

Jeffrey Michael Franc,

MD, Msc, MS, FCFP.EM, Dip Sport Med

Clinical Professor of Emergency Medicine,
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Visiting Professor in Disaster Medicine
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Languages: English, Italian, French (written and spoken)
Spanish (working knowledge)

Summary of Experience

- Residency training in Emergency Medicine, Sport Medicine, and Family Medicine.
- Masters degree and research sabbatical in Disaster Medicine.
- Masters degree in Applied Statistics and Quality Engineering.
- Superior clinical skills in emergency medicine developed during twenty years as university teaching faculty in an adult and pediatric tertiary care emergency department.
- Past Medical Director for Emergency / Disaster Management for the province of Alberta.
- Advanced skills in clinical sports medicine and in disaster management of a large scale sporting event.

Clinical Work Experience

Clinical Professor of Emergency Medicine 1998-present
University of Alberta Hospital, Edmonton, Alberta, Canada

Pediatric Emergency Physician 2001-present
Stollery Children's Hospital, Edmonton, Alberta, Canada

Non-Clinical Work Experience

CEO and Founder 2019-present
STAT59 Research Statistics

Research Advisory Board Member 2017-2018
Alberta Emergency Strategic Clinical Network

Chief Data Scientist 2016-Present
SimNova, Novara, Italy

Medical Director Emergency/Disaster Management 2010- 2015
Alberta Health Services

Senior Statistician 2008-Present
CRIMEDIM (Center for Research in Disaster and Emergency Medicine)
Universita' del Piemonte Orientale, Novara, Italy

Visiting Professor in Disaster Medicine 2008-Present
Universita' del Piemonte Orientale, Novara, Italy

Visiting Professor in Disaster Medicine 2008-Present
Vrije Universiteit Brussel, Belgium

Disaster Medicine Residency Program Coordinator 2010-present
University of Alberta, Edmonton, Alberta, Canada

Physician Coordinator, Disaster Planning committee University of Alberta Hospital, Edmonton, Alberta, Canada	1999- 2013
Physician Representative, Occupation Health Committee University of Alberta Hospital, Edmonton, Alberta, Canada	2000- 2007
Chief Medical Officer, 2005 World Masters Games Edmonton, Alberta, Canada	2005
Examiner, Canadian Academy of Sport Medicine London, Ontario, Canada	2004
Physician Representative, Quality Care Committee University of Alberta Hospital, Edmonton, Alberta, Canada	1999- 2001
Coordinator, Year 2000 Disaster Planning Committee University of Alberta Hospital, Edmonton, Alberta, Canada	1999-2000
Chief Resident, CCFP.EM Program University of Alberta Hospital, Edmonton, Alberta, Canada	1998-1999
Web-Site Programmer Canadian Academy of Sport Medicine (CASM)	1997- 1999
Assistant Chief Resident, CCFP Program McGill University, Montreal, Quebec, Canada	1997-1998

Education

MS Applied Statistics (Quality Engineering) Rochester Institute of Technology	2008 –2013
MSc Disaster Medicine Università del Piemonte Orientale, Novara, Italy	2005-2006
CCFP.EM Emergency Medicine Residency University of Alberta, Edmonton, Alberta, Canada	1997-1998
CCFP (Family Medicine) Residency McGill University, Montreal, Quebec, Canada	1995-1997
Rotating Internship McGill University, Montreal, Quebec, Canada	1994-1995
MD Program University of Calgary, Calgary, Alberta, Canada	1991-1994
Bsc (Honors) Physiology University of Alberta, Edmonton, Alberta, Canada	1988 - 1991

Licensing and Certifications

Six Sigma Black Belt	2014
Six Sigma Green Belt / Design for Six Sigma	2011
Emergency Operations Center Level EOC-100/EOC-200	2006
Incident Command System Levels I-100/I-200/I-300	2005
Emergency Operations Center Level EOC-1	2005
Diploma in Sport Medicine, (CASM)	2003
CCFP.EM Certification Examination (Emergency Medicine)	1998
CCFP Certification Examination (Family Medicine)	1997
Quebec Family Medicine Certification Examination	1997
Office de La Langue Francais, French Competency Exam	1997

