



Dan Sebastian Dirzu

Date of birth: 04/09/1981 | **Nationality:** Romanian | **Phone:** (+40) 0740300409 (Mobile) | **Email:** dirzudan@gmail.com | **Address:** Gnral Mosoiu, 47-49, Cluj-Napoca, Romania (Work)

ABOUT MYSELF

<https://orcid.org/0000-0002-6730-7045>

[Scopus Author ID: 36150639900](#)

Web of Science ResearcherID: AFQ-2249-2022

WORK EXPERIENCE

ANESTHESIA AND INTENSIVE CARE ORTHOPEDIC DEPARTMENT, EMERGENCY COUNTY HOSPITAL CLUJ-NAPOCA
- CLUJ-NAPOCA, ROMANIA

Address General Mosoiu, 47-49, 400123, Cluj-Napoca, Romania

HEAD OF THE DEPARTMENT - 11/12/2023 - CURRENT

ANESTHESIA AND INTENSIVE CARE UNIT - CLINICILOR 4-6 - EMERGENCY COUNTY HOSPITAL CLUJ NAPOCA.

HEAD OF THE DEPARTMENT - 01/03/2020 - 28/09/2022

SPITAL "REGINA MARIA" CLUJ NAPOCA - CLUJ-NAPOCA, ROMANIA

CHRONIC PAIN CONSULTANT - 01/02/2022 - CURRENT

CLINICAL CASE REPORTS, WILEY - HOBOKEN , UNITED STATES

SENIOR EDITOR - 01/02/2017 - CURRENT

ARAR - ASOCIATIA ROMANA DE ANESTEZIE REGIONALA SI TERAPIA DURERII - ROMANIA

PRESIDENT - 10/12/2015 - CURRENT

INTERNATIONAL JOURNAL OF CLINICAL PRACTICE - WILEY

SENIOR EDITOR - 01/06/2019 - CURRENT

ESRA - EUROPEAN SOCIETY OF REGIONAL ANESTHESIA AND PAIN MANAGEMENT

BOARD MEMBER - 06/09/2024 - CURRENT

ANESTHESIA AND INTENSIVE CARE DEPARTMENT OF UNIVERSITY OF MEDICINE AND PHARMACY IULIU HATIEGANU

PROFESSOR ASSISTANT - 01/01/2008 - 06/04/2018

ANESTHESIA AND INTENSIVE CARE DEPARTMENT OF UNIVERSITY OF MEDICINE AND PHARMACY IULIU HATIEGANU

LECTURER - 06/09/2018 - 01/10/2019

BY EMERGENCY MILITARY HOSPITAL DR. CAROL DAVILA BUCHAREST - BUCHAREST

ANESTHESIA AND INTENSIVE CARE RESIDENT - 01/01/2006 - 31/12/2010

FIRST ANESTHESIA AND INTENSIVE CARE DEPARTMENT EMERGENCY COUNTY HOSPITAL CLUJ NAPOCA

ANESTHESIA AND INTENSIVE CARE SPECIALIST - 01/01/2011 - 01/03/2016

FIRST ANESTHESIA AND INTENSIVE CARE DEPARTMENT EMERGENCY COUNTY HOSPITAL CLUJ NAPOCA

ANESTHESIA AND INTENSIVE CARE CONSULTANT - 01/03/2016 - 01/03/2020

EMERGENCY COUNTY HOSPITAL CLUJ NAPOCA

TRANSPLANT COORDINATOR – 01/01/2011 – 31/12/2019

CLINICAL CASE REPORTS, WILEY

ASSOCIATED EDITOR – 01/10/2013 – 01/02/2017

ESRA (EUROPEAN SOCIETY OF REGIONAL ANESTHESIA AND PAIN THERAPY

COUNCIL MEMBER – 04/09/2016 – 06/09/2019

first Romanian in the Council of the ESRA

ESRA (EUROPEAN SOCIETY OF REGIONAL ANESTHESIA AND PAIN THERAPY)

