mirabegron (mye-ra-beg-ron)  

**Myrbetriq**  

**Classification**  
Therapeutic: urinary tract antispasmodics  
Pharmacologic: beta-adrenergic agonists  

**Pregnancy Category C.**  

**Indications**  
Treatment of symptoms of overactive bladder (OAB) including urge urinary incontinence, urgency and frequency.  

**Action**  
Acts as a selective beta-3 adrenergic agonist. Increases bladder capacity by relaxing detrusor smooth muscle during storage phase of bladder fill-void cycle.  

**Therapeutic Effects:** Decreased symptoms of OAB.  

**Pharmacokinetics**  
Absorption: 29–35% absorbed following oral administration.  
Distribution: Widely distributed.  
Metabolism and Excretion: Extensively metabolized, 6% excreted unchanged in urine (25 mg dose), remainder excreted in urine and feces as metabolites.  
Half-life: 9 hr.  

**Time/Action Profile (effects on bladder)**  

<table>
<thead>
<tr>
<th>Route</th>
<th>Onset</th>
<th>Peak</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>PO</td>
<td>unknown</td>
<td>1.5 hr</td>
<td>24 hr</td>
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</table>

**Contraindications/Precautions**  
Contraindicated in: Severe uncontrolled hypertension.  
Lactation: Probably enters breast milk and may cause adverse reactions in infant; End-stage renal disease or severe hepatic impairment (Child-Pugh Class C).  
Use Cautiously in: Hypertension; Bladder outlet obstruction/concurrent anti-muscarinics (1 risk of urinary retention); Concurrent use of anti-muscarinics used to treat OAB.  

**Adverse Reactions/Side Effects**  
CNS: dizziness, headache.  
CV: postural hypotension.  
GI: constipation, diarrhea, nausea.  
GU: urinary tract infection.  

**Interactions**  
**Drug-Drug:** Acts as a moderate inhibitor of the CYP2D6 enzyme system. May decrease levels and risk of adverse reactions of drugs metabolized by the the CYP2D6 enzyme system including desipramine, flecainide, metoprolol, propafenone, and thioridazine; Monitor blood levels and risk of toxicity with digoxin (use lowest effective level of digoxin/monitor serum levels).  

**Route/Dosage**  
**PO (Adults):** 25 mg once daily initially to slowly increase while maintaining tolerability.  
Renal Impairment  
**PO (Adults):** Severe renal impairment (CCr < 15 mL/min) — dose should not exceed 25 mg/day.  
Hepatic Impairment  
**PO (Adults):** Moderate hepatic impairment (Child-Pugh Class B) — dose should not exceed 25 mg/day.  

**NURSING IMPLICATIONS**  
**Assessment:**  
- Assess patient for urinary urgency, frequency, and urge incontinence periodically during therapy.  
- Monitor BP prior to starting and periodically during therapy; may cause hypotension.  

**Potential Nursing Diagnoses**  
- Impaired urinary elimination (indications)  
- Urinary incontinence (indications)  

**Implementation**  
- PO: Swallow tablets without regard to food.  
- Smaller tablets whole with water; do not break, crush, or chew.  

- **Conjunct.:** Drug name  
- **Gen.: Imp.:** Discontinued  
- **OPT: indicates drug-blocking; underline indicates most frequent.**
Patient/Family Teaching

● Instruct patient to take mirabegron as directed. If a dose is missed, omit dose and begin taking next day; do not take 2 doses on the same day. Advise patient to read Patient Information sheet prior to starting and with each Rx refill in case of changes.

● Inform patient that mirabegron may cause an increase in BP. Advise patient to have BP checked periodically during therapy.

● May cause dizziness. Caution patient to avoid driving or other activities requiring alertness until response to medication is known.

● Advise patient to notify health care professional if difficulty emptying bladder occurs.

● Advise patient to notify health care professional of all Rx or OTC medications, vitamins, or herbal products being taken and to consult with health care professional before taking other medications.

● Advise female patients to notify health care professional if pregnancy is planned or suspected or if breast feeding.

Evaluation/Desired Outcomes

● Decreased urinary frequency, urgency, and urge incontinence.

Why was this drug prescribed for your patient?