



Santi Di Pietro

📍 **Work** : UO Pronto Soccorso e Medicina d'Urgenza, IRCCS Fondazione
Policlinico San Matteo, Strada Campeggi, 27100, Pavia, Italy

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Gender: Male **Nationality**: Italian

WORK EXPERIENCE

[16/03/2024 – Current] **Tenure Track Assistant Professor of Emergency Medicine**
Department of Internal Medicine and Therapeutics - University of Pavia

City: Pavia | **Country**: Italy

[31/10/2021 – Current] **Emergency Medicine Consultant**
IRCCS Fondazione Policlinico San Matteo

City: Pavia | **Country**: Italy

[11/2020 – 09/2021] **Emergency Medicine Locum Consultant - COVID Response Team**
IRCCS Fondazione Policlinico San Matteo

City: Pavia | **Country**: Italy

[31/10/2019 – 30/10/2020] **Emergency Medicine Registrar with Special Interest in Regional Anaesthesia**
Emergency Department, St Mary's Hospital, Imperial College Healthcare NHS Trust

City: London | **Country**: United Kingdom

Direct clinical care in Adult Emergency Department/CDU as senior decision maker and clinical supervision of more junior trainees (70%)

Dedicated time in orthopedic theatres to improve technical skills on regional anaesthesia techniques - Dedicated time to research activity on regional anaesthesia approaches to rib fractures (ClinicalTrials.gov NCT04863807) (30%)

[05/2016 – 08/2016] **First-Aid Doctor (Nights and festivities)**

ASL Patti - ASL Capo d'Orlando

City: Capo d'Orlando - Sant'Angelo di Brolo | **Country**: Italy

[31/10/2016 – 30/10/2021] **Emergency Medicine Resident**
University of Pavia

City: Pavia | **Country**: Italy

Internal Medicine – 4 Months (November 2016 - February 2017) IRCCS
Fondazione Policlinico San Matteo, Pavia

Geriatrics – 4 Months (March – June 2017) IDR Santa Margherita, Pavia

Emergency Department – 4 Months (July – October 2017) IRCCS
Fondazione Policlinico San Matteo, Pavia

Emergency Radiology – 1 Month (November 2017) IRCCS Fondazione
Policlinico San Matteo, Pavia

Ophthalmology – 1 Month (December 2017) IRCCS Fondazione Policlinico
San Matteo, Pavia

Gynecology – 1 Month (January 2018) IRCCS Fondazione Policlinico San
Matteo, Pavia

Orthopedics and Trauma – 3 Months (February – April 2018) IRCCS
Fondazione Policlinico San Matteo, Pavia

Pavia Poison Centre– 2 Months (May – June 2018) Fondazione Salvatore
Maugeri, Pavia

ENT/Vestibology – 1 Month (July 2018) IRCCS Fondazione Policlinico San
Matteo, Pavia

Pediatric ED – 1 Month (August 2018) IRCCS Fondazione Policlinico San
Matteo, Pavia

Semi-Intensive Care – 4 Months (September – December 2018) Ospedale
Civile Ss. Antonio e Biagio e Cesare Arrigo, Alessandria

Stroke Unit – 2 Months (January – February 2019) IRCCS Fondazione
Policlinico San Matteo, Pavia

Intensive Care Unit / Anaesthesia – 4 Months (March – June 2019) Ospedale
Civile Vigevano, Vigevano

Cardiac Intensive Care Unit - 2 Months (September - October 2019) IRCCS
Fondazione Policlinico San Matteo, Pavia

Emergency Department Registrar with Special Interest in Regional Anaesthesia - 12 Months (November 2019 - October 2020) St Mary's Hospital, London, UK

Intensive Care Unit/Anaesthesia - 2 Months (November - December 2020) Ospedale Civile Voghera, Voghera

Emergency Department Covid Response Team - 9 Months (January - September 2021) IRCCS Fondazione Policlinico San Matteo, Pavia

EDUCATION AND TRAINING

[10/2020 – 04/2024]

PhD in Experimental Medicine

University of Pavia <http://phd.unipv.it/phd-programs/>

City: Pavia | **Country:** Italy |

Research area: application of regional anaesthesia techniques in the Emergency Department setting.

