

## FOCUS ON: High blood pressure and stroke

### Hypertension in the elderly

The prevalence of hypertension (HTN) increases progressively with age.<sup>1</sup> In older Americans, HTN is the most important risk factor for many cardiovascular diseases (CVD) since 69% of patients with myocardial infarction (MI), 77% with stroke, and 74% with heart failure (HF) all have antecedent hypertension. In addition, hypertension is a major risk factor for incident diabetes mellitus, atrial fibrillation, and chronic kidney disease (CKD). Randomized trials have demonstrated how treatment of elevated systolic blood pressure (SBP) substantially reduces CVD risk in cohorts of elderly patients.<sup>1</sup>

### Hypertension and stroke

Stroke is the fifth leading cause of death in the United States and a leading cause of long-term disability, with nearly half of older stroke survivors experiencing moderate to severe disability.<sup>2,3</sup> HTN in the elderly is a major risk factor for both ischemic stroke and cerebral hemorrhage. Stroke reduction appears related to blood pressure (BP) reduction, with greater benefits occurring with greater reductions.<sup>1</sup>

### Hypertension and heart failure

Aging and hypertension are both strongly associated with HF. HTN may lead to HF through different but frequently overlapping pathways.<sup>1</sup> Interestingly, although hospital mortality of elderly patients with first MI has declined in the last decade, HF developed in three-quarters of them within 5 years of follow-up. Thus, HF significantly increased later onset mortality of MI survivors.<sup>4</sup>

### Hypertension and chronic kidney disease

Hypertension and aging both impact renal function. Elderly patients with hypertension and CKD should have BP less than 130/80 mm Hg, if tolerated. Drug regimens that include Angiotensin-Converting-Enzyme Inhibitors (ACEI) or Angiotensin Receptor Blockers (ARB) are more effective than regimens without them in slowing the progression of nondiabetic CKD.<sup>5</sup>

## Documentation and coding tips

- For stroke, document the type, vessel affected including laterality, and any immediate effects of stroke.
- After the initial acute care episode (hospitalization), if the patient has residual effects (Hemiplegia, Dysphagia, etc.) then all deficits are coded to “Sequelae” of stroke.
- The sequelae may occur any time after the onset of the stroke.
- If a patient recovers from a stroke with no residual deficits, report history of stroke.
- The classification presumes a causal relationship between hypertension and heart involvement and between hypertension and kidney involvement, as the two conditions are linked by the term “with” in the Alphabetic Index.
- These conditions should be coded as related unless the documentation clearly states the conditions are unrelated.

### Stroke

<b>I63.-</b>	Cerebral infarction
I69.3-	Sequelae of cerebral infarction
G45.9	Transient cerebral ischemic attack, unspecified
Z86.73	Personal history of transient ischemic attack (TIA), and cerebral infarction without residual deficits

### Hypertension

I10	Essential (primary) hypertension
I11.-	Hypertensive heart disease <i>Use additional code to identify type of heart failure (I50.-)</i>
I12.-	Hypertensive chronic kidney disease <i>Use additional code to identify the stage of chronic kidney disease (N18.1 - N18.9)</i>
I13.-	Hypertensive heart and chronic kidney disease <i>Use additional code to identify type of heart failure (I50.-)</i>  <i>Use additional code to identify the stage of chronic kidney disease (N18.1 - N18.9)</i>
<b>Z91.15</b>	Patient's noncompliance with renal dialysis
<b>Z99.2</b>	Dependence on renal dialysis

### Coding example

Previous CVA with residual hemiplegia

**I69.359** Hemiplegia and hemiparesis following cerebral infarction affecting unspecified side  
*Specify which side is affected.*

Per the ICD-10-CM Official Guidelines for Coding and Reporting FY 2018: “A dash (-) at the end of an alphabetic index entry indicates that additional characters are required. Even if a dash is not included at the alphabetic index entry, it is necessary to refer to the tabular list to verify that no 7th character is required.” The bolding of the ICD-10-CM codes represents categories, subcategories or codes that map to the CMS-HCC risk adjustment model for payment year 2019. Codes marked with a + directly after them represent new additions to the FY 2018 ICD-10-CM code classification.

This guidance is to be used for easy reference; however, the ICD-10-CM code book and the Official Guidelines for Coding and Reporting are the authoritative references for accurate and complete coding. The information presented herein is for general informational purposes only. Neither Optum nor its affiliates warrant or represent that the information contained herein is complete, accurate or free from defects. Specific documentation is reflective of the “thought process” of the provider when treating patients. All conditions affecting the care, treatment or management of the patient should be documented with their status and treatment, and coded to the highest level of specificity. Enhanced precision and accuracy in the codes selected is the ultimate goal. Lastly, on April 2, 2018, the Centers for Medicare & Medicaid Services (CMS) announced that 2018 dates of service for the 2019 payment year model is based on 100% of the 2019 CMS-HCC model mappings released April 2, 2018. See: <https://www.cms.gov/Medicare/Health-Plans/MedicareAdvtgSpecRateStats/Downloads/Announcement2019.pdf>

For additional information as well as publications and products available for HEDIS®, please visit the National Committee for Quality Assurance (NCQA) website at [ncqa.org](http://ncqa.org). For additional information about the Medicare Advantage Five-Star Quality Rating System, please refer to: <http://go.cms.gov/partcandstarratings>.

Optum360 ICD-10-CM: Professional for Physicians 2018. Salt Lake City, UT: 2017.

1. ACCF/AHA 2011 Expert Consensus Document on Hypertension in the Elderly: A Report of the American College of Cardiology Foundation Task Force on Clinical Expert Consensus Documents. *Circulation*. 2011; 123:2434-2506.
2. Kochanek KD, Xu JQ, Murphy SL, Arias E. Mortality in the United States, 2013. NCHS Data Brief, No. 178. Hyattsville, MD: National Center for Health Statistics, Centers for Disease Control and Prevention, Department of Health and Human Services; 2014.
3. Mozaffarian D, Benjamin EJ, Go AS, Arnett DK, Blaha MJ, Cushman M, et al., on behalf of the American Heart Association Statistics Committee and Stroke Statistics Subcommittee. Heart disease and stroke statistics—2016 update: a report from the American Heart Association. *Circulation* 2016;133(4):e38–360.
4. Ezekowitz JA, Kaul P, Bakal JA, et al. Declining in-hospital mortality and increasing heart failure incidence in elderly patients with first myocardial infarction. *J Am Coll Cardiol*. 2009;53:13–20.
5. 2017 ACC/AHA/AAPA/ABC/ACPM/AGS/APhA/ASH/ASPC/NMA/P Guideline for the Prevention, Detection, Evaluation, and Management of High Blood Pressure in Adults: A Report of the American College of Cardiology/American Heart Association Task Force on Clinical Practice Guidelines. 2018;71:e127-e248. <http://www.acc.org/latest-in-cardiology/ten-points-to-remember/2017/11/09/11/41/2017-guideline-for-high-blood-pressure-in-adults>