



AHRQ Quality Indicators™ (AHRQ QI™) ICD-10-CM/PCS Specification Version 6.0

## **Prevention Quality Indicator 07 (PQI 07) Hypertension Admission Rate**

**July 2016**

**Area-Level Indicator**

**Type of Score: Rate**

**Prepared by:**

Agency for Healthcare Research and Quality

U.S. Department of Health and Human Services

[www.qualityindicators.ahrq.gov](http://www.qualityindicators.ahrq.gov)

**DESCRIPTION**

Admissions with a principal diagnosis of hypertension per 100,000 population, ages 18 years and older. Excludes kidney disease combined with dialysis access procedure admissions, cardiac procedure admissions, obstetric admissions, and transfers from other institutions.

*[NOTE: The software provides the rate per population. However, common practice reports the measure as per 100,000 population. The user must multiply the rate obtained from the software by 100,000 to report admissions per 100,000 population]*

**NUMERATOR**

Discharges, for patients ages 18 years and older, with a principal ICD-10-CM diagnosis code for hypertension.

[NOTE: By definition, discharges with a principal diagnosis of hypertension are precluded from an assignment of MDC 14 by grouper software. Thus, obstetric discharges should not be considered in the PQI rate, though the AHRQ QI™ software does not explicitly exclude obstetric cases.]

***Hypertension diagnosis codes: (ACSHYPD)***

I10	Essential (primary) hypertension	I129	Hypertensive chronic kidney disease with stage 1 through stage 4 chronic kidney disease, or unspecified chronic kidney disease
I119	Hypertensive heart disease without heart failure	I1310	Hypertensive heart and chronic kidney disease without heart failure, with stage 1 through stage 4 chronic kidney disease, or unspecified chronic kidney disease

## NUMERATOR EXCLUSIONS

Exclude cases:

- with any-listed ICD-10-PCS procedure codes for cardiac procedure
- with any-listed ICD-10-CM diagnosis codes of Stage I-IV kidney disease, only if accompanied by any-listed ICD-10-PCS procedure codes for dialysis access
- transfer from a hospital (different facility)
- transfer from a Skilled Nursing Facility (SNF) or Intermediate Care Facility (ICF)
- transfer from another health care facility
- with missing gender (SEX=missing), age (AGE=missing), quarter (DQTR=missing), year (YEAR=missing), principal diagnosis (DX1=missing), or county (PSTCO=missing)

### [Appendix A – Admission Codes for Transfers](#)

### [Appendix B – Cardiac Procedure Codes](#)

#### ***Stage I-IV kidney disease diagnosis codes: (ACSHY2D)***

1129	Hypertensive chronic kidney disease with stage 1 through stage 4 chronic kidney disease, or unspecified chronic kidney disease	11310	Hypertensive heart and chronic kidney disease without heart failure, with stage 1 through stage 4 chronic kidney disease, or unspecified chronic
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#### ***Dialysis access procedure codes: (ACSHYPP)***

03170AD	Bypass Right Brachial Artery to Upper Arm Vein with Autologous Arterial Tissue, Open Approach	031709F	Bypass Right Brachial Artery to Lower Arm Vein with Autologous Venous Tissue, Open Approach
03170AF	Bypass Right Brachial Artery to Lower Arm Vein with Autologous Arterial Tissue, Open Approach	03170JD	Bypass Right Brachial Artery to Upper Arm Vein with Synthetic Substitute, Open Approach
031209D	Bypass Innominate Artery to Upper Arm Vein with Autologous Venous Tissue, Open Approach	03170JF	Bypass Right Brachial Artery to Lower Arm Vein with Synthetic Substitute, Open Approach
031209F	Bypass Innominate Artery to Lower Arm Vein with Autologous Venous Tissue, Open Approach	03170KD	Bypass Right Brachial Artery to Upper Arm Vein with Nonautologous Tissue Substitute, Open Approach
03120AD	Bypass Innominate Artery to Upper Arm Vein with Autologous Arterial Tissue, Open Approach	03170KF	Bypass Right Brachial Artery to Lower Arm Vein with Nonautologous Tissue Substitute, Open Approach
03120AF	Bypass Innominate Artery to Lower Arm Vein with Autologous Arterial Tissue, Open Approach	03170ZD	Bypass Right Brachial Artery to Upper Arm Vein, Open Approach
03120JD	Bypass Innominate Artery to Upper Arm Vein with Synthetic Substitute, Open Approach	03170ZF	Bypass Right Brachial Artery to Lower Arm Vein, Open Approach
03120JF	Bypass Innominate Artery to Lower Arm Vein with Synthetic Substitute, Open Approach	031809D	Bypass Left Brachial Artery to Upper Arm Vein with Autologous Venous Tissue, Open Approach
03120KD	Bypass Innominate Artery to Upper Arm Vein with Nonautologous Tissue Substitute, Open Approach	031809F	Bypass Left Brachial Artery to Lower Arm Vein with Autologous Venous Tissue, Open Approach

