

# Persistence with Selective Serotonin (Norepinephrine) Reuptake Inhibitors in Germany

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## Introduction

- Depression is common health issue in Germany, with an overall prevalence of 8.1 patients per 100 persons (<sup>1</sup>)
- Selective serotonin (norepinephrine) reuptake inhibitors (ss(n)ri) are used as a first-line treatment for depression (<sup>2,3</sup>).
- Several guideline recommend that pharmaceutical treatment should be continued after the acute phase of disease has passed, to prevent recurring episodes in the future, especially when patients are at risk of recurrences (<sup>2</sup>).
- Multiple studies have shown that persistence is lower than the recommendations, with between 30% and 50% of patients discontinuing treatment in the first month, and 60-80% of patients discontinuing in the first 6 months (<sup>4-6</sup>).

## Objectives

- The aim of this study was to investigate the persistence with SS(N)RI in Germany, comparing outpatients treated by general practitioners (GPs) or by neurologists/psychiatrists (NPs) in this country.

## Methods

### Data source

- The IMS® LRx database served to identify eligible patients
- Contains around 60% of prescriptions reimbursed by statutory health insurance funds
- Reflects the actual dispensation of drugs
- Full product information and prescription information are available

### Study population

Inclusion	Exclusion
✓ Initial SS(N)RI Rx between January 2014 and December 2016	x Age at index below 18 years
✓ One year of pre-index observation available	x Initial treatment with Milnacipram
	x More than 2 Rx on the same date

### Statistical analyses

- Primary outcome: rate of patients who did not persist with SS(N)RI treatment in the 12 months following the index date
- Persistence was assessed via the Kaplan–Meier method, using the individual therapy time without treatment discontinuation.
- A multivariate Cox regression model was created to determine the impact of age, gender, physician specialty, previous Rx of another group of antidepressants (N06A9) and the substance at index on persistence.

## Results

- The analysis cohort included 1,213,344 patients, of whom 58% received their initial Rx from a GP (Table 1).
- One third of the patients only received one Rx during the follow-up time.
- Patients initially treated by a NP were younger, were more likely to receive escitalopram, sertraline or venlafaxine, and were given additional Antidepressants (AD) prescriptions more often with their initial SS(N)RI prescription (Table 1).
- Persistence was longer for older patients, patients previously receiving other ADs and differed by initial molecule (Figure 1-4).
- The multivariable model showed significant longer persistence for older patients, for patients initially treated by a NP, those starting on Sertraline, Fluvoxamine and Venlafaxine and patients previously treated with other ADs.

### References

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Table 1. Baseline characteristics

	GPs		NPs		Total	
	N	%	N	%	N	%
<b>Age</b>						
<30 years	65 407	9.3%	59 733	11.7%	125 140	10.3%
31-40 years	74 218	10.6%	64 047	12.5%	138 265	11.4%
41-50 years	113 076	16.1%	98 539	19.3%	211 615	17.4%
51-60 years	137 781	19.6%	131 364	25.7%	269 145	22.2%
61-70 years	93 307	13.3%	64 279	12.6%	157 586	13.0%
71-80 years	121 236	17.3%	57 541	11.3%	178 777	14.7%
>80 years	97 729	13.9%	35 087	6.9%	132 816	10.9%
Mean (SD)	58.0 (19.0)		53.0 (17.4)		55.9 (18.5)	
Median (IQR)	57 (44-75)		53 (41-64)		55 (43-71)	
<b>Gender</b>						
Female	361 732	51.4%	246 613	48.3%	608 345	50.1%
Male	172 551	24.6%	132 339	25.9%	304 890	25.1%
Unknown	168 471	24.0%	131 638	25.8%	300 109	24.7%
<b>Initial drug</b>						
Citalopram	368 138	52.4%	149 513	29.3%	517 651	42.7%
Duloxetine	51 011	7.3%	51 886	10.2%	102 897	8.5%
Escitalopram	94 657	13.5%	93 366	18.3%	188 023	15.5%
Fluoxetine	28 750	4.1%	35 079	6.9%	63 829	5.3%
Fluvoxamine	580	0.1%	999	0.2%	1 579	0.1%
Paroxetine	27 039	3.9%	24 348	4.8%	51 387	4.2%
Sertraline	60 025	8.5%	84 792	16.6%	144 817	11.9%
Venlafaxine	72 554	10.3%	70 607	13.8%	143 161	11.8%
<b>Other antidepressant pre-index</b>						
Yes	53 153	7.6%	86 654	17.0%	139 807	11.5%
No	649 601	92.4%	423 936	83.0%	1 073 537	88.5%

