

Curriculum Vitae

Dr Guido Tavazzi MD

Name: Guido Tavazzi

Date of Birth: 17.09.1982

Address: 400,Via Abbiategrasso 27100,Pavia, Italy

Telephone: +39-3398481636

Nationality: Italian

Current Position: Consultant in ICU, Fondazione Policlinico San Matteo,IRCCS
Pavia Italy
PhD in experimental medicine
University of Pavia
Foundation Policlinico San Matteo, IRCCS
Pavia, Italy, 27100

Telephone: +39 3398481636
+44 (0) 7490680501

e-mail: gtavazzi@yahoo.it

Education: Classic Lyceum, Pavia 1996-2001

Qualifications: Doctorate of Medicine & Surgery, Pavia, Italy 2008
RC-UK FEEL instructor 2011
ALS provider 2009
PhD student in Experimental Medicine 2013
Specialization in Intensive Care, Anaesthesia
& Pain Therapy 2014
Transesophageal Echocardiography 2014
Certification
European Society of Cardiology

Critical Care & Anaesthesia Experience

June 2009-2010	Intensive Care Resident Dept 1 Foundation Policlinico San Matteo, IRCCS, Pavia
June 2010- March 2011	General Anaesthesia and Urology Foundation Policlinico San Matteo, IRCCS, Pavia
March 2011-September	Cardiothoracic Surgery and Intensive care Foundation Policlinico San Matteo, IRCCS, Pavia
January 2013- now	Intensive Care Dept 1 Foundation Policlinico San Matteo, IRCCS, Pavia
September 2011-December 2012	Clinical Fellow,Critical Care Echocardiography Royal Brompton Hospital, London UK

Echocardiography Experience

September 2008-April 2009	Echocardiography Fellowship Cardiology unit, Fondazione Policlinico San Matteo, IRCCS, Pavia
September 2011-December 2012	Fellow, Critical Care Echocardiography Royal Brompton Hospital, London
June 2009-2010	Intensive Care Resident Dept 1 Fondazione Policlinico San Matteo, IRCCS, Pavia
January 2013- now	Intensive Care Dept 1 Fondazione Policlinico San Matteo, IRCCS, Pavia

Echocardiography

I have been trained by Dr Susanna Price and Dr Gabriele Via in the principles and practice of critical care echocardiography and am fully trained in both transthoracic and trans-oesophageal echocardiography in the critical care setting, including a quaternary referral practice for complex adult cardiac surgery.

- Trans-thoracic echocardiography in excess of 3000 cases
- Trans-oesophageal echocardiography in excess of 1000 cases
- Resynchronisation echocardiography in excess of 100 cases
- 3D echocardiography in excess of 500 cases
- Stress echocardiography in excess of 20 cases

I have performed in excess of 4000 echocardiographic studies in the peri-procedural context. In my practice (in addition to the standard EAE guidelines) I routinely assess coronary flow, patterns of ventricular filling, pulmonary vascular flow patterns and ventricular long-axis/tissue Doppler imaging in order to facilitate haemodynamic management in the critically ill. In addition to standard peri-operative trans-oesophageal and trans-thoracic echocardiography, I have been trained in primary diagnostic echocardiography (both transthoracic and transoesophageal). I have received training in a range of centres in the performance and interpretation of stress echocardiography, and have used this technique both in the intensive care setting. I have undertaken advanced training in additional modalities of echocardiography (including 3D/4D echocardiography to assess ventricular function and mitral valve structure), and advanced physiological echocardiography.

I have evaluated cardiac structure and function in the intensive care for a number of specialist procedures including:

- Implantation / explantation of a range of Ventricular assist devices
- VV and VA ECMO cannulation, monitoring and weaning
- Hear lung interaction in severe respiratory and cardiac failure
- Cardiac output optimization using pacemaker and resynchronization therapy in Criticall ill patients
- Aortic valve replacement, aortic valve repair, aortic dissection, thoracic aortic aneurysm, resection of sub-aortic and supra-aortic stenosis
- Mitral valve repair, mitral valve replacement, ALCAPA defect
- Tricuspid valve repair, repair of Ebstein's anomaly

- Resection of sub-pulmonary stenosis, pulmonary valve replacement
- Surgery for infective endocarditis
- Surgical and percutaneous closure of ASD and VSD
- Tumour resection – both primary and secondary intra-cardiac and mediastinal
- Myocardial infarction/cardiogenic shock

I have been invited to work with Phillips (Europe) to devise standardised presets for a new range of critical care echocardiography machines, including FEEL, FATE, Lung US, basic critical care echocardiography and advanced critical care echocardiography.

