

about 17% of all patients persisted with the treatment over 1 year. The number of patients who discontinued the treatment owing to adverse events was consistent with those of other reports. It is suspected that many patients might discontinue the treatment owing to relief of their OAB symptoms. Patients with OAB do not continue the treatment in real clinical practice as long as in randomized controlled trials.

## 772 ADVERSE EVENT ASSESSMENT OF ANTIMUSCARINICS FOR TREATING OVERACTIVE BLADDER: A NETWORK META-ANALYTIC APPROACH

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**Introduction & Objectives:** Overactive bladder (OAB) affects the lives of millions of people worldwide and antimuscarinics are the pharmacological treatment of choice. Meta-analyses of all currently used antimuscarinics for treating OAB found similar efficacy, making the choice dependent on their adverse event profiles. However, conventional meta-analyses fail to quantify and compare adverse events across different drugs, dosages, formulations, and routes of administration and assessment of the broad variety of adverse events is unsatisfactorily dealt with. Our aim was to compare the adverse events of antimuscarinics using a network meta-analytic approach that overcomes shortcomings of conventional analyses.

**Material & Methods:** The Cochrane Incontinence Group Specialized Trials Register, previous systematic reviews, conference abstracts, book chapters, and the reference lists of relevant articles were searched. Eligible studies included randomized controlled trials comparing at least one antimuscarinic for treating OAB with placebo or with another antimuscarinic and adverse events as outcome measures. Two authors independently extracted data. A network meta-analytic approach was applied allowing for joint assessment of all adverse events of all currently used antimuscarinics while fully maintaining randomization.

**Results:** We included 69 trials enrolling 26229 patients. We found similar overall adverse event profiles for darifenacin, fesoterodine, transdermal oxybutynin, propiverine, solifenacin, tolterodine, and trospium chloride but not for peroral oxybutynin (more unfavourable adverse event profiles) when currently used starting dosages were compared.

**Conclusions:** The proposed generally applicable transparent network meta-analytic approach summarizes adverse events in an easy way allowing straightforward benchmarking of antimuscarinics for treating OAB in clinical practice. Most currently used antimuscarinics seem to be equivalent first choice drugs to start the treatment of OAB except for oxybutynin dosages of  $\geq 10\text{mg/d}$  which may have more unfavourable adverse event profiles.

## 773 OVERACTIVE BLADDER MEDICATION COMPLIANCE WHEN PATIENTS CO-PAY THE ANTICHOLINERGIC AGENTS

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**Introduction & Objectives:** Aim of the study is to evaluate the compliance of overactive bladder patients to their medication, in a healthcare system where patients co-pay the anticholinergic agents.

**Material & Methods:** 450 patients were evaluated in a healthcare system where patients pay a proportion of the cost of a prescribed product. All were adults (371 women – 79 men) suffering from overactive bladder and using medication from 10/2006 to 10/2009. During this period pharmacy dispensing records were reviewed for anticholinergic agents. The participants were followed beginning at the medication starting-point and medication persistence, switching and adherence were examined. Persistence was defined as Medication Possession Rate (MPR) greater than or equal to a predetermined threshold of 80%. The MPR is a continuous variable assessing medication availability over multiple refill intervals. The selection of an absolute cut-off for medication persistence yields a dichotomous persistence measure for each individual: persistent or no persistent. Kaplan Meier survival analysis was performed to compare medication persistence duration.

**Results:** Tolterodine extended release (122 prescriptions), oxybutynin (76 prescriptions) and darifenacin (37 prescriptions) were most commonly prescribed. The medication non-persistence rate was 39.8% (179/450). Of the 271 subjects who refilled their prescriptions, 69 changed their medication or dosage at least once, for a medication switch rate of 25.5%. The overall median Medication Possession Ratio (MPR) was 0.81 for all subjects. Men had a significantly higher median MPR than women (0.84 vs. 0.80,  $p < 0.001$ ). However, among patients who obtained at least one refill, women stayed on medications longer than men (Median 509 days vs. 410 days,  $p < 0.01$ ).

