Michele Fusaroli, MD

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Written Statement

I am a PhD student in medicine and surgery, particularly interested in psychiatry, drug safety, pharmacology and data science. I aim to find new ways to integrate health-related Big Data for the analysis of adverse drug reactions. In particular, I contributed to the development of a cleaning procedure for the FDA Adverse Event Reporting System database and built a software to rapidly detect alarming drug-event associations.

I am especially interested in promoting more consideration to the psychosocial health of individuals. The emerging focus on drug-induced behavioral dependences and on opioid-related psychosocial impact highlighted that the hierarchy of seriousness of outcomes is not always shared between scientific community and patients. Pharmacovigilance, with its spontaneous reports by patients, has the capability to increase our awareness that psychosocial consequences are even more important than the organic ones.

Reference

Prof. Dr. Elisabetta Poluzzi
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elisabetta.poluzzi@unibo.it

Prof. Dr. Emanuel Raschi
Pharmacology
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Prof. Dr. Fabrizio De Ponti
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Publications & Conference Contributions

Scientific Publications

The changing face of drug-induced adrenal insufficiency in the food and drug administration adverse event reporting system.

The Journal of Clinical Endocrinology & Metabolism
2022, June 15
https://doi.org/10.1210/clinem/dgac359
Raschi, E., Fusaroli, M., Massari, F., Mollica, V., Repaci, A., Ardizzoni, A., Poluzzi, E., Pagotto, U., Di Dalmazi, G.

Impulse Control Disorders by Dopamine Partial Agonists: A Pharmacovigilance-Pharmacodynamic Assessment through the FDA Adverse Event Reporting System

International Journal of Neuropsychopharmacology
2022, May 27
https://doi.org/10.1093/ijnp/pyac031
Fusaroli, M., Raschi, E., Giunchi, V., Menchetti, M., Rimondini, R., De Ponti, F., Poluzzi, E.

Amyotrophic Lateral Sclerosis as an Adverse Drug Reaction: A Disproportionality Analysis of the Food and Drug Administration Adverse Event Reporting System

Drug Safety
2022, May 24
https://doi.org/10.1007/s40264-022-01184-1
Gaimari, A., Fusaroli, M., Raschi, E., Baldin, E., Vignatelli, L., Nonino, F., De Ponti, F., Mandrioli, J., Poluzzi, E.

Liver Injury with Nintedanib: A Pharmacovigilance–Pharmacokinetic Appraisal

Pharmaceuticals
2022, May 23
https://doi.org/10.3390/ph15050645
Raschi, E., Fusaroli, M., Gatti, M., Caraceni, P., Poluzzi, E., De Ponti, F.

Psychiatric Adverse Reactions to Anaplastic Lymphoma Kinase Inhibitors in Non-Small-Cell Lung Cancer: Analysis of Spontaneous Reports Submitted to the FDA Adverse Event Reporting System.

Targeted Oncology
2022, Jan 13
https://doi.org/10.1007/s11523-021-00865-8
*Sisi, M., *Fusaroli, M., De Giglio, A., Facchinetti, F., Ardizzoni, A., Raschi, E., Gelsomino, F.

Development of a Network-based Signal Detection: the COVID-19 ADVERSOME in the FDA Adverse Event Reporting System.

Frontiers in Pharmacology
2021, 08 Dec
https://doi.org/10.3389/fphar.2021.740707
Fusaroli, M., Raschi, E., Gatti, M., De Ponti, F., Poluzzi, E.

Crystal nephropathy and amoxicillin: insights from international spontaneous reporting systems.

Journal of Nephrology
2021, Nov 11
https://doi.org/10.1007/s40620-021-01191-y
*Gatti, M., *Fusaroli, M., Raschi, E., Capelli, I., Poluzzi, E., De Ponti, F.

Skin Toxicities with Cyclin-Dependent Kinase 4/6 Inhibitors in Breast Cancer: signals from Disproportionality Analysis of the FDA Adverse Event Reporting System.

