

# Trends in Use of Antipsychotics in Germany 2014–2023: A Nationwide Population-based Study

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#### INTRODUCTION

- **Backgroud** Use of antipsychotics (AP) among children and adolescents in Germany has continued to increase over the decade (1). Contemporary data of the use of AP across all age groups are lacking, however.
- Objective To provide an update on trends in AP use across all age groups in Germany between 2014 and 2023.

## GRAPHICAL RESULTS

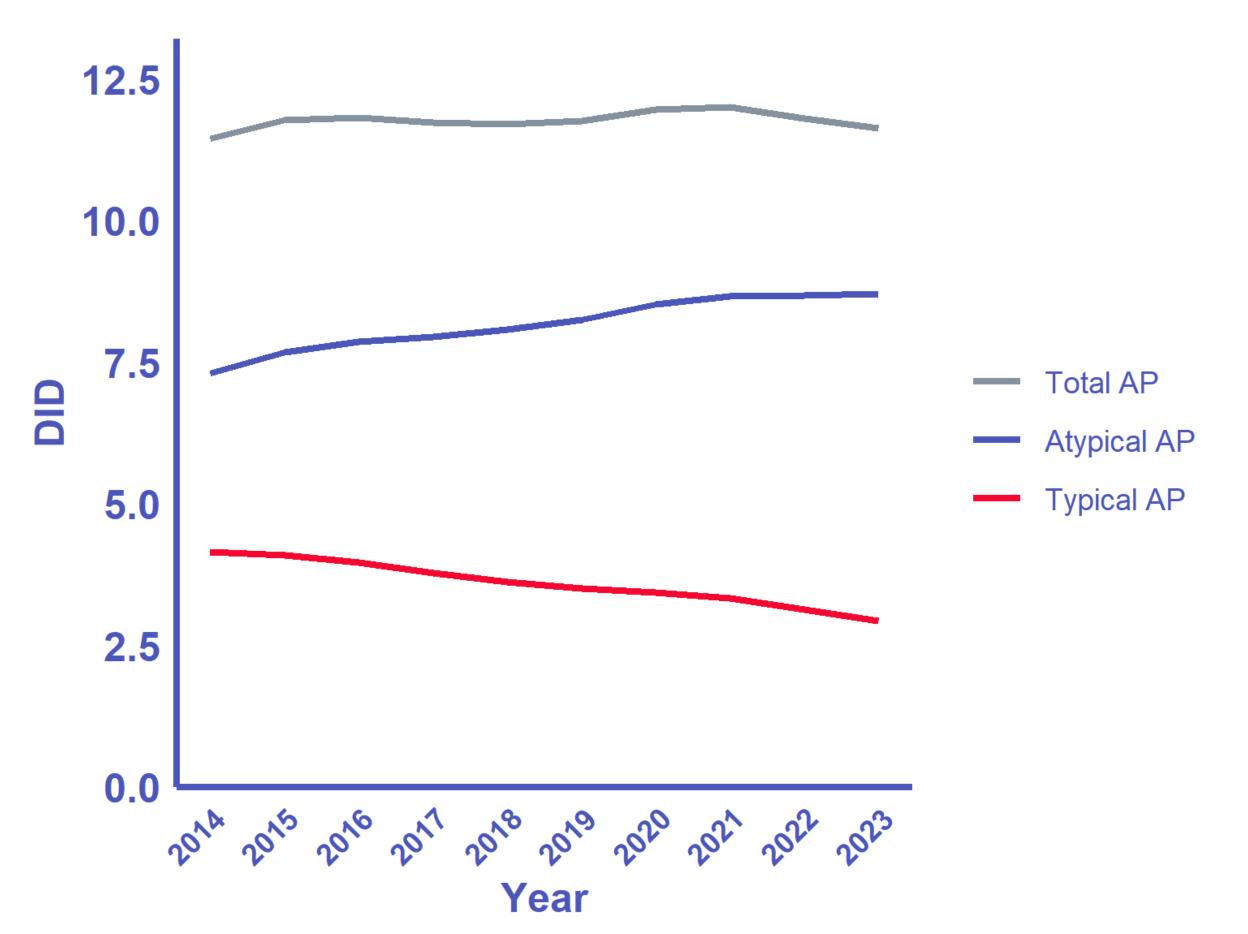


Fig. 1. Dispensing trends of AP by type [in DID].