03120KF	Bypass Innominate Artery to Lower Arm Vein with Nonautologous Tissue Substitute, Open Approach	03180AD	Bypass Left Brachial Artery to Upper Arm Vein with Autologous Arterial Tissue, Open Approach
03120ZD	Bypass Innominate Artery to Upper Arm Vein, Open Approach	03180AF	Bypass Left Brachial Artery to Lower Arm Vein with Autologous Arterial Tissue, Open Approach
03120ZF	Bypass Innominate Artery to Lower Arm Vein, Open Approach	03180JD	Bypass Left Brachial Artery to Upper Arm Vein with Synthetic Substitute, Open Approach
031309D	Bypass Right Subclavian Artery to Upper Arm Vein with Autologous Venous Tissue, Open Approach	03180JF	Bypass Left Brachial Artery to Lower Arm Vein with Synthetic Substitute, Open Approach
031309F	Bypass Right Subclavian Artery to Lower Arm Vein with Autologous Venous Tissue, Open Approach	03180KD	Bypass Left Brachial Artery to Upper Arm Vein with Nonautologous Tissue Substitute, Open Approach
03130AD	Bypass Right Subclavian Artery to Upper Arm Vein with Autologous Arterial Tissue, Open Approach	03180KF	Bypass Left Brachial Artery to Lower Arm Vein with Nonautologous Tissue Substitute, Open Approach
03130AF	Bypass Right Subclavian Artery to Lower Arm Vein with Autologous Arterial Tissue, Open Approach	03180ZD	Bypass Left Brachial Artery to Upper Arm Vein, Open Approach
03130JD	Bypass Right Subclavian Artery to Upper Arm Vein with Synthetic Substitute, Open Approach	03180ZF	Bypass Left Brachial Artery to Lower Arm Vein, Open Approach
03130JF	Bypass Right Subclavian Artery to Lower Arm Vein with Synthetic Substitute, Open Approach	031909F	Bypass Right Ulnar Artery to Lower Arm Vein with Autologous Venous Tissue, Open Approach
03130KD	Bypass Right Subclavian Artery to Upper Arm Vein with Nonautologous Tissue Substitute, Open Approach	03190AF	Bypass Right Ulnar Artery to Lower Arm Vein with Autologous Arterial Tissue, Open Approach
03130KF	Bypass Right Subclavian Artery to Lower Arm Vein with Nonautologous Tissue Substitute, Open Approach	03190JF	Bypass Right Ulnar Artery to Lower Arm Vein with Synthetic Substitute, Open Approach
03130ZD	Bypass Right Subclavian Artery to Upper Arm Vein, Open Approach	03190KF	Bypass Right Ulnar Artery to Lower Arm Vein with Nonautologous Tissue Substitute, Open Approach
03130ZF	Bypass Right Subclavian Artery to Lower Arm Vein, Open Approach	03190ZF	Bypass Right Ulnar Artery to Lower Arm Vein, Open Approach
031409D	Bypass Left Subclavian Artery to Upper Arm Vein with Autologous Venous Tissue, Open Approach	031A09F	Bypass Left Ulnar Artery to Lower Arm Vein with Autologous Venous Tissue, Open Approach
031409F	Bypass Left Subclavian Artery to Lower Arm Vein with Autologous Venous Tissue, Open Approach	031A0AF	Bypass Left Ulnar Artery to Lower Arm Vein with Autologous Arterial Tissue, Open Approach
03140AD	Bypass Left Subclavian Artery to Upper Arm Vein with Autologous Arterial Tissue, Open Approach	031A0JF	Bypass Left Ulnar Artery to Lower Arm Vein with Synthetic Substitute, Open Approach
03140AF	Bypass Left Subclavian Artery to Lower Arm Vein with Autologous Arterial Tissue, Open Approach	031A0KF	Bypass Left Ulnar Artery to Lower Arm Vein with Nonautologous Tissue Substitute, Open Approach