[2008 – 2015]

Doctor in Medicine and Surgery - Harvey Course

University of Pavia <http://www-7.unipv.it/harveymedicine/home/harvey-universita-degli-studi-di-pavia/>

City: Pavia | **Country:** Italy |

[09/2013 – 09/2014]

Erasmus Exchange Student

Rheinische Friedrich-Wilhelms-Universität Bonn <https://www.uni-bonn.de/en/university/>

City: Bonn | **Country:** Germany |

[17/06/2024 – 05/07/2024]

36th Residential 3-week Summer Course in Epidemiology (EEPE)

Barcelona Institute for Global Health - Swiss School of Public Health
<https://www.eepe.org/>

City: Firenze | **Country:** Italy |

[2022 – Current]

GCP - Good clinical practice certificate

Global Health Training Centre <https://globalhealthtrainingcentre.tghn.org/>

[26/10/2021]

Procedural Sedation and Analgesia in Paediatric Emergency Care

European Society of Emergency Medicine - Pre-congress Course

Address: Lisboa - Lisbon Congress Centre, Lisbon, Portugal |

EPALS (EUROPEAN PAEDIATRIC ADVANCED LIFE SUPPORT)

[27/06/2021 – Current]

Provider

Azienda Ospedaliero-Universitaria Meyer - Settore formazione

City: Firenze | **Country:** Italy |

[10/2018 – Current] **ATLS Provider**

TREAT SRL <https://www.treatsrl.it/>

City: Torino | **Country:** Italy |

SURGICAL SKILLS FOR THE EMERGENCY DEPARTMENT

[28/10/2020 – 29/10/2020] **RESUSCITATION ROOM**

Royal College of Physicians and Surgeons of Glasgow - University of Glasgow

Address: The Clinical Anatomy Skills Centre (CASC) Thomson Building, Laboratory of Human Anatomy University, Glasgow, United Kingdom |

[14/09/2019] **Ultrasound Guided Regional Anaesthesia Course**

Imperial School of Anaesthesia - Chelsea and Westminster Hospital <http://www.imperial-anaesthesia.org.uk/>

City: London | **Country:** United Kingdom |

[2017] **Blocchi Nervosi in Emergenza-Urgenza**

SIMEU (Società Italiana di Medicina d'Emergenza Urgenza)

City: Pinerolo | **Country:** Italy |

[2016] **Point of Care Ultrasound in Emergency Medicine Certification**

SIMEU (Società Italiana di Medicina d'Emergenza Urgenza)

City: Bergamo | **Country:** Italy |

[2016] **Ultrasound-guided venous access**

SIMEU (Società Italiana di Medicina d'Emergenza Urgenza)

City: Lodi | **Country:** Italy |

CLINICAL GOVERNANCE

[Current] **Clinical Governance Core Curriculum GIMBE**

Link: <https://www.gimbeducation.it/pagine/641/it/curriculum>

[28/02/2022 – 02/03/2022] **Dalle Linee Guida Ai Percorsi Assistenziali - GIMBE**

[12/12/2021 – 14/12/2021] **Audit Clinico e Indicatori Di Qualità - GIMBE**

[22/06/2021 – 24/06/2021] **Dalla Gestione Del Rischio Alla Sicurezza Dei Pazienti - GIMBE**

[09/03/2021 – 11/03/2021] **Strumenti e Strategie di Clinical Governance - GIMBE**

LANGUAGE SKILLS

Mother tongue(s): Italian

Other language(s):

English

LISTENING C2 READING C2 WRITING C2

SPOKEN PRODUCTION C2 SPOKEN INTERACTION C2

German

LISTENING B2 READING B2 WRITING B2

SPOKEN PRODUCTION B2 SPOKEN INTERACTION B2

French

LISTENING A2 READING B1 WRITING A1

SPOKEN PRODUCTION A2 SPOKEN INTERACTION A2

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user

RESEARCH LAB

[2021 – Current]

Regional Anaesthesia in Emergency Medicine Research Group - RAEM

Regional anaesthesia (RA) techniques are increasingly being adopted by emergency physicians into their every-day clinical practice. On a global scale, this results in a growing number of patients who benefit of nerve blocks for a variety of indications in emergency settings (Emergency Departments, Pre-Hospital Emergency Care, High Dependency Units, ICUs).

