# NEW YORK STATE DEPARTMENT OF HEALTH DIVISION OF QUALITY AND PATIENT SAFETY CARDIAC SERVICES PROGRAM

# Instructions and Data Element Definitions January 2011

Cardiac Surgery Report, Pediatric (Under age 18)
Form DOH-2254p

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# **Table of Contents**

Topic	Page
Revision Highlights and Coding Clarification	5
When to Complete a Pediatric CSRS Form	6
Pediatric CSRS Data Reporting Policies	7
ITEM-BY-ITEM INSTRUCTIONS	
PFI Number	8 8
I. Patient Information	
Child's Name  Medical Record Number	8 8
Child's Social Security Number	8
Age in Years	9
Date of Birth	9
Sex	9
Ethnicity	9
Race	9
Residence Code	10
Hospital Admission Date	10 11
Primary Payer  Medicaid	11
PFI of Transferring Hospital	11
II. Procedural Information	
Date of Surgery	12
Time at Start of Procedure	12
Primary Surgeon Performing Surgery	12 12
Surgical Priority Prior Surgery this Admission	13
Cardiac Diagnosis Code	13
Cardiac Procedure Code	13
Mode of Cardiopulmonary (CP) Bypass	13
Minimally Invasive	14
Entire Procedure Off-Pump	14
CABG Information	14

# **Table of Contents (continued)**

Topic	Page
III. Pre-Operative Status	
Weight at Time of Operation	15
Gestational Age at Birth in Weeks	15
Weight at Birth in Grams	15
Pre-Operative Conditions (None)	15
Previous Open Heart Operations	16
Previous Closed Heart Operations	16
Pre-Op Interventional Cath Procedure	17
Severe Cyanosis or Severe Hypoxia	17
Dialysis within 14 Days Prior to Surgery	17
Any Ventilator Dependence During Same Admission or	
within 14 Days	18
Inotropic Support Immediately Pre-op, within 24 hrs	18
Positive Blood Cultures within 2 Weeks of Surgery	18
Arterial pH < 7.25 Immediately Pre-op	19
Significant Renal Dysfunction	19
Trisomy 21	19
Major Éxtracardiac Anomalies	20
Pulmonary Hypertension	20
Ventricular Assist – ECMO/IABP/LVAD/RVAD/BIVAD	21
Pre-existing Neurologic Abnormality	21
Pneumonia at Time of Surgery	21
Prostaglandin Dependence at Time of Surgery	22
Balloon Atrial Septostomy	22
Any Previous Organ Transplant	22
у положе в дан папаран положения	
IV. Post Procedural Events Requiring Intervention	
Post Procedural Events (None)	23
Cardiac Tamponade	
Ventricular Fibrillation or CPR	
Bleeding Requiring Reoperation	
Deep Sternal Wound Infection	
Ventilator Dependency for > 10 Days	24
Clinical Sepsis with Positive Blood Cultures	
Renal Failure Requiring Dialysis	
Complete Heart Block at Discharge	
Unplanned Cardiac Reoperation or Interventional Catheterization	
New Neurologic Deficit	. 25 25
New Neurologic Deficit	25 25
VOILLIONIAL ASSIST — FORMOTADI / FAMDITAD/11/4/10/10/4/10/10/10/10/10/10/10/10/10/10/10/10/10/	20

# **Table of Contents (continued)**

Topic	Page
V. Discharge Information	
Hospital Discharge Date	26
Discharged Alive to	26
Died in	26
30 Day Status	26

### **Attachments**

A: PFI Numbers for Cardiac Diagnostic and Surgical Centers

B: Residence Codes

C: Primary Payer Source

D: Congenital and Acquired Cardiac Procedure Codes

E. Primary Cardiac Diagnosis Codes

# **Revision Highlights and Coding Clarification**

### **Revised Data Elements**

Major Extracardiac Anomaly (Page 20) – A data element has been added to specify the qualifying condition for this risk factor.

Pre-existing Neurologic Abnormality (Page 21) – A data element has been added to specify the qualifying condition for this risk factor.

The Procedure Code list (Attachment D) has been updated to capture information on transcatheter valve replacement surgery and PCI performed at the same time as cardiac surgery.

### **Data Element Clarifications**

When to complete a pediatric cardiac CSRS form (pg 6) – Unless otherwise specified, forms should be submitted for reportable cardiac surgery no matter where in the hospital the operation is performed.

# When to Complete a Pediatric CSRS Form

Complete a Pediatric Cardiac Surgery Reporting System (Pediatric CSRS) form for every patient under the age of 18 at the time of admission undergoing one or more operations **on the heart or great vessels**, with or without extracorporeal circulation.

If more than one cardiac surgery occurred during a single hospital stay, complete a separate form for each operation.

Unless otherwise specified, forms should be created for reportable cardiac surgery even if it occurs in a location other than the operating room.

A surgical procedure begins at the time of the FIRST skin incision, unless otherwise stated.

**NOT** be completed if the patient has had an isolated Patent Ductus Arteriosus (PDA) repair when the patient is less than 1500 grams at the time of operation **OR** has had a PDA repair any place but the operating room, regardless of size.

