

## **Persistence in the Use of Drugs for the Treatment of Benign Prostatic Hyperplasia**

**Introduction and Objective:** We recently reported on the initial treatment of benign prostatic hyperplasia (BPH) among elderly American men. Over half elected watchful waiting. The most popular initial medical treatment was drug therapy with alpha-blockers (ABs) alone, followed by 5-alpha-reductase inhibitors (5-ARI) alone, and by dual therapy. Here we report on the persistence of medication use, and surgical intervention among those treated with drugs.

**Materials and Methods:** Men 67+ years of age with incident BPH in 2007 through June 2009 were identified in U.S. Medicare administrative data files. Cases had a diagnosis consistent with BPH/LUTS in 2007-9, but not in 2005-6, and were not treated in 2006 with an AB or a 5-ARI. Cases were followed through 2009. In order to accurately capture initial dual drug therapy, we defined it as use of both drugs within 60 days following the first prescription for either an AB or a 5-ARI. Discontinuation of drug therapy was defined as the lack of medication availability for 120 days without surgery being performed.

**Results:** A total of 5,194 incident cases were followed for an average of 16 months. 1,538 (29.6%) received drug therapy. Initially, 70.4% received ABs alone, 17.5% 5-ARIs alone, and 12.2% both. During the entire follow-up period 21.0% were treated with dual therapy, but still 64.1% received only ABs and 14.9%, only 5-ARIs. Of those only prescribed ABs, 54.2 % stopped treatment: 5.1% had surgery (TURP or minimally invasive surgical treatment, MIST), and 49.1% met our criterion for discontinuation (mean duration of treatment = 150 days). Of the men only prescribed 5-ARIs, 45.4 % stopped treatment: 5.7% had surgery, and 39.7% discontinued treatment (mean duration of treatment = 183 days). Of those prescribed dual therapy, 44.0 % stopped treatment: 5.0% had surgery, and 39.0% discontinued treatment (mean duration of treatment = 213 days).

**Conclusions:** Single drug therapy, particularly with ABs was the preferred pharmaceutical intervention. Surgery among those who initiated drug therapy was low, 5.0–5.7%, no matter the drug used prior. However, a large percentage discontinued treatment (40-54%). We cannot know if these men discontinued because of the amelioration of symptoms or for other reasons.