Additional Learning Activities

NRP Provider Course	2017
AHLS Provider Course	2014
ACLS Provider Course	2014
PALS Provider Course	2013
APLS Provider Course	2012
APLS Provider Course	2003
ACLS/PALS Instructor Course	1999
ATLS Provider Course	1998
Teaching Enhancement Workshop	1997

Honors and Awards

AHS President's Excellence Award (Health and Safety)	2015
Clinical Teacher of the Year, University of Alberta	2009,2005,2002
Louise McKinney Scholarship	1989
Undergraduate Math Award	1989
Rutherford Scholarship	1988

Memberships and Associations

Emergency Urgent Care Expert Working Group for COVID -19 Planning	2020
Council of Public Health Physicians, Executive Member	2011-2014
European Master in Disaster Medicine Alumni Association	2009-Present
European Master in Disaster Medicine Academy	2009
European Society of Emergency Medicine	2008-2009
Canadian Academy of Sports Medicine	2001-Present
World Association of Disaster and Emergency Medicine	2006-2009

Software Authorship

- **Stat59** Research Statistics Application (www.stat59.com)
- **SurgeSim** Emergency Department Simulator (www.surgesim.com)
- **SimChron** Simulation Timer for iOS (available on Apple app store)
- **SimChronize** Simulation Timer for Android (available on Google play)
- **SimuRate** Simulation Scoring Software (simurate.medstatstudio.com)
- **AnomR** Analysis of Means for R (git.medstatstudio.com/jeffrey-franc/anomr)

Journal Publications

1. Monzani A, Ragazzoni L, Della Corte F, Rabbone I, Franc J. COVID-19 Pandemic: Perspective from Italian Pediatric Emergency Physicians. Disaster Medicine and Public Health Preparedness 2020; 1-11.
2. Christensen L, Rasmussen C, Benfield T, Franc J. A Randomized Trial of Instructor-Led Training Versus Video Lesson in Training Health Care Providers in Proper Donning and Doffing of Personal Protective Equipment. Disaster Medicine and Public Health Preparedness 2020; 1-7.
3. Weinstein E, Gosney J, Ragazzoni L, Franc J, Herbert T, Weinstein B, Cramer J. The Ethical Triage and Management Guidelines of the Entrapped and Mangled Extremity in Resource Scarce Environments: A Systematic Literature Review. Disaster Medicine and Public Health Preparedness 2020; 1-9.