RAEM - Regional Anaesthesia in Emergency Medicine Research Group - primary goal is to support with sound scientific evidence the diffusion of RA practice among the emergency medicine community.

The Lab is also committed to teaching and education. We support emergency practitioners to acquire the skill set needed to perform nerve blocks safely and effectively at the bedside.

Lab Head: Santi Di Pietro

Link: <https://www.researchgate.net/lab/Regional-Anaesthesia-in-Emergency-Medicine-Research-Group-RAEM-Santi-Di-Pietro>

PUBLICATIONS

[2024]

Video clips for patient comprehension of atrial fibrillation and deep vein thrombosis in emergency care. A randomised clinical trial

Reference: NPJ Digit Med. 2024 Apr 30;7(1):107. doi: 10.1038/s41746-024-01107-7. PMID: 38688958

[2023]

Reciprocal Changes and Emergent Trips to the Catheterization Laboratory

Reference: JAMA Intern Med . 2023 Apr 24. doi: 10.1001/jamainternmed.2023.1051. Online ahead of print.

- [2023] **Local anaesthetic toxicity syndrome: can posters illustrating the treating algorithm improve medical management?**
Reference: Intern Emerg Med. 2023 Oct;18(7):2149-2150. doi: 10.1007/s11739-023-03406-5. PMID: 37713031.
- [2022] **Superficial cervical plexus block in Emergency Departments: rationale for its use in incision and drainage of neck skin abscesses**
Reference: Intern Emerg Med . 2022 Aug;17(5):1533-1536. doi: 10.1007/s11739-022-02992-0. Epub 2022 Jun 7.
- [2022] **A 61-years-old man with facial swelling and severe pain**
Reference: Intern Emerg Med . 2022 Aug;17(5):1537-1538. doi: 10.1007/s11739-022-02977-z. Epub 2022 Apr 6.
- [2021] **Lung ultrasound for the early diagnosis of COVID-19 pneumonia: an international multicenter study**
Reference: Intensive Care Med . 2021 Apr;47(4):444-454. doi: 10.1007/s00134-021-06373-7. Epub 2021 Mar 20.
- [2021] **Lung-ultrasound objective structured assessment of technical skills (LUS-OSAUS): utility in the assessment of lung-ultrasound trained medical undergraduates**
Reference: J Ultrasound . 2021 Mar;24(1):57-65. doi: 10.1007/s40477-020-00454-x. Epub 2020 Apr 8.
- [2021] **Patient adherence and comprehension of take-home anticoagulant regimens prescribed at the emergency department: preliminary findings from a randomized controlled trial and implications for patient safety**
Reference: Intern Emerg Med . 2021 Nov 2. doi: 10.1007/s11739-021-02872-z. Online ahead of print.
- [2020] **Multidisciplinary Approach to the Diagnosis and In-Hospital Management of COVID-19 Infection: A Narrative Review**
Reference: Front Pharmacol . 2020 Dec 9;11:572168. doi: 10.3389/fphar.2020.572168. eCollection 2020.
- [2020] **Anterior cutaneous nerve block for analgesia in anterior chest trauma: is the parasternal approach necessary?**
Reference: Clin Exp Emerg Med . 2020 Mar;7(1):67-70. doi: 10.15441/ceem.18.089. Epub 2020 Mar 31.
- [2019] **Levobupivacaine combined with dexamethasone for serratus plane block can provide long-lasting analgesia in multiple rib fractures**
Reference: <https://doi.org/10.4081/ecj.2019.7716>
- [2018] **The learning curve of sonographic inferior vena cava evaluation by novice medical students: the Pavia experience**

Reference: J Ultrasound . 2018 Jun;21(2):137-144. doi: 10.1007/s40477-018-0292-7. Epub 2018 Mar 21.

BOOK CHAPTERS

[2022 – Current]

Medicina di emergenza-urgenza. Web tutorial manual - Idelson-Gnocchi; 2° edizione (28 aprile 2022)

Chapter 18.3 Regional Anaesthesia at the Emergency Department

Chapter 22.9 Techniques of Regional Anaesthesia

CURRENT RESEARCH PROJECTS

[Current]

Pericapsular Nerve Group (PENG) Block versus Fascia Iliaca (FIB) Block for Emergency Department Analgesia in Hip Fractures: A Single-blind, Randomised Controlled Trial.