Do not report implantations of pacemakers, AICD, or other catheter-based procedures typically done in the catheterization lab.

**ECMO (834):** Should only be reported when there is also another PedCSRS reportable procedure during the admission. For these cases, ECMO should be reported regardless of physical location or clinical staff responsible. Discontinuation of ECMO should not be reported as a procedure.

**Pericardial window** is not reportable.

**Procedure codes 398/498/998 "Other":** Should not be reported for procedures that are not cardiac or that are not surgical. Examples of procedures that should not be reported as "Other" are chest tube insertion, thoracic duct ligation, mediastinal exploration.

Repair of Cardiac Laceration due to Trauma (907): Should be coded for repair of cardiac laceration due to trauma including a procedure to repair an injury to the heart that has resulted from a cardiac diagnostic or interventional procedure or from cardiac surgery. If the injury occurred pre-operatively, these cases should also be reported with Diagnosis Code 403 – Acquired Disease: Traumatic.

# **Pediatric CSRS Data Reporting Policies**

### **Hospice Policy**

Beginning with patients discharged on or after January 1, 2003, any patient that is discharged from the hospital after cardiac surgery or PCI to hospice care (inpatient or home with hospice care) and is still alive 30 days after the discharge from the hospital will be analyzed as a live discharge.

All patients discharged to a hospice or home with hospice care should continue to be reported with Discharge Status – 12: Hospice. If a patient is still alive 30 days after discharge to hospice, whether in hospice or not, appropriate supporting documentation should be sent to Cardiac Services Program. Examples of appropriate documentation include: a dated progress note from the hospice service, evidence of a follow-up doctor's visit 30 days after discharge, evidence of subsequent hospital admission 30 days after initial discharge. It will be the responsibility of the hospital (physician) to send documentation to the Department of Health to support this change. Upon receipt, review, and verification of the documentation, Cardiac Services Program staff will change the discharge status from dead to alive for purposes of analysis. All documentation must be received before the final volume and mortality for a given year of data is confirmed by the hospital.

# **Reporting Schedule**

Pediatric CSRS data is reported quarterly by discharge date. It is due to the Cardiac Services Program two months after the end of the quarter. The 2011 reporting schedule is as follows.

Quarter 1 (1/1/11 - 3/31/11 Discharges) due on or before May 31, 2011 Quarter 2 (4/1/11 - 6/30/11 Discharges) due on or before August 31, 2011 Quarter 3 (7/1/11 - 9/30/11 Discharges) due on or before November 30, 2011 Quarter 4 (10/1/11 - 12/31/11 Discharges) due on or before February 28, 2012

Limited extensions to the above deadlines will be granted on a case by case basis when warranted by extenuating circumstances. They must be requested in writing prior to the required submission date.

# **Item-by-Item Instructions**

### **PFI Number**

Variable Name: PFI

The PFI Number is a Permanent Facility Identifier assigned by the Department of Health. Enter your facility's PFI Number as shown in Attachment A.

## **Sequence Number**

Variable Name: SEQUENCE

If your facility assigns a sequence number to each case on a chronological flow sheet or similar log, enter the sequence number here. The sequence number is not required for the Pediatric Cardiac Surgery Reporting System, but has been included on the form in case your facility finds it useful in identifying and tracking cases.

# I. Patient Information

### Child's Name

Variable Names: LASTNAME, FIRSTNAME

Enter the child's last name followed by his/her first name.

### **Medical Record Number**

Variable Name: MEDRECNO

Enter the child's medical record number.

# **Child's Social Security Number**

Variable Name: SSNO

Enter the child's social security number.

# **Patient Information (continued)**

## Age in Years

Variable Name: AGE

Enter the child's age at admission to the hospital. If the child is less than one year old, enter "0". If the child is admitted on or after his/her 18th birthday, please complete an Adult CSRS form NOT a Pediatric CSRS form.

### Date of Birth

Variable Name: DOB

Enter the child's exact date of birth.

### Sex

Variable Name: SEX

Check the appropriate box.

### **Ethnicity**

Variable Name: ETHNIC

Check the appropriate box.

### Race

Variable Names: RACE, RACESPEC

Select one of the following.

- **1 White.** A person having origins in any of the original peoples of Europe, the Middle East, or North Africa.
- **2 Black or African American**. A person having origins in any of the black racial groups of Africa. Terms such as "Haitian" or "Negro" can be used in addition to "Black or African American."
- **3 Native American / American Indian or Alaska Native.** A person having origins in any of the original peoples of North and South America (including Central America), and who maintains tribal affiliation or community attachment.

# **Patient Information (continued)**

## Race (cont.)

- **4 Asian.** A person having origins in any of the original peoples of the Far East, Southeast Asia, or the Indian subcontinent including, for example, Cambodia, China, India, Japan, Korea, Malaysia, Pakistan, the Philippine Islands, Thailand, and Vietnam.
- **5 Native Hawaiian or Other Pacific Islander.** A person having origins in any of the original peoples of Hawaii, Guam, Samoa, or other Pacific Islands.
- **8 Other.** Report for those responses that are not covered by an above category. Please provide the specific race for any case marked "Other."

