Atypical antipsychotics are associated with incident diabetes in older adults without schizophrenia or bipolar disorder

**Question:** Is atypical antipsychotic use associated with incident diabetes or hyperlipidaemia in older people without schizophrenia or bipolar disorder?

**People:** Medicare advantage or commercially managed healthcare plan enrollees aged 65 and above with no history of schizophrenia, bipolar disorder, diabetes (for the hyperlipidaemia study) or hyperlipidaemia (for the diabetes study) in the previous year. In the diabetes study, cases were 13,075 people who initiated diabetes treatment between 2004 and 2008 (identification period), and controls were 65,375 people who had not received diabetes treatment during this time. In the hyperlipidaemia study, cases were 63,829 people newly started on hyperlipidaemia medication, and controls were 63,829 people who had not received hyperlipidaemia medication. Controls were matched to cases based on age, sex, health plan type and index date. The index date for cases was the date of first diabetes or hyperlipidaemia treatment initiation (preindex period), identified using pharmacy claims data. Medications considered as atypical antipsychotics were aripiprazole, clozapine, olanzapine, paliperidone, quetiapine, risperidone and ziprasidone. Participants taking atypical antipsychotics were stratified according to the drug prescribed, dose and the number of days of exposure during the year before the index date. Analyses were adjusted for the overall burden of comorbidities (assessed using the Charlson Comorbidity Index) during the preindex period, and specific comorbidities including diabetes (in the hyperlipidaemia study), hyperlipidaemia (in the diabetes study), hypertension, obesity, dementia, depression, anxiety and adjustment disorders. The hyperlipidaemia study additionally adjusted for stroke, coronary heart disease or ischaemic heart disease as indicators for cardiovascular disease.

**Outcomes:** Incident onset of treatment-dependent diabetes or hyperlipidaemia.

**Methods**

**Design:** Two case control studies.

**Follow-up period:** One year.

**Main results**

During the preindex period, 1.3% of diabetes cases had been exposed to an atypical antipsychotic compared with 0.8% of controls (OR 1.32, 95% CI 1.10 to 1.59). A greater overall burden of comorbidity, diagnosis or treatment of hyperlipidaemia or hypertension, and diagnosis of obesity or dementia were all associated with increased odds of initiating diabetes treatment, while an anxiety diagnosis was associated with decreased odds of initiating diabetes treatment. In the hyperlipidaemia study, 0.8% of cases had been exposed to an atypical antipsychotic during the preindex period compared with 1.0% of controls (OR 0.76, 95% CI 0.67 to 0.87). Greater burden of comorbidity, diagnosis or treatment of diabetes, depression, obesity or cardiovascular disease during the preindex period was associated with increased odds of initiating hyperlipidaemia treatment. A diagnosis of dementia or adjustment disorders was associated with decreased odds of initiating hyperlipidaemia treatment.

**Conclusions**

In older adults, treatment with atypical antipsychotics for conditions other than schizophrenia and bipolar disorder is associated with increased odds of incident medication use for diabetes, and reduced odds of incident medication use for hyperlipidaemia.

**Notes**

Onset of diabetes or hyperlipidaemia may have preceded initiation of drug treatment, as lifestyle modification may have been tried before initiation of drug treatment.

**Abstracted from**


**Correspondence to:** Sara C Erickson, Sr. Outcomes Researcher, OptumRx, 2300 Main St. CA134-0404, Irvine, CA 92614, USA; sara.c.erickson@optum.com

**Sources of funding:** Not reported.

**References**


Atypical antipsychotics are associated with incident diabetes in older adults without schizophrenia or bipolar disorder

Evid Based Mental Health published online June 22, 2012

Updated information and services can be found at:
http://ebmh.bmj.com/content/early/2012/06/21/ebmental-2012-100740

These include:

References
This article cites 2 articles, 0 of which you can access for free at:
http://ebmh.bmj.com/content/early/2012/06/21/ebmental-2012-100740#BIBL

Open Access
This paper is freely available online under the BMJ Journals unlocked scheme, see http://ebmh.bmj.com/info/unlocked.dtl

Email alerting service
Receive free email alerts when new articles cite this article. Sign up in the box at the top right corner of the online article.

Topic Collections
Articles on similar topics can be found in the following collections

- Open access (10)
- Schizophrenia spectrum (430)
- Bipolar disorder (236)
- Drugs: psychiatry (344)
- Adjustment disorders (9)
- Neurology (1070)
- Epidemiologic studies (631)
- Epidemiology (1570)

Notes

To request permissions go to:
http://group.bmj.com/group/rights-licensing/permissions

To order reprints go to:
http://journals.bmj.com/cgi/reprintform

To subscribe to BMJ go to:
http://group.bmj.com/subscribe/