4. Carenzo L, Braithwaite EC, Carfagna F, Franc JM, Ingrassia PL, Turner MJ, Slater MJ, Jones MV. Cognitive appraisals and team performance under stress: A simulation study. *Med Educ.* 2020; 00: 1– 10.
5. Ragazzoni L, Kwizera A, Caviglia M, Bodas M, Franc JM, Ssemmanda H, Ripoll-Gallardo A, Della-Corte F, Alenyo-Ngabirano A. Intra-operative low-dose ketamine does not reduce the cost of post-operative pain management after surgery: a randomized controlled trial in a low-income country. *Afri Health Sci* 2019; 3:127-3135.
6. Gallardo AR, Meneghetti G, Franc JM, Costa A, Ragazzoni L, Bodas M, Jordan V, Della Corte F. Comparing Resource Management Skills in a High- versus Low-Resource Simulation Scenario: A Pilot Study. *Prehospital and Disaster Medicine* 2019; 1-5.
7. Homier V, Hamad R, Larocque J, Chasse P, Khalil E, Franc JM. A Randomized Trial Comparing Telephone Tree, Text Messaging, and Instant Messaging App for Emergency Department Staff Recall for Disaster Response. *Prehospital and Disaster Medicine* 2018; 33: 471 – 477.
8. Ingrassia PL, Franc JM, Carenzo L. A novel simulation competition format as an effective instructional tool in post-graduate medical education. *Advances in Simulation* 2018, 3:17
9. Ingrassia PL, Barozza LG, Franc JM. Prioritization in medical school simulation curriculum development using survey tools and desirability function: a pilot experiment. *Advances in Simulation.* 2018, 3:4.
10. Barra FL, Carenzo L, Franc JM, Montagnini C, Petrini F, Della Corte F, Ingrassia PL. Anesthesiology residents induction month: a pilot study showing an effective and safe way to train novice residents through simulation. *Minerva Anestesiologica.* Jan 2018.
11. Curran-Sills G, Franc JM. A pilot study examining the speed and accuracy of triage for simulated disaster patients in and emergency department setting: Comparison of a computerized version of Canadian Triage Acuity Scale (CTAS) and Simple Triage and Rapid Treatment (START) methods. *Can J Emerg Med Care.* 2017; 19: 364-371
12. Franc JM, Verde M, Gallardo AR, Carenzo L, Ingrassia PL. An Italian Version of the Ottawa Crisis Resource Management Rating Scale: A Reliable and Valid Tool for Assessment of Simulation Performance. *Intern Emerg Med* 2017; 12: 651-6
13. Lee CWC, McLeod SL, Van Aarsen K, Klingel M, Franc JM, Peddle MB. First responder accuracy using SALT during mass-casualty incident simulation. *Prehosp Disaster Med.* 2016; 31:150-154.
14. Lee JS, Franc JM. Impact of a two-step emergency department triage model with START, then CTAS, on patient flow during a simulated mass-casualty incident. *Prehosp Disaster Med.* 2015;30(4):1–7.
15. Franc JM, Ingrassia PL, Verde M, Colombo D, Della Corte F. A simple graphical method for quantification of disaster management surge capacity using computer simulation and process control tools. *Prehosp Disast Med* 2015,30:9-15.
16. Ragazzoni L, Ingrassia PL, Gugliotta G, Tengattini M, Franc JM, Della Corte F: Italian medical students and disaster medicine: Awareness and formative needs. *Amer J Disast Med* 2013; 8: 127-136.
17. Ingrassia PL, Colombo D, Barra FL, Carenzo L, Franc J, Della Corte F. Impacto de la formación en gestión médica de desastres: resultados de un estudio piloto utilizando una nueva herramienta para la simulación in vivo. *Emergencias* 2013; 25:00-000.
18. Franc JM, Nichols D, Dong S: Increasing Emergency Medicine residents' confidence in disaster management: Use of an Emergency Department simulator and an expedited curriculum. *Prehosp Disaster Med* 2012;26(6):1–5.
19. Ahlborn L, Franc JM: Tornado hazard communication disparities among Spanish-speaking individuals in an English-speaking community. *Prehosp Disaster Med* 2012; 26:1-5

20. Franc-Law JM, Ingrassia PL, Ragazzoni L, Della Corte F. The effectiveness of simulation based training on the Disastermed.Ca emergency department simulator for medical student training in disaster medicine. *CJEM* 2010; 12:27-32
21. Ingrassia PL, Prato F, Geddo A, Colombo D, Tengattini M, Calligaro A, La Mura F, Franc-Law JM, Della Corte F. Evaluation of Medical Management during a Mass Casualty Incident Exercise: An Objective Assessment Tool to Enhance Direct Observation. *J Emerg Med* 2010; 629-636.
22. Franc-Law JM, Bullard M, and Della Corte F. Accuracy of computer simulation using the Disastermed.Ca patient database in predicting patient flow during mass casualty incidents in a large urban hospital. *Prehosp Disast Med* 2008; 23:354-360.
23. Franc-Law JM, Bullard MJ, Della Corte F. Simulation of a hospital disaster plan using the Disastermed.Ca patient database and an existing computerized patient tracking system: A virtual live exercise. *Prehosp Disast Med* 2008; 23: 346-353.
24. Franc-Law JM. A community based model for medical management of a large scale sporting event. *Clin J Sport Med* 2006;16: 406-11.
25. Franc-Law JM, Begin LR, Vasilevsky CA, Gordon PH. The dramatic presentation of colonic lipomata: Report of two cases and review of the literature. *Am Surg* 2001 May; 67(5): 491-4. Review.
26. Steiner IP, Franc-Law JM, Kelly RD, Rowe BH. Faculty evaluation by residents of and emergency medicine program: A new evaluation instrument. *Acad Emerg Med* 2000 Sep; 7(9) 1015-21.
27. Franc-Law JM, Rossignol M, Vernec A, Somygi D, Shrier I. Poisoning-induced acute atraumatic compartment syndrome. *Am J Emerg Med* 2000 Sep; 18(5): 616-21. Review.