American Journal of Clinical Dermatology
2021, Oct 26
https://doi.org/10.1007/s40257-021-00645-0
*Raschi, E., *Fusaroli, M., La Placa, M., Ardizzoni, A., Zamagni, C., Poluzzi, E., De Ponti, F.

Impulsive conditions in Parkinson's disease: A pharmacosurveillance-supported list.

Parkinsonism & Related Disorders
2021, Aug 10
https://doi.org/10.1016/j.parkreldis.2021.08.006
Fusaroli, M., Raschi, E., Contin, M., Sambati, L., Menchetti, M., Fioritti, A., Poluzzi, E.

Serious adverse events with tedizolid and linezolid: pharmacovigilance insights through the FDA adverse event reporting system.

Expert Opinion on Drug Safety
2021, Jul 19
https://doi.org/10.1080/14740338.2021.1956461
Gatti, M., Fusaroli, M., Raschi, E., Moretti, U., Poluzzi, E., De Ponti, F.

Pulmonary Embolism in a Patient With ADPKD Treated With Tolvaptan: from the Clinical Experience to the Analysis of the Food and Drug Administration Adverse Event Reporting System Registry.

Kidney International Reports
2021, Jul 14
https://doi.org/10.1016/j.ekir.2021.06.028
*Aiello, V., *Fusaroli, M., Raschi, E., Palazzini, M., Hu, L., Barbuto, S., Poluzzi, E., Capelli, I.

Bone fracture as a novel immune-related adverse event with immune checkpoint inhibitors: case series and large-scale pharmacovigilance analysis.

International Journal of Cancer
2021, Apr 12
https://doi.org/10.1002/ijc.33592
Filippini, D.M., Gatti, M., Di Martino, V., Cavalieri, S., Fusaroli, M., Ardizzoni, A., Raschi, E., Licitra, L.

Thromboembolic Events with Cyclin-Dependent Kinase 4/6 Inhibitors in the FDA Adverse Event Reporting System.

Cancers
2021, Apr 07
https://doi.org/10.3390/cancers13081758
Raschi, E., Fusaroli, M., Ardizzoni, A., Poluzzi, E., De Ponti, F.

Authors' Reply to Robert P. Giugliano and Colleagues' Comment on: "Direct Oral Anticoagulants and Interstitial Lung Disease: Emerging Clues from Pharmacovigilance".

Drug Safety
2021, Feb 24
https://doi.org/10.1007/s40264-021-01054-2
Raschi, E., Fusaroli, M., Diemberger, I., Poluzzi, E.

Cyclin-dependent kinase 4/6 inhibitors and interstitial lung disease in the FDA adverse event reporting system: a pharmacovigilance assessment.

Breast Cancer Research and Treatment
2020, Nov 05
https://doi.org/10.1007/s10549-020-06001-w
Raschi, E., Fusaroli, M., Ardizzoni, A., Poluzzi, E., De Ponti, F.

Modified-Chronic Disease Score: predicting the individual risk of death using drug prescriptions.

PLoS One
2020, Oct 16
https://doi.org/10.1371/journal.pone.0240899
Iommi, M., Rosa, S., Fusaroli, M., Rucci, P., Fantini, M.P., Poluzzi, E.

Direct oral anticoagulants and interstitial lung disease: emerging clues from pharmacovigilance.

Drug Safety
2020, Aug 26
https://doi.org/10.1007/s40264-020-00990-9
Raschi, E., Fusaroli, M., Diemberger, I., Poluzzi, E.

Serious adverse events with tocilizumab: Pharmacovigilance as an aid to prioritize monitoring in COVID-19.

British Journal of Clinical Pharmacology
2020, Jul 08
https://doi.org/10.1111/bcp.144591540
Gatti, M., Fusaroli, M., Caraceni, P., Poluzzi, E., De Ponti, F., Raschi, E.

Conference Contributions

The changing face of drug-induced adrenal insufficiency in the food and drug administration adverse event reporting system.