BOARD MEMBER – 06/09/2019 – 06/09/2022

First Romanian elected as Board Member

ESCTAIC - EUROPEAN SOCIETY OF COMPUTING AND TECHNOLOGY IN ANESTHESIA AND INTENSIVE CARE – LUBECK, GERMANY

SECRETARY GENERAL – 01/06/2013 – 12/09/2020

<https://www.esctaic.org/>

ENT - ANESTHESIA DEPARTMENT - EMERGENCY MILITARY HOSPITAL CLUJ-NAPOCA

FOUNDER – 2012 – 2014

BABES BOLYAI UNIVERSITY – CLUJ-NAPOCA

CERCETATOR STIINTIFIC III – 14/02/2025 – CURRENT

● EDUCATION AND TRAINING

01/10/1999 – 01/10/2005 Targu Mures, Romania

MD - MILITARY MEDICINE University of Medicine and Pharmacy Tg Mures – Military Medicine Section

Website <https://umfst.ro/> | Level in EQF EQF level 6

01/10/2013 – 01/07/2014 Targu Mures, Romania

MBA - HEALTH SERVICES MANAGEMENT University of Medicine and Pharmacy Tg Mures

Website umfst.ro | Level in EQF EQF level 7

01/10/2013 – 10/02/2018 Targu Mures, Romania

PHD University of Medicine and Pharmacy Tg Mures

Website umfts.ro | Level in EQF EQF level 8

01/01/2017 – 30/12/2017 Budapest, Hungary

FELLOWSHIP - CHRONIC PAIN Pains school international

Website <http://painschoolinternational.com/> | Level in EQF EQF level 7

● LANGUAGE SKILLS

Other language(s):

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken production	Spoken interaction	
ENGLISH	C2	C2	C2	C2	C2
FRENCH	B2	B2	A2	A2	A2

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

● **CLINICAL EXPERIENCE:**

Anesthesia, Intensive Care and Pain

Expert: ultrasound guided regional anesthesia; interventional pain management, neuraxial anesthesia, combined spinal epidural.

Experienced in: difficult airway management, bronchoscopy, advance invasive hemodynamic monitoring, maintaining brain death for organ harvesting, VIMA, MARS (liver dialysis), CVVHDF.

● **RESEARCH EXPERIENCE**

local coordinator for clinical studies

EUSOS clinical study local coordinator <http://eusos.esicm.org/>

ELOISE clinical study local coordinator <http://clinicaltrials.gov/ct2/show/NCT01422070>

POPULAR clinical study local coordinator <http://www.esahq.org/POPULAR>

Met-Repair clinical study local coordinator <http://www.esahq.org/met-repair>

member in study teams

NEUROPROTER <http://www.granturi.umfcluj.ro/NEUROPROTER/rezumaten.html>

ALERGOCIT <http://www.granturi.umfcluj.ro/Alergocit/rezumaten.html>

Principal investigator in clinical studies

PHOENICS - <https://www.esaic.org/research/a-cro-1/phoenics/>

Chiesi_READY 1 CUSA - <https://clinicaltrials.gov/ct2/show/NCT03992443>

EGL-6535-C-2202 - <https://clinicaltrials.gov/study/NCT05776004>

● **PUBLICATIONS**

2010

[Clinical aspects and cytokines response in severe H1N1 influenza A virus infection](#)

Hagau, A Slavcovici, DN Gonganau, S Oltean, DS Dirzu, ES Brezozski, ... Crit Care. 2010 Nov 9;14(6):R203.

2009

[Bilanțul alergologic la pacientul cu risc de anafilaxie](#)

Write here the description...

N Gherman-Ionică, R Bologa, C Indrei, D Hagău, D Dîrzu, S Trancă, ... Jurnalul Român de AnestezieTerapie intensivă 16, 44-54

2010

[Maximum non-reactive concentration of midazolam and ketamine for skin testing study in non-allergic healthy volunteers](#)

Write here the description...

N Hagau, RO Bologa, CL Indrei, D Longrois, DS Dirzu, N Gherman-Ionica Anaesthesia and intensive care 38 (3), 513-518

2011

[Proposal for use of two concentrations for metamizol to intradermal testing](#)

N Gherman-Ionică, R Bologa, S Cocu, C Cristea, D Dîrzu, N Hagău Farmacia 59, 578-89

2014

[Comparing the anti-inflammatory effects of Simvastatin and Rosuvastatin by measuring IL-1 \$\beta\$, IL-6 and TNF- \$\alpha\$ levels using a murine caecal ligation and puncture induced sepsis ...](#)

M Mărginean, S Trancă, A Ardelean-Maghiar, D Dirzu, A Huțanu, ... Revista Romana de Medicina de Laborator 22 (4), 439-450

2014

[Hospital mortality of adults admitted to Intensive Care Units in hospitals with and without Intermediate Care Units: a multicentre European cohort study](#)

