

THE PREVALENCE OF MULTIMORBIDITY AND POLYPHARMACY IN ELDERLY PATIENTS FOLLOWED IN GENERAL PRACTICES IN GERMANY

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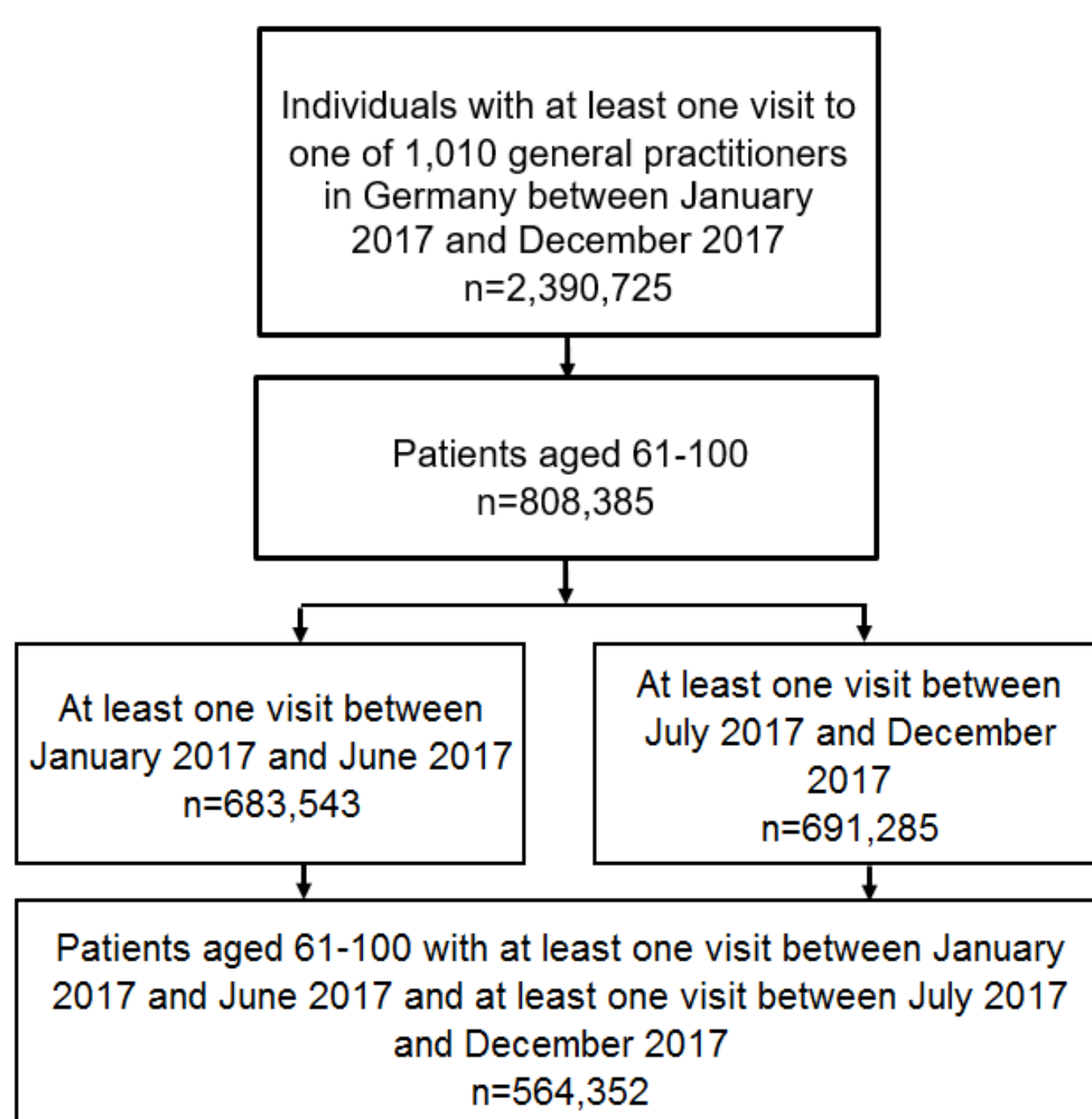
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Background and aims

- Multimorbidity, defined as the presence of two or more chronic conditions, has been a growing health problem globally, especially in recent decades [1]. The reasons for this are the decline in mortality rates and the aging of the population worldwide.
- Multimorbidity has a negative impact on quality of life [2], mental health, and mortality risk. Polypharmacy, which is often defined as the prescription of at least five different drugs, is strongly associated with multimorbidity. Interestingly, polypharmacy is also known to be a predictor of falls, of severe physical conditions (such as dementia or acute kidney injury), and of risk of death [3].
- Since approximately one out of five individuals in Germany is older than 65 [4], new research is needed to gain a better understanding of multimorbidity and polypharmacy in this country.
- Our aim was thus to investigate the prevalence of multimorbidity and polypharmacy in elderly patients followed in general practices in Germany.

Methods

- The present retrospective study was based on the nationwide Disease Analyzer database (IQVIA). This database contains demographic, clinical, and pharmaceutical variables anonymously obtained by IQVIA from a nationwide sample of general and specialist practices [5].
- The study included patients over the age of 60 who had at least one visit to one of 1,010 general practices in Germany between January 2017 and June 2017, and at least one additional visit between July 2017 and December 2017
- The present study included descriptive analyses only. The mean number of chronic diseases and prescribed drugs were analyzed for the different age groups, in men and women, separately. Similarly, we studied the distribution of the number of chronic diseases, and the number of prescribed drugs for the different age groups, in both men and women



Results

- A total of 564,352 patients were available for analysis. Among these, 85% of men and 86% of women exhibited multimorbidity, while 38% of men and 37% of women met the criterion of polypharmacy. The mean number of chronic diseases was 5.3 (SD=4.4) in men and 5.7 (SD=4.6) in women

Average number of chronic diseases by age in men and women followed in 1,010 general practices in Germany in 2017

Age group	Men		Women	
	Number of patients	Number of chronic diseases per patient (Mean, SD)	Number of patients	Number of chronic diseases per patient (Mean, SD)
61-65	54,519	4.6 (3.7)	59,268	4.7 (3.8)
66-70	49,631	4.7 (3.9)	56,256	4.8 (4.0)
71-75	40,271	5.0 (4.2)	47,017	5.1 (4.2)
76-80	48,418	5.5 (4.5)	61,332	5.7 (4.6)
81-85	32,932	6.0 (4.8)	47,343	6.3 (5.0)
86-90	15,521	6.4 (5.1)	28,051	6.7 (5.2)
91-95	5,064	6.7 (5.3)	14,302	6.7 (5.1)
96-100	803	7.2 (5.3)	3,624	6.6 (5.0)

- The mean number of prescribed drugs was 4.2 (SD=2.7) in both men and women. The mean number of prescribed drugs was 5.3 in men aged 96-100 years and 5.5 in women aged 91-95 and 96-100 years

Average number of prescribed drugs by age in men and women followed in 1,010 general practices in Germany in 2017

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	Number of patients	Number of drugs per patient (Mean, SD)	Number of patients	Number of drugs per patient (Mean, SD)
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Conclusions

- Multimorbidity and polypharmacy were highly prevalent in elderly patients followed in general practices in Germany in 2017. Further studies are needed to gain a better understanding of the potential risk factors of multimorbidity and polypharmacy in this setting.

Sources

1. Salive ME: Epidemiol. Rev. 2013, 35:75–83.
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- 5- Rathmann W. et al. Int J Clin Pharmacol Ther. 2018 Oct;56(10):459-466