

**Drug-utilisation of fall-risk-increasing drugs (FRIDs) and risk of hospitalisation:
a nested case-control study among community-dwelling older adults**

Lara Perrella¹, Elena Olmastroni^{2,3*}, Sara Mucherino^{1,4}, Andrea Rossi^{2,3}, Valentina Orlando^{1,4},
Manuela Casula^{2,3}, Enrica Menditto^{1,4}.

¹ Department of Pharmacy, University of Naples Federico II, Naples, Italy;
lara.perrella@unina.it, sara.mucherino@unina.it, valentina.orlando@unina.it,
enrica.menditto@unina.it

² Epidemiology and Preventive Pharmacology Service (SEFAP), Department of
Pharmacological and Biomolecular Sciences, University of Milan, Milan, Italy;
elena.olmastroni@unimi.it, andrea.rossi1@unimi.it, manuela.casula@unimi.it

³ IRCCS MultiMedica, Sesto San Giovanni (Milan), Italy

⁴ CIRFF, Center of Pharmacoeconomics and Drug Utilization Research, University of Naples
Federico II, Naples, Italy

* Correspondence: Elena Olmastroni, elena.olmastroni@unimi.it

Supplementary material:

Supplementary Table S1. Data source.

Supplementary Table S2. Crosswalk general equivalence mapping ICD-10 to ICD-9 codes of fall fractures and accidental falls.

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Supplementary Figure S1. Study design.

Supplementary Table S1. Data source.

Characteristics	
Geographic area	LHUs of Lombardy (Bergamo, Brianza-Lecco, Val Padana-Mantova, Brianza-Monza Brianza) and Campania (Avellino, Caserta, Napoli 1 Centro, Napoli 2 Nord), Italy
Population covered	~129,000 <u>community-dwelling</u> adult residents
Age span covered	Community-dwelling residents aged ≥ 40 years
Period covered	2017–2019
Scope	Drug utilisation and outcome research; real-world evidence for public health; pharmacoepidemiologic and pharmacoeconomic analysis
Data sources	Specific fields in the data sources contributing to a database
Demographic information	Patients ID; birth date; sex
Pharmacy-refill records	Patient ID; drug codes (ATC and AIC); prescription date; delivery date; number of boxes, and cost for NHS
Hospital-discharge records	Patient ID; date of admission; reasons for discharge; the primary and secondary diagnoses (ICD-9 code); date of discharge
Type of codes for diagnoses	Hospital: ICD-9-CM
Type of codes for medications	ATC classification

ATC = Anatomical Therapeutic Chemical; AIC = marketing authorization code; NHS = National Health Service; ICD-9-CM = *International Classification of Diseases*, 9th Revision, Clinical Modification.

Supplementary Table 2. Crosswalk general equivalence mapping ICD-10 to ICD-9 codes of fall fractures and accidental falls.

Macro-diagnosis	ICD-10 code	ICD-9 code
Fall fractures of specified sites	S02	7338, 8000, 8005, 8010, 8015, 8020, 8021, 8022, 8023, 8024, 8025, 8026, 8027, 8028, 8029, 9050, V541
	S03	8300, 9056, V588
	S06	3485, 8500, 8501, 8502, 8503, 8504, 8505, 8514, 8516, 8518, 8520, 8522, 8524, 8530, 8540, 9070
	S12	8050, 8051, 8075, 9051
	S22	8052, 8053, 8070, 8071, 8072, 8073, 8090, 8091
	S32	8054, 8055, 8056, 8057, 8080, 8081, 8082, 8083, 8084, 8085, 8088, 8089
	S42	8100, 8101, 8110, 8111, 8120, 8121, 8122, 8123, 8124, 8125, 9052
	S43	8310
	S52	8130, 8131, 8132, 8133, 8134, 8135, 8138, 8139
	S53	8320, 8322
	S62	8140, 8141, 8150, 8151, 8160, 8161, 8170, 8181
	S63	8330
	S72	8200, 8201, 8202, 8203, 8208, 8209, 8210, 8211, 8212, 8213, 9053, 9054
	S82	8220, 8221, 8230, 8231, 8232, 8233, 8234, 8238, 8239, 8240, 8241, 8242, 8243, 8244, 8245, 8246, 8247, 8248, 8249, 8270, 8271
	S83	8363, 8365
	S92	8250, 8251
Accidental falls	W00-W19	E880-E888, E917, E929

Details: Fractures of specified sites are coded individually by site in accordance with both the provisions within categories S02, S12, S22, S32, S42, S49, S52, S59, S62, S72, S79, S82, S89, S92 and the level of detail furnished by medical record content. Accidental falls are coded individually by type in accordance with the provisions of categories W00-W19 and the level of detail furnished by medical record content.

Source: ICD-10-CM Official Guidelines for Coding and Reporting FY 2020 (October 1, 2019 - September 30, 2020).
Link: <https://www.nber.org/research/data/icd-9-cm-and-icd-10-cm-and-icd-10-pcs-crosswalk-or-general-equivalence-mappings>

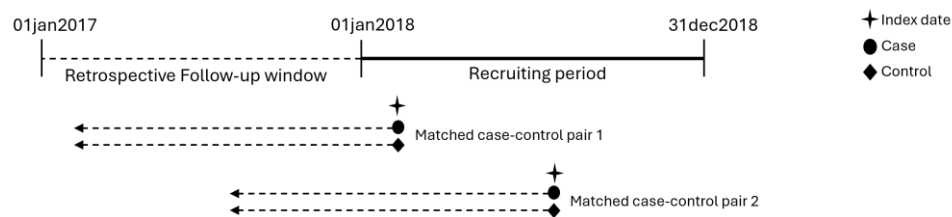
Supplementary material

Supplementary Table S3. Fall risk-increasing drugs (FRIDs) according to the list of the Swedish National Board of Health and Welfare (NBHW).

3 rd level ATC code	Drugs/group of drugs
N02A	Opioids
N04B	Dopaminergic agents (anti-Parkinson drugs)
N05A excl. Lithium	Antipsychotics
N05B	Anxiolytics
N05C	Hypnotics and sedatives
N06A	Antidepressants

Source: Government Offices of Sweden. National Board of Health and Welfare (Socialstyrelsen). Link: <https://www.nhs.uk/conditions/falls/>

Supplementary Figure S1. Study design.



Details: recruiting period: from January 1 to December 31, 2018); index date: day of first fall-related hospitalisation in recruiting period; retrospective follow-up window: sliding year prior to the index date; cases: individuals aged 65 or older with at least one diagnosis of accidental falls and/or fall-related injuries during the recruiting period; controls: individuals aged 65 or older without diagnosis of accidental falls and/or fall-related injuries during the recruiting period.