M Capuzzo, CA Volta, T Tassinati, RP Moreno, A Valentin, B Guidet, ... Critical Care 18, 1-15

2015

[Effectiveness versus efficiency in a medical skills laboratory](#)

DS Dîrzu, SM Copotoiu Romanian Journal of Anaesthesia and Intensive Care 22 (1), 35

2015

[Anticytoplasm neutrophil antibodies-positive vasculitis with diffuse alveolar hemorrhage related to a spider bite.](#)

LO Damian, C Lenuț, DS Dîrzu, A Cristea, S Rednic, N Hagău The American Journal of Emergency Medicine 34 (2), 339. e3-4

2016

[The effectiveness of using medical students for training high school students in cardiopulmonary resuscitation](#)

DS Dîrzu, N Hagău, T Boț, L Fărcaș, SM Copotoiu Acta Marisiensis-Seria Medica 62 (2), 202-204

2017

[Medical simulation—a costly but essential teaching tool](#)

DS Dîrzu Romanian Journal of Anaesthesia and Intensive Care 24 (1), 5

2018

[Training in cardiopulmonary resuscitation provided by medical students, residents and specialists: A non-inferiority trial](#)

DS Dîrzu, N Hagău, T Boț, L Fărcaș, SM Copotoiu Hong Kong Journal of Emergency Medicine 25 (1), 20-26

2018

[Saphenous nerve block as a diagnosis tool for chronic postsurgical pain of the left medial calf](#)

DS Dîrzu, T Boț, C Ciuce Clinical Case Reports 6 (2), 454-455

2019

[Post-anaesthesia pulmonary complications after use of muscle relaxants \(POPULAR\): a multicentre, prospective observational study](#)

E Kirmeier, LI Eriksson, H Lewald, MJ Fagerlund, A Hoeft, M Hollmann, ... The Lancet Respiratory Medicine 7 (2), 129-140

2019

[Preoperative difficult airway prediction using suprahyoid and infrahyoid ultrasonography derived measurements in anesthesiology](#)

C Petrisor, D Dîrzu, S Trancă, N Hagău, C Bodolea Medical Ultrasonography 21 (1), 83-88

2019

[Urinary retention: a possible complication of unilateral continuous quadratus lumborum analgesia—a case report](#)

DS Dîrzu, C Dicu, N Dîrzu Romanian Journal of Anaesthesia and Intensive Care 26 (1), 75-78

2019

[Hemidiaphragmatic paresis versus block failure: the effect of anesthetic volume reduction for supraclavicular plexus block](#)

DS Dirzu Regional Anesthesia & Pain Medicine 17 May 2019. doi: 10.1136/rapm-2019-100413

2019

[Cervical ribs—An anatomical obstacle for upper limb regional blocks](#)

E Moreno, DS Dirzu, MF Bastías Moraga, M Fajardo Pérez Clinical Case Reports 7 (11), 2279-2280

2020

[Replacing the stethoscope with ultrasound identification of lung sliding to confirm correct endotracheal tube placement for COVID-19 patients—Time for a paradigm shift?](#)

DS Dirzu International Journal of Clinical Practice 74 (10), e13571

2022

[BMP-2 delivery through liposomes in bone regeneration](#)

N Dirzu, O Lucaciu, DS Dirzu, O Soritau, D Cenariu, B Crisan, L Tefas, ... Applied Sciences 12 (3), 1373

2022

[Quantification of left atrial function and geometry by cardiac magnetic resonance imaging in patients with severe aortic stenosis](#)

Cionca C, Zlibut A, Orzan RI, et al. Research Square; 2022. DOI: 10.21203/rs.3.rs-1224466/v1

2022

[Recommendations for effective documentation in regional anesthesia: an expert panel Delphi consensus project](#)

HM Ahmed, BP Atterton, GG Crowe, JL Barratta, M Johnson, E Viscusi, ... Regional Anesthesia & Pain Medicine 47 (5), 301-308

2022

[Erector spinae plane block for affective and safe analgesia in a patient with severe penetrating chest trauma caused by an explosion in the battlefield](#)

D Dmytriiev, DS Dirzu, M Melnychenko, R Eichholz Clinical Case Reports 10 (10), e6433

2023

[Left atrial geometric and functional remodeling parameters measured by cardiac magnetic resonance imaging and outcome prediction in patients with severe aortic stenosis](#)

