

LIMITED USE OF ANTICHOLINERGIC DRUGS FOR OVERACTIVE BLADDER: A PHARMO STUDY

Hypothesis / aims of study

The aim of the study was to determine the prevalence of use of anticholinergic drugs for overactive bladder (OAB) in men and women in the Netherlands in the period 1998-2003.

Study design, materials and methods

Data were obtained from the PHARMO Record Linkage System, which includes patient centric data of drug-dispensing records and hospital records of more than one million patients in the Netherlands. Currently four anticholinergic drugs are available on the Dutch market for the treatment of OAB: tolterodine immediate release (IR), since 1998, tolterodine extended release (ER), since 2001, oxybutynin, since 1986, and flavoxate, since 1979. All patients who were ever prescribed these OAB drugs in the period January 1998 until December 2003 were included in the study cohort. The prevalence of use of tolterodine ER, tolterodine IR, oxybutynin and flavoxate was determined per calendar year, stratified by gender, by counting the number of patients having a dispensing with a duration of use including a single fixed day a year.

Results

The number of OAB drug users included in the study cohort increased from about 3,800 in 1998 to 5,000 in 2003. About 60% of the OAB drug users in the study cohort were women and about 42% of the OAB drug users were 70 years or older.

The use of OAB drugs increased from 100 users per 100,000 men in 1998 to 140 users per 100,000 men in 2003 (table). Among women, the use of OAB drugs increased from 160 users per 100,000 in 1998 to 240 users per 100,000 in 2003. After introduction of tolterodine ER on the Dutch market in 2001, the use of this drug has been increasing while that of the other three drugs has been decreasing.

Table: Prevalence of use of tolterodine ER, tolterodine IR, oxybutynin and flavoxate per 100,000 men and women in the period 1998-2003.

	1998	1999	2000	2001	2002	2003
Overall men ¹	97	121	128	141	144	143
Tolterodine ER	0	0	0	0	34	48
Tolterodine IR	22	39	43	49	32	22
Oxybutynin	56	66	70	74	65	56
Flavoxate	21	19	17	21	16	18
Overall women ¹	159	194	198	209	217	237
Tolterodine ER	0	0	0	0	40	60
Tolterodine IR	28	53	50	65	52	50
Oxybutynin	101	108	117	113	100	100
Flavoxate	33	36	34	33	29	30

¹ Numbers do not add as patients may have used multiple OAB drugs in one year

Interpretation of results

The decrease in the use of tolterodine IR, oxybutynin and flavoxate since 2001 is most likely due to the introduction of tolterodine ER, a once daily formulation. The use of OAB drugs

observed in this study is much lower than the prevalence of OAB symptoms reported in the literature. In a large European study, the prevalence of OAB symptoms in men and women aged ≥ 40 years was 15.6% and 17.4%, respectively (1). The large difference in prevalence of OAB symptoms and use of OAB drugs suggests underdiagnosis and undertreatment of OAB. This has also been described in the literature. In a European study, 60% of respondents aged 40-74 years with an overactive bladder had consulted a doctor, but only 27% were currently on medication (1). However, there may be other factors contributing to the limited use of anticholinergic drugs in the treatment of overactive bladder. Despite a similar prevalence of OAB among men and women according to the literature (1), 60% of the OAB drug users in our study cohort were women. Additional research on pharmacologic and non-pharmacologic treatment of OAB among men and women is necessary to explain this finding.

Concluding message

Use of anticholinergic drugs for overactive bladder, a prevalent and bothersome condition, is limited.

References

1. How widespread are the symptoms of an overactive bladder and how are they managed? A population-based prevalence study. *BJU Int* 2001;87(9):760-6.

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