**Conclusions:** In a health care system in which patients co-pay for their medications, 39.8% of patients do not refill their prescription for overactive bladder anticholinergic agents. Policies intended to persuade patients to follow physician's

prescriptions, information about prices and less expensive alternatives should be introduced.

## 774 DOSE-RANGING STUDY OF ONCE-DAILY MIRABEGRON (YM178), A NOVEL SELECTIVE $\beta_3$ -ADRENOCEPTOR AGONIST, IN PATIENTS WITH OVERACTIVE BLADDER (OAB)

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**Introduction & Objectives:** This is the first report of a dose-ranging study (Phase IIb) using mirabegron (a novel, selective  $\beta_3$ -adrenoceptor agonist). The aim of the study was to determine the efficacy and safety of mirabegron once daily (qd) in patients with OAB.

**Material & Methods:** This 12-week, multicentre, double-blind, randomized, parallel-group, placebo- and active-controlled study enrolled patients aged  $\geq 18$  years who had OAB for  $\geq 3$  months. Patients experiencing  $\geq 8$  micturitions/24 hours and  $\geq 3$  urgency episodes with or without incontinence during a 3-day micturition diary period were randomized to mirabegron 25, 50, 100 or 200 mg qd or placebo. Efficacy was evaluated using patient micturition diaries. Safety was assessed by vital signs, lab monitoring, electrocardiograms, and adverse event (AE) reporting.

**Results:** There were 919 patients in the full analysis set (placebo:  $n=166$ ; mirabegron 25, 50, 100 and 200 mg:  $n=167$ , 167, 168 and 166, respectively). Mean age was 57.2 years, 89.3% of patients were female, 42.2% had urgency incontinence and 30.6% had mixed incontinence. Statistically significant, dose-dependant reductions in the mean number of micturitions/24 hours (primary variable) were seen with mirabegron 50 ( $p=0.0205$ ), 100 ( $p=0.0152$ ) and 200 ( $p=0.0041$ ) mg qd, compared with placebo. Mirabegron increased mean volume voided/micturition and decreased all other examined parameters compared to baseline (Table). Overall, 45.2% of patients experienced  $\geq 1$  treatment-emergent AE (placebo: 43.2%; mirabegron: 43.8–47.9%), of which 3.2% of patients discontinued (placebo: 3.0%; mirabegron: 2.4–5.3%). The most commonly reported AEs were infections and infestations (14.1%) and gastrointestinal disorders (12.1%); the  $\beta_3$ -adrenoceptor agonist mirabegron showed lower incidence of dry mouth than has been seen in antimuscarinics. Most AEs were mild or moderate in intensity. Table. Adjusted mean change from baseline to endpoint of variable

Variable (per 24-hour period)	Placebo	Mirabegron (mg qd)			
		25	50	100	200
Micturitions (primary endpoint)	-1.4	-1.9	-2.1*	-2.1*	-2.2*
Volume voided per micturition (mL)	7.3	15.3	27.3*	25.6*	33.3*
Incontinence episodes	-0.5	-1.4*	-1.2*	-1.1	-1.1
Urgency incontinence episodes	-0.4	-1.3*	-1.1*	-1.2*	-1.2*
Urgency episodes (grade $\geq 3$ )	-1.1	-1.8*	-1.7	-2.3*	-2.5*
* $p < 0.05$ versus placebo					

**Conclusions:** Mirabegron significantly improved the majority of variables compared with placebo when administered to patients with OAB. There was a dose-response for micturition frequency and volume voided/micturition. All treatments were well tolerated.

## 775 WITHDRAWN

## 776 RELATIONSHIPS BETWEEN CHANGES IN OVERACTIVE BLADDER (OAB) SYMPTOMS AND IN SUBJECTIVE ASSESSMENTS OF SYMPTOM BOTHER AND HEALTH-RELATED QUALITY OF LIFE (HRQL) IN PATIENTS TAKING SOLIFENACIN OR PLACEBO IN THE VIBRANT STUDY

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**Introduction & Objectives:** Studies of antimuscarinics for OAB typically use objective and subjective measures to assess efficacy, as each provides unique