RCT conducted at the Emergency Department of IRCCS Fondazione Policlinico San Matteo, Pavia, Italy

Currently recruiting

[Current]

A Retrospective Review of Rib Fracture Pain Management at a London Major Trauma Centre

Enrolment completed - ClinicalTrials.gov Identifier: NCT04863807

Brief Summary:

Thoracic epidural analgesia (TEA) is widely considered to be the current gold standard treatment for rib fracture pain and is used in the Imperial invasive treatment pathway for rib fractures. However, TEA are often contraindicated due to other injuries or the use of anticoagulant medications, which also contraindicates other invasive nerve block techniques e.g. paravertebral catheters. A number of case reports have reported the safe use of alternative techniques such as Serratus Anterior Blocks (SAPB) and Erector Spinae Blocks (ESPB) and the anaesthesia community has taken them up widely based on this relatively limited evidence. In view of this, Womack et al recently published a large retrospective review examining the safety and efficacy of ultrasound guided paravertebral catheter analgesia techniques in rib fracture management along with small numbers of ESPBs. However, this data did not report the analgesic efficacy, patient reported pain relief or respiratory complications. The goal is to advance this body of evidence by reviewing our larger data set concerning the use of TEA and alternative regional

techniques such as ESPB and SAPB. This comprehensive review will benefit patients by documenting the efficacy and safety of these techniques for clinicians managing rib fracture patients.

CONFERENCES AND SEMINARS

[08/06/2023]

Updates in Acute Pain Management IRCCS San Matteo University Hospital

Organizer and coordinator of the conference

ABSTRACT, POSTERS, ORAL PRESENTATIONS

Rare Dermatoses at the Emergency Department: a Case of Idiopathic Sweet's Syndrome.

Di Pietro S, Sabena Anna, Falaschi Francesco, Anesi Ernesto, Brazzelli Valeria

(Poster presented at the 11th SIMEU Conference, Italian Society of Emergency Medicine, 24-26 May 2018 Rome)

Role of home-made slime in the rise of boric acid intoxications. Clinical Toxicol 2019, 57(6): 556-557

Marta Crevani , Santi Di Pietro, Francesca Chiara , Azzurra Schicchi, Valeria M Petrolini and Carlo A Locatelli

(Abstract presented at the 39th International Congress of the European Association of Poisons Centres and Clinical Toxicologists (EAPCCT) 21-24 May 2019, Naples, Italy)

Link: <http://dx.doi.org/10.1080/15563650.2019.1598646>

Effect of video clips on patient comprehension of atrial fibrillation and deep vein thrombosis in the emergency setting.

Santi Di Pietro, MD; Ilaria Ferrari, MD, PhD; Giuseppe Bulgari, MD; Maria Lorenza Muiesan, MD, PhD; Francesco Falaschi, MD; Annalisa De Silvestri, PhD; Luigia Scudeller, MD, PhD; Valeria Musella, PhD; Simone Saggio, MD; Beatrice Re, MD; Elena Mattiuzzo, MD; Fabio Cherubini, MD; Stefano Perlini, MD, PhD

(Oral Presentation at the 3rd ITEMS Conference, 26-27 May 2023, Assisi, Italy)

TEACHING EXPERIENCE

[2022 – Current]

Regional Anaesthesia for Emergency Physicians - 1-day Course

I have recently developed a 1-day course that aims to train emergency physicians in using regional anaesthesia techniques in the ED setting.

The course is structured to cover all the theoretical knowledge necessary to safely and effectively perform nerve blocks (indications; equipment; prevention and management of complications). In addition to that, students learn the necessary technical skills across practical stations including a) ex-vivo animal model to practice hand-eye-probe coordination and haptic feedback during needle manipulation b) sonoanatomy on healthy volunteers c) The use of [BlockSim™](#), a realistic simulator of fascial plane and nerve blocks

d) High-fidelity mannequin to simulate a clinical scenario (HAL®S3201 Gaumard).