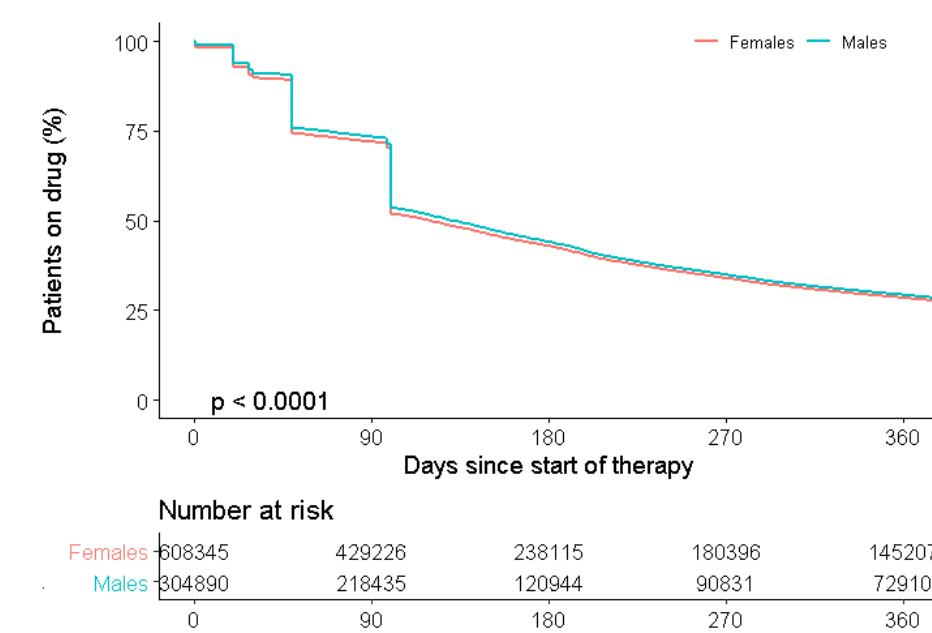
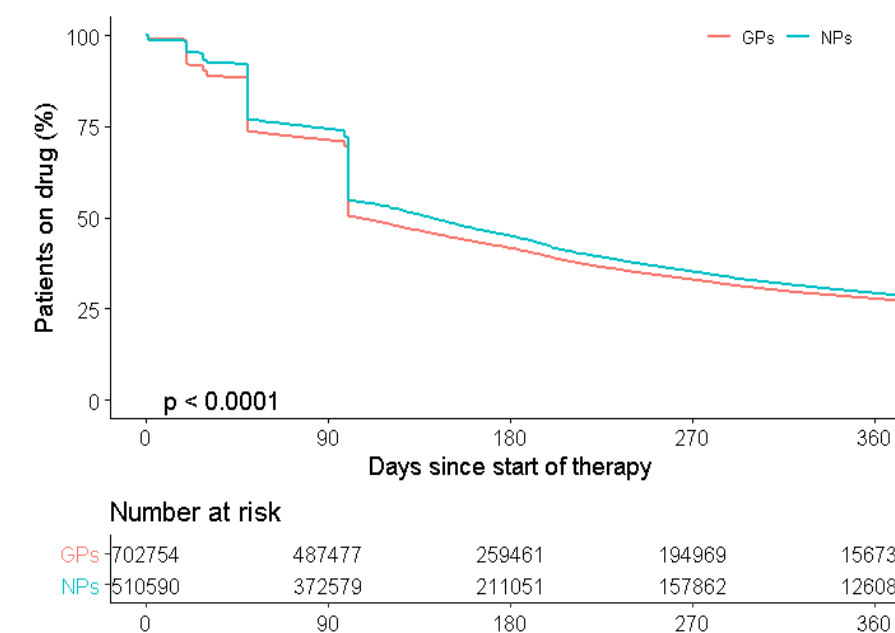


