



Speaker Biography

Paolo Pelosi

Professor Paolo Pelosi grew up in Milan and attended University of Milan, graduating magna cum laude in Medicine and Surgery. After graduation, he completed his studies first as Specialist in Anaesthesia and Intensive Care and then as Research Fellow in Anaesthesiology at the University of Milan.

He served as Associate Professor in Anaesthesia and Intensive Care Medicine at the University of Insubria, Varese from 1999 to 2010. He is currently Chief Professor in Anaesthesia and Intensive Care and Director of the Speciality School in Anaesthesiology at the University of Genoa as well as Head of the Anaesthesia and Intensive Care Unit at the IRCCS San Martino-IST Hospital, Genoa, Italy. His activity has been always directed both to the clinical and research field.

The main research interests of Prof. Pelosi have been directed to respiratory physiology during anaesthesia and respiratory failure. Prof. Pelosi developed several collaborations with highly scientifically reputed groups in European and Extra-European countries, for research in the field of mechanical ventilation and sepsis in experimental and clinical settings. In this line, he promoted the constitution of the PROVENet investigators group, a large network of researchers worldwide focusing on protective ventilation and its effects on main outcome measures and organizing large scale databases, observational trials and randomized controlled trial worldwide in the field of Anaesthesiology. This is of particular relevance for improving quality of research and its clinical applicability worldwide.

Furthermore, he is also experienced in meta-analysis and leading of large prospective randomized controlled trials as well as observational trials. He is actively involved in the Fellowship and Resident educational program at the University of Genoa and in different European Societies related to Anaesthesiology and Critical Care. He served as President of the European Society of Anaesthesiology ESA (2010-2011) and first as Secretary and than as Head of the Respiratory Intensive Care Assembly 2 at the European Respiratory Society. He is actually Member of the Council at the World federation of Societies of Intensive Care and Critical Care Medicine (WFSICCM). In this position, he contributed to the development of WFSICCM Recommendations on Triage in Intensive Care Unit, What is an Intensive Care unit, Requirements to be an Intensive Care Medicine Specialists and Ethical issues in Critical Care. He is member of several Boards of International Meetings' Organizing Committees.

He was also Editor and/or Co-Editor of several Books and scientific issues. He is Author or Co-Author of 337 original papers, 149 papers under invitation. 139 Chapters, 72 Proceedings, 264 presentations at Meeting; 400 medical and scientific peer review papers, 80 book chapters and has lectured in more than 1387 national and international meetings on ventilation management during the perioperative period and on the pathophysiology and treatments of acute respiratory failure. H-Index 63 (Scopus) and citations 19234.

During his career, the main achievements of Prof. Paolo Pelosi, among others, can be briefly summarized as follows:

Clinical activity

- Continuous clinical activity both in Anaesthesia and Intensive Care, including the Direction of Department of Anaesthesia and Intensive Care and the Direction of the Regional Poisoning Control Centre at the IRCCS AOU San Martino IST Hospital, Genova.
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- Development of different National and Regional Guidelines for improvement of clinical management of critically ill patients, promoting highest therapeutic standards

Educational activity

- Teaching, training and educational activity at the University of Milan, Varese and Genova promoting, including activation and national leadership for implementing European Diploma in Anaesthesiology and Intensive Care (EDAIC)
- Development of innovative education by using simulation and specific practical courses

Patient safety during perioperative period in Europe and in the World

- Promoter of Patient Safety in Italy and Europe by the development and application of “Helsinki Declaration on Patients’ Safety”; he was one of the three main signatures together with Prof J Mellin-Olsen and Prof. H. Van Acken at Euroanaesthesia meeting, Helsinki, 2010. This declaration was then accepted worldwide and signed by many countries worldwide in more than 125 countries and 3900 hospitals and represented the first step for development of patient safety organization towards the improvement of patients’ outcome in the perioperative period.

Promotion of Anaesthesiology and Critical Care in Europe and in the World

- During his Presidency at the European Society of Anaesthesiology (ESA), Prof. Paolo Pelosi developed, among others, several innovative programs, which played a relevant role for Anaesthesia and Intensive Care

worldwide: 1) research committee: organization of international worldwide network of investigators aiming to collect large databases, and design observational and randomized controlled trials to implement Evidence Based Medicine in Anaesthesiology; 2) guidelines committee: development and production of guidelines in different field of Anaesthesia and Intensive Care to homogenize the clinical management in Europe and outside; 3) fellowship programme: to give the opportunity to young residents and specialists in Anaesthesia and Intensive Care to improve their clinical practice and research activities in Europe; 4) specific programmes for patients safety during the perioperative period in less economically advanced countries, like Moldova.

- In the European Respiratory Society (ERS), Prof. Paolo Pelosi contributed to the education and training of Intensive and Critical Care Medicine among Respiratory Medicine physicians. This was extremely important to improve and optimize the clinical organization in different countries worldwide.

Main research achievements:

- Development of quantitative analysis of computed tomography of the lung in ARDS, which markedly contributed to the development of protective ventilation strategies implementation with beneficial effects on survival.
- Clarification of pathophysiological mechanisms of prone position and the effects of recruitment manoeuvres in ARDS, identification of those patients who can better benefit of this therapeutic strategy and evaluation of clinical outcome. Prone position is actually recognized as standard of care in the treatment of severe ARDS.
- Development of the concept of primary and secondary ARDS, which contributed to the change in the approach to ARDS, as more individually targeted.
- Improvement of the knowledge related to the brain and other organs interaction. These data has been important to develop new therapeutic strategies in patients after cardiac arrest and brain injury.
- Evaluation of transpulmonary pressure, by using oesophageal pressure measurements, in patients undergoing mechanical ventilation during anaesthesia and in critically ill patients. This methodology has been now recognized as an important tool to optimize mechanical ventilation in patients with ARDS
- Optimization of ventilator setting during different types of assisted ventilation in ARDS and Acute Exacerbation of COPD.

- Understanding of respiratory changes during anaesthesia and in the post-operative period of morbidly obese patients undergoing surgery. This was important to better improve ventilator strategies during and after surgery in high risk patients.
- Evaluation of mortality and postoperative pulmonary complications. These studies markedly contributed worldwide to recognize the importance of defined strategies from pre-intervention, during intervention and after intervention to improve outcome in the perioperative period.
- Development of the concept of protective ventilation during surgery to improve outcome. Now protective ventilation is generally accepted during surgery worldwide as determinant to minimize complications after surgery.
- Development of non invasive ventilation devices to improve comfort in adults and infants. In particular studies about the use of helmet in different clinical conditions. Particularly relevant its use in infants with bronchiolitis.
- Further from experimental point of view, improvement in the the understanding of pathophysiology of different types of lung injury as well as the effects of mechanical ventilation, with particular attention on extracellular matrix and organ damage.

In conclusion, the activities of Prof. Paolo Pelosi ranged from clinical, education and training to research. In the research filed, they included both experimental, physiological as clinical studies on outcome in the field of both anaesthesia and intensive care medicine. Further, Prof, Paolo Pelosi promoted active collaboration in both clinical, education and training as well as research in Europe and outside and may be considered as an example for many clinicians and researchers. In addition, a major effort was dedicated to homogenize different competences from professional experiences to improve outcome of patients undergoing surgery and in critically ill patients.

The results of the aforementioned research programs were applied in clinical practice and became a standard of care worldwide.