



## **Pediatric Quality Indicators 07 (PDI 07) Pediatric Heart Surgery Volume**

**August 2017**

**Provider-Level Indicator**

**Type of Score: Volume**

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Agency for Healthcare Research and Quality

U.S. Department of Health and Human Services

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### **DESCRIPTION**

The number of hospital discharges with a pediatric heart surgery procedure for patients with congenital heart disease ages 17 years and younger.

**NUMERATOR**

Discharges, for patients ages 17 years and younger, with either

- any-listed ICD-9-CM procedure codes for congenital heart disease (**1P**)
- any-listed ICD-9-CM procedure codes for non-specific heart surgery (**2P**) and any-listed ICD-9-CM diagnosis codes for congenital heart disease (**2D**).

***Congenital Heart Disease Procedure Codes (1P):***

3500	Closed Valvotomy Nos	3532	Chordae Tendineae Ops
3501	Closed Aortic Valvotomy	3533	Annuloplasty
3502	Closed Mitral Valvotomy	3534	Infundibulectomy
3503	Closed Pulmon Valvotomy	3535	Trabecul Carneae Cord Op
3504	Closed Tricuspid Valvotomy	3539	Tiss Adj To Valv Ops Nec
3505	Endovas Repl Aortic Valve	3541	Enlarge Existing Sep Def
3506	Trnsapcl Rep Aortic Valve	3542	Create Septal Defect
3507	Endovas Repl Pulm Valve	3550	Prosth Rep Hrt Septa Nos
3508	Trnsapcl Repl Pulm Valve	3551	Pros Rep Atrial Def-opn
3510	Open Valvuloplasty Nos	3552	Pros Repair Atria Def-cl
3511	Opn Aortic Valvuloplasty	3553	Pros Rep Ventric Def-opn
3512	Opn Mitral Valvuloplasty	3554	Pros Rep Endocar Cushion
3513	Opn Pulmon Valvuloplasty	3560	Grft Repair Hrt Sept Nos
3514	Opn Tricuspid Valvuloplasty	3561	Graft Repair Atrial Def
3520	Opn/oth Rep Hrt Vlv Nos	3562	Graft Repair Ventric Def
3521	Opn/oth Rep Aort Vlv-tis	3563	Grft Rep Endocar Cushion
3522	Opn/oth Rep Aortic Valve	3570	Heart Septa Repair Nos
3523	Opn/oth Rep Mtrl Vlv-tis	3571	Atria Septa Def Rep Nec
3524	Opn/oth Rep Mitral Valve	3572	Ventr Septa Def Rep Nec
3525	Opn/oth Rep Pulm Vlv-tis	3573	Endocar Cushion Rep Nec
3526	Opn/oth Repl Pul Valve	3581	Tot Repair Tetral Fallot
3527	Opn/oth Rep Tcspd Vlv-ts	3582	Total Repair Of Tapvc
3528	Opn/oth Repl Tcspd Valve	3583	Tot Rep Truncus Arterios
3531	Papillary Muscle Ops	3584	Tot Cor Transpos Grt Ves
3591	Interat Ven Retrn Transp	3733	Exc/dest Hrt Lesion Open
3592	Conduit Rt Vent-pul Art	3736	Exc,destrct,exclus Laa
3593	Conduit Left Ventr-aorta	375	Heart Transplantation
3594	Conduit Artium-pulm Art	3751	Heart Transplantation
3595	Heart Repair Revision	3752	Imp Tot Int Bi Ht Rp Sys
3598	Other Heart Septa Ops	390	Systemic-pulm Art Shunt
3599	Other Heart Valve Ops	3921	Caval-pulmon Art Anastom
3699	Heart Vessel Op Nec		

***Non-specific Cardiac Procedure Codes (2P):***

3834	Aorta Resection & Anast	3885	Occlude Thoracic Ves Nec
3835	Thor Vessel Resect/anast	3949	Vasc Proc Revision Nec

3844	Resect Abdm Aorta W Repl	3956	Repair Vess W Tis Patch
3845	Resect Thorac Ves W Repl	3957	Rep Vess W Synth Patch
3864	Excision Of Aorta	3958	Repair Vess W Patch Nos
3865	Thoracic Vessel Excision	3959	Repair Of Vessel Nec
3884	Occlude Aorta Nec		

**Icd-9-cm Congenital Heart Disease Diagnosis Codes (2D):**

7450	Common Truncus	7467	Hypoplas Left Heart Synd
74510	Compl Transpos Great Ves	74681	Cong Subaortic Stenosis
74511	Double Outlet Rt Ventric	74682	Cor Triatriatum
74512	Correct Transpos Grt Ves	74683	Infundib Pulmon Stenosis
74519	Transpos Great Vess Nec	74684	Obstruct Heart Anom Nec
7452	Tetralogy Of Fallot	74685	Coronary Artery Anomaly
7453	Common Ventricle	74687	Malposition Of Heart
7454	Ventricular Sept Defect	74689	Cong Heart Anomaly Nec
7455	Secundum Atrial Sept Def	7469	Cong Heart Anomaly Nos
74560	Endocard Cushion Def Nos	7470	Patent Ductus Arteriosus
74561	Ostium Primum Defect	74710	Coarctation Of Aorta
74569	Endocard Cushion Def Nec	74711	Interrupt Of Aortic Arch
7457	Cor Biloculare	74720	Cong Anom Of Aorta Nos
7458	Septal Closure Anom Nec	74721	Anomalies Of Aortic Arch
7459	Septal Closure Anom Nos	74722	Aortic Atresia/stenosis
74600	Pulmonary Valve Anom Nos	74729	Cong Anom Of Aorta Nec
74601	Cong Pulmon Valv Atresia	7473	Pulmonary Artery Anom
74602	Cong Pulmon Valve Stenos	74731	Pulmon Art Coarct/atres
74609	Pulmonary Valve Anom Nec	74732	Pulmonary Av Malformatn
7461	Cong Tricuspid Atres/sten	74739	Oth Anom Pul Artery/circ
7462	Ebstein's Anomaly	74740	Great Vein Anomaly Nos
7463	Cong Aorta Valv Stenosis	74741	Tot Anom Pulm Ven Connec
7464	Cong Aorta Valv Insuffic	74742	Part Anom Pulm Ven Conn
7465	Congen Mitral Stenosis	74749	Great Vein Anomaly Nec
7466	Cong Mitral Insufficienc		

