

# Bilateral Cardiac Catheterization Rate

## Technical Specifications

### Inpatient Quality Indicators #25 (IQI #25)

AHRQ Quality Indicators™, Version 4.5, May 2013

Provider-Level Indicator

Type of Score: Rate

### Description

Bilateral cardiac catheterization discharges per 1,000 heart catheterizations discharges for coronary artery disease for patients ages 18 years and older. Excludes valid indications for right-side catheterization discharges and obstetric discharges.

*[NOTE: The software provides the rate per hospital discharge. However, common practice reports the measure as per 1,000 discharges. The user must multiply the rate obtained from the software by 1,000 to report specific procedure discharges per 1,000 hospital discharges.]*

### Numerator

Discharges, among cases meeting the inclusion and exclusion rules for the denominator, with any-listed ICD-9-CM procedure codes for right and left heart catheterization without any-listed ICD-9-CM diagnosis codes for indications for right-sided catheterization.

#### ICD-9-CM Right and left heart catheterization procedure codes:

3723 RT/LEFT HEART CARD CATH

#### ICD-9-CM Indications for right-sided catheterization diagnosis codes<sup>1</sup>:

3910	ACUTE RHEUMATIC PERICARD	3980	RHEUMATIC MYOCARDITIS
3911	ACUTE RHEUMATIC ENDOCARD	39890	RHEUMATIC HEART DIS NOS
3912	AC RHEUMATIC MYOCARDITIS	39891	RHEUMATIC HEART FAILURE
3918	AC RHEUMAT HRT DIS NEC	39899	RHEUMATIC HEART DIS NEC
3919	AC RHEUMAT HRT DIS NOS	40200	MAL HYP HT DIS W/O HF
3920	RHEUM CHOREA W HRT INVOL	40201	MAL HYPERT HRT DIS W HF
3929	RHEUMATIC CHOREA NOS	40210	BENIGN HYP HT DIS W/O HF
393	CHR RHEUMATIC PERICARD	40211	BENIGN HYP HT DIS W HF
3940	MITRAL STENOSIS	40290	HYP HRT DIS NOS W/O HF
3941	RHEUMATIC MITRAL INSUFF	40291	HYP HT DIS NOS W HT FAIL
3942	MITRAL STENOSIS W INSUFF	40400	MAL HY HT/KD I-IV W/O HF
3949	MITRAL VALVE DIS NEC/NOS	40401	MAL HYP HT/KD I-IV W HF
3960	MITRAL/AORTIC STENOSIS	40402	MAL HY HT/KD ST V W/O HF
3961	MITRAL STENOS/AORT INSUF	40403	MAL HYP HT/KD STG V W HF
3962	MITRAL INSUF/AORT STENOS	40410	BEN HY HT/KD I-IV W/O HF
3963	MITRAL/AORTIC VAL INSUFF	40411	BEN HYP HT/KD I-IV W HF
3968	MITR/AORTIC MULT INVOLV	40412	BEN HY HT/KD ST V W/O HF
3969	MITRAL/AORTIC V DIS NOS	40413	BEN HYP HT/KD STG V W HF
3970	TRICUSPID VALVE DISEASE	40490	HY HT/KD NOS I-IV W/O HF
3971	RHEUM PULMON VALVE DIS	40491	HYP HT/KD NOS I-IV W HF
3979	RHEUM ENDOCARDITIS NOS	40492	HY HT/KD NOS ST V W/O HF