Research Experience

I have undertaken research as part of my medical graduation, leading to my Doctorate in Medicine and Surgery. This involved interrogation of clinical and MRI databases, and led to publication of my thesis: “Clinical-instrumental correlates of myocardial injury. Cardiac MRI study in acute myocardial infarction on 47 patients treated by primary angioplasty”.

I have obtained training in Introduction to Medical Research (London Deanery), and Introduction to Medical Statistics (University of Pavia). During my fellowship at the Brompton Hospital, I set up a critical care echocardiography database in order to facilitate systematic research within the intensive care unit at the Brompton. I undertook a number of research projects, including:

- Evaluation of indices for hemodynamic diagnosis and monitoring in patients with severe respiratory failure
- Evaluation of echocardiographic physiologic indices
- Evaluation and validation of total isovolumic time in the critically ill
- The effect of inotropic support on total isovolumic time in critical care
- Optimisation of pacing in the critically ill – correlation with cardiac output
- Diagnosis of right ventricular restriction in the adult critical care population with severe respiratory and cardiac failure
- Validity of pulmonary acceleration time in assessment of pulmonary vascular resistance
- Evaluation of NiCAS in cardiogenic shock
- Echocardiography in Extracorporeal circulation
- Effects of VV ECMO on biventricular function
- Right ventricular function in interventional lung assist

- Heart lung interaction in whole lung lavage for pulmonary proteinosis
- A critical appraisal of hand-held US device in cardiothoracic critical care
- Right ventricular pathophysiology in cardiac and respiratory patients

Post-membership meetings & invited lectures

- European Society of Intensive Care Medicine 2012-2015
- European Society of Echocardiography, Athens 2012
- SMART Congress, Milan 2012-2016
- Winfocus World Meeting 2014-2015
- FEEL-UK, King’s College, London 2012
- Indonesian Cardiology National Meeting, Jakarta 2012
- Advanced Echocardiography, Glasgow, Scotland 2011
- European Society of Echocardiography, Budapest and Leipzig 2011-2016
- International society of East-Europe Anesthesiologist and ICU 2015
- International European Society of Anesthesia&intensive Care 2013
- Advanced course on imaging in ECMO Milano 2015

Teaching experience

Throughout my post-graduate medical training I have been involved in the teaching of both medical and paramedical groups. I have undertaken training in teaching, including the Faculty Development course from the London Deanery.

- Assessing Educational Needs Supervision
- Workplace based Assessment Careers Support
- Setting Learning Objectives Small Group Teaching
- How to Give Feedback Facilitating Learning in the Workplace
- Appraisal Diversity, Equal Opps & Human Rights
- Introduction to Medical Research Improve your Lecturing
- Teaching Clinical Skills Inter-professional Education
- Involving patients in teaching Managing the Trainee in Difficulty
- Using simulation in medical education E-learning in Clinical Teaching
- Maintaining quality in education Structured Assessments: Clinical Competence

In addition to the informal provision of examination-directed teaching to postgraduate doctors, I have undertaken more formal sessions in ongoing training courses, and am an approved instructor for the following:

- Advanced Life Support 2009-present
- Basic Life Support 2003- present
- FEEL-UK 2011- present
- Winfocus (basic and advanced) 2009- present

I have authored the modules on lung ultrasound for the Resuscitation Council (UK) training programme in Echocardiography in Resuscitation. During my echocardiography fellowship I was a mentor for both basic and advanced critical care echocardiography, TTE and TOE.