**Note:** Please note that race should be based on the patient's racial/ethnic origins, which is not necessarily the same as their country or place of origin.

Multi-racial can be indicated by checking "8-Other" and providing details in the "specify" field.

For White Hispanics, check "White"; for Black Hispanics, check "Black."

### **Residence Code**

Variable Names: RESIDENC, STATE

Enter the county code of the patient's principal residence, as shown in Attachment B. If the patient lives outside of New York State, use code 99 and print the name of the state or country where the patient resides in the space provided. If you enter a valid NYS County Code then the 'State or Country" field **should** be left blank.

If the patient is from a foreign country, but is staying in the US during the preoperative and post-operative time period, you must enter 99 and print the name of the country that the patient is from. Do not enter the residence code of where the patient is staying while in the United States.

# **Hospital Admission Date**

Variable Name: ADMIDATE

Enter the date that the current hospital stay began.

# **Patient Information (continued)**

### **Primary Payer**

Variable Name: PAYER

Enter the primary source of payment for this hospital stay as shown in Appendix C.

### Interpretation: Primary Payer and Medicaid

For "Medicaid Pending" code Primary Payer as "11 - Self-Pay" **and** check the box for Medicaid.

Please note the difference between "07 - Other Private Insurance Company" and "19 - Other". Code 07 refers to a Private Insurance Company (also referred to as "Commercial" insurance) that is not listed elsewhere. Use Code 19 for any other type of insurance that is not given a code of its own (e.g. Corrections).

Code a PPO (Preferred Provider Organization) as Code 06 – HMO/Managed Care.

If you know a patient has Medicare or Medicaid, but do not know if it is Fee for Service or Managed Care, code Fee for Service.

### Medicaid

Variable Name: MEDICAID

Check this box if the patient has Medicaid that will provide payment for any portion of this hospital stay. If the patient's primary payer is Medicaid, check this box in addition to entering "03" or "04" under Primary Payer.

# **PFI of Transferring Hospital**

Variable Name: TRANS PFI

If the patient was transferred from another acute care facility, enter the PFI of the transferring hospital.

This element only needs to be completed for transfer patients.

A listing of PFIs for cardiac diagnostic centers in New York State (NYS) is provided in Attachment A. If transferred from a Veterans Administration hospital in NYS, enter "8888"; if transferred from outside NYS, enter "9999". For patients transferred from another hospital in NYS, please see http://hospitals.nyhealth.gov for a complete listing of NYS hospitals, including their PFI.

## II. Procedural Information

**REMINDER**: Complete a separate pediatric cardiac surgery form for each surgery involving the heart or great vessels during the current hospital admission.

### Date of Surgery

Variable Name: SURGDATE

Enter the date on which the cardiac surgical procedure was performed.

Remember to fill out a separate pediatric cardiac surgery form for <u>each</u> cardiac surgery that occurred during the admission.

### **Time at Start of Procedure**

Variable Names: SURGHOUR, SURGMIN

For time at start of procedure, enter the time of the induction of anesthesia using military time (e.g. 1:00 am is 01:00, and 1:00 pm is 13:00).

# **Primary Surgeon Performing Surgery**

Variable Name: PHYSNUM

Enter the name and medical license number of the primary or principal surgeon who performed the cardiac surgical procedure(s).

# **Surgical Priority**

Variable Name: PRIORITY

Check the appropriate box.

**Elective:** All cases not classified as urgent or emergency as defined below.

**Urgent:** The patient is too ill or unstable to be discharged from the hospital, but is not classified as an emergency as defined below.

This includes patients with ductal-dependent systemic or pulmonary circulation.

**Emergency:** Patients with cardiac compromise or circulatory compromise of the cardiac organ.

Typical emergency patients include those with obstructed anomalous pulmonary venous return and those with ductal-dependent systemic or pulmonary circulation in whom ductal patency cannot be maintained.

# **II. Procedural Information (continued)**

## **Prior Surgery this Admission**

Variable Names: PRIOSURG, PRIODATE

Check the appropriate box to indicate whether the patient underwent any cardiac surgery prior to this one during the current hospital admission.

If "Yes" then the date of the most recent previous cardiac operation **MUST** be entered.

# **Cardiac Diagnosis Code**

Variable Names: DIAG1, DIAG2, DIAG3, DIAG4, DIAG5

Enter the 3-digit State Cardiac Advisory Committee Code (SCAC) from the diagnosis code list in Attachment E - Primary Cardiac Diagnosis Codes.

List up to 5 diagnoses. Please list all cardiac diagnoses, regardless of whether or not a procedure is being done to alleviate the condition. All diagnoses that apply to a patient, even those that have had a previous surgical correction, should be reported. If there are more than 5 diagnoses, list the ones that are being corrected first and then list the remaining in order of severity.

### **Cardiac Procedure Code**

Variable Names: PROC1, PROC2, PROC3, PROC4

Enter the 3-digit State Cardiac Advisory Committee Code (SCAC) from the procedure code list in Attachment D – Congenital and Acquired Cardiac Procedure Codes.

List up to 4 cardiac procedures performed during this operation.

If there are more, list the 4 most significant.

