

Research Group on Anesthesiology and Reanimation



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Strategic aims

- To validate a postoperative pulmonary complications predictive scale.
- Development of different maneuvers to optimize oxygenation and lung mechanics in patients undergoing mechanical ventilation.
- Identification of risk factors in predicting active cytomegalovirus infection in immunocompetent critically ill patients.
- Determination of the recommended dose of anidulafungin in critical patients with continuous venovenous hemofiltration .
- To determine the role of insulin and analogues in critically ill patients.
- To study the characteristics, treatment and determinants of results in critically ill patients with abdominal infection.
- To develop new clinical perspectives in the management of oral anticoagulant agents.

Main lines of research

- Studying gases used in anesthesia: halogenated agents, xenon and oxygen; and the effects of anesthetics; oxidative stress and protection of organs in ischemia-reperfusion surgery.
- Study of oxidative stress biomarkers in exhaled lung water.
- Ventilatory and pharmacological strategies to decrease organ damage in the lungs associated with mechanical ventilation in healthy

and injured lungs.

- To study safety and potential benefit in terms of protection of government bodies of halogenated agents during prolonged sedation.
- Development of hemodynamic monitoring and its application in the field of patients undergoing surgery or admitted to critical care units.
- Study and development of instruments and drugs to quantify or involved in different pathways of hemostasis in two ways: prevention of thrombotic complications and bleeding prevention in the perioperative period.
- Study and development of methods of detection of infections, especially fungal and virological, and how to prevent them.
- Development of neurological monitoring and study measures to protect brain damage.
- Development of new strategies and drugs for pain treatment .

PUBLICATIONS

Total Number of Publications: 35

Cumulative Impact Factor: 145,831

■ Original articles

- 1 Skolnick BE, Maas AI, Narayan RK, van der Hoop RG, MacAllister T, Ward JD, Nelson NR, Stocchetti N, **SYNAPSE Trial Investigators**. *A clinical trial of progesterone for severe traumatic brain injury*. New England Journal of Medicine. 2014 Dec 25; 371(26):2467-76. **IF: 54,420**
- 2 Mollar A, Villanueva MP, **Carratalá A**, Núñez E, Sanchis J, Núñez J. *Determinants of procalcitonin concentration in acute heart failure*. International Journal of Cardiology. 2014 Dec 15; 177(2):532-4. **IF: 6,175**
- 3 Minguez C, Ortega E, Flores J, Carmena J, Masiá M, Montero M, Reus S, **Tornero C**, Galindo MJ, Garcia-Deltoro M, Amador C, Cuadrado JM, Usó J, López-Aldeguer J. *Telaprevir or boceprevir in HIV/HCV-1 co-infected patients in a real-life setting. Interim analysis (24 weeks). COINFECOVA-SEICV study*. Journal of the International AIDS Society. 2014; 17(4 Suppl 3):19634. **IF: 4,207**
- 4 Fernández-Julián E, García-Pérez MÁ, García-Callejo J, Ferrer F, **Martí F**, Marco J. *Surgical planning after sleep versus awake techniques in patients with obstructive sleep apnea*. Laryngoscope. 2014 Aug; 124(8):1970-4. **IF: 2,032**
- 5 Marco P, Zamorano JL, Chana F, **Llaur JV**. *[New clinical perspectives in the management of oral direct anticoagulant agents]*. Medicina Clínica. 2014 Feb 20; 142(4):171-8. **IF: 1,252**
- 6 Blasco ML, Sanjuan R, Palacios L, Huerta R, **Carratala A**, Nuñez J, Sanchis J. *Prognostic value of admission glycated haemoglobin in unknown diabetic patients with acute myocardial infarction*. European Heart Journal. Acute Cardiovascular Care. 2014 Dec; 3(4):347-53.
- 7 Torregrosa I, Montoliu C, Urios A, Andrés-Costa MJ, Giménez-Garzó C, Juan I, Puchades MJ, Blasco ML, **Carratalá A**, Sanjuán R, Miguel A. *Urinary KIM-1, NGAL and L-FABP for the diagnosis of AKI in patients with acute coronary syndrome or heart failure undergoing coronary angiography*. Heart Vessels. 2014 Jul 3. **IF: 2,109**
- 8 Gómez-Doblas JJ, Muñiz J, Martín JJ, Rodríguez-Roca G, Lobos JM, Awamleh P, Permanyer-Miralda G, Chorro FJ, Anguita M, Roig E, **OFRECE study collaborators**. *Prevalence of atrial fibrillation in Spain. OFRECE study results*. Revista Española de Cardiología. 2014 Apr; 67(4):259-69.
- 9 Bravo D, Clari MA, **Aguilar G**, **Belda J**, Giménez E, Carbonell JA, Henao L, Navarro D. *Looking for biological factors to predict the risk of active cytomegalovirus infection in non-immunosuppressed critically ill patients*. Journal of Medical Virology. 2014; 86(5):827-33. **IF: 2,217**
- 10 **Ferrando C**, Mugarra A, **Gutiérrez A**, Carbonell JA, **García M**, **Soro M**, Tusman G, **Belda FJ**. *Setting individualized positive end-expiratory pressure level with a positive end-expiratory pressure decrement trial after a recruitment maneuver improves oxygenation and lung mechanics during one-lung ventilation*. Anesthesia and Analgesia. 2014 Mar; 118(3):657-65. **IF: 3,422**