Audit, Management & Clinical Governance

I am aware of the principles of clinical governance, and during my Fellowship in London I gained experience in this field including regular attendance at Trust Clinical Governance Days, and completing all required mandatory training. Additional activities included:

- Attendance at SBAR training
- Setting up critical care echocardiography database
- Audit: pacemaker optimisation in critical care (presented locally)
- Working with Phillips to develop an international pre-set for a new critical care echocardiography machine
- Working with GE to evaluate new critical care echocardiography machine

Membership of Learned Societies

European Association of Echocardiography

European Society of Intensive Care Medicine

European Society of Cardiology, Acute Cardiac Care Association

European Society of Cardiology, Cardiovascular imaging

Reviewers for

- American Journal of Respiratory and Critical Care Medicine
- International Journal of Cardiology
- Journal of Critical Care Medicine

Publications

1. [Atrial septal defect infective endocarditis: a direct pathway from left atrium to the lung.](#)
Tavazzi G, Alam M, Li W, Price S.
Eur Heart J. 2016 May 10. pii: ehw192. [Epub ahead of print] No abstract available.
2. [Ten situations where inferior vena cava ultrasound may fail to accurately predict fluid responsiveness: a physiologically based point of view.](#)
Via G, **Tavazzi G**, Price S.
Intensive Care Med. 2016 Jul;42(7):1164-7. doi: 10.1007/s00134-016-4357-9. Epub 2016 Apr 23.
3. [An unexpected finding in an asymptomatic patient with atrial fibrillation: cardiac angiosarcoma.](#)
Campanile A, **Tavazzi G**, Alam MH, Paul R, Price S.
Lancet. 2016 Apr 7. pii: S0140-6736(16)00086-6. doi: 10.1016/S0140-6736(16)00086-6. [Epub ahead of print]
4. [Resolution of Cardiogenic Shock Using Echocardiography-Guided Pacing Optimization in Intensive Care: A Case Series.](#)
Tavazzi G, Kontogeorgis A, Bergsland NP, Price S.
Crit Care Med. 2016 Mar 22. [Epub ahead of print]
5. Pulmonic Regurgitation in the Adult Cardiac Surgery Patient.
Shillcutt SK, Tavazzi G, Shapiro BP, Diaz-Gomez J.
J Cardiothorac Vasc Anesth. 2016 Jul 14
6. [Right Ventricular Arrhythmogenic Dysplasia in Cardiac Arrest. An Echocardiographic Pattern Not to Forget.](#)
Tavazzi G, Via G, Turco A, Mojoli F.
Am J Respir Crit Care Med. 2015 Sep 15;192(6):e46-8. doi: 10.1164/rccm.201503-0528IM.
7. [Association of haemodynamic changes measured by serial central venous saturation during ultrafiltration for acutely decompensated heart failure with diuretic resistance and change in renal function.](#)
Vazir A, Simpkin VL, Marino P, Ludman A, Banya W, Tavazzi G, Bastin AJ, Trenfield S, Ghorri A, Alexander PD, Griffiths M, Price S, Sharma R, Cowie MR.
[Int J Cardiol. 2016 Oct 1;220:618-22](#)
8. [Weaning Failure for Disproportionate Hypoxemia Caused by Paradoxical Response to Positive End-Expiratory Pressure in a Patient with Patent Foramen Ovale.](#)
Tavazzi G, Pozzi M, Via G, Mongodi S, Braschi A, Mojoli F.
Am J Respir Crit Care Med. 2016 Jan 1;193(1):e1-2. doi: 10.1164/rccm.201505-0967IM.
9. [Bedside Ultrasonographic Measurement of the Inferior Vena Cava.](#)
Tavazzi G, Price S, Fletcher N.
J Cardiothorac Vasc Anesth. 2015 Oct;29(5):e54-5. doi: 10.1053/j.jvca.2015.03.017. Epub 2015 Mar 27.
10. [Patent foramen ovale diagnosis: The importance of provocative maneuvers.](#)

[Mongodi S, Via G, Riccardi M, Tavazzi G, D'Armini AM, Maurelli M, Braschi A, Mojoli F. J Clin Ultrasound. 2016 Jul 22.](#)