**Note:** Interval Procedures indicate a palliative procedure, temporizing procedure, or one step in a staged procedure. Codes for these procedures are included in Attachment D.

# Mode of Cardiopulmonary (CP) Bypass

Variable Name: LOWFLOW, DEEPHYPO, CIRCARES

Check all that apply. If none apply, leave blank.

# **II. Procedural Information (continued)**

## Minimally Invasive

Variable Name: MINI\_INV

If the cardiac surgical procedure began through an incision other than a complete sternotomy or thoracotomy check "Yes", regardless of whether the case was converted to a standard incision or CP Bypass was used. Otherwise check "No".

## **Entire Procedure Off Pump**

Variable Name: ALL\_OFF

Check this box if the cardiac operation was performed entirely without the use of cardiopulmonary bypass.

### **CABG Information**

Variable Names: TOT\_COND, ART\_COND, DISTAL

If Procedure Code 670 is coded then the following information must be completed.

**Total Conduits:** List the total number of conduits or grafts performed up

to 9. For more than 9, write 9.

**Arterial Conduits:** List the number of arterial conduits or grafts used up to

9. For more than 9, write 9. The number of arterial conduits **CANNOT** be larger than the total number of

conduits

**Distal Anastomoses:** List the total number of distal anastomoses up to 9. For

more than 9, write 9. A distal anastomosis is defined as

a hole between a conduit or graft and a coronary touchdown site for the conduit or graft. The number of distal anastomoses could be larger than the total

number of conduits, especially in the case of sequential

grafts.

# **III. Pre-Operative Status**

# Weight at Time of Operation

Variable Names: WGT UNIT, WEIGHT

Enter the patient's weight at the time of the operation. If less than 10 kilograms, report in grams, if 10 kilograms or more report in kilograms. Check the appropriate box for grams or kilograms.

## **Gestational Age at Birth in Weeks**

Variable Name: GEST\_AGE

If the patient is under one year of age at admission, enter the gestational age at birth (in weeks).

If the patient's age at admission was one year or more, this item should be left blank.

# Weight at Birth in Grams

Variable Names: BIRTHWGT

If the patient is under one year of age at admission, check the box with the appropriate weight range in grams. If the patient's age at admission was one year or more, this item should be left blank.

# **Pre-operative Conditions**

Check all of the following conditions that existed prior to the start of the procedure, but within the time frame specified.

### 0. None

Variable Name: NORISK

None of the pre-operative conditions listed below were present prior to surgery.

## 1-3. Previous Open Heart Operations

Variable Names: PREVOP 1, PREVOP 2, PREVOP 3

If the patient had an open-heart surgery prior to the current cardiac operation, check the appropriate box to indicate the number of such operations.

**Interpretation:** For the purposes of this reporting system, minimally invasive procedures are considered open-heart surgery.

"Previous Open Heart Operations" refers to surgeries using CP Bypass and "Previous Closed Heart Operations" refers to those without CP Bypass.

Include any previous surgeries, either from this admission or a previous admission.

If there was a previous surgery this admission, please be sure that the date of the most recent surgery is indicated in the field "Prior Surgery This Admission" on the front of the form.

## 4-6. Previous Closed Heart Operations

Variable Names: PRECLO\_1, PRECLO\_2, PRECLO\_3

If the patient had a closed heart surgery prior to the current cardiac operation, check the appropriate box to indicate the number of such operations.

**Interpretation:** "Previous Open Heart Operations" refers to surgeries using CP Bypass and "Previous Closed Heart Operations" refers to those without CP Bypass.

Include any previous surgeries, either from this admission or a previous admission.

If there was a previous surgery this admission, please be sure that the date of the most recent surgery is indicated in the field "Prior Surgery This Admission" on the front of the form.

## 7. Pre-op Interventional Cath Procedure

Variable Names: PRE\_CATH, INT\_DATE

Indicate if the patient has had a pre-operative interventional cardiac catheterization procedure.

If during this admission, enter the date of the most recent procedure in the space provided.

**Interpretation:** Examples of these procedures include but are not limited to coil embolization of collaterals, balloon valvuloplasty, balloon dilation of coarctation of the aorta, defect closure, pulmonary artery, systemic vein or pulmonary vein. Balloon atrial septostomy would be excluded.

Report this risk factor if the patient underwent a cardiac intervention in-utero (e.g. aortic valve dilation).

# 11. Severe Cyanosis or Severe Hypoxia

Variable Name: SEV CYAN

Code if any of the following are present and sustained within 12 hours prior to surgery:

Pulse oximetry saturation <70% Resting PO2 < 35mmHg Arterial saturation <75%

**Interpretation:** The following scenario **would** be coded: Medical record states: "the patient's baseline oxygen saturation is 68% on room air. Central Aorto-Pulmonary Shunt placed for full repair due to cyanosis."

# 12. Dialysis within 14 Days Prior to Surgery

Variable Name: DIAL\_PRE

Code if the patient received either continuous or intermittent hemodialysis or peritoneal dialysis within 14 days prior to surgery. The dialysis does not have to occur in the same hospital stay, it only has to be within 14 days of the procedure.

**Note:** You may also code this element if the patient had Continuous Renal Replacement Therapy (CRRT), for example PRISMA, within 14 days prior to surgery.