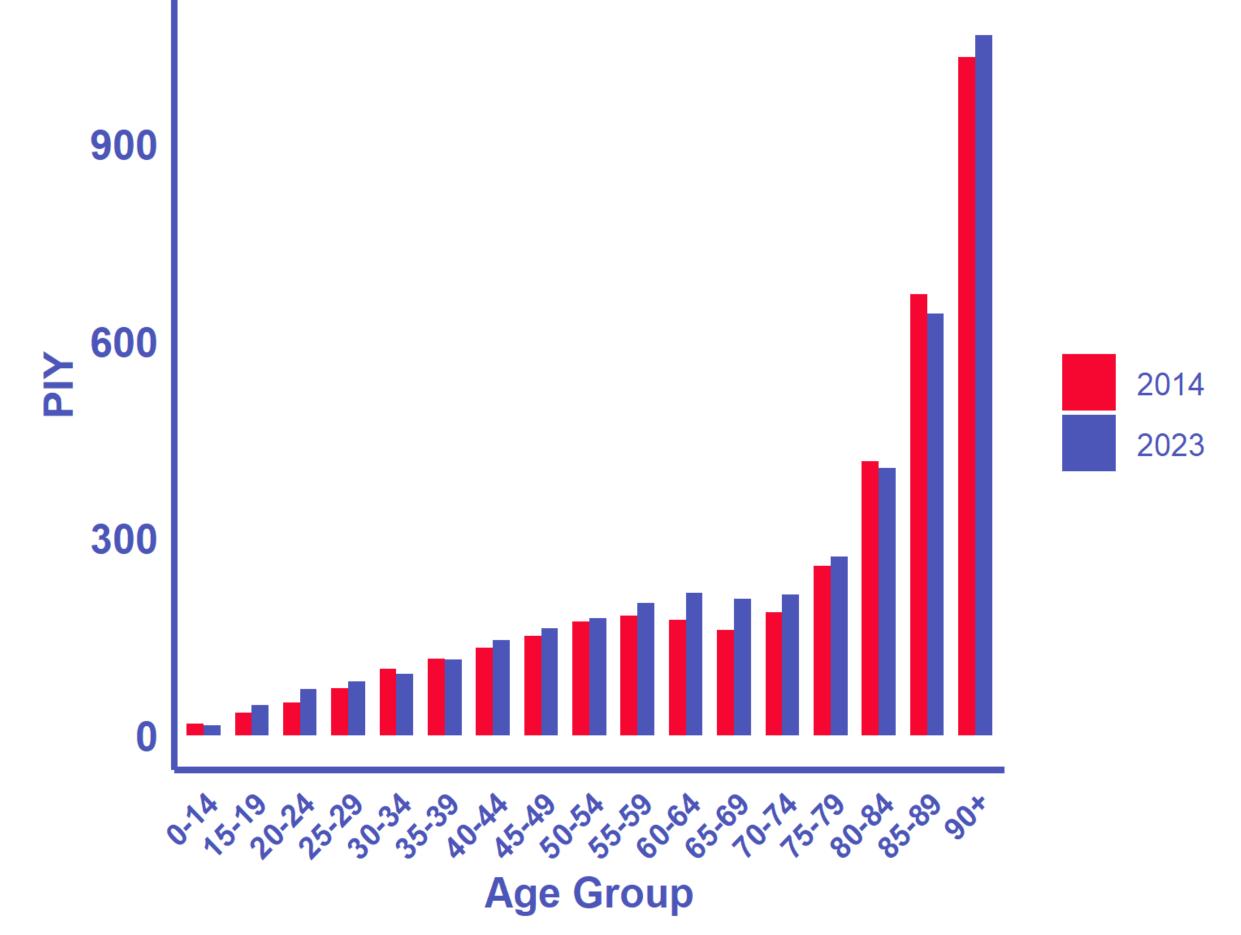


Fig. 2. Dispensing of AP by age group [in PIY].

