CORRESPONDENCE

ADHD in Germany: Trends in Diagnosis and Pharmacotherapy

A Country-wide Analysis of Health Insurance Data on Attention-Deficit/Hyperactivity Disorder (ADHD) in Children, Adolescents and Adults From 2009–2014

by Prof. Dr. med. Dr. P.H. Christian J. Bachmann,
Prof. Dr. med. Alexandra Philipsen, Prof. Dr. P.H. Falk Hoffmann, MPH
in issue 9/2017

Unanswered Questions

The article by Bachmann et al. (1) attempts to answer two questions regarding healthcare service utilization related to attention-deficit/ hyperactivity disorder (ADHD) in Germany.

- What is the diagnosis and (drug) therapy prevalence during 2009–2014?
- What is the medication provision for affected adolescents until they reach adulthood ("transition")?

To answer the first question, the article offers an update on the data on the administrative prevalence, including pharmacotherapy, of ADHD in Germany. The strength of the study is primarily its sample size, but it is not necessarily representative. The authors compare two data points, and on this basis they draw conclusions about trends that—because of the unusual inclusion of the very heterogeneous ICD category F98.8 [other specified behavioral and emotional disorders of childhood and adolescence, including excessive masturbation and nose-picking]—can be compared with earlier studies to a limited extent only.

To answer the second question, the authors conducted a longitudinal analysis of 5593 patients insured with the statutory health insurance company, AOK, for whom a diagnosis of ADHD at age 15 was coded in 2009 (or 2008? cf. Figure 3 in the article). What remains unclear is whether these are newly diagnosed patients with ADHD (which can be determined on the basis of a minimum number of previous billing quarters without ADHD diagnosis). It also remains unclear whether medication therapy was assumed already after one prescription only during a calendar year. Earlier analyses showed that (from 2006 to 2009) 51% of ADHD patients were prescribed typical ADHD drugs, but that in the majority of cases therapy was discontinued before 18 months had passed. The absence of a (methodologically feasible) control group hampers or even completely prevents not only an evaluation stratified by comorbidity or relevant non-medication and combination therapies (2, 3), but also any interpretation of the data of the "transition cohort" itself (including subjects' contacts with physicians over time), as their specificity must remain speculative.

DOI: 10.3238/arztebl.2017.0428a

REFERENCES

1. Bachmann CJ, Philipsen A, Hoffmann F: ADHD in Germany: trends in diagnosis and pharmacotherapy—a country-wide analysis of health insurance data on attention-deficit/hyperactivity disorder (ADHD) in children, adolescents and adults from 2009–2014. Dtsch Arztebl Int 2017; 114: 141–8.
2. Deutsche Gesellschaft für Kinder- und Jugendpsychiatrie und Psychotherapie et al. (ed.): Leitlinien zur Diagnostik und Therapie von psychischen Störungen im Säuglings-, Kindes- und Jugendalter. Köln: Deutscher Ärzteverlag, 3. überarbeitete Auflage 2007; 239–54.
3. Schlander M, Schwarz O, Trott GE, Banaschewski T: ADHD: a longitudinal analysis (2003–2009) of prevalence, health care, and direct cost based upon administrative data from Nordbaden/Germany. Eur Child Adolesc Psychiatry 2013; 22 (S2): 102.

Prof. Dr. med. Michael Schlander, MBA
Universität Heidelberg
Deutsches Krebsforschungszentrum (DKFZ) Heidelberg
m.schlander@dkfz-heidelberg.de

Prof. Dr. rer. pol. Oliver Schwarz
Hochschule Heilbronn

Prof. Dr. med. Götz-Erik Trott
Praxis Trott Aschaffenburg

Conflict of interest statement
Prof. Schlander holds shares in Johnson & Johnson. He has received author honoraria for book publications on the subject from Springer and study funding/support from Shire and Janssen-Cilag.
Prof. Trott has received lecture fees from Shire.
Prof. Schwarz declares that no conflict of interest exists.

In Reply:

We thank Schlander et al. for their response to our article (1). Our comments to the two issues raised are as follows.

Firstly, the sample we used is indeed not representative for the population resident in Germany (2)—as we discussed in the article as well as in the limitations section. In our opinion, however, that does not affect the identified trends. Including the ICD-10 code F98.8 to capture attention deficit disorder without hyperactivity is consistent with the realities of clinical coding and also applies to other national (3) and international (4) studies, although it obviously includes other symptoms as well.

Secondly, the inclusion criterion for the transition cohort was a diagnosis of ADHD in 2008, whether de novo or continued. Basing our study on data from a cohort exclusively with a first-time ADHD diagnosis in adolescence would not have made sense methodologically to answer our research question, as this group does not reflect clinical reality and especially not the typical age at first diagnosis.