To date, approximately 150 emergency physicians/trainees from various Italian regions and from Switzerland have attended the course.

- Policlinico S.Orsola-Malpighi, September 2022
- Simulation Center, University of Pavia, October 2022 (AcEMC Pre conference course)
- Simulation Center, University of Pavia, November 2022 (Edition for Trainees from the Emergency Medicine Residency Programme at the University of Pavia - Director Prof. Stefano Perlini)
- SimulHub, Parma January 2023
- SimulHub Parma, April 2023
- Policlinico S.Orsola-Malpighi, April 2023
- Ospedale Cattinara Trieste, November 2023
- Policlinico di Bari, January 2024

[2019 – Current] **Postgraduates Teaching**

Direct supervision and training of residents from the University of Pavia during their rotation at the Emergency Department (Training Programme in Internal Medicine, Emergency Medicine, Respiratory Medicine, Rehabilitation Medicine, General Practitioners, Toxicology)(bedside teaching; lectures; simulation-based teaching)

Mentoring and supervision of Emergency Medicine residents involved in research activities (Designing and writing of research protocols; GCP; Manuscript preparation; etc.)

Course "Regional anaesthesia for Emergency Physicians" - Edition for the Emergency Medicine Residency Programme at the University of Pavia - Director Prof. Stefano Perlini - Simulation Center, University of Pavia, November 2022

[2017 – Current] **Undergraduates Teaching**

Direct supervision of medical students during their clinical clerkships in the Emergency Department.

In 2017 I have started an educational research project which involved a small pilot group of medical students from the University of Pavia. Students were taught some relevant POCUS skills over 2 years and were instructed to integrate these skills and knowledge into their physical examinations.

This experience eventually resulted in the publication of two articles on peer-reviewed journals (See above the "publication" section) (J Ultrasound . 2018 Jun; 21(2):137-144. doi: 10.1007/s40477-018-0292-7. Epub 2018 Mar 21. - J Ultrasound . 2021 Mar;24(1):57-65. doi: 10.1007/s40477-020-00454-x. Epub 2020 Apr 8)

Since then, training medical students in basic POCUS has become a routine at our Emergency Department (IRCCS San Matteo University Hospital).

Mentor and Co-supervisor for last year medical students in the development of thesis projects.

To date I have been Co-Supervisor of 6 medical students from the Harvey and Golgi course at the University of Pavia.

INDUSTRIAL PARTNER-SHIPS

[2022 – Current] © **Accurate Srl**

I have recently started to cooperate with © Accurate Srl for the implementation of their BlockSim, a nerve block/fascial plane block high-fidelity simulator.

This simulator has been intended initially for the training of anaesthesiologist. However, the company and I have seen a potential for the development and diffusion of the device within the world of emergency medicine. In fact, there is a growing interest of emergency physician towards regional anaesthesia as a new tool to manage pain conditions.

Currently, I am in charge of developing new clinical scenarios related to the EM practice: this will help physicians to become confident on the most common procedures using a high-fidelity simulator before they start practicing nerve blocks on patients.

Link: <https://accuratesolutions.it/en/product-details/blocksimsimulator-for-ultrasound-guided-fascia-blocks/>

DIGITAL SKILLS

My Digital Skills

Microsoft Word | Microsoft Powerpoint | Microsoft Excel | Google Drive | Zoom | Social Media

HONOURS AND AWARDS

[09/2020] **Borsa di Studio GIMBE4Young Awarding institution: GIMBE**

Borsa di Studio del valore di 1200 Euro per la partecipazione al Corso "Metodi e strumenti di clinical governance per la sostenibilità del SSN" Corso online, dicembre 2020 – gennaio 2021

Link: <https://www.gimbe.org/pagine/767/it/gimbe4young>

[15/12/2023] **Premio Valentina Liboni 2023 - Miglior tesi di specializzazione in Medicina d'Emergenza-Urgenza**

Awarding institution: IEMIG - Italian Emergency Medicine Interest Group

Link: <https://www.iemig.it/premio-valentina-liboni-2023-a-due-medici-e-uninfermiera/>

HOBBIES AND INTERESTS

Music - Playing saxophone

Hiking - Trekking

Snorkeling - Spearfishing