- 11 Maseda E, Mensa J, Valía JC, Gomez-Herreras JI, Ramasco F, Samso E, Chiveli MA, Pereira J, González R, **Aguilar G**, Tamayo G, Ojeda N, Rico J, Giménez MJ, Aguilar L. *Bugs, hosts and ICU environment: Countering pan-resistance in nosocomial microbiota and treating bacterial infections in the critical care setting*. Revista Española de Anestesiología y Reanimación. 2014 Mar; 61(3):e1-e19.
- 12 Aguilar G, Azanza JR, Carbonell JA, Ferrando C, Badenes R, Parra MA, Sadaba B, Navarro D, Puig J, Miñana A, Garcia-Marquez C, Gencheva G, Gutierrez A, Marti FJ, **Belda FJ**. *Anidulafungin dosing in critically ill patients with continuous venovenous haemodiafiltration*. The Journal of Antimicrobial Chemotherapy. 2014; 69(6):1620-3.
- 13 Rodríguez-Borja E, Villalba-Martínez C, **Carratalá-Calvo A**. *Enquiry time as part of turnaround time: when do our clinicians really consult our results?* Journal of Clinical Pathology. 2014; 67(7):642-4. **IF: 2,551**
- 14 Andreu-Ballester JC, Cuellar C, Garcia-Ballesteros C, **Pérez-Griera J**, Amigó V, Peiró-Gómez A, Peñarroja-Otero C, Ballester F, Mayans J, Tormo-Calandín C. *Deficit of interleukin 7 in septic patients*. International Immunopharmacology. 2014 Sep 2; 23(1):73-76. **IF: 2,711**
- 15 **Ferrando C**, García M, Gutierrez A, Carbonell JA, **Aguilar G**, **Soro M**, **Belda FJ**. *Effects of different flow patterns and end-inspiratory pause on oxygenation and ventilation in newborn piglets: an experimental study*. BMC Anesthesiology. 2014; 14:96. **IF: 1,333**
- 16 Gustot T, Felleiter P, Pickkers P, Sakr Y, Rello J, Velissaris D, Pierrakos C, Taccone FS, Sevcik P, Moreno C, Vincent JL, **EPIC II Group of Investigators**. *Impact of infection on the prognosis of critically ill cirrhotic patients: results from a large worldwide study*. Liver International. 2014 Nov; 34(10):1496-503. **IF: 4,412**
- 17 De Waele J, Lipman J, Sakr Y, Marshall JC, Vanhems P, Barrera Groba C, Leone M, Vincent JL, **EPIC II Investigators**. *Abdominal infections in the intensive care unit: characteristics, treatment and determinants of outcome*. BMC Infectious Diseases. 2014 Jul 29; 14:420. **IF: 2,561**
- 18 **Ferrando C**, **Belda J**. *In response*. Anesthesia and Analgesia. 2014 Nov; 119(5):1222-3. **IF: 3,422**
- 19 Vincent JL, Marshall JC, Namendys-Silva SA, François B, Martin-Loeches I, Lipman J, Reinhart K, Antonelli M, Pickkers P, Njimi H, Jimenez E, Sakr Y, **ICON investigators**. *Assessment of the worldwide burden of critical illness: the intensive care over nations (ICON) audit*. Lancet Respiratory Medicine. 2014 May; 2(5):380-6.
- 20 Mazo V, Sabaté S, Canet J, Gallart L, de Abreu MG, **Belda J**, Langeron O, Hoeft A, Pelosi P. *Prospective external validation of a predictive score for postoperative pulmonary complications*. Anesthesiology. 2014 Aug; 121(2):219-31. **IF: 6,168**
- 21 Fabregat G, **García-de-la-Asunción J**, Sarriá B, Cortijo J, De Andrés J, Mata M, Pastor E, **Belda FJ**. *Increased Expression of AQP 1 and AQP 5 in Rat Lungs Ventilated with Low Tidal Volume is Time Dependent*. PLoS One. 2014; 9(12):e114247. **IF: 3,534**
- 22 Rodríguez A, Póvoa P, Nseir S, Salluh J, Curcio D, Martín-Loeches I, **TAVeM group investigators**. *Incidence and diagnosis of ventilator-associated tracheobronchitis in the intensive care unit: an international online survey*. Critical Care. 2014 Feb 12; 18(1):R32. **IF: 4,48**
- 23 Alvarez-Lerma F, Palomar M, Villasboa A, Amador J, Almirall J, Posada MP, Catalan M, Pascual C, **ENVIN-UCI Study Group**. *Epidemiological study of Clostridium difficile infection in critical patients admitted to the Intensive Care Unit*. Medicina Intensiva. 2014 Dec; 38(9):558-66. **IF: 1,240**
- 24 Bilotta F, Guerra C, **Badenes R**, Lolli S, Rosa G. *Short acting insulin analogues in intensive care unit patients*. World Journal Diabetes. 2014 15; 5(3):230-4.
- 25 Quiñones-Torrel C, Villanueva-Gil MP, Rodríguez-Muñoz A, Abellán-Tejada L, Aparici-Ibáñez M, **Carratalá-Calvo A**. *When an Analytical Interference Is a Useful Diagnostic Tool: Finding Monoclonal Gammopathies in Routine Analysis*. Journal of Clinical Laboratory Analysis. 2014 Dec 26. **IF: 1,144**