Do not report this risk factor if the patient requires CRRT, for example PRISMA, for fluid management while on ECMO.

# 13. Any Ventilator Dependence During the Same Admission or within 14 Days Prior to Surgery

Variable Name: VENT\_PRE

Code if the patient was ventilator dependent during the same admission *or* within 14 days prior to surgery.

Interpretation: The following scenario would be coded because surgery occurred in the same admission as ventilator dependence even though there was 16 days between ventilator dependence and surgery:

The following scenario **would NOT** be coded because more than 14 days passed between ventilator dependence and surgery:

Admitted on 5/15 Ventilator dependent on 6/1 Extubated on 6/10 Surgery on 6/26 Discharged on 6/30 Admitted on 5/15
Ventilator dependent on 6/1
Extubated on 6/10
Discharged on 6/13
Admitted on 6/20
Surgery on 6/26
Discharged on 6/30

Nasal CPAP is not considered pre-operative ventilator dependence.

# 14. Inotropic Support Immediately Pre-op within 24 hrs

Variable Name: INOT PRE

Code if either of the following is present in the patient's medical record:

Dopamine in dosage >5 mcg/kg/minute Any other agent/dose for inotropic support

# 15. Positive Blood Cultures within 2 Weeks of Surgery

Variable Name: POS BLOO

Code if the patient has had positive blood cultures that are documented in the medical record, occurring within 2 weeks prior to surgery.

**Interpretation:** This can be coded even if the patient had the positive blood cultures within 2 weeks of surgery, was discharged, and was then re-admitted for surgery.

# 16. Arterial pH < 7.25, Immediately Pre-Op within Hospital Stay

Variable Name: ARTER\_PH

Arterial pH is < 7.25 within 12 hours prior to surgery but before the first blood gas taken in the OR.

# 17. Significant Renal Dysfunction

Variable Name: RENA\_DYS

Code if Creatinine levels reach the indicated range for the patient's age:

Preemies and Newborn Creatinine >1.5 mg/dl >1 month of age Creatinine >2.0 mg/dl

## **18. Trisomy 21**

Variable Name: DOWN\_SYN

Code for any patients with Trisomy 21 (Down's Syndrome).

## 19. Major Extracardiac Anomalies

Variable Name: CARDANOM and ANOM\_SPEC

Check this box for any extracardiac anomaly not already captured on the PedCSRS form that is felt to be clinically relevant. Specify the anomaly in the space provided.

### Examples include but are not limited to:

Non-Down's Syndrome Tracheo-esophageal (TE) fistula

chromosomal abnormalities Choanal Atresia
DiGeorge's Syndrome Diaphragmatic hernia

Cystic Fibrosis Biliary Atresia Marfan's Syndrome Any -ostomy

Sickle Cell Anemia Beecher Muscular Dystrophy

Blood Dyscrasia Tethered Spinal Cord
Omphalocele Vater Syndrome

Hypoplastic lung Pierre Robin Syndrome

### The following would *not* be accepted as Major Extracardiac Anomalies:

Failure to Thrive Normothermic Developmentally Delayed Cleft lip/palate

Hepatomegaly Hirschsprung Disease

Preemie Legally blind

Jaundiced

Note: As part of the data validation process, you may be asked to provide additional information on the nature, extent, or severity of the "Major Extracardiac Anomaly." Please keep notes on cases with this risk factor to facilitate this validation.

# 21. Pulmonary Hypertension

Variable Name: PULM HYP

In the case of an unrestrictive ventricular or great vessel (e.g., ductus or AP window) communication, the following would constitute evidence of increased PVR (and hence presence of the risk factor):

 bidirectional shunting (meaning at least some R to L shunting) across the defect

OR

- absence of CHF symptoms in patients at least 2 months of age OR
- evidence of systemic or suprasystemic RV pressure by tricuspid regurgitant jet velocity in the absence of a moderate or large left to right shunt

### 22. Ventricular Assist

Variable Name: PREOPVAD

Code if any of the following were used prior to the procedure to maintain vital signs:

Extracorporeal Membrane Oxygenation (ECMO)
Intra-Aortic Balloon Pump (IABP)
Left Ventricular Assist Device (LVAD)
Right Ventricular Assist Device (RVAD)
Bi-Ventricular Assist Device (BIVAD)

### 24. Pre-existing Neurologic Abnormality

Variable Name: NEUROABN and NEURO SPEC

Check this box for any pre-existing neurologic abnormality. Specify the abnormality in the space provided.

Pre-existing neurological abnormality includes but is not limited to:

Documented intracranial bleed Hydrocephalus Chiari Malformation Arterial venous malformation Cerebral vascular accident (CVA) Seizure disorders

Note: As part of the data validation process, you may be asked to provide additional information on the nature, extent, or severity of the "Pre-existing Neurologic Abnormality." Please keep notes on cases with this risk factor to facilitate this validation.

# 25. Pneumonia at Time of Surgery

Variable Name: PNEUMONI

As evidenced by:

Chest X-ray with infiltrate and at least **ONE** of the following:

\*temperature greater than 101°F (38.5°C)

\*white blood count greater than 12,000

\*positive blood culture/viral titer.