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40493	HYP HT/KD NOS ST V W HF	42833	AC ON CHR DIAST HRT FAIL
4150	ACUTE COR PULMONALE	42840	SYST/DIAST HRT FAIL NOS
4151	<i>PULM EMBOLISM/INFARCT-</i>	42841	AC SYST/DIASTOL HRT FAIL
41511	IATROGEN PULM EMB/INFARC	42842	CHR SYST/DIASTL HRT FAIL
41512	SEPTIC PULMONARY EMBOLSM	42843	AC/CHR SYST/DIA HRT FAIL
41513	SADDLE EMBOL PULMON ART	4289	HEART FAILURE NOS
41519	PULM EMBOL/INFARCT NEC	7450	COMMON TRUNCUS
4160	PRIM PULM HYPERTENSION	74510	COMPL TRANSPOS GREAT VES
4161	KYPHOSCOLIOTIC HEART DIS	74511	DOUBLE OUTLET RT VENTRIC
4168	CHR PULMON HEART DIS NEC	74512	CORRECT TRANSPOS GRT VES
4169	CHR PULMON HEART DIS NOS	74519	TRANSPOS GREAT VESS NEC
4170	ARTERIOVEN FISTU PUL VES	7452	TETRALOGY OF FALLOT
4171	PULMON ARTERY ANEURYSM	7453	COMMON VENTRICLE
4178	PULMON CIRCULAT DIS NEC	7454	VENTRICULAR SEPT DEFECT
4179	PULMON CIRCULAT DIS NOS	7455	SECUNDUM ATRIAL SEPT DEF
4200	AC PERICARDIT IN OTH DIS	74560	ENDOCARD CUSHION DEF NOS
42090	ACUTE PERICARDITIS NOS	74561	OSTIUM PRIMUM DEFECT
42091	AC IDIOPATH PERICARDITIS	74569	ENDOCARD CUSHION DEF NEC
42099	ACUTE PERICARDITIS NEC	7457	COR BILOCULARE
4210	AC/SUBAC BACT ENDOCARD	7458	SEPTAL CLOSURE ANOM NEC
4211	AC ENDOCARDIT IN OTH DIS	7459	SEPTAL CLOSURE ANOM NOS
4219	AC/SUBAC ENDOCARDIT NOS	74600	PULMONARY VALVE ANOM NOS
4220	AC MYOCARDIT IN OTH DIS	74601	CONG PULMON VALV ATRESIA
42290	ACUTE MYOCARDITIS NOS	74602	CONG PULMON VALVE STENOS
42291	IDIOPATHIC MYOCARDITIS	74609	PULMONARY VALVE ANOM NEC
42292	SEPTIC MYOCARDITIS	7461	CONG TRICUSP ATRES/STEN
42293	TOXIC MYOCARDITIS	7462	EBSTEIN'S ANOMALY
42299	ACUTE MYOCARDITIS NEC	7463	CONG AORTA VALV STENOSIS
4230	HEMOPERICARDIUM	7464	CONG AORTA VALV INSUFFIC
4231	ADHESIVE PERICARDITIS	7465	CONGEN MITRAL STENOSIS
4232	CONSTRUCTIV PERICARDITIS	7466	CONG MITRAL INSUFFICIENC
4233	CARDIAC TAMPONADE	7467	HYPOPLAS LEFT HEART SYND
4238	PERICARDIAL DISEASE NEC	74681	CONG SUBAORTIC STENOSIS
4239	PERICARDIAL DISEASE NOS	74682	COR TRIATRIATUM
4240	MITRAL VALVE DISORDER	74683	INFUNDIB PULMON STENOSIS
4241	AORTIC VALVE DISORDER	74684	OBSTRUCT HEART ANOM NEC
4242	NONRHEUM TRICUSP VAL DIS	74685	CORONARY ARTERY ANOMALY
4243	PULMONARY VALVE DISORDER	74686	CONGENITAL HEART BLOCK
42490	ENDOCARDITIS NOS	74687	MALPOSITION OF HEART
42491	ENDOCARDITIS IN OTH DIS	74689	CONG HEART ANOMALY NEC
42499	ENDOCARDITIS NEC	7469	CONG HEART ANOMALY NOS
4250	ENDOMYOCARDIAL FIBROSIS	7470	PATENT DUCTUS ARTERIOSUS
4251	<i>HYPERTR OBSTR CARDIOMYOP</i>	74710	COARCTATION OF AORTA
42511	HYPRTROPHC OBST CARDIOMY	74711	INTERRUPT OF AORTIC ARCH
42518	OTH HYPRTROPHIC CARDIOMY	74720	CONG ANOM OF AORTA NOS
4252	OBSC AFRIC CARDIOMYOPATH	74721	ANOMALIES OF AORTIC ARCH
4253	ENDOCARD FIBROELASTOSIS	74722	AORTIC ATRESIA/STENOSIS
4254	PRIM CARDIOMYOPATHY NEC	74729	CONG ANOM OF AORTA NEC
4255	ALCOHOLIC CARDIOMYOPATHY	7473	<i>PULMONARY ARTERY ANOM</i>
4257	METABOLIC CARDIOMYOPATHY	74731	PULMON ART COARCT/ATRES
4258	CARDIOMYOPATH IN OTH DIS	74740	GREAT VEIN ANOMALY NOS
4259	SECOND CARDIOMYOPATH NOS	74741	TOT ANOM PULM VEN CONNec
4280	CHF NOS	74742	PART ANOM PULM VEN CONN
4281	LEFT HEART FAILURE	74749	GREAT VEIN ANOMALY NEC
42820	SYSTOLIC HRT FAILURE NOS	7475	UMBILICAL ARTERY ABSENCE
42821	AC SYSTOLIC HRT FAILURE	74760	UNSP PRPHERL VASC ANOMAL
42822	CHR SYSTOLIC HRT FAILURE	74761	GSTRONTEST VESL ANOMALY
42823	AC ON CHR SYST HRT FAIL	74762	RENAL VESSEL ANOMALY
42830	DIASTOLC HRT FAILURE NOS	74763	UPR LIMB VESSEL ANOMALY
42831	AC DIASTOLIC HRT FAILURE	74764	LWR LIMB VESSEL ANOMALY
42832	CHR DIASTOLIC HRT FAIL	74769	OTH SPCF PRPH VSCL ANOML

