Effectiveness of pharmacist-led shared medical appointments to achieve blood pressure goals in patients with uncontrolled hypertension at a primary care clinic

Victoria W. Reynolds, PharmD; Holly Causey, PharmD, BCACP, CPP, CDE; Ben Smith, PharmD, BCACP, CPP, CGP
Duke University Hospital; Durham, North Carolina

**Background**
- A shared medical appointment (SMA) is an appointment in which a multi-disciplinary team sees a group of patients with the same disease state in a one to two hour session.
- SMAs allow for a more intensive model of individualized medical management of a chronic illness and self-management by integrating a brief primary care visit into a single appointment with group education.
- In March 2013, a hypertension SMA was developed and implemented at the Duke Outpatient Clinic to consolidate nursing and pharmacy-led individualized visits and to improve patient access, patient satisfaction and clinical outcomes.

**Objectives**

**Primary Objective**
- To assess the impact of a pharmacist-led hypertension SMA to achieve blood pressure goals

**Secondary Objectives**
- To assess the effect of hypertension SMAs on BMI, number of antihypertensive medications, and A1C in patients with diabetes

**Methods**
- IRB-approved, single-center, retrospective, pre/post-test review
- Subjects will serve as their own control, with blood pressure measurement at first SMA as the baseline blood pressure value.
- Subjects will be identified by a medical record search for patients attending the hypertension SMA at the Duke Outpatient Clinic from March 2013 to June 2015.
- Data will be collected to include demographic and clinical data related to blood pressure, number of antihypertensive medications, BMI, A1C in patients with type 2 diabetes, at baseline and post-SMA and attendance at follow-up appointment after SMA.

**Data Collection/Statistical Analysis**
- Examine variables of interest with summary statistics
- Mean (STD) for continuous and N (%) for categorical variables
  - Demographic data: age, gender, etc.
  - BMI
  - A1C
  - Number of anti-hypertensive medications
  - Documented allergy
  - Comorbidities
  - Attendance at follow-up appointment
  - Follow-up in appropriate amount of time
- Logistic regression to compare patients reaching blood pressure goals
- BMI change from baseline: measured from pre to post visit
- Number of antihypertensive medications: measured from pre to post visit
- A1C change in patients with diabetes: only examine diabetes patients and measure from pre to post visit

**Inclusion Criteria**
- Attendance at a hypertension SMA at the Duke Outpatient Clinic from March 2013 to June 2015
- At least 18 years in age
- Diagnosed with hypertension
- Uncontrolled hypertension
- Physician referral to hypertension SMA
- Attendance at ≥1 SMA

**Exclusion Criteria**
- No baseline blood pressure measurement
- Inadequate blood pressure measurement follow-up (no documented BP measurement ≥ two weeks post-SMA)

**Endpoints**

**Primary Endpoint**
- Achievement of blood pressure goal (measured ≥22 weeks from SMA)

**Secondary Endpoints**
- BMI change as measured from pre and post SMA
- Number of antihypertensive medications pre and post SMA
- A1C change in patients with diabetes pre and post SMA

**References**

**Disclosures**

The authors of this presentation have no disclosures to provide concerning possible financial or personal relationships with commercial entities that may have direct or indirect interest in the subject matter of this presentation.