Text Chapters

Franc JM. Avalanche Emergencies. In Ciottone G, Della Corte F (eds): *Specific Multiple Casualty Treatment*: 2008, 2016, 2018.

Franc JM, Photiou S. Pandemic Influenza. In Ciottone G, Della Corte F (eds): *Specific Multiple Casualty Treatment*: 2008, 2016, 2018

Franc JM. Winter Storms. In Ciottone G, Della Corte F (eds): *Specific Multiple Casualty Treatment*: 2008, 2016, 2018

Franc JM, Stewart KM, Stewart C. Technological Terrorism. In Ciottone G, Della Corte F (eds): *Specific Multiple Casualty Treatment*: 2008, 2016, 2018.

Franc JM. Incident Command System. In Ciottone G, Della Corte F (eds): *Specific Multiple Casualty Treatment*: 2008, 2016, 2018.

Research Grants

Franc JM et al. METASTART: A Systematic Review and Meta-Analysis of the Diagnostic Accuracy of the Simple Triage and Rapid Treatment (START) Algorithm for Disaster Triage. AHS Emergency Strategic Network Systematic Review Grant. 2020.

Silverstone P et al. The Health Effects of the Alberta Wildfires. Canadian Institutes of Health Research. 2016.

Le Chris et al. Chemical Contaminants in Traditional Foods from Fort McKay and Fort Chipewyan: Before and After the Wildfires. Canadian Institutes of Health Research. 2016.

Johnson D, Predy G, Franc J. Feasibility and effectiveness of a community triage center to manage influenza-like illness in an urban setting. Canadian Institute of Health Research Operating Grant in Pandemic Preparedness. 2006-2008.

Oral Abstract Presentations

Assessment Of The Validity And Reliability Of A New Triage Tool For Avalanche Mass Casualty Incidents: The Cardiac Arrest Avalanche Triage Tool. Emergency Medicine Research Day, University of Alberta, 2019.

Ripoll Gallardo A, Meneghetti G, Franc J, Ragazzoni L, Della Corte F. Using high fidelity simulation to compare residents' crisis resource management skills in a high versus low-resource scenario during the resuscitation of a critically ill obstetric patient: a pilot experimental study. European Society of Emergency Medicine, Glasgow, Scotland, 2018.

Christensen L, Franc J. Training method in Personal Protective Equipment donning and doffing. European Society of Emergency Medicine, Athens, Greece, September 2017.

Ripoll Gallardo A, Ragazzoni L, Mazzanti E, Meneghetti G, Franc J, Della Corte F. Evaluation of a training program to professionalize young doctors in humanitarian assistance. European Society of Emergency Medicine, Athens, Greece, September 2017.

Correlation between the Translated Italian Global Rating Scale and technical abilities in critical care simulation. University of Alberta Emergency Medicine Research Day, Edmonton, Alberta, Canada, June 2016.

Classification of twitter data from the 2012 Emilia-Romagna earthquake by machine learning: comparison of k-nearest neighbors, kernel support vector machine, and string kernel methods. European Society of Emergency Medicine, Amsterdam, Netherlands, 2014.

Use of the Kernel Support Vector Machine for Prediction of Need for Admission and Time for Disposition among Simulated Emergency Department Patients During Disaster Exercises. European Society of Emergency Medicine, Marseille, France, 2013.