**NUMERATOR EXCLUSIONS**

Exclude cases:

- with any-listed ICD-9-CM procedure codes for closed heart valvotomy (3AP) as the only congenital heart disease procedure and any-listed ICD-9-CM procedure codes for catheterization (6P) without any-listed ICD-9-CM procedure codes for extracorporeal circulation (5P)
- with any-listed ICD-9-CM procedure codes for atrial septal enlargement (3BP) as the only congenital heart disease procedure and any-listed ICD-9-CM procedure codes for catheterization (6P) without any-listed ICD-9-CM procedure codes for extracorporeal circulation (5P)
- with any-listed ICD-9-CM procedure codes for atrial septal defect repair (3CP) as the only congenital heart disease procedure and any-listed ICD-9-CM procedure codes for catheterization (6P) without any-listed ICD-9-CM procedure codes for extracorporeal circulation (5P)
- with any-listed ICD-9-CM procedure codes for ventricular septal defect repair (3DP) as the only congenital heart disease procedure and any-listed ICD-9-CM procedure codes for catheterization (6P) without any-listed ICD-9-CM procedure codes for extracorporeal circulation (5P)
  
- with any-listed ICD-9-CM procedure codes for other surgical occlusion (3FP) as the only congenital heart disease procedure and any-listed ICD-9-CM procedure codes for catheterization (6P) without any-listed ICD-9-CM procedure codes for extracorporeal circulation (5P)
- with patent ductus arteriosus (PDA)† and any-listed ICD-9-CM procedure codes for catheterization (6P) without any-listed ICD-9-CM procedure codes for extracorporeal circulation (5P)
- with any-listed ICD-9-CM procedure codes for atrial septal defect repair and enlargement (4P) as the only congenital heart disease procedure without any-listed ICD-9-CM procedure codes for extracorporeal circulation (5P)
- with any-listed ICD-9-CM procedure codes for heart transplant (7P)
- with any-listed ICD-9-CM diagnosis codes for premature infant (4D) with PDA†
- with any-listed ICD-9-CM diagnosis codes for atrial septal defect or with any-listed ICD-9-CM diagnosis codes for ventricular septal defect (5D) with PDA†
- age less than or equal to 30 days with PDA†
- transferring to another short-term hospital (DISP=2)
- neonates and with birth weight less than 500 grams (Birth Weight Category 1)
- MDC 14 (pregnancy, childbirth and puerperium)
- with missing discharge disposition (DISP=missing), gender (SEX=missing), age (AGE=missing), quarter (DQTR=missing), year (YEAR=missing) or principal diagnosis (DX1=missing)

† PDA is defined as any diagnosis of PDA (3D) where the only congenital heart diagnoses (2D) consists of PDA (3D) and ventricular septal defect (5D) with any procedure code of occlusion of a thoracic vessel (3EP) as the only congenital heart disease procedure.

***Closed heart valvotomy procedure codes (3AP):***

3500	Closed Valvotomy Nos	3503	Closed Pulmon Valvotomy
3501	Closed Aortic Valvotomy	3504	Closed Tricuspid Valvotomy
3502	Closed Mitral Valvotomy		

***Atrial septal enlargement procedure codes (3BP):***

3541	Enlarge Existing Sep Def	3542	Create Septal Defect
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***Atrial septal defect repair procedure codes (3CP):***

3551	Pros Rep Atrial Def-opn	3571	Atria Septa Def Rep Nec
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***PDA closure diagnosis code (3D):***

7470 Patent Ductus Arteriosus

***Ventricular septal defect repair procedure codes (3DP):***

3553 Pros Rep Ventric Def-opn 3572 Ventr Septa Def Rep Nec

***Occlusion of thoracic vessel procedure code (3EP):***

3885 Occlude Thoracic Ves Nec

***Other surgical occlusion procedure codes (3FP):***

3884 Occlude aorta NEC 3959 Repair of vessel NEC  
3885 Occlude thoracic ves NEC

***Atrial septal defect repair and enlargement procedure codes (4P):***

3541 Enlarge Existing Sep Def  
3552 Pros Repair Atria Def-cl

***Extracorporeal circulation procedure code (5P):***

3961 Extracorporeal Circulat

***Catheterization procedure codes (6P):***

3721	Rt Heart Cardiac Cath	8852	Rt Heart Angiogram
3722	Left Heart Cardiac Cath	8853	Lt Heart Angiogram
3723	Rt/left Heart Card Cath	8854	Rt & Lt Heart Angiogram
8842	Contrast Aortogram	8855	Coronar Arteriogr-1 Cath
8843	Contr Pulmon Arteriogram	8856	Coronar Arteriogr-2 Cath
8844	Contr Thor Arteriogr Nec	8857	Coronary Arteriogram Nec
8850	Angiography Nos	8858	Negative-contr Cardiogram
8851	Vena Cav Angiogram		