- 26 Diez M, Bleda MJ, Varela JR, Ordonana J, Azpiri MA, Vall M, Santos C, Vilorio L, de Armas C, Urena JM, Trullen J, Pueyo I, Martinez B, Puerta T, Vera M, Sanz I, Junquera ML, Landa MC, Martinez E, Camara MM, **Belda J**, Bru FJ, Diaz A, EPI-VIH Study Group. *Trends in HIV testing, prevalence among first-time testers, and incidence in most-at-risk populations in Spain: the EPI-VIH Study, 2000 to 2009*. Euro Surveill. 2014 Nov 27; 19(47):20971.
- 27 Rodríguez E, Ferrer J, Zock JP, Serra I, Antó JM, de Batlle J, Kromhout H, Vermeulen R, Donaire-González D, Benet M, Balcells E, Monsó E, Gayete A, Garcia-Aymerich J, **PAC-COPD Study Group**. *Lifetime occupational exposure to dusts, gases and fumes is associated with bronchitis symptoms and higher diffusion capacity in COPD patients*. PLoS One. 2014; 9(2):e88426. **IF: 3,534**
- 28 Arias-Guillén M, Riestra S, de Francisco R, Palacios JJ, **Belda J**, Escalante P, Pérez-Martínez I, Molinos LM, Garcia-Clemente M, Pando-Sandoval A, Rodrigo L, Prieto A, Martínez-Cambor P, Losada A, Casan P. *T-cell profiling and the immunodiagnosis of latent tuberculosis infection in patients with inflammatory bowel disease*. Inflammatory Bowel Diseases. 2014 Feb; 20(2):329-38. **IF: 5,475**
- 29 Caballero S, Diez JM, **Belda FJ**, Otegui M, Herring S, Roth NJ, Lee D, Gajardo R, Jorquera JI. *Robustness of nanofiltration for increasing the viral safety margin of biological products*. Biologicals. 2014 Mar; 42(2):79-85. **IF: 1,408**

■ Letters

- 1 Sanjuan R, Blasco ML, Huerta R, Palacios L, **Carratala A**, Nuñez J, Sanchis J. *Insulin resistance and short-term mortality in patients with acute myocardial infarction*. International Journal of Cardiology. 2014 Mar 15; 172(2):e269-70. **IF: 6,175**
- 2 **Aguilar G**, Azanza JR, Sádaba B, **Badenes R**, **Ferrando C**, Delgado C, Hernández J, Parra MA, Puig J, Carbonell JA, Navarro D, **Belda FJ**. *Pharmacokinetics of anidulafungin during albumin dialysis*. Critical Care. 2014 Mar 31; 18(2):422. **IF: 4,48**
- 3 **Belda FJ**, Catalá-López F, Greif R, Canet J. *Benefits and risks of intraoperative high inspired oxygen therapy: firm conclusions are still far off*. Anesthesiology. 2014 Apr; 120(4):1051-2. **IF: 6,168**
- 4 Bourguet M, Benavides C, Mafe MC, **Tornero C**. *[Inappropriate use of urinary catheters in patients admitted to medical wards: experience in a local hospital and strategies for reducing their use]*. Enfermedades Infecciosas y Microbiología Clínica. 2014 Jun-Jul; 32(6):401. **IF: 1,881**
- 5 Poquet I, Bourguet M, Cioaia S, **Tornero C**. *[Changes in driving skills in patients who start treatment with efavirenz]*. Enfermedades Infecciosas y Microbiología Clínica. 2014 Jan ;32(1):59-60. **IF: 1,881**

■ Review

- 1 Morera-Ocon FJ, Sabater-Orti L, Muñoz-Forner E, **Pérez-Griera J**, Ortega-Serrano J. *Considerations on pancreatic exocrine function after pancreaticoduodenectomy*. World Journal of Gastrointestinal Oncology. 2014 Sep 15; 6(9):325-9.

■ THESIS

- 1 **Thesis title:** *Descripción de la actividad diafragmática durante un protocolo de destete rápido con NAVA (neurally adjusted ventilatory assist) de pacientes sin patología respiratoria*
- Doctoral candidate:** M^a del Mar Garzando Civera
- Director(s):** Francisco Javier Belda Náchter and Raquel Ferrandis Comes
- Date of the defense:** 10/06/2014
- Grade:** *Sobresaliente "cum laude"*