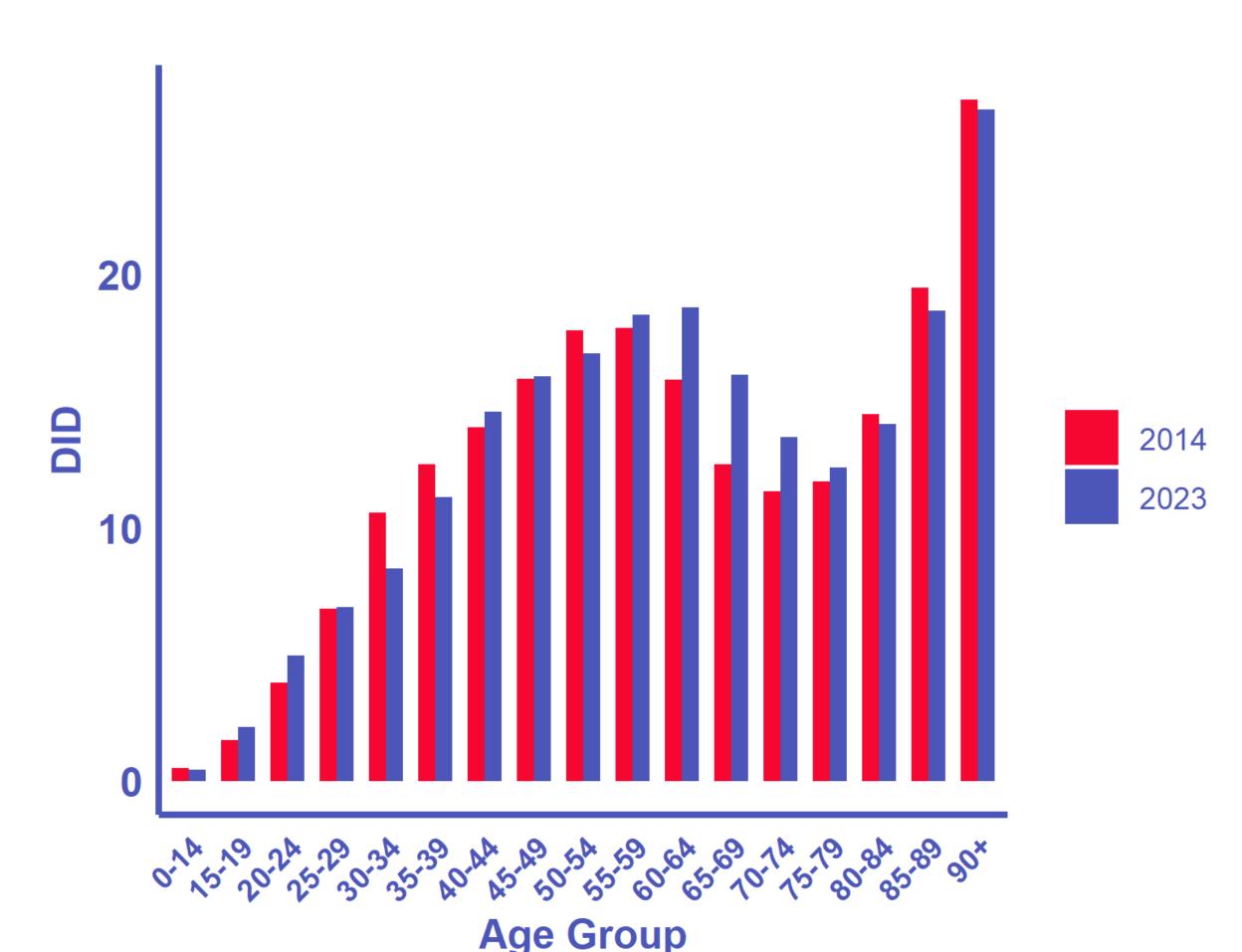


Fig. 3. Dispensing of AP by age group [in DID].

