

INTRODUCTION

- Mirabegron was approved by the FDA in 2012 as the first beta-3 agonist to treat overactive bladder (OAB).
- This study aims to examine how prescribing patterns have changed since the approval of mirabegron.

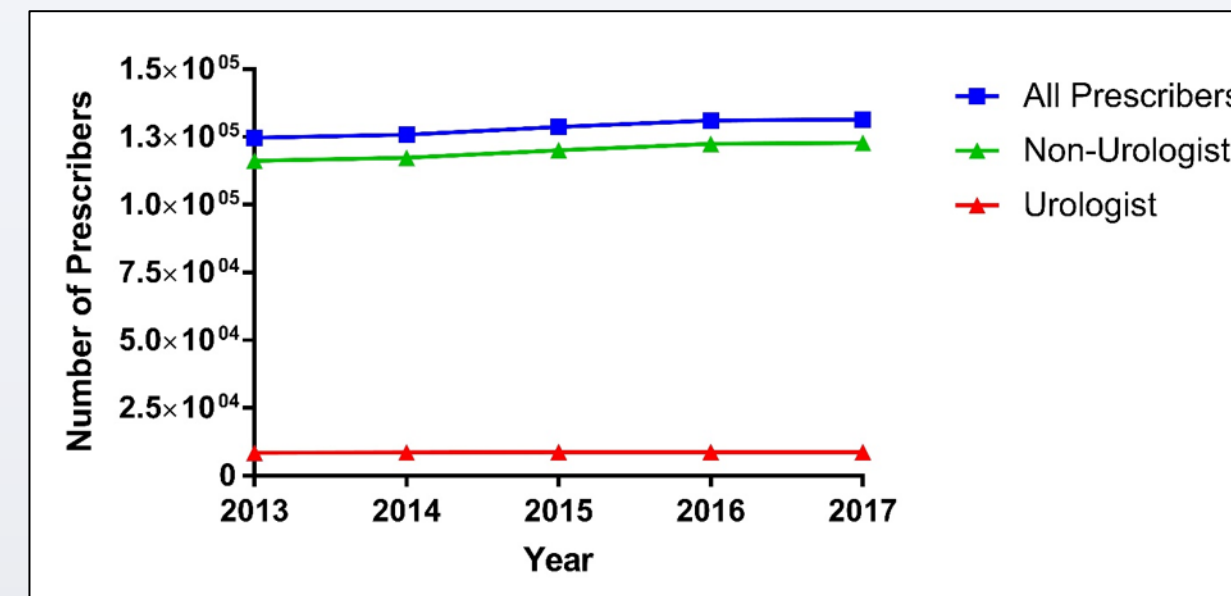
MATERIALS AND METHODS

- The 2013-2017 Medicare Part D Public Use File was used to identify prescribers of OAB medications including oxybutynin, tolterodine, trospium, darifenacin, solifenacin, fesoterodine, and mirabegron.
- The number of claims and total annual expenditure for each medication for all prescribers, non-urologists and urologists were extracted.

RESULTS

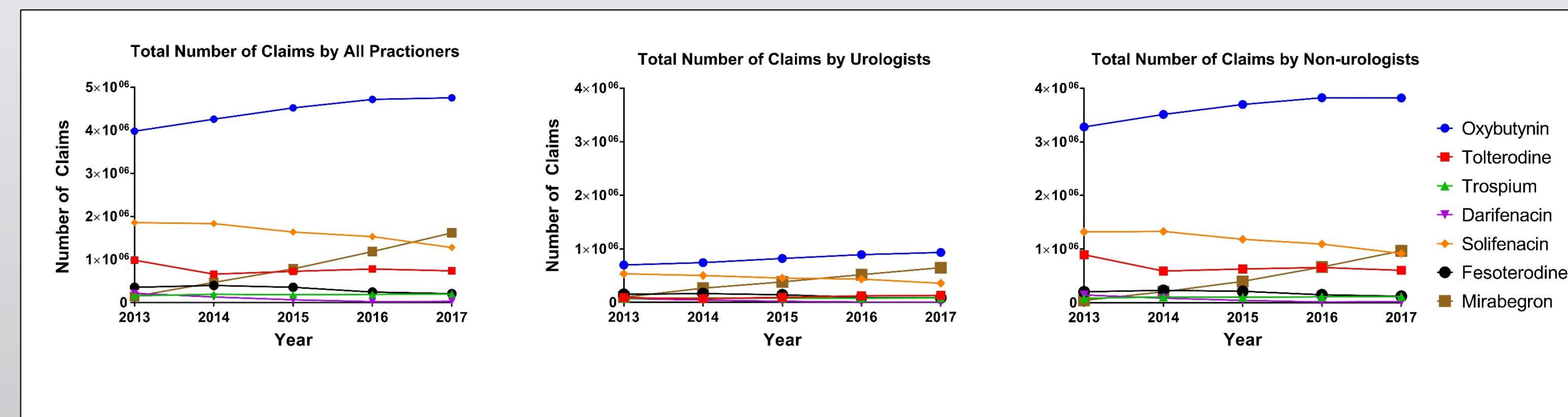
- Oxybutynin was the most prescribed OAB medication each year from 2013-2017.
- From 2013 to 2017, the annual expenditure of OAB agents increased from \$1.016 billion to \$1.608 billion.
- Mirabegron prescribing and expenditures steadily increased from 2013 to 2017.