Derivation of Benchmarks for Disaster Management Surge Capacity with the SurgeSim Emergency Department Simulation Software and Statistical Process Control. European Master of Disaster Medicine Scientific Meeting, Marseille, France, 2013.

Measuring Disaster Management Surge Capacity with the Disastermed.Ca Simulation. A Process Control Study. European Society of Emergency Medicine, Stockholm, Sweden, 2010.

Measuring Disaster Management Surge Capacity with the SurgeSim Visual Simulator. University of Alberta Research Day, 2010.

Simulation Training in Surge Capacity Management Using the Disastermed.Ca Emergency Department Simulator. European Society of Emergency Medicine Annual Meeting, Munich, Germany, September 14, 2008.

Evaluation of the Disastermed.Ca Simulation Based Curriculum for Disaster Medicine. European Society of Emergency Medicine Annual Meeting, Munich, Germany, September 14, 2008.

Posters

Teed S, Schmid J, Franc J. A survey of Canadian Armed Forces nursing officers' knowledge of blood transfusions. European Society of Emergency Medicine, Glasgow, Scotland, September 2018.

Weinstein ES, Gosney JE, Ragazzoni L, Burkle FM, Franc JM, Weinstein B, Herbert TL, Verde M, Cramer JL, Zeller J, Boyce WH, Wolfson N. The ethical triage and management guidelines of the entrapped and mangled extremity in resource-constrained settings: a systematic literature review. Society for Disaster Medicine and Public Health, 2017.

Correlation between the Translated Italian Global Rating Scale and Technical Abilities in Critical Care Simulation. European Society of Emergency Medicine, Vienna, Austria, October 2016.

Weinstein E, Kurland L, Djalali A, Franc J. Ethical management of the mangled extremity in a disaster: just-in-time education is not a curriculum. European Society of Emergency Medicine, Vienna, Austria, October 2016.

Cakaravic S, Franc J. Derivation of the Primary Care Assessment Triage Tool (PCATT) and validation against the September 2013 Ottawa train-bus collision. European Society of Emergency Medicine, Vienna, Austria, October 2016.

Ingrassia PL, Vettoretto K, Boniolo E, Carnezo L, Franc J, Ragazzoni L, Dell Corte F. L'uso di twitter nella risposta acuta di un disastro in Italia: il terremoto in Abruzzo (2009) e in Emilia Romagna (2012) a confront. Congresso SIAARTI 2014, Venice, Italy.

A pilot study of a short course in research and statistics for graduate students in emergency and disaster medicine entitled "methodology of research in emergency and disaster medicine: what the researcher needs to know". European Society of Emergency Medicine, Amsterdam, Netherlands, 2014.

A pilot study on the use of a computerized surge capacity simulation exercise in a low resource environment: an evaluative tool for hospital preparedness and a training tool for students attending a course in emergency management in low resource environments. European Society of Emergency Medicine, Amsterdam, Netherlands, 2014.

Verification of a novel disaster medicine curriculum constructed using the techniques of design-for-six-sigma. European Society of Emergency Medicine, Amsterdam, Netherlands, 2014.

Speed and accuracy of triage for simulated disaster patients in an emergency department setting: Comparison of the Canadian Triage Acuity Scale (CTAS) and Simple Triage and Rapid Treatment (START). European Society of Emergency Medicine, Amsterdam, Netherlands, 2014.

ICED: Incident Command for Emergency Departments. Results of a customer satisfaction survey for a novel command and control tool. European Society of Emergency Medicine, Marseille, France, 2013.

Design for Six Sigma in Disaster Medicine Curriculum Development for Emergency Medicine Residents. European Society of Emergency Medicine, Marseille, France, 2013.

Use of logistic regression to predict the need for admission among emergency department patients: a model to predict patient suitability for a rapid assessment zone. European Society of Emergency Medicine, Marseille, France, 2013.