European Society of Endocrinology 2022, May 21-24, Milan, Italy
Raschi, E., Fusaroli, M., Massari, F., Mollica, V., Repaci, A., Ardizzoni, A., Poluzzi, E., Pagotto, U., Di Dalmazi, G.
(Published on *Endocrine Abstract*, 2022: https://doi.org/10.1530/endoabs.81.P29)

Post-marketing surveillance of approved CAR-T cell therapies: analysis of US FDA Adverse Event Reporting System (FAERS) database.

Società Italiana Farmacologia 2021, March 9-13, Virtual Platform
Puglisi, G.*, Fusaroli, M.*, Isgrò, V., Cutroneo, P.M., Ferrajolo, C., Raschi, E., Poluzzi, E., Triffirò, G.

Impulse control disorders by third generation antipsychotics.
Best poster award

Società Italiana Farmacologia 2021 March 9-13, Virtual Platform
Fusaroli, M., Raschi, E., Poluzzi, E., De Ponti, F.

Should skeleton injury be added to the evolving list of immune-related adverse event with immune checkpoint inhibitors? Insights from Pharmacovigilance.

Società Italiana Farmacologia 2021 March 9-13, Virtual Platform
Gatti, M., Filippini, D.M., Fusaroli, M., Di Martino, V. Licitra, L., Ardizzoni, A., Raschi, E.

A Modified Chronic Disease Score based on drug prescriptions recorded in the administrative databases.

EuroDURG 2020 March 4-7, Szeged, Hungary
Iommi, M., Rosa, S., Fusaroli, M., Raschi, E., Fantini, M.P, Poluzzi, E.

Social Adverse Drug Reactions: a Pharmacovigilance-Pharmacodynamic Assessment through the FDA Adverse Event Reporting System.

Società Italiana Farmacologia 2019, November 20-23, Firenze, Italy
Fusaroli, M., Raschi, E., Antonazzo, I.C., De Ponti, F., Poluzzi, E.

Identificazione della popolazione anziana con multimorbosità tramite l'utilizzo di banche dati amministrative sul consumo di farmaci.

Associazione Italiana Epidemiologia 2019 October 23-25, Catania, Italy
Iommi, M., Rosa, S., Pianori, D., Fusaroli, M, Raschi, E., Lenzi, J., Fantini, M.P., Poluzzi, E.

Invited Talks

Identifying medications underlying communication atypicalities in psychotic and affective disorders.	*Discourse Network and Leena Palappayan laboratory, Department of Psychiatry, Medical Biophysics and Neuroscience. Western University, London, ON, Canada.* *7 Dec 2021, Virtual Platform* Fusaroli, M, Fusaroli, R., Parola, A.
Identifying medications underlying communication atypicalities in psychotic and affective disorders.	*Department of Affective Disorders, Aarhus University psychiatric Hospital.* *Aarhus, Denmark.* *15 Nov 2021, Virtual Platform* Fusaroli, M, Fusaroli, R.
Real World Evidence and Pharmacovigilance – Workshop	*Associazione Italiana Epidemiologia 2021* *Oct 28-29 2021, Virtual Platform* Fusaroli, M., Battini, V., Antonazzo, I.C., Convertino, I., Lombardi, C., Crisafulli, S.

Awards and Scholarships

Scholarship ISPE for the participation at the ICPE Congress 2022
Scholarship SIF for the participation at the ISOP Congress 2022
Best poster award SIF 2021

Education

Nov 2021 – Ongoing	**PhD curriculum – Scienze Mediche Generali e Scienze dei Servizi**	University of Bologna, Italy
Nov 2019 – Mar 2020	**Medical License Achievement** (88/90)	University of Bologna, Italy
Sep 2013 – Dec 2020	**Honors College** (Collegio Superiore)	University of Bologna, Italy
Sep 2013 – Oct 2019	**Medicine and Surgery** 110/110 cum laude	University of Bologna, Italy. "*Adverse Psychosocial Reactions to Drugs, a Pharmacovigilance-Pharmacodynamic Study with a Focus on Impulse Control Disorders*".
Sep 2008 – July 2013	**High School** 100/100 cum laude	Liceo Scientifico Fulcieri Paulucci de Calboli, Forlì, Italy