Figure 1: Trends in Prescribers of OAB Medications from 2013-2017



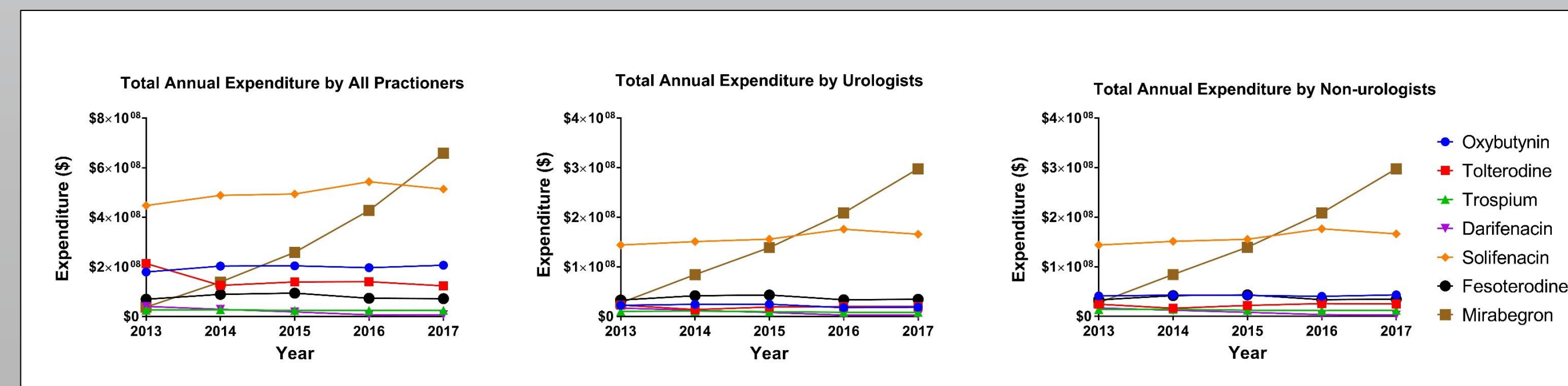
In 2013, there were 124,702 providers, which included 8,476 urologists and 116,226 non-urologists, that prescribed OAB medications. This number increased to 131,474 providers which included 8,705 urologists and 122,769 non-urologists in 2017.

Figure 2: Yearly trends of OAB Medication Claims



By 2017, mirabegron was the 2nd most prescribed OAB agent for urologists (28.8% of urologist OAB medication claims) and non-urologists (14.7% of non-urologist OAB medication claims)

Figure 3: Yearly trends of expenditure on OAB medications



By 2017, mirabegron had the highest annual expenditure for OAB medication when considering all providers (\$656.7 million) and urologists (\$297.7 million).

DISCUSSION

- Rapid adoption of mirabegron may be related to marketing strategies and decreased antimuscarinic side effects¹.
- Despite availability of mirabegron and more selective antimuscarinics with a more favorable side effect profile, oxybutynin continues to be the most prescribed OAB agent. Further research is needed to understand this trend. Possible reasons include habitual prescribing, ease of Medicare approval and decreased awareness of different agents.
- While mirabegron has the highest annual expenditure in 2017, studies have shown its cost effectiveness^{2,3}. Further studies should evaluate how health care costs are influenced by mirabegron prescribing.

CONCLUSIONS

- The utilization and total expenditure of mirabegron has steadily increased each year since its approval.
- Oxybutynin continues to be the most prescribed OAB medication across all physicians.

REFERENCES

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