11. [An 82-Year-Old Woman With Ongoing Dyspnea.](#)
[Tavazzi G, Via G, Braschi A, Price S. Chest. 2016 Jul;150\(1\):e9-e11.](#)
12. [Concept of the central clip: when to use one or two MitraClips®.](#)
Alegria-Barrero E, Chan PH, Foin N, Syrseloudis D, **Tavazzi G**, Price S, Lindsay AC, Duncan A, Moat N, Di Mario C, Franzen OW.
EuroIntervention. 2014 Feb;9(10):1217-24. doi: 10.4244/EIJV9I10A204.
13. [Post-partum cardiogenic shock in a patient with permanent junctional re-entry tachycardia.](#)
Rordorf R, Raineri C, De Ferrari GM, Via G, **Tavazzi G**, Mojoli F, Nicolino A, Landolina M.
Int J Cardiol. 2011 Sep 1;151(2):e68-70. doi: 10.1016/j.ijcard.2010.05.032. Epub 2010 Jun 16.
14. Invasive pulmonary aspergillosis after near drowning.
Tavazzi G, Via G, Capra Marzani F, Mojoli F
Lancet infectious disease. Ahead of print
15. Visual identification of pulmonary ventilation/perfusion mismatch – a lung ultrasound application
Tavazzi G, Caetano AF, Shah S, Alcada J, Price S.
Thorax. Ahead of print

1. The use of echocardiography and lung ultrasound in the assessment and management of acute heart failure
S. Price, L.Cullen, E. Platz, G. Tavazzi, M. Christ, M. Cowie, A. Maisel, J. Masip O. Miro, J. McMurray, W.Peacock, F.Martin-Sanchez, S Di Somma, H Bueno, U Zeymer, C.Mueller,
The Acute Heart Failure Study Group of the European Society of Cardiology Acute Cardiovascular Care Association
Nature Review Cardiology
Accepted with revisions

Abstract

- [R-R interval and modification of cardiac output following cardiac surgery: the importance of heart rate optimisation by external pace maker.](#)
Tavazzi G, Bergsland N, Mojoli F, Pozzi M, Gibson D, Guarracino F, Price S.
Intensive Care Med Exp. 2015 Dec;3(Suppl 1):A592. doi: 10.1186/2197-425X-3-S1-A592
- [Automatic monitoring of plateau and driving pressure during pressure and volume controlled ventilation.](#)

Mojoli F, Pozzi M, Bianzina S, **Tavazzi G**, Orlando A, Mongodi S, Torriglia F, Braschi A.

Intensive Care Med Exp. 2015 Dec;3(Suppl 1):A998. doi: 10.1186/2197-425X-3-S1-A998.

- [R-R interval and modification of cardiac output following cardiac surgery: the importance of heart rate optimisation by external pace maker.](#)
Tavazzi G, Bergsland N, Mojoli F, Pozzi M, Gibson D, Guarracino F, Price S.
Intensive Care Med Exp. 2015 Dec;3(Suppl 1):A592. doi: 10.1186/2197-425X-3-S1-A592
- [Artificial Lung Gas Exchanges Depend On Ecmo Settings.](#)
Mojoli F, Bianzina S, Bianchi I, **Tavazzi G**, Mongodi S, Pozzi M, Orlando A, Braschi A.
Intensive Care Med Exp. 2015 Dec;3(Suppl 1):A514. doi: 10.1186/2197-425X-3-S1-A514.
- [Temperature Monitoring During Ecmo: An in Vitro Study.](#)
Mojoli F, Bianzina S, Caneva L, **Tavazzi G**, Mongodi S, Pozzi M, Orlando A, Braschi A.
Intensive Care Med Exp. 2015 Dec;3(Suppl 1):A506. doi: 10.1186/2197-425X-3-S1-A506
- Role of myocardial haemorrhage in predicting adverse left ventricular remodeling after reperfused acute myocardial infarction. Can we outperform microvascular obstruction?
Raineri, A. Turco, S. Leonardi, M. Bonardi, M. Cottini, G. Tavazzi, M. Calcagnino, G. Crimi, M. Ferrario, M. Previtali,
JACC, vol 55, Issue 10 A65, March 2010
- Final transmural extent myocardial infarction at 4-month cardiac magnetic resonance can be predicted by 2-dimensional speckle tracking strain imaging in the acute phase
M. Previtali, M. Cottini, S. Leonardi, C. Raineri, A. Turco, M. Calcagnino, G. Tavazzi, F. Fava, E. Ferrara, L.O. Visconti.
JACC, vol 55, Issue 10 A93, March 2010
- The burden on a tertiary center due to 2009 h1n1 pandemic flu
Mojoli, M. Belliato, G. Tavazzi, B. Pistone, A. Lotteria, F. Esposito, L. Carnevale, M. Zanierato, G.A.Iotti, A. Braschi –
Intensive care medicine Volume 36, Number 2 / September, 2010, S 284
- Prevalence of global left ventricular mechanical dyssynchrony as measured by total-isovolumic time in patients on the cardiothoracic intensive care