Research Experiences

Since Nov 2021	**PhD student** (Topic: *Impulse Control Disorders*)	Dottorato in scienze mediche generali e scienze dei servizi, University of Bologna, Italy (Tutor: Prof. Elisabetta Poluzzi)
May 2020 – Oct 2021	**Researcher** (Topic: *Studying psycho-social adverse drug reactions*)	Dipartimento di scienze Mediche e Chirurgiche, University of Bologna, Italy (Tutor: Prof. Elisabetta Poluzzi)
Jan 2020 – Apr 2020	**Bursary** (Topic: *Psychosocial adverse drug reactions: a focus on cases from pharmacovigilance*)	Dipartimento di scienze Mediche e Chirurgiche, University of Bologna, Italy (Tutor: Prof. Elisabetta Poluzzi)
Jan 2019 – Dec 2019	**Research Assistant** (Topics: *pharmacovigilance, comorbidity score, impulse control disorders*)	Dipartimento di scienze Mediche e Chirurgiche, University of Bologna, Italy (PI: Prof. Elisabetta Poluzzi, Prof. Emanuel Raschi)
Sept 2018 – Dec 2018	**Curricular Internship** (*psychiatric assistance and implementation of a study on antipsychotics use*)	Dipartimento di scienze Biomediche e Neuromotorie, CSM Scalo, University of Bologna, Italy (PI: Prof. Domenico Berardi)

Other Didactic & Formative Experiences

Oct 2021	**Clinical Research Methodology** Winter School (Senior Tutor)	University of Bologna, Italy

Jun 2021	**Drug Utilization Research** Summer School (Student)	University of Vilnius, Lithuania
Nov 2020	**Clinical Research Methodology** Winter School (Student)	University of Bologna, Italy
2015 – 2017	***Il Chiasmo*** Divulgative Multidisciplinary Journal, (Author and Editor)	Collegio Superiore, University of Bologna, Italy
Aug 2013	**Summer Complexity and Modeling Camp** Summer School, (Student)	Organized by Santa Fe Institute, at Groton School, Massachusetts. *"Why Schooling?: a Netlogo genetic algorithm investigating the advantages of schooling in a predators-rich environment".*
2011 – 2012	**Mathematical Models in Biology** (Student)	By *"Piano Lauree Scientifiche 2011-2012"*. University of Bologna. *"The Altruistic Gene: altruistic strategies and population dynamics".*
Online courses (with certificate)	**Introduction to Complexity**	Santa Fe Institute
	Introduction to pharmacovigilance	Uppsala Monitoring Centre
	Signal detection and causality assessment	Uppsala Monitoring Centre
	Statistical reasoning and algorithms in pharmacovigilance	Uppsala Monitoring Centre
	FDA's Postmarketing Drug Safety Surveillance System	Food and Drug Administration
	Statistical Analysis with R for Public Health	Imperial College of London

	Introduction to R	DataCamp
	Machine Learning for everyone	DataCamp
	Network Analysis in R	DataCamp
	Case Studies: Network Analysis in R	DataCamp
	MedDRA Coding of Medication Errors Part 1&2	MedDRA MSSO
Online courses (without certificate)	**Schizophrenia**	Wesleyan University
	Psychological First Aid	Johns Hopkins University

Editorial activities

Peer review activity for	Drugs – Real World Outcomes BMC Pharmacology and Toxicology Clinical Drug Investigation Frontiers in Pharmacology The Breast Psychiatry Research Journal of Central Nervous System Disease

Skills & Interests

Languages	*Native*	Italian
	Fluent	English
	Rudimental	French, Danish
Software	*Fluent*	R, Netlogo, GIMP, PPT, GitHub, LaTeX
	Rudimental	Python