

Alberto Barbieri

Curriculum vitae

Education & Training

Degree in Medicine and Surgery at the University of Modena in 1984

Professional and Medical Qualification November 1984

Specializations

Cardiology at the University of Modena

Anesthesia and Intensive Care at the University of Modena

State of Service and assistance activity

1988 - Full-time Medical Assistant at the Coronary Intensive Care Unit and Cardiology Division of the Santa Maria Bianca Hospital in Mirandola (MO)

1990 - Full-time Medical Assistant at the Anesthesia and Intensive Care service of the Modena Policlinico teaching hospital of Modena

1991 - Researcher at the University of Modena

1992 - Associate Professor at the University of Modena with an agreement for assistance activities

He directed the School of Specialization in Anesthesia and Intensive Care at the University of Modena in the academic years 1997/1998 and 1998/1999 and from 2008/2009 to date

Memberships in scientific societies

He is a member of the Italian Society of Cardiology

He is a member of the Italian Society of Anesthesia, Resuscitation, Intensive Care and Pain

Research

He focused his study activity on the new anesthesia drugs by studying their behavior on cerebral metabolism, cardiovascular effects, and neuroendocrine repercussions.

The most recent lines of research concern the biomarkers of severity in intensive care and the organizational aspects in the event of disasters and maxi-events.

A current line of study is aimed at the managerial aspects of the School of Specialization.

The research activity took the form of the production of scientific publications relating to the Discipline, a brief treatise on anesthesiologic and surgical risk and some manuals on cardiac arrhythmias.

Publications of the last five years

1. Melegari G, Bertellini E, Melegari A, Trenti T, Malaguti S, Barbieri A. Hemoadsorption cartridge and coronavirus disease 2019 infections: a case report and brief literature review. *Artif Organs* 2021; 5: E130-E135. <https://doi.org/10.1111/aor.13846>
2. Mapelli J, Gandolfi D, Giuliani E, Casali S, Congi L, Barbieri A, D'Angelo E, Bigiani A. The effects of the general anesthetic sevoflurane on neurotransmission: an experimental and computational study. *Sci Rep* 2021; 11, 4335. <https://doi.org/10.1038/s41598-021-83714-y>
3. Melegari G, Rivi V, Zelent G, Nasillo V, De Santis E, Melegari A, Bevilacqua C, Zoli M, Meletti S, Barbieri A. Mild to severe neurological manifestations of COVID-19: cases reports. *Int. J. Environ. Res. Public Health* 2021; 18, 367. <https://doi.org/10.3390/ijerph18073673>
4. Dankiewicz J, Cronberg T, Lilja G, Jakobsen JC, Levin H, Ullén S, Rylander C, Wise MP, Oddo M, Cariou A, Bělohávek J, Hovdenes J, Saxena M, Kirkegaard H, Young PJ, Pelosi P, Storm C, Taccone FS, Joannidis M, Callaway C, Eastwood GM, Morgan MPG, Nordberg P, Erlinge D, Nichol, Chew MS, Hollenberg J, Thomas M, Bewley J, Sweet K, Grejs A M, Christensen S, Haenggi M, Levis A, Lundin A, Düring J, Schmidbauer S, Keeble TR, Karamasis GV, Schrag C, Faessler E, Smid O, Otáhal M, Maggiorini M, Wendel Garcia PD, Jaubert P, Cole JM, Solar M, Borgquist O, Leithner C, Abed-Maillard S, Navarra L, Annborn M, Undén J, Brunetti I, Awad A, McGuigan P, Bjørkholm Olsen R, Cassina T, Vignon P, Langeland H, Lange T, Friberg H, Nielsen N, TTM2 Trial Investigators. Hypothermia versus Normothermia after Out-of-Hospital Cardiac Arrest. *New Engl J Med* 2021; 384: 2283-2294. doi: 10.1056/NEJMoa2100591.
5. Barbieri D, Giuliani E, Del Prete A, Losi A, Villani M, Barbieri A. How artificial intelligence and new technologies can help the management of the COVID-19 pandemic. *Int J Environ Res Public Health* 2021; 18; 7648. <https://doi.org/10.3390/ijerph18147648>
6. Melegari G, Franchini MC, Sola F, Testa E, Barbieri A. Why you should have a perfusionist as workforces in the Intensive Care Unit. *Intensive Care Res* 2021 DOI: <https://doi.org/10.2291/icres.k.210830.002> eISSN 2666-9862
7. Melegari G, Veronesi L, Maccieri J, Ponzetta F, Osmenaj S, Barbieri A. Plasma renin concentration in critically ill COVID-19 patients. *Bio Med* 2021;1:94-98. <https://doi.org/10.3390/biomed20008>
8. Melegari G, Giuliani E, Dallai C, Veronesi L, Bertellini E, Osmenaj S, Barbieri A. First COVID-19 wave Intensive Care patients: one-year survival later tocilizumab treatment. *JPM* 2021 doi:10.3390/jpm11111234
9. Melegari G, Gaspari A, Gualdi E, Zoli M, Meletti S, Barbieri A. Delirium in older adults: what a surgeon needs to know. *Surgeries* 2022; 3: 28-43. <https://doi.org/10.3390/surgeries3010006>
10. Melegari G, Giuliani E, Fornaciari D, Cremonini C, Di Pietro G, Barbieri A. Health care management during a major planned event in Italy. *Prehosp Dis Med* 2022; 37: 847-852. <https://doi.org/10.1017/S1049023X22001.352>
11. Melegari G, Giuliani E, Di Pietro G, Alberti F, Campitiello M, Bertellini E, Consortium, Barbieri A. Point-of-care pancreatic stone protein measurement in critically ill COVID-19 patients. *BMC Anesthesiology*. <https://doi.org/10.1186/s12871-023-02187-w>