74781	CEREBROVASCULAR ANOMALY	74789	CIRCULATORY ANOMALY NEC
74782	SPINAL VESSEL ANOMALY	7479	CIRCULATORY ANOMALY NOS
74783	PERSISTENT FETAL CIRC (OCT02)		

<sup>1</sup>The procedure or diagnosis codes are continuously updated. The current list of ICD-9-CM codes is valid for October 2012 through September 2013. Italicized codes are not active in Fiscal Year 2013.

## Denominator

Discharges, for patients ages 18 years and older, with any-listed ICD-9-CM procedure codes for heart catheterization and any-listed ICD-9-CM diagnosis codes for coronary artery disease.

### ICD-9-CM Heart catheterization procedure codes:

3722	LEFT HEART CARDIAC CATH	3723	RT/LEFT HEART CARD CATH
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### ICD-9-CM Coronary artery disease diagnosis codes<sup>1</sup>:

41000	AMI ANTEROLATERAL, UNSPEC	41091	AMI NOS, INITIAL
41001	AMI ANTEROLATERAL, INIT	41092	AMI NOS, SUBSEQUENT
41002	AMI ANTEROLATERAL, SUBSEQ	4110	POST MI SYNDROME
41010	AMI ANTERIOR WALL, UNSPEC	4111	INTERMED CORONARY SYND
41011	AMI ANTERIOR WALL, INIT	41181	CORONARY OCCLSN W/O MI
41012	AMI ANTERIOR WALL, SUBSEQ	41189	AC ISCHEMIC HRT DIS NEC
41020	AMI INFEROLATERAL, UNSPEC	412	OLD MYOCARDIAL INFARCT
41021	AMI INFEROLATERAL, INIT	4130	ANGINA DECUBITUS
41022	AMI INFEROLATERAL, SUBSEQ	4131	PRINZMETAL ANGINA
41030	AMI INFEROPOST, UNSPEC	4139	ANGINA PECTORIS NEC/NOS
41031	AMI INFEROPOST, INITIAL	<i>4140</i>	<i>COR ATHEROSCLEROSIS (OCT94)</i>
41032	AMI INFEROPOST, SUBSEQ	41400	COR ATH UNSP VSL NTV/GFT
41040	AMI INFERIOR WALL, UNSPEC	41401	CRNRY ATHRSCL NATVE VSSL
41041	AMI INFERIOR WALL, INIT	41402	CRN ATH ATLG VN BPS GRFT
41042	AMI INFERIOR WALL, SUBSEQ	41403	CRN ATH NONATLG BLG GRFT
41050	AMI LATERAL NEC, UNSPEC	41404	COR ATH ARTRY BYPAS GRFT
41051	AMI LATERAL NEC, INITIAL	41405	COR ATH BYPASS GRAFT NOS
41052	AMI LATERAL NEC, SUBSEQ	41406	COR ATH NATV ART TP HRT
41060	TRUE POST INFARCT, UNSPEC	41407	COR ATH BPS GRAFT TP HRT
41061	TRUE POST INFARCT, INIT	41410	ANEURYSM OF HEART
41062	TRUE POST INFARCT, SUBSEQ	41411	ANEURYSM CORONARY VESSEL
41070	SUBENDO INFARCT, UNSPEC	41412	DISSECTION COR ARTERY
41071	SUBENDO INFARCT, INITIAL	41419	ANEURYSM OF HEART NEC
41072	SUBENDO INFARCT, SUBSEQ	4143	COR ATH D/T LPD RCH PLAQ
41080	AMI NEC, UNSPECIFIED	4144	COR ATH D/T CALC COR LSN
41081	AMI NEC, INITIAL	4148	CHR ISCHEMIC HRT DIS NEC
41082	AMI NEC, SUBSEQUENT	4149	CHR ISCHEMIC HRT DIS NOS
41090	AMI NOS, UNSPECIFIED		

<sup>1</sup>The procedure or diagnosis codes are continuously updated. The current list of ICD-9-CM codes is valid for October 2012 through September 2013. Italicized codes are not active in Fiscal Year 2013.

### Exclude cases:

- MDC 14 (pregnancy, childbirth, and puerperium)
- with missing gender (SEX=missing), age (AGE=missing), quarter (DQTR=missing), year (YEAR=missing) or principal diagnosis (DX1=missing)