C Cionca, A Zlibut, RI Orzan, BO Cojan-Minzat, D Horvat, ID Muresan, ... Polish Heart Journal (Kardiologia Polska) 81 (2), 150-159

2023

[Exploratory evaluation of neopterin and chitotriosidase as potential circulating biomarkers for colorectal cancer](#)

A Ciocan, RA Ciocan, N Al Hajjar, AM Benea, SL Pandrea, CS Cătană, ... Biomedicines 11 (3), 894

2023

[Medication-induced mood disorders following epidural steroid injections in patients with pain: A case series](#)

CT Vangeison, JP Roys, MN Catalanotto, WI Kupperman, AR Kovacs, ... Clinical Case Reports 11 (6)

2023

[**Risk assessment for major adverse cardiovascular events after noncardiac surgery using self-reported functional capacity: international prospective cohort study**](#)

GAL Buse, E Mauermann, D Ionescu, W Szczeklik, S De Hert, M Filipovic, ... British journal of anaesthesia 130 (6), 655-665

2023

[**Consensus practice guidelines on postdural puncture headache from a multisociety, international working group: a summary report**](#)

V Uppal, R Russell, R Sondekoppam, J Ansari, Z Baber, Y Chen, ... JAMA network open 6 (8), e2325387-e2325387

2023

[**Impact of TENS stimulation on acute postoperative pain after abdominal surgery--a pubmed review.**](#)

RA Ciocan, AA Cordoş, A Ciocan, S Mărgărit, N Dîrzu, DS Dîrzu Signa Vitae 19 (6)

2024

[**Metabolic Signatures: Pioneering the Frontier of Rectal Cancer Diagnosis and Response to Neoadjuvant Treatment with Biomarkers—A Systematic Review**](#)

RA Ciocan, A Ciocan, FV Mihăileanu, CP Ursu, Ş Ursu, C Bodea, ... International Journal of Molecular Sciences 25 (4), 2381

2024

[**Association between self-reported functional capacity and general postoperative complications: analysis of predefined outcomes of the MET-REPAIR international cohort study**](#)

S Roth, R M'Pembele, J Nienhaus, E Mauermann, D Ionescu, W Szczeklik, ... British journal of anaesthesia 132 (4), 811-814

2024

[**Pathological findings associated with the updated European Society of Cardiology 2022 guidelines for preoperative cardiac testing: an observational cohort modelling study**](#)

A Stroda, E Mauermann, D Ionescu, W Szczeklik, S De Hert, M Filipovic, ... British Journal of Anaesthesia 132 (4), 675-684

2024

[**Evidence-based clinical practice guidelines on postdural puncture headache: a consensus report from a multisociety international working group**](#)

V Uppal, R Russell, RV Sondekoppam, J Ansari, Z Baber, Y Chen, ... Regional Anesthesia & Pain Medicine 49 (7), 471-501

2024

[**Insidious onset of xiphodynia with an idiopathic origin--a rare case report.**](#)

AS Qashqary, L Lam, C Vangeison, DS Dîrzu, EN Husu Signa Vitae 20 (7)

● **AWARDS**

Premierea rezultatelor cercetării pentru articole WebOfScience 2022

PN-IV-P2-2.3- PRECISI-2023- 80430

● **MANUALS AND BOOKS**

manuals

1. **Manual of Anaesthesia and Intensive Care for IV year students** – Hagau et al Cluj Napoca, 2007
- 2.3.4. **Guideline of medical and surgical manoeuvres** Gherman et al Romanian, French and English editions, coauthor „Editura Cărții de Știință” 2017 ISBN 978-606-17-1169-7; 978-606-17-1165-9; 978-606-17-1167-3
- 5.6.7. **Guidline of medical and surgical techniques** Gherman et al Romanian, French and English editions, coauthor „Editura Cărții de Știință” 2017 ISBN 978-606-17-1168-0, 978-606-17-1166-6, 978-606-17-1164-2
- 8.9. **First aid manual for first year students**, Hagau et al Romanian and English versions Cluj Napoca 2010, reedited 2016 ISBN: 978-973-693-674-6, 978-973-693-675-3
10. **Postoperative recovery of critical patient** – manual for students Hagau et al, Editura medicala universitara „Iuliu Hațieganu” Cluj Napoca 2016, ISBN 978-973-693-673-9re

books

1. **Pain Management: A Problem-Based Learning Approach** Anitescu M., Oxford University Press USA, 2018 DOI: 10.1093/med/9780190271787.001.0001