12. Arturi F, Melegari G, Giansante A, Giuliani E, Bertellini E, Barbieri A. COVID-19 biomarkers for critically Ill Patients: a compendium for the physician. *Neurol Int* 2023; 15:881-895. <https://doi.org/10.3390/neurolint15030056>
13. Melegari G, Giuliani E, Osmenaj S, Malaguti S, Zoli M, Meletti S, Bertellini E, Mascia L, Barbieri A. Postoperative cognitive worsening in seniors with an age above life expectancy: a prospective longitudinal study. *Minerva Anestesiol* 2024; 90: 135-143. DOI: [10.23736/S0375-9393.23.17572-9](https://doi.org/10.23736/S0375-9393.23.17572-9)
14. Melegari G, Manenti A, Arturi F, Gualdi E, Filoni S, Zelent G, Barbieri A. Septic shock, tubular necrosis, and central diabetes insipidus: a challenging syndrome. *Intensive Care Res* 2024 <https://doi.org/10.1007/s44231-024-00065-8>
15. Melegari G, Baroni S, Arturi F, Rinaldi S, Dallai C, Donelli D, Mori G, Barbieri A. Role of blood lactate levels in kidney suitability for donation after circulatory death: a retrospective analysis. *Signa Vitae* 2024; 20(10): 16-22. Doi 10.22514/sv.2024.121
16. Melegari G, Gupta A, Ferrari C, Kumari N, Mishra S, Giuliani E, Barbieri A, Fontanesi C. The role of electrochemistry in solving the mystery of the relationship between molecular structure and anaesthetic potency. *Curr Opin Electrochem* 2025; 50:101652. <https://doi.org/10.1016/j.coelec.2025.101652>
17. Melegari G, Gazzotti F, Arturi F, Bertellini E, Tognù A, Santonastaso DP, Villani M, Coppi F, Fattorini F, Catani F, Barbieri A. CytoSorb for ticagrelor and rivaroxaban removal in patients with major orthopedic trauma: a perspective on clinical applications. *Life* 2025; 15(7): 1065. <https://doi.org/10.3390/life15071065>
18. Melegari G, Arturi F, Gazzotti F, Bertellini E, Berselli B, Coppi F, Giuliani E, Barbieri A. Pancreatic Stone Protein and infection in critically ill COVID-19 patients: A LASSO regression analysis. *COVID* 2025; 110. <https://doi.org/10.3390/covid5070110>
19. Arturi F, Melegari G, Gazzotti F, Bertellini E, Barbieri A. Endovascular treatment of stroke and anesthesia technique: what is the best approach, according to the literature? *Neurol Intern* 2025; 17:115. Doi: 10.3390/neurolint17080115.
20. Arturi F, Melegari G, Mancano R, Gazzotti F, Bertellini E, Barbieri A. Pancreatic Stone Protein as a versatile biomarker: current evidence and clinical applications. *Diseases* 2025; 13: 240. Doi: 10.3390/diseases13080240.
21. Melegari G, Arturi F, Gazzotti F, Villani M, Bertellini E, Giuliani E, Barbieri A. Sepsis biomarker: what surgeons need to know. *Anesth Res* 2025; 2:23. <https://doi.org/10.3390/anesthres2040023>
22. Melegari G. Macklin effect in critically COVID-19 patients: observational single-center analysis Efecto Macklin en pacientes críticos con COVID-19: análisis observacional de un solo centro. *Rev Esp Anesth Reanim* 2025. <https://doi.org/10.1016/j.redare.2025.501930>
23. Fontanesi C, Kumari N, Severini A, Borghi M, Montecchi M, Pasquali L, Colombini E, Melegari G, Barbieri A, Giuliani E, Innocenti M, Roncaglia F, Das KT. Sevoflurane and Desflurane Spin-decoherence effect on Fe(III)acetylacetonate Redox Process. *Molecules* 2025; 30: 4341 <https://doi.org/10.3390/molecules30224341>
24. Arturi F, Serra L, Melegari G, Mosca F, Gazzotti F, Bertellini E, Colletti G, Barbieri A. Anaesthesia in microsurgical flap reconstruction: a review. *Surgeries* 2026;7:21
25. Melegari G, Belletti A, Arturi F, Giansante A, Gaspari A, Gazzotti F, Bertellini E, Landoni G, Barbieri A. Renin and 1-year mortality in critically ill patients with ARDS: trajectories, discrimination, and survival analysis. *Front Med* 2026; 13 <https://doi.org/10.3389/fmed.2026.1806797>

Mrs. Pugh.