G. Tavazzi, E. Ridha, B. Waldron, S. Price, A. Vazir.

Intensive Care Medicine Supplement 1, Volume 38 October 2012

- Reliability of Non-Invasive Cardiac System (NICaS®) bioimpedance as cardiac output monitoring in cardiothoracic intensive care.
Guido Tavazzi; Yoseph Membrate; Mary White; Susanna Price.
Intensive care medicine Supp 2 Vol 39 October 2013; P 0088.
- Right Ventricular dysfunction in Venovenous ECMO for ARDS.
G. Tavazzi, S. Canestrini, M. Bojan, M. White, S. Price.
Intensive care medicine Supp 2 Vol 39 October 2013; P 0636
- Right ventricular restriction in interventional lung assist for ARDS
G Tavazzi, M Bojan, S Canestrini, M White, S Price.
Critical care, Volume 17 Supplement 2, 2013. P171
- Left Ventricular electromechanical Dyssynchrony and mortality in cardiothoracic intensive care.
G. Tavazzi, M.Bojan, A. Duncan, A. Vazir, S. Price.
Critical care, Volume 17 Supplement 2, 2013. P 172
- Systolic and diastolic right ventricular function with ARDS without acute cor pulmonale in ICU.
G.Tavazzi, M.White, N. Bergsland, V. De Francesco, S. Canestrini, S. Price.
Intensive care Medicine Suppl; ESICM 2014, Barcelona

Book Chapters

- A. "Echocardiography in Weaning from Mechanical Ventilation"
Tavazzi G, Price S.
"Ecocardiografia in Area Critica", Guarracino Fabio Editore: Elsevier Masson 2012
- B. Tavazzi G, Price S. "Echocardiography in Critical Care"
Oh's Intensive Care Manual, 7th Edition. Chapter 27th Andrew Bersten,. Expert Consult Imprint: Butterworth-Heinemann ISBN: 978-0-7020-4762-6

- C. Echocardiography: beyond the basics Consultant level examination.
Waldron B. Tavazzi G. Price S
Chapter 28. In: Critical Care Ultrasound. Philip Lumb, MB, BS Elsevier. ISBN: 978-1-4557-5357-4
- D. Lung Ultrasound in periresuscitation .
Gargani L, Alcada J, Tavazzi G.
FEEL course Manual 2nd edition. Pub ahead of Print and available on line www.feel-uk.com
- E. FoCUS Cardiac Ultrasound
Tavazzi G, Via G.
Emergency echocardiography. Neskovic A. CRC press III edition. Ahead of print
- F. Expert consultant evaluation of tricuspid and pulmonary valve
PERiooperative Transesophageal echocardiography
Sidebotham D. Elsevier Masson, III edition. Ahead of print

I have contribute to the e-learning platform for the European Society of Cardiology (Ahead of) on:

- Echocardiography and clinical management in Cardiogenic Shock
- Echocardiography and clinical management in Dyspnoea
- Lung Ultrasound in Acute cardiac care
- Ventilation and heart-lung interactions

Referees

Susanna Price, MB, BS, BSc, MRCP, EDICM, PhD
Consultant Cardiologist and Intensivist Adult Intensive Care Unit
Royal Brompton Hospital and Harefield NHS Trust
London UK
Sydney Street, London, Greater London
SW3 6NP

Antonio Braschi, FESA, EDICM
Professor of Intensive Care, Anaesthesia and Pain therapy
University of Pavia
Director of Intensive Care dept 1, Fondazione Policlinico San Matteo, IRCCS
Piazzale Golgi 2, Pavia
+39 0382-503477
a.braschi@smatteo.pv.it - antonio.braschi@unipv.it

Gabriele Via
Intensivist, Anesthesiologist
1st Department of Anesthesia and Intensive Care
Fondazione IRCCS Policlinico San Matteo, Pavia, Italy
WINFOCUS ECHO Group
Director, WINFOCUS Critical Care Echo Training Program
Advisory Board, Ultrasound University,
Henry Ford Hospital University, Detroit, USA
Editorial Board, Critical Ultrasound J
Tel. (office) +39 0382 503501
Mobile +39 347 0560623
e-mail gabriele.via@gmail.com