## 26. Prostaglandin Dependence at Time of Surgery

Variable Name: PROSTAGL

At the time of surgery, the child requires prostaglandin to maintain normal respiration

## 27. Balloon Atrial Septostomy

Variable Name: BALLSEPT

Prior to surgery, but within the same hospital admission, the patient had a balloon atrial septostomy.

# 28. Any Previous Organ Transplant

Variable Name: ORGN\_TRA

The patient has had any organ transplant prior to the current cardiac surgery. This includes, but is not limited to, heart, lung, kidney, and liver transplants. If a heart and/or lung transplant was performed during the operating room visit that generated this form DO NOT code this risk factor.

**Interpretation:** Also code for bone marrow transplant. Do not code for skin transplant (grafting).

# IV. Post-Procedural Events Requiring Intervention

Check all of the listed post-procedural events that occurred following the surgery.

**Please Note:** A documented pre-operative condition that persists post-operatively with **NO i**ncrease in severity is **NOT** a post-procedural event.

### 0. None

Variable Name: NOEVENTS

Check if none of the post-procedural events listed below occurred following the operation.

# 1. Cardiac Tamponade

Variable Name: CARDTAMP

Code if cardiac tamponade is present post procedure.

**Interpretation:** Cardiac Tamponade should be coded if there is post-op chest drainage. Code regardless of where the drainage was performed (operating room, bedside, etc.).

### 2. Ventricular Fibrillation or CPR

Variable Name: VENT\_FIB

Code if the patient experiences V-Fib or requires CPR at any time post-procedure, but before hospital discharge.

# 3. Bleeding Requiring Reoperation

Variable Name: BLEDREOP

Unplanned reoperation to control bleeding or to evacuate large hematomas in the thorax or pericardium.

**Interpretation:** This should be coded no matter where the bleeding was controlled (i.e., ICU, OR, bedside).

# IV. Post-Procedural Events Requiring Intervention (continued)

## 4. Deep Sternal Wound Infection

Variable Name: DSW INF

Drainage of purulent material from the sternotomy or thoracotomy wound.

Report this event only when associated with instability of the sternum.

A sternal wound infection should be reported as a post-procedural event even if it does not become apparent until after the patient is discharged from the hospital.

**NOTE:** This event is reportable up to one-year post-procedure, regardless of when the patient was discharged.

## 6. Ventilator Dependency > 10 Days

Variable Name: VENDEP10

The patient is unable to be extubated within 10 days post procedure.

**DO NOT** report if the patient had been ventilator dependent within 14 days prior to surgery.

# 7. Clinical Sepsis with Positive Blood Cultures

Variable Name: SEPSIS

Report if either of the following is present post procedure:

Temperature over 101° F (38.5° C) and Increased WBC and Positive blood culture

### OR

Temperature below 98.6°F (37°C) and Decreased WBC and Positive blood culture

# 11. Renal Failure Requiring Dialysis

Variable Name: DIALYSIS

Code if the patient requires either continuous or intermittent hemodialysis or peritoneal dialysis post-procedure. Also code if the patient requires Continuous Renal Replacement Therapy (CRRT), for example PRISMA, post-procedure.

**DO NOT** code if the patient required dialysis (or CRRT) within 14 days before the procedure. Do not report this major event if the patient requires CRRT, for example PRISMA, for fluid management while on ECMO.

# IV. Post-Procedural Events Requiring Intervention (continued)

## 12. Complete Heart Block at Discharge

Variable Name: COMP\_HB

Code if the heart block lasts until the time of discharge with or without permanent pacemaker insertion before discharge.

# 13. Unplanned Cardiac Reoperation or Interventional Catheterization

Variable Name: UP REOP

Includes any unplanned cardiac reoperation or interventional catheterization.

The procedure can be done in the operating room, cath lab, or at the bedside.

This would **exclude** a reoperation to control bleeding.

### 15. New Neurologic Deficit

Variable Name: NEURODEF

New neurologic deficit present at discharge.

### 16. Ventricular Assist

Variable Name: POST VAD

Code if any of the following were required after the procedure to maintain vital signs:

Extracorporeal Membrane Oxygenation (ECMO) Intra-Aortic Balloon Pump (IABP) Left Ventricular Assist Device (LVAD) Right Ventricular Assist Device (RVAD) Bi-Ventricular Assist Device (BIVAD)

**DO NOT** Code if Pre-Operative Status #22 or procedure codes 830 – 840 are also coded.

# V. Discharge Information

## **Hospital Discharge Date**

Variable Name: DISDATE

Enter the date the patient was discharged from the hospital.

If the patient died in the hospital, the hospital discharge date is the date of death.

## **Discharged Alive To**

Variable Name: STATUS, DISWHERE

Check the appropriate box.

If a patient is discharged to Hospice (including Home with Hospice), code the status a "12". NOTE that for purposes of analysis a hospice discharge ("12") is considered an in-hospital mortality, unless the hospital can provide documentation that 30 days after discharge the patient was still alive (even if still in Hospice).

Please see the full Hospice policy and reporting requirements on page 7 under "Revision Highlights and Coding Clarifications"

"19 – Other (specify)" should only be checked for a live discharge status not otherwise specified in this section (e.g. AMA).

