Off-label use of neuroleptics and antidepressants and risks of psychostimulant use in ADHD patients during childhood and adolescents (OLUNAR)

First published: 08/07/2014

Last updated: 02/07/2024

Study | Finalised

Administrative details

PURI
https://redirect.ema.europa.eu/resource/17515

EU PAS number
EUPAS7034

Study ID
17515

DARWIN EU® study
No

Study countries
Germany

Study description
Based on data from statutory health insurance (SHI) providers, the study focuses on the off-label use of antipsychotic and antidepressant drugs in children and adolescents and evaluates the related risks and side effects (first part). Furthermore, the risks of stimulant use in children and adolescents with attention deficit and hyperactivity disorder (ADHD) are investigated (second part).

Study status
Finalised

Research institution and networks

Institutions

Leibniz Institute for Prevention Research and Epidemiology - BIPS

Germany
First published: 29/03/2010
Last updated
26/02/2024

Institution

ENCePP partner

Not-for-profit

Contact details

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Study contact

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Primary lead investigator
Oliver Riedel

Primary lead investigator

Study timelines

Date when funding contract was signed
Planned:
29/10/2012
Actual:
29/10/2012

Study start date
Planned:
16/07/2013

Actual:
16/07/2013

Data analysis start date
Planned:
18/12/2013
Actual:
18/12/2013

Date of interim report, if expected
Planned:
12/06/2014
Actual:
12/06/2014

Date of final study report
Planned:
31/12/2015
Actual:
31/10/2015

Sources of funding

- Other

More details on funding

Federal Institute for Drugs and Medical Devices

Regulatory

Was the study required by a regulatory body?
No

Is the study required by a Risk Management Plan (RMP)?
Not applicable

Methodological aspects

Study type

Study type list

Study topic:
Disease /health condition
Human medicinal product

Study type:
Non-interventional study

Scope of the study:
Assessment of risk minimisation measure implementation or effectiveness
Drug utilisation

Data collection methods:
Secondary data collection

Main study objective:
The objectives are to examine the extent of off-label use of antidepressant(ATDs) and antipsychotic(AP) drugs in children and adolescents and to estimate the risk of specific adverse events associated with off-label use of these drugs. Also, we evaluate the cardio- and cerebrovascular risks of methylphenidate use compared to nonuse for the treatment of children and adolescents with ADHD in Germany

Study Design

Non-interventional study design
Cohort
Cross-sectional

Study drug and medical condition

Anatomical Therapeutic Chemical (ATC) code
(N05A) ANTIPSYCHOTICS
(N06A) ANTIDEPRESSANTS
(N06BA04) methylphenidate

Medical condition to be studied
Completed suicide
Cardiovascular disorder
Cerebrovascular disorder
Neuroleptic malignant syndrome
Extrapyramidal disorder
Ischaemic stroke
Myocardial infarction
Angina pectoris

Cardiomyopathy
Death

Population studied

Short description of the study population
Children and adolescents with attention deficit and hyperactivity disorder (ADHD) who use antidepressant (ATDs) and antipsychotic(AP) drugs.

Age groups
Preterm newborn infants (0 – 27 days)
Term newborn infants (0 – 27 days)
Infants and toddlers (28 days – 23 months)
Children (2 to < 12 years)
Adolescents (12 to < 18 years)

Special population of interest
Other

Special population of interest, other
Attention deficit and hyperactivity disorder (ADHD) patients

Estimated number of subjects
2000000

Study design details

Outcomes
Risks and side effects, including Drug-induced obesity, Hyperglycemia, Diabetes mellitus, Hyperprolactinemia, Malignant neuroleptic syndrome, Drug-induced parkinsonism, Drug-induced dystonia / tardive Dyskinesia, Drug-induced tremor, Poisoning by psychotropic drugs, Myocardial infarction, Stroke, Bradycardia / Tachycardia, Cardiomyopathy, Heart failure, Suicide risk, All-cause mortality, in the second part of the study (methylphenidate in children with ADHD): cardiac arrhythmia, angina pectoris, cardiomyopathy and all-cause mortality

Data analysis plan
In both study parts, prevalence and incidence rates of the considered medications will be determined.First part: for the antipsychotic cohort, the primary analysis will be a Cox regression analysis estimating the adjusted hazard ratio (HR) for metabolic and endocrine adverse effects in off-label users vs. on-label users. For the antidepressant cohort, the primary analysis will be a Cox regression analysis estimating the adjusted HR for cardio- and cerebrovascular side effects in off-label users vs. on-label users.Second part: a time-

dependent Cox proportional hazard model will be used to estimate the adjusted hazard ratio for major cardio-cerebrovascular events in current MPH use vs. nonuse.

Documents

Study publications
Schröder C, Dörks M, Kollhorst B, Blenk T, Dittmann RW, Garbe E, Riedel O. Outp…
Schröder, C., Dörks, M., Kollhorst, B. et al. Outpatient antipsychotic drug use…

Data management

Data sources

Data source(s)
German Pharmacoepidemiological Research Database

Data sources (types)
Administrative data (e.g. claims)

Use of a Common Data Model (CDM)

CDM mapping
No

Data quality specifications

Check conformance
Unknown

Check completeness
Unknown

Check stability
Unknown

Check logical consistency
Unknown

Data characterisation

Data characterisation conducted
Unknown