Figure 1. Patients on drug by initial prescriber

Figure 2. Patients on drug by gender

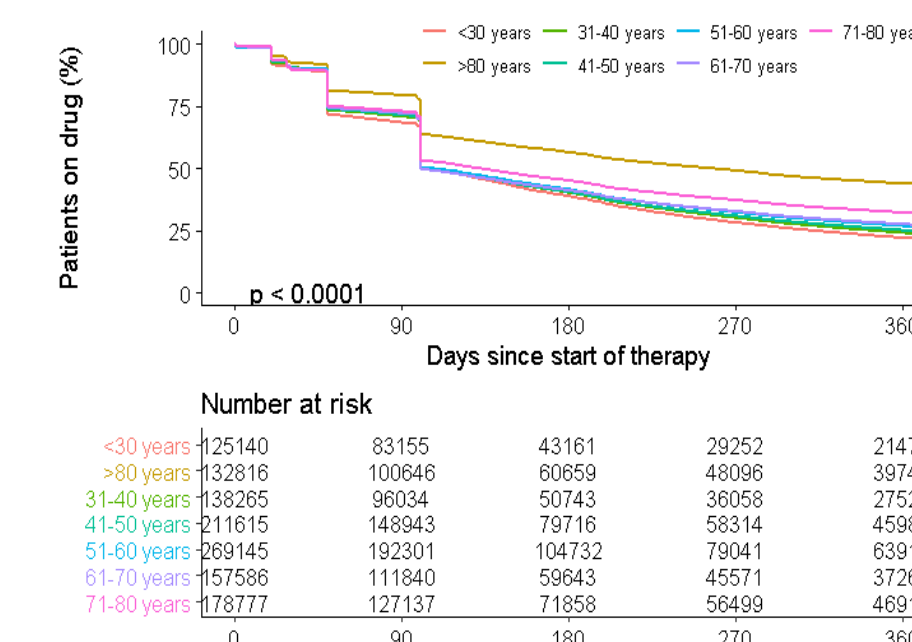


Figure 3. Patients on drug by age category

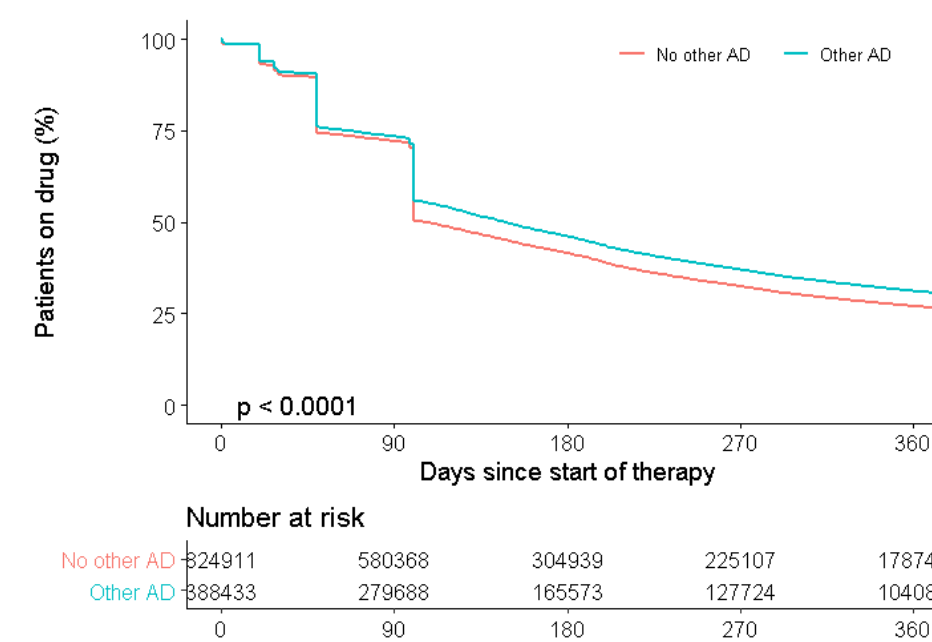


Figure 4. Patients on drug by pre-index AD use

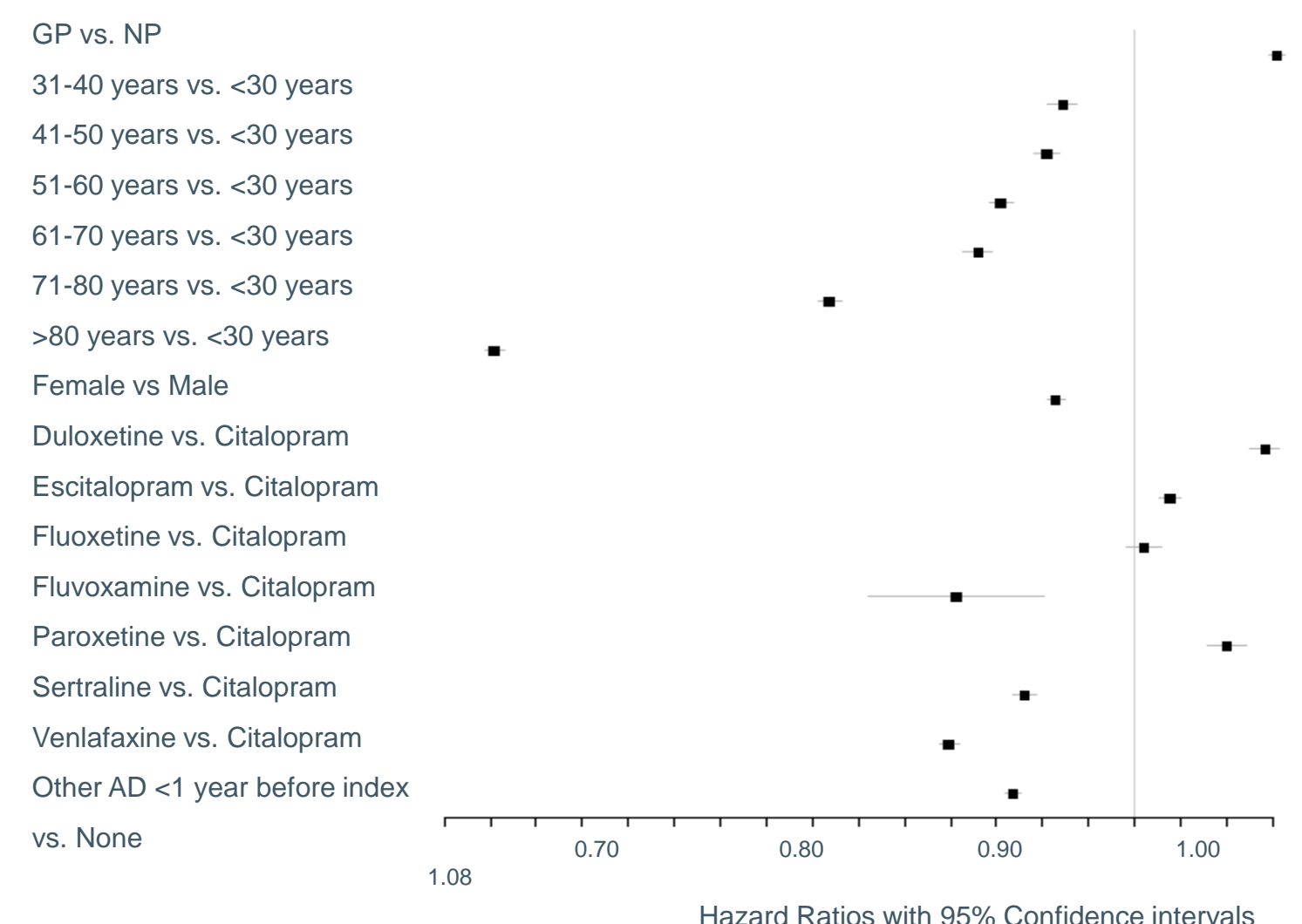


Figure 4 Forest plot of the multivariable Cox analyses on persistence

## Conclusions

- The current study shows that the current persistence is not in line with the German guidelines (<sup>2</sup>)
- The low persistence was in concordance with previous studies
- Persistence was higher for patients with higher age, female patients, treatment initiation by a NP, and those who received other ADs before starting treatment with SS(N)RI.