In our evaluation we did include patients with repeat prescriptions as well as single prescriptions of an ADHD drug. In our view, this reflects the typical mix in clinical care provision—that is, patients receiving long-term medication treatment as well as those in whom such treatment is not continued (often in spite of a clear clinical indication).

In sum, we take the view that our article does indeed answer the questions raised in our introduction and that it uses the appropriate methods in doing so, because it reflects the current healthcare reality. Nevertheless, we fully agree with Schlander et al., that detailed further analyses and studies in subpopulations can be expected to yield important further insights.

DOI: 10.3238/arztebl.2017.0428b

REFERENCES

1. Bachmann CJ, Philipsen A, Hoffmann F: ADHD in Germany: trends in diagnosis and pharmacotherapy—a country-wide analysis of health insurance data on attention-deficit/hyperactivity disorder (ADHD) in children, adolescents and adults from 2009–2014. Dtsch Arztebl Int 2017; 114: 141–8.
2. Hoffmann F, Bachmann CJ: Differences in sociodemographic characteristics, health, and health service use of children and adolescents according to their health insurance funds. Bundesgesundheitsblatt Gesundheitsforschung Gesundheitsschutz 2014; 57: 455–63.
3. Roick C, Waltersbacher A: Hyperkinetische Störungen bei Kindern und Jugendlichen in Deutschland: Administrative Prävalenz und regionale Unterschiede in der Diagnosehäufigkeit. Psychiat Prax 2015; 42: 21–9.
4. Murphy AL, Gardner DM, Cooke C, Kisely S, Hughes J, Kutcher SP: Prescribing trends of antipsychotics in youth receiving income assistance: results from a retrospective population database study. BMC Psychiatry 2013; 13: 198.

Dr. med. Dr. P.H. Christian J. Bachmann
Marburg
chrstn.bchmnn@gmail.com

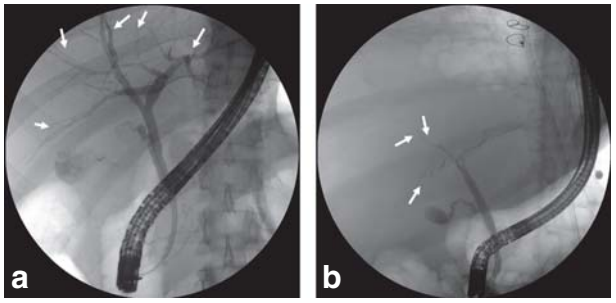
Prof. Dr. med. Alexandra Philipsen
Medizinischer Campus Universität Oldenburg, Fakultät für Medizin und Gesundheitswissenschaften, Universitätsklinik für Psychiatrie und Psychotherapie, Karl-Jaspers-Klinik, Bad Zwischenahn

Prof. Dr. P.H. Falk Hoffmann, MPH
Abteilung Ambulante Versorgung und Pharmakoepidemiologie, Department für Versorgungsforschung, Fakultät für Medizin und Gesundheitswissenschaften, Carl von Ossietzky Universität Oldenburg

Conflict of interest statement
Prof. Philipsen has received consultancy and lecture fees and reimbursement of travel expenses from Eli Lilly, MEDICE Arzneimittel Pütter GmbH & Co. KG, Novartis, Shire, and Lundbeck.
Prof. Bachmann and Prof. Hoffmann declare that no conflict of interest exists.

CLINICAL SNAPSHOT

Very Severe Secondary Sclerosing Cholangitis as a Sequela of Influenza



Figures: a) normal ERCP findings in another patient; b) rarefied biliary pathways in this patient.

In November 2015, this previously healthy 51-year-old man became ill with an infectious disease with high fever, which was diagnosed as an influenza A infection. He developed very severe influenza pneumonia and was treated with extracorporeal oxygenation for several weeks. Multiple episodes of sepsis ensued, mostly with a pulmonary focus of infection. He even underwent open-heart surgery after transesophageal echocardiography yielded findings that were suspect for endocarditis, but no vegetations were found. During the patient's months of treatment in the intensive care unit, he developed a severe secondary sclerosing cholangitis due to ischemia. He received a liver transplant in July 2016. Despite ongoing intensive care, multiple further episodes of sepsis led to his death two months later. This case illustrates the entity of secondary sclerosing cholangitis and underscores the fact that influenza can be a life-threatening illness even for persons who are not at especially high risk.

PD Dr. med. Sven Pischke, Prof. Dr. med. Lutz Fischer, Prof. Dr. med. Ansgar W. Lohse, Universitätsklinikum Hamburg Eppendorf, s.pischke@uke.de

Conflict of interest statement
The authors state that they have no conflict of interest.

Translated from the original German by Ethan Taub, M.D.

Cite this as:
Pischke S, Fischer L, Lohse AW: Very severe secondary sclerosing cholangitis as a sequela of influenza. Dtsch Arztebl Int 2017; 114: 429.
DOI: 10.3238/arztebl.2017.0429