2. **Oxford Handbook of Regional anesthesia Romanian Edition** – Warman, Conn, Nicholls, Wilkinson, Dirzu, Onutu, Bodolea 2017, Ed. Hipocrate, ISBN: 9783829767491

MEMBER IN IMPLEMENTATION TEAM OF FINANCED PROJECTS:

training projects

1. Simulation in healthcare to develop a partnership between learners and professionals in medical and paramedical training, Erasmus+ Programme / Key Action 2: Cooperation for innovation and the exchange of good practices. Strategic partnerships in the field of education, training and youth. Partnerships for higher education. 15PS0009 (2015-1-BE01-KA203-013218), team member 01.09.2015 - 31.08.2018
2. Implementation of ultrasound techniques in the management of the oncological patient in the priority health areas - POCU 4.8 - SMIS 105913 POCU/91/4/8/105913 Module Manager – pain therapy 2018-2020
3. SimLab - National training system for simulation in anesthesia and intensive care and other specialties Swiss-Romanian collaboration programme – 2017-2019 project manager representing University of Medicine and Pharmacy „Iuliu Hațieganu” Cluj Napoca.
4. Distance learning project implemented by MTI, in cooperation with World Health Organization Libya and the Libyan Ministry of Health from June to November 2020.

research projects

Flow cytometry as cellular investigation method in allergeo-anaesthesiology in order to reduce the risk of perianaesthetic anaphylaxis - founded by The National Centre of the Programs Management

INVITED SPEAKER PRESENTATIONS IN NATIONAL AND INTERNATIONAL CONFERENCES: (SELECTION)

workshops and local/post-graduated events excluded

- 1 National course of guidelines and protocols in Anesthesia, Intensive Care and Emergency Medicine (GPATI) 2013: Early goal directed therapy of sepsis in Emergency Department
- 2 ESCTAIC Meeting 2014 Bronchoscopy in ICU – old technique, new contexts !?
- 3 GPATI 2015 Common modes of mechanical ventilation
- 4 ESCTAIC Meeting 2016 Role of simulation in medical education
- 5 GPATI 2016 Legal challenges of critical patient in Emergency Department
- 6 MediSim 2015 The First Conference of Simulation Applied in Medicine Effectiveness versus efficiency in medical skills laboratory
- 7 Emergency Medicine Actualities conference 2015 Legal challenges of critical patient in Emergency Department
- 8 Romanian veterinary and critical care society meeting 2015 Acid base deficits in cats and dogs.
- 9 CEEA (Committee for European Education in Anaesthesiology) 2016 Ultrasound and Anesthesia – basic knowledge
- 10 Difficult Airway Symposium 2016 - Simulation Role in difficult airway training
- 11 ARAR meeting 2016 Simulation role in teaching regional anesthesia
- 12 CEEA 2017 Postoperative pain protocols based on surgical procedure - a summary of PROSPECT recommendations.
- 13 Emergency Medicine Actualities conference 2017 Anesthesia and analgesia in limb trauma
- 14 MediSim 2017 Conference of Simulation Applied in Medicine - Simulation role in regional anesthesia training
- 15 GPATI 2017 Anesthetist role in neoplastic pain
- 16 ARAR 2017 Basic ultrasound physics for anesthesiologist
- 17 European society of regional anesthesia and pain therapy annual congress (ESRA) 2017 CSE AND ITS ROLE IN HIGH RISK PATIENTS
- 18 XIXth meeting of National Anatomy Society 2018 Sono-anatomy for regional anesthesia
- 19 Emergency Medicine Today meeting 2018 Management of sepsis in Emergency Departament
- 20 ARAR 2018 Interventional treatment for neoplasia pain, Combined spinal epidural for high risk surgical patient
- 21 SRATI 2018 (Romanian Society of Anesthesia) QL is anesthesia of choice for abdominal surgery
- 22 SRATI 2019 Epidural is still the anesthesia of choice for colorectal procedures.

