledge. In addition, the fact of providing data on the population in our environment helps to locally corroborate the results of international research and allows us to approach and apply the global results to our population.

MAIN LINES OF RESEARCH

Acute respiratory failure and artificial ventilation (indalecio morán)

- Non-invasive ventilation.
- New ventilation modes: proportional-assist ventilation and NAVA.
- Prone decubitus in acute respiratory dysfunction syndrome (ARDS).



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- Artificial ventilation withdrawal.
- Expert ventilation systems.
- Sleep and artificial ventilation.
- Early and active mobilization of the critical patient.
- Extracorporeal CO2 removal in ARDS patients.
- High-flow oxygen administration by nasal cannula in postextubation phase.

Study of the usefulness of new biomarkers in critically ill patients (Antoni J. Betbesé)

- BNP in weaning from mechanical ventilation.
- Use of the NGAL protein in the renal prognosis of critically ill patients.
- Strict control of blood glucose in critically ill patients.
- Prophylaxis of acute gastric mucosal injury in critically ill patients.
- Study of the haemodynamic effects of different antipyretic drugs in critically ill patients.
- Influence of position change to supine decubitus position in intra-abdominal pressure

Other study lines in critical care topics

- Neurocritical patient (Dr. I. Morán).
- Acute renal failure (Dr. A.J. Betbesé).
- Severe infectious pathology. Sepsis and septic shock (Dra. P. Vera).
- Drug interactions in critically ill patients and clinical toxicology (Dr. I. Morán).
- Nursing research lines: humanization in critical care and discharge process of the critically ill (Dra. A. Mateos).
- Hemodynamic control, heart failure markers and dynamic echocardiography (Dr. Ll. Zapata).

SCIENTIFIC CHALLENGES

- Consolidate clinical and physiological research into ventilation and acute respiratory failure in critically ill patients through multicentre and multinational networking.
- Create a stable and well-trained group of researchers in this discipline.

- Promote research in the field of the neurocritical patient.
- New goals in the care of hemato-oncological patients admitted to the intensive care unit. CART therapy complications.
- Attention to the critically ill fragility patient. Post-ICU syndrome.

DOCTORAL THESES DEFENDED

- Mateos Dávila, Maria Almudena. Anticoagulación con citrato diluido y concentrado en la terapia depurativa renal continua. 22/11/2023. Universitat de Barcelona. Supervisors: Betbesé Roig, Antoni Jordi; Guix Comellas, Eva Maria; Tortosa i Moreno, Avelina. <http://hdl.handle.net/10803/689562>.

SCIENTIFIC PRODUCTION

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