03140JD	Bypass Left Subclavian Artery to Upper Arm Vein with Synthetic Substitute, Open Approach	031A0ZF	Bypass Left Ulnar Artery to Lower Arm Vein, Open Approach
03140JF	Bypass Left Subclavian Artery to Lower Arm Vein with Synthetic Substitute, Open Approach	031B09F	Bypass Right Radial Artery to Lower Arm Vein with Autologous Venous Tissue, Open Approach
03140KD	Bypass Left Subclavian Artery to Upper Arm Vein with Nonautologous Tissue Substitute, Open Approach	031B0AF	Bypass Right Radial Artery to Lower Arm Vein with Autologous Arterial Tissue, Open Approach
03140KF	Bypass Left Subclavian Artery to Lower Arm Vein with Nonautologous Tissue Substitute, Open Approach	031B0JF	Bypass Right Radial Artery to Lower Arm Vein with Synthetic Substitute, Open Approach
03140ZD	Bypass Left Subclavian Artery to Upper Arm Vein, Open Approach	031B0KF	Bypass Right Radial Artery to Lower Arm Vein with Nonautologous Tissue Substitute, Open Approach
03140ZF	Bypass Left Subclavian Artery to Lower Arm Vein, Open Approach	031B0ZF	Bypass Right Radial Artery to Lower Arm Vein, Open Approach
031509D	Bypass Right Axillary Artery to Upper Arm Vein with Autologous Venous Tissue, Open Approach	031C09F	Bypass Left Radial Artery to Lower Arm Vein with Autologous Venous Tissue, Open Approach
031509F	Bypass Right Axillary Artery to Lower Arm Vein with Autologous Venous Tissue, Open Approach	031C0AF	Bypass Left Radial Artery to Lower Arm Vein with Autologous Arterial Tissue, Open Approach
03150AD	Bypass Right Axillary Artery to Upper Arm Vein with Autologous Arterial Tissue, Open Approach	031C0JF	Bypass Left Radial Artery to Lower Arm Vein with Synthetic Substitute, Open Approach
03150AF	Bypass Right Axillary Artery to Lower Arm Vein with Autologous Arterial Tissue, Open Approach	031C0KF	Bypass Left Radial Artery to Lower Arm Vein with Nonautologous Tissue Substitute, Open Approach
03150JD	Bypass Right Axillary Artery to Upper Arm Vein with Synthetic Substitute, Open Approach	031C0ZF	Bypass Left Radial Artery to Lower Arm Vein, Open Approach
03150JF	Bypass Right Axillary Artery to Lower Arm Vein with Synthetic Substitute, Open Approach	03PY07Z	Removal of Autologous Tissue Substitute from Upper Artery, Open Approach
03150KD	Bypass Right Axillary Artery to Upper Arm Vein with Nonautologous Tissue Substitute, Open Approach	03PY0JZ	Removal of Synthetic Substitute from Upper Artery, Open Approach
03150KF	Bypass Right Axillary Artery to Lower Arm Vein with Nonautologous Tissue Substitute, Open Approach	03PY0KZ	Removal of Nonautologous Tissue Substitute from Upper Artery, Open Approach
03150ZD	Bypass Right Axillary Artery to Upper Arm Vein, Open Approach	03PY37Z	Removal of Autologous Tissue Substitute from Upper Artery, Percutaneous Approach
03150ZF	Bypass Right Axillary Artery to Lower Arm Vein, Open Approach	03PY3JZ	Removal of Synthetic Substitute from Upper Artery, Percutaneous Approach
031609D	Bypass Left Axillary Artery to Upper Arm Vein with Autologous Venous Tissue, Open Approach	03PY3KZ	Removal of Nonautologous Tissue Substitute from Upper Artery, Percutaneous Approach

031609F	Bypass Left Axillary Artery to Lower Arm Vein with Autologous Venous Tissue, Open Approach	03PY47Z	Removal of Autologous Tissue Substitute from Upper Artery, Percutaneous Endoscopic Approach
03160AD	Bypass Left Axillary Artery to Upper Arm Vein with Autologous Arterial Tissue, Open Approach	03PY4JZ	Removal of Synthetic Substitute from Upper Artery, Percutaneous Endoscopic Approach
03160AF	Bypass Left Axillary Artery to Lower Arm Vein with Autologous Arterial Tissue, Open Approach	03PY4KZ	Removal of Nonautologous Tissue Substitute from Upper Artery, Percutaneous Endoscopic Approach
03160JD	Bypass Left Axillary Artery to Upper Arm Vein with Synthetic Substitute, Open Approach	03WY0JZ	Revision of Synthetic Substitute in Upper Artery, Open Approach
03160JF	Bypass Left Axillary Artery to Lower Arm Vein with Synthetic Substitute, Open Approach	03WY3JZ	Revision of Synthetic Substitute in Upper Artery, Percutaneous Approach
03160KD	Bypass Left Axillary Artery to Upper Arm Vein with Nonautologous Tissue Substitute, Open Approach	03WY4JZ	Revision of Synthetic Substitute in Upper Artery, Percutaneous Endoscopic Approach
03160KF	Bypass Left Axillary Artery to Lower Arm Vein with Nonautologous Tissue Substitute, Open Approach	03WYXJZ	Revision of Synthetic Substitute in Upper Artery, External Approach
03160ZD	Bypass Left Axillary Artery to Upper Arm Vein, Open Approach	05HY33Z	Insertion of Infusion Device into Upper Vein, Percutaneous Approach
03160ZF	Bypass Left Axillary Artery to Lower Arm Vein, Open Approach	06HY33Z	Insertion of Infusion Device into Lower Vein, Percutaneous Approach
031709D	Bypass Right Brachial Artery to Upper Arm Vein with Autologous Venous Tissue, Open Approach		

## **DENOMINATOR**

Population ages 18 years and older in metropolitan area† or county. Discharges in the numerator are assigned to the denominator based on the metropolitan area or county of the patient residence, not the metropolitan area or county of the hospital where the discharge occurred.

† The term “metropolitan area” (MA) was adopted by the U.S. Census in 1990 and referred collectively to metropolitan statistical areas (MSAs), consolidated metropolitan statistical areas (CMSAs) and primary metropolitan statistical areas (PMSAs). In addition, “area” could refer to either 1) FIPS county, 2) modified FIPS county, 3) 1999 OMB Metropolitan Statistical Area or 4) 2003 OMB Metropolitan Statistical Area. Micropolitan Statistical Areas are not used in the QI software.