#### **METHODS**

- We analysed anonymised claims data (www.dapi.de), containing information on dispensed drugs at the expense of Statutory Health (SH) Insurance funds of approximately 87% of the German population.
- We selected the ATC code N05A (antipsychotics, except lithium N05AN01), analysed the quantity of packages dispensed as packages per 1,000 SH-insured persons per year (PIY) and the defined daily doses per 1,000 SH-insured persons per day (DID).
- We stratified by age group and by type of AP medication (typical versus atypical) and performed linear regression analyses.

#### LINEAR REGRESSION ANALYSES

- Dependent variable: PIY / DID
- Independent variable: Year

		Total Antipsychotics			Atypical Antipsychotics			Typical Antipsychotics		
		Beta	95% CI	p-value	Beta	95% CI	p-value	Beta	95% CI	p-value
Year	PIY	1.6	(1.0, 2.2)	<0.001	2.5	(2.2, 2.8)	<0.001	-0.91	(-1.2, -0.6)	<0.001
	DID	0.02	(-0.02, 0.06)	0.2	0.15	(0.13, 0.18)	<0.001	-0.13	(-0.15, -0.12)	<0.001

**Table 1.** Dispensing trends of AP by type.

TOP 5 ANTIPSYCHOTICS: PIY vs DID											
		PIY			DID						
	2014	2023	(Δ)	2014	2023	(Δ)					
Quetiapine	28.2	43.2	53.2% ↑↑	2.07	2.46	18.9% ↑					
Olanzapine	10.7	13.0	22.5% ↑	1.58	1.95	23.6% ↑					
Risperidone	24.2	27.3	12.7% ↑	1.41	1.38	-2.3%					
Aripiprazole	4.0	8.0	98.9% ↑↑	0.62	1.22	97.4% ↑↑					
Pipamperone	13.6	21.0	54.9% ↑↑	0.47	0.78	65.2% ↑↑					

Table 2. Top 5 AP in 2023 (ranked by DID).

#### RESULTS

- The overall use of AP increased from 2014 to 2023 by +9% (156.5 to 170.2) PIY and +1.7% (11.4 to 11.6) DID.
- While the typical AP use fell, the atypical AP use rose (Figure 1).
- Both atypical and typical AP showed statistically significant changes in the DID and the PIY. However, the overall change in the use of AP was only statistically significant for the PIY (*Table 1*).
- The age groups in which DID and PIY increased the most were the '15 to 19', '20 to 24', '60 to 64', '65 to 69', and the '70 to 74' years old (*Figures 2 and 3*).
- The trend analysis for AP by active ingredients with the highest DID in 2023 showed that both DID and PIY increased for quetiapine, olanzapine, aripiprazole and pipamperone. In contrast, risperidone showed a slight decrease in DID but an increase in PIY (*Table 2*).
- The high usage of AP among the older adults group was notable, especially those aged 80 and above (PIY) and 90 and above (DID). While PIY increased steadily with advancing age (Figure 2), the DID peaked in the age group of 55 to 59 years, followed by another notable increase in the age groups over 75 years, reaching a maximum in those aged over 90 years (Figure 3).

#### CONCLUSIONS

- Increasing AP use in the age groups:
  '15 to 19', '20 to 24', '60 to 64', '65 to 69' and '70 to 74' years.
- Very high AP use in patients ≥90 years old.

#### LIMITATIONS

- We did not have individual data.
- Missing information on diagnoses and dosages, among others.

### REFERENCES

1. Dörks M et al. Front Psychiatry. 2023;14:1264047.