Any status "19" that is reported without a specific discharge location will be sent back during data validation.

### Died in

Variable Name: STATUS, DISWHERE

Check the appropriate box.

If "8 – Elsewhere in Hospital (specify)" is checked, specify where the patient died.

Any status "8" that is reported without an indication of where the patient expired will be sent back during data validation.

# 30 Day Status

Variable Name: THIRTYDAY

Report the patient's status at 30 days post-procedure using the appropriate code.

## Attachment A

# **PFI Numbers for Cardiac Diagnostic and Surgical Centers**

## **PFI** Facility

#### ALBANY AREA

- 0001 Albany Medical Center Hospital
- 0135 Champlain Valley Physicians Hospital Medical Center
- 0829 Ellis Hospital
- 1005 Glens Falls Hospital
- 0746 Mary Imogene Bassett Hospital
- 0755 Rensselaer Regional Heart Institute St. Mary's
- 0756 Rensselaer Regional Heart Institute Samaritan
- 0818 Saratoga Hospital
- 0005 St. Peter's Hospital

### **BUFFALO AREA**

- 0207 Buffalo General Hospital
- 0210 Erie County Medical Center
- 0213 Mercy Hospital of Buffalo
- 0215 Millard Fillmore Gates
- 0103 Women's Christian Association

#### ROCHESTER AREA

- 0116 Arnot Ogden Medical Center
- 0471 Park Ridge Hospital
- 0411 Rochester General Hospital
- 0413 Strong Memorial Hospital

#### SYRACUSE AREA

- 0977 Cayuga Medical Center at Ithaca
- 0628 Community General
- 0636 Crouse Hospital
- 0599 Faxton-St. Luke's Healthcare, St. Luke's Division
- 0598 St. Elizabeth Medical Center
- 0630 St. Joseph's Hospital Health Center
- 0058 United Health Services Hospital, Inc.-Wilson Hospital Division
- 0635 University Hospital SUNY Health Science Center (Upstate)

Page 1 of 3 2011 Discharges

# **PFI** Facility

### **NEW ROCHELLE AREA**

- 0989 Benedictine Hospital
- 0779 Good Samaritan Hospital-Suffern
- 0925 Good Samaritan Hospital Medical Center-West Islip
- 0913 Huntington Hospital
- 0513 Mercy Medical Center
- 0528 Nassau University Medical Center
- 0541 North Shore University Hospital
- 0686 Orange Regional Medical Center
- 1072 Sound Shore Medical Center-Westchester
- 0527 South Nassau Communities Hospital
- 0924 Southside Hospital
- 0943 St. Catherine of Siena Medical Center
- 0563 St. Francis Hospital (aka St. Francis Hospital The Heart Center, Roslyn)
- 0180 St. Francis Hospital (aka St. Francis Hostipal & Health Ctrs, Poughkeepsie)
- 0694 St. Luke's Cornwall Hospital/Newburgh
- 0245 Stony Brook University Hospital
- 0990 The Kingston Hospital
- 0181 Vassar Brothers Medical Center
- 1139 Westchester Medical Center
- 1045 White Plains Hospital Center
- 0511 Winthrop University Hospital

#### NY CITY AREA

- 1438 Bellevue Hospital Center
- 1439 Beth Israel Medical Center / Petrie Campus
- 1164 Bronx-Lebanon Hospital Center-Fulton Division
- 1286 Brookdale Hospital Medical Center
- 1288 Brooklyn Hospital Center-Downtown
- 1626 City Hospital Center-Elmhurst
- 1294 Coney Island Hospital
- 1445 Harlem Hospital Center
- 1300 Interfaith Med Ctr, Jewish Hospital Med Ctr of Brooklyn Division
- 1165 Jacobi Medical Center
- 1629 Jamaica Hospital Medical Center
- 1301 King's County Medical Center
- 1450 Lenox Hill Hospital
- 1302 Long Island College Hospital
- 1630 Long Island Jewish Medical Center
- 1304 Lutheran Medical Center
- 1305 Maimonides Medical Center

Attachment A: PFI Numbers for Cardiac Diagnostic and Surgical Centers
Page 2 of 3
2011 Discharges

## **PFI** Facility

### NY CITY AREA (CONT.)

- 3058 Montefiore Medical Center-Jack D. Weiler Hospital of A. Einstein College Division
- 1169 Montefiore Medical Center-Henry and Lucy Moses Division
- 1456 Mount Sinai Hospital
- 1637 NY Hospital Medical Center of Queens
- 1306 NY Methodist Hospital
- 1464 NY Presbyterian-Columbia Presbyterian Center
- 1458 NY Presbyterian-NY Weill Cornell Center
- 1463 NYU Medical Center
- 1176 St. Barnabas Hospital
- 1466 St. Luke's Roosevelt Hospital Center-Roosevelt Hospital Division
- 1469 St. Luke's Roosevelt Hospital-St. Luke's Hospital Division
- 1740 Staten Island University Hospital-North
- 1634 SVCMC-St. John's Queens
- 1738 SVCMC-St. Vincent's Staten Island
- 1320 University Hospital of Brooklyn
- 1318 Wyckoff Heights Medical Center
- 8888 Catheterization Laboratory at a Veterans Administration Hospital in New York. (for use in this reporting system; not an official Permanent Facility Identifier)
- 9999 Catheterization Laboratory Outside New York State (for use in this reporting system; not an official Permanent Facility Identifier)

A complete listing of NYS hospitals, including their PFI can be found at: <a href="http://hospitals.nyhealth.gov/">http://hospitals.nyhealth.gov/</a>.

