



## HYPERTENSION MEDICATION MANAGEMENT

May 2010

The Framingham Heart Study looked at adults who were aged 55 to 65 years and were free of hypertension. The Study results stated that the lifetime risk for developing hypertension and stage 1 high blood pressure or higher was 90% in their study participants who were 55 years old and 65 years old.<sup>1</sup> Hypertension is also prevalent in the Sanford Health Plan member population and led the Plan to implement a Hypertension Disease Management Program.

As part of the Sanford Health Plan Hypertension Disease Management Program, the Plan's Physician Quality Committee adopted the JNCVII guidelines for the prevention, detection, evaluation and treatment of hypertension. **According to these guidelines, thiazide-type diuretics have been virtually unsurpassed in preventing the cardiovascular complications of hypertension and enhance the efficacy of multi-drug regimens in achieving control.<sup>2</sup> However, diuretics remain underutilized** as is evidenced by the data collected from the pharmaceutical data of Sanford Health Plan hypertensive members.

Break Down Of Anti-Hypertensive Therapy	
% of Hypertensive Members on Single Therapy	37.8%
% of Hypertensive Members on Dual Therapy	39.7%
% of Hypertensive Members on Multi-Drug Therapy	22.5%

In Sanford Health Plan's hypertensive population, 40.9% are on a thiazide-diuretic. Below is a breakdown of this thiazide-diuretic utilization.

Break Down of Thiazide-Diuretic Utilization	
% on Single Therapy Consisting of Thiazide-Diuretic	11.4%
% on Dual Therapy that Includes Thiazide-Diuretic	58.5%
% on Multi-Drug Therapy that includes Thiazide-Diuretic	73.1%

The JNCVII guidelines state that thiazide-type diuretics should be used as initial therapy for most patients, either alone or in combination with other classes, based on the list of other compelling indicators (heart failure, post myocardial infarction, high coronary disease risk, diabetes, chronic kidney disease, recurrent stroke prevention) and the required use of other antihypertensive drugs in those situations.<sup>2</sup> **The 11.4% rate above demonstrates an underutilization of thiazide-diuretics for monotherapy as does the 58.5% rate for dual therapy.**

### Hypertension in the Diabetic Population

In further analysis of appropriate pharmacological treatment, the Plan also analyzed the subpopulation of members with hypertension and diabetes to determine the type of drug therapy being utilized for this compelling indication. In these members, combinations of two or more drugs are usually needed to maintain blood pressure control.<sup>2</sup> ACE Inhibitor and Angiotensin II Antagonist (ARBs) therapies reduce the progression of diabetic nephropathy and reduce albuminuria.<sup>2</sup> Endocrinologists, as well as the guidelines, indicate that the best practice standard for a diabetic patient with hypertension is Ace Inhibitor or ARB therapy, barring any contraindications. The following are the results from Sanford Health Plan data on members with hypertension and diabetes:

% of Members with Hypertension that also have a Diabetic Diagnosis	17.6%
Of these members, the % that are utilizing an ACE Inhibitor	46.5%
Of these members, the % that are utilizing an ARB	21.9%
% that are utilizing an ACEI or an ARB	68.4%

**This data also indicates the underutilization of ACE Inhibitor and ARB therapy in the diabetic population.**

Please refer to the guidelines on the National Heart, Lung and Blood Institute's website at [www.nhlbi.nih.gov/guidelines/hypertension/index.htm](http://www.nhlbi.nih.gov/guidelines/hypertension/index.htm) for additional information on the JNCVII guidelines. You will also find on our website, information on the Plan's Disease Management Programs and what services are provided with those programs. If you have any questions, please feel free to call me at (605) 328-6834 or toll free at 1-800-805-7938.

<sup>1</sup>Vasan RS, Beiser A, Seshadri S, et al. Residual lifetime risk for developing hypertension in middle-aged women and men: The Framingham Heart Study. *JAMA*. 2002;287:1003-10.

<sup>2</sup>Seventh report of the Joint National Committee on Prevention, Detection, Evaluation and Treatment of High Blood Pressure. U.S. Department of Health and Human Services, Public Health Service, National Institutes of Health, National Heart, Lung & Blood Institute, National High Blood Pressure Education Program. NIH Publication No. 04-5230. August 2004.