- 23 ESRA 2019 Regional anesthesia role in fast track after hip replacement.
- 24 GPATI 2019 Regional anesthesia role in fast track after hip replacement, Epidural is still the anesthesia of choice for colorectal procedures
- 25 Romanian veterinary and critical care society meeting 2019 - Regional anesthesia in veterinary patients – lessons learned from human medicine
- 26. ESRA 2019 Madrid Workshop
- 27. ESRA 2020 - Spinal Hypotension: Preventive and Therapeutic Measures: State of the Art!, Regional Anaesthesia In Multidisciplinary Fast-Track Surgical Care Pathways – Hip Surgery
- 28 ASRA 39 Pain meeting, Las Vegas, 2020 november
- 29 Innsbruck 2020, 2022, 2023 ESRA regional anesthesia workshop
- 30 Congresul Ucrainian de Anestezie Regionala, 2021
- 31 Congresul Medical Romano Iordanian 2021
- 32 CIMU 2021
- 33 **World Congress of Regional Anesthesia and Pain therapy – Paris 2023 – 1 lecture, 5 workshops, 2 panel moderator – jury chair Best regional Anesthesia paper of the world - <https://esraworld2023.com/>**
- 34 **World Congress of Anesthesia – Singapore 2024: two invited lectures, one workshop**
- 35. **European congress of ewgional anesthesia Prague 2024**
- 36. **71st Annual National Conference of the Indian Society of Anaesthesiologists, ISACON PATNA -India**

● **OTHER RELEVANT INFORMATION**

Extensive experience as trainer:

Trained as Instructor for the **European Society of Intensive Care Medicine (ESICM) BASIC courses: 1. Adult ICU, 2. Pediatric ICU, 3. Management of ICU.**
 Regional coordinator for ESICM Pediatric ICU course.
 Trainer for medical malpractice courses accreditation given by Romanian Ministry of Health.
 Organizer and trainer of Difficult Airway Management Courses annual workshops at Romanian Society of Anesthesia and Intensive Care Annual Meetings. Workshop at ESA Autumn meeting 2013.
 Trained in Simulation based medical training and evaluation – five days course at MSR-Tel Aviv, Israel. Courses on the same topic in UK, Norway, Austria.
 Founder and coordinator of “Students society of Anesthesia and Intensive Care”. First in Romania.
 Coordinator of BLS team of the Road Safety program of Medical Students Organization – Founder of a volunteers team of students trainers who teach BLS in high schools. More than 2000 students trained.
 Member in organizing and scientific committee of ESCTAIC annual meetings starting 2015
 Head of the Scientific and Organizing Committees of ARAR startup Meeting February 2016 Cluj Napoca and every year since
 More than 200 anesthesiologists from Romania trained in 2-4 days workshops with small numbers of participants (10 to 15). <https://atiecho.ro/echipa/>
 Regular trainer in ESRA workshops.

● **ABSTRACTS PUBLISHED**

scientific meetings published abstracts

1. **New generation nasal delivery device for preoperative sedation—safe, effective and physician’s choice** Dan Sebastian Dîrzu, Natalia Hagău, Florin Anton, Gabriela Csipak, Gabriel Gurman - J Clin Monit Comput.31(3):498. The abstracts of the 26th congress of ESCTAIC, Timisoara, Romania, September 22–24, 2016.
2. **Role of simulation in medical education** Dîrzu DS, Copotioiu SM. J Clin Monit Comput.31(3):495. The abstracts of the 26th congress of ESCTAIC, Timisoara, Romania, September 22–24 2016.
3. **QUADRATUS LUMBORUMANALGESIA FOR EXCRUCIATING, INTRACTABLE PAIN AFTER PELVIC, ACETABULAR AND FEMUR FRACTURES - CASE REPORT** Dirzu D.S, Dumulesc C Abstracts and Highlight Papers of the 36th Annual European Society of Regional Anaesthesia & Pain Therapy (ESRA) Congress 2017. Reg Anesth Pain Med.;42:e186.
4. **OPIOID FREE ANAESTHESIA FOR MAJOR ABDOMINAL SURGERY- IS BILATERAL QUADRATUS LUMBORUM THE ANSWER? CASE REPORT** DirzuD.S., and Bot T. Abstracts and Highlight Papers of the 36th Annual European Society of Regional Anaesthesia & Pain Therapy (ESRA) Congress 2017. Reg Anesth Pain Med.;42:e188.
5. **ESRA19-0318 Spinal hypotension: preventive and therapeutic measures: state of the art!** DS Dirzu and I Bărbos Regional Anesthesia & Pain Medicine 2019;44:A11
6. **ESRA19-0474 Hip surgery** Dirzu D, Virgil P, Ilinca N Regional Anesthesia & Pain Medicine 2019;44:A19