Attachment A: PFI Numbers for Cardiac Diagnostic and Surgical Centers
Page 3 of 3
2011 Discharges

# Attachment B Residence Codes

The county codes shown below are also used in the SPARCS Discharge Data Abstract:

01 Albany 02 Allegany	35 Oswego 36 Otsego
03 Broome	37 Putnam
04 Cattaraugus	38 Rensselaer
05 Cayuga	39 Rockland
06 Chautauqua	40 St. Lawrence
07 Chemung	41 Saratoga
08 Chenango	42 Schenectady
09 Clinton	43 Schoharie
10 Columbia	44 Schuyler
11 Cortland	45 Seneca
12 Delaware	46 Steuben
13 Dutchess	47 Suffolk
14 Erie	48 Sullivan
15 Essex	49 Tioga
16 Franklin	50 Tompkins
17 Fulton	51 Ulster
18 Genesee	52 Warren
19 Greene	53 Washington
20 Hamilton	54 Wayne
21 Herkimer	55 Westchester
22 Jefferson	56 Wyoming
23 Lewis	57 Yates
24 Livingston	58 Bronx
25 Madison	59 Kings
26 Monroe	60 Manhattan
27 Montgomery	61 Queens
28 Nassau	62 Richmond
29 Niagara	
30 Oneida	
31 Onondaga	88 Unknown
32 Ontario	
33 Orange	99 Outside NYS
34 Orleans	

Page 1 of 1 2011 Discharges

# Attachment C Payer Codes

- 01 Medicare—Fee For Service
- 02 Medicare—Managed Care
- 03 Medicaid—Fee For Service
- 04 Medicaid—Managed Care
- 05 Blue Cross
- 06 HMO/Managed Care
- 07 Other Private Insurance Company
- 11 Self Pay
- 19 Other

# **Attachment D**

# Congenital and Acquired Cardiac Procedure Codes NYSDOH CARDIAC ADVISORY COMMITTEE

100-398 Congenital Heart Disease - Operations With or Without Extracorporeal Circulation

**Note:** Extracorporeal circulation will be determined from the data element Entire Procedure Off Pump reported under Section II. Procedural Information on the front of the form. Please accurately complete this item for all appropriate cases.

## **Anomalies of Pulmonary Veins**

- 100 Repair of Anomalous Pulmonary Venous Return
- 101 Repair of Pulmonary Vein Stenosis
- 103 Repair of Partial Anomalous Pulmonary Venous Return

### **Anomalies of Atrial Septum**

- 120 ASD Closure
- 121 Creation of ASD
- 122 Repair of Cor Triatriatum
- 123 PFO Closure

# **Atrioventricular Septal Defect (AVSD)**

- 130 Repair of Complete AV Canal
- 131 Repair of Partial AV Canal

# Anomalies of Ventricular Septum

- 140 Repair of VSD
- 141 Creation/Enlargement of VSD
- 142 Fenestration of VSD Patch

### **Anomalies of Atrioventricular Valves**

Tricuspid Valve

150 Repair (Non-Ebstein's Valve)

Replacement

- 151 Homograft
- 152 Prosthetic
- 153 Tricuspid Valve Closure
- 154 Repair Ebstein's Anomaly

# **Anomalies of Atrioventricular Valves (continued)**

Mitral	Valve
160	Resect supramitral ring
161	Repair (including annuloplasty)
	Replacement
162	Homograft
163	Prosthetic
170	Common AV Valve Repair

# **Anomalies of Ventricular Outflow Tract(s)**

Alloi	manes of ventilicalar outflow frac
Pulmo	onary Ventricular Outflow Tract
180	Pulmonary Valvotomy/Valvectomy
181	Resection of subvalvular PS
182	Repair of supravalvular PS
	Pulmonary Valve Replacement
190	Homograft
191	Prosthetic
192	Xenograft
Pulmo	onary Outflow Conduit
	Valved
200	Homograft
201	Prosthetic
202	Non-Valved
	Transannular Patch
210	With Monocusp Valve
211	Without Monocusp Valve
212	Repair Branch PS
Aortic	Ventricular Outflow Tract
220	Aortic Valvuloplasty
221	Aortic Valvotomy
230	Repair Supravalvular AS
231	Resection of Discrete Subvalvular AS
235	Aortoventriculoplasty (Konno Procedure)
	Aortic Valve Replacement
240	Autograft (Ross Procedure)
241	Homograft
242	Prosthetic
243	Heterograft
	Aortic Root Replacement
250	Autograft (Ross Procedure)
251	Homograft
252	Prosthetic
255	LV Apex to Aorta Conduit

# **Tetralogy of Fallot**