A Structured Approach to Shift Scheduling in the Emergency Department: Implementation of Simple Statistical Methods to Evaluate Physician Workload. European Society of Emergency Medicine. Stockholm, Sweden, 2010

Verde M, Della Corte Franc JM. Modeling of realistic procedure delays in disaster Medicine. European Society of Emergency Medicine, Stockholm, Sweden, 2010.

Dong SL, Nichols DN, Franc-Law JM. Teaching Disaster Medicine Through a Simulation Based Curriculum. Festival of Teaching, University of Alberta, Edmonton, 2009.

Effectiveness of Simulation Based Training on the disastermed.ca Emergency Department Simulator in Addition to Problem Based Learning for Medical Student Training in Disaster Medicine. World Association of Disaster and Emergency Medicine, Victoria, Canada, 2009

Simulation Training in Surge Capacity Management Using the Disastermed.Ca Emergency Department Simulator. World Association of Disaster and Emergency Medicine, Victoria, Canada, 2009.

Nichols DN, Dong SL, Franc-Law JM. Teaching Disaster Medicine by a Simulation-Based Curriculum, International Conference on Residency Education, Royal College of Physicians and Surgeons of Canada, Ottawa, 2008.

Dong SL, Nichols DN, Franc-Law JM. Resident Acceptance and Attitudes to a Simulation-Based Disaster Medicine Curriculum. , International Conference on Residency Education, Royal College of Physicians and Surgeons of Canada, Ottawa, 2008.

Use of the Disastermed.Ca Emergency Department Simulation in Addition to Problem Based Learning Alone for Medical Student Education in Disaster Medicine. Società di Anestesia Analgesia Rianimazione e Terapia Intensiva Annual Meeting. Palermo, Sicily, October 14, 2008.

Simulation Training in Surge Capacity Management Using the Disastermed.Ca Emergency Department Simulator. Società di Anestesia Analgesia Rianimazione e Terapia Intensiva Annual Meeting. Palermo, Sicily. October 14, 2008.

Use of the Disastermed.Ca Emergency Department Simulation in Addition to Problem Based Learning Alone for Medical Student Education in Disaster Medicine. European Society of Emergency Medicine, Munich, Germany, September 14, 2008.

Hospital disaster plan simulation using the "Disastermed.ca" patient database and an existing, computerized, patient tracking system: a virtual live exercise. World Association of Disaster Medicine, Amsterdam, Netherlands, 2007

Faculty evaluation by residents of and emergency medicine program: A new evaluation instrument. Alberta Meeting on Medical Education. May 4, 1998.

Graduate Student Supervision

- Jazuli, Farah. European Master in Disaster Medicine 2019-2021
- Kerola, Anna. European Master in Disaster Medicine 2018-2020
- Mulla, Ali. European Master in Disaster Medicine, 2018-2020
- Christensen, Liva. European Master in Disaster Medicine, 2017-2019.
- Jones, Tristan. European Master in Disaster Medicine, 2017-2019.
- Verginella, Francesca. European Master in Disaster Medicine, 2016-2017.
- Homier, Valerie. European Master in Disaster Medicine, 2016-2017.
- Weingarten, Laura. European Master in Disaster Medicine, 2015-2016.
- Cakarevic, Svetlana. European Master in Disaster Medicine, 2015-2016.

- Lee, James. European Master in Disaster Medicine, 2013-2014
- Lee, Chris. European Master in Disaster Medicine, 2013-2014
- Curran-Sills, Gwynn. European Master in Disaster Medicine, 2012-2013
- Chin, Rashad. European Master in Disaster Medicine, 2011-2012.
- Ahlborn, Leslie. European Master in Disaster Medicine, 2009-2010.

Invited Presentations

- Over 200 invited presentations
- Yearly lectures in Bioterrorism to University of Alberta Faculty of Pharmacy
- Yearly lectures in disaster medicine and statistics at the European Master in Disaster Medicine
- Frequent lecturer at the European Society of Emergency Medicine
- Over 100 emergency department computer simulation exercises
- Full list available upon request

References

Available upon request