Prescribing Valproate to Girls and Women of Childbearing Age in Germany: Analysis of Trends Based on Claims Data

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DISCLOSURE

NW, UH and TS are working at the Leibniz Institute for Prevention Research and Epidemiology – BIPS. Unrelated to this study, BIPS occasionally conducts studies financed by the pharmaceutical industry. Almost exclusively, these are post-authorization safety studies (PASS) requested by health authorities. The studies and the resulting publications are not influenced by the pharmaceutical industry. SE, JL, RL, MO, CS and KD declare no conflict of interest.

BACKGROUND

- Exposure to valproate (VPA) during pregnancy is associated with an increased risk of malformations and developmental disorders in the child (1)
- Measures to raise awareness of the teratogenic potential of VPA have been intensified
- In 2014, the European Medicines Agency (EMA) strengthened the warnings and advised not to prescribe VPA in women of childbearing age unless other treatments were ineffective or not tolerated (2)

OBJECTIVE

- To examine time trends of VPA dispensations in girls and women of childbearing age in Germany as well as treatment indications and medical specialties of prescribers

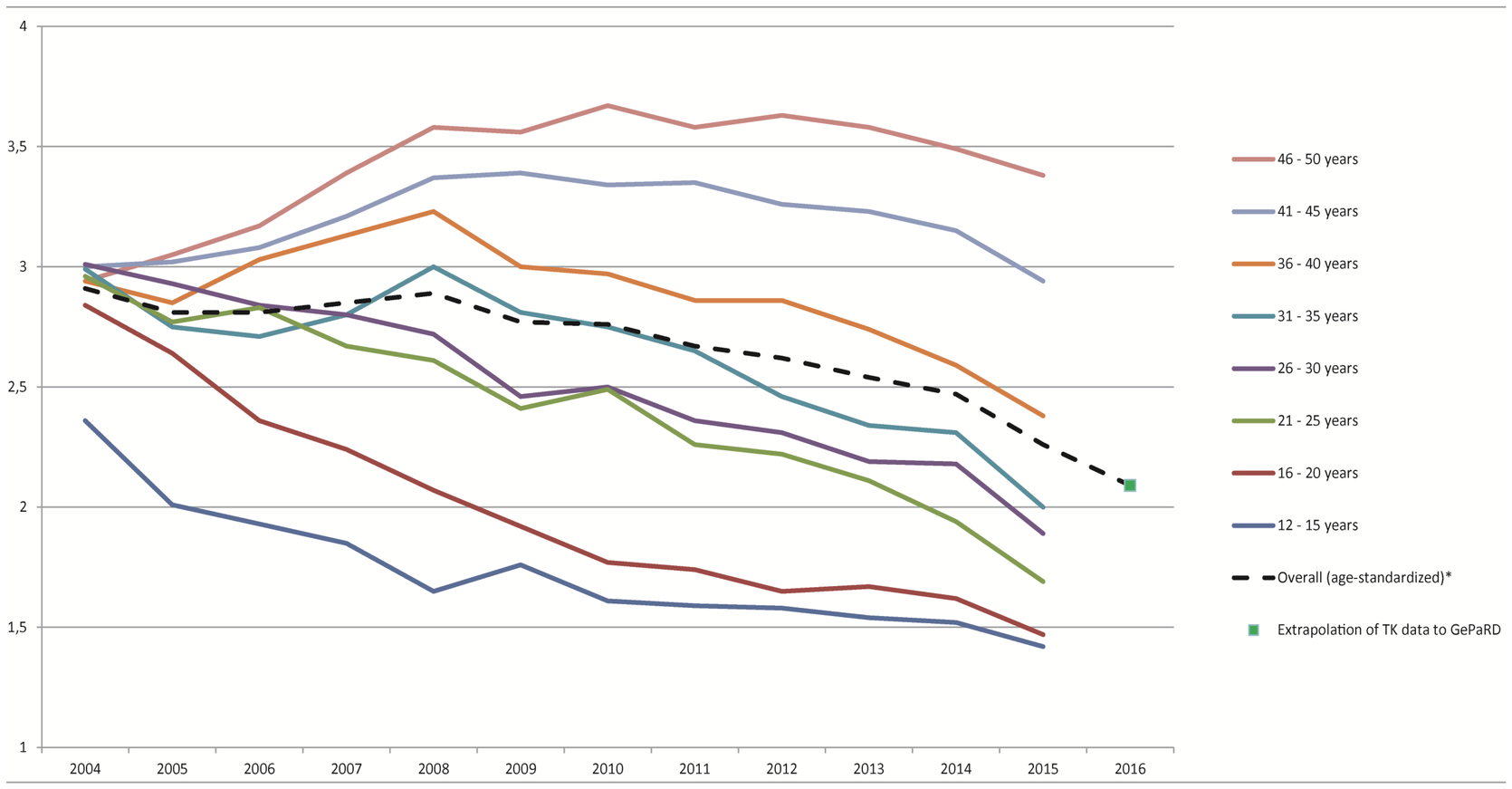

Figure 1: Number of girls and women between 12 and 50 years of age with at least one VPA dispensation per 1,000 (age-specific rates and overall rate age-standardized)

METHODS

- Data source: the German Pharmacoepidemiological Research Database (GePaRD) (3) with claims data (years 2004-2015) from four statutory health insurances and additionally data from 2016 from one of these health insurances (Die Techniker, TK)
- Yearly cohorts of girls and women between 12 and 50 years
- For each year, the rate of women with at least one VPA dispensation was determined (5-year age groups and overall rate age-standardized).
- Relevant indications and medical specialties of prescribers were analyzed.

RESULTS

- In the overall population, the age-standardized rate of valproate-treated girls and women declined by 28% between 2004 and 2016 (Figure)
- The largest decline was observed in patients aged 16 to 20 and in patients with epilepsy, whereas little change was observed in patients with bipolar disorders
- In 2015, about 14% of VAP was prescribed for bipolar disorders and about 20% for off-label indications (Table)
- In 2015, 46.3% of VPA prescriptions were issued by neurologists or psychiatrists and 29.6% by general practitioners

Table 1: Girls and women with VPA dispensations in 2015

Indication	Valproate dispensations in 2015 (Overall: N=7,972)	%
Epilepsy	5,333	66.9
Bipolar disorder	1,085	13.6
Off-label indications		
Migraine/headache	450	5.6
Schizoaffective disorder	341	4.3
Other mental disorders	708	8.9
None of these indications	55	0.7

CONCLUSION

- Further research is needed on whether safer treatment alternatives have been tested before prescribing VPA in girls and women of child-bearing age
- Awareness of VPA's teratogenicity still needs to be improved, particularly among physicians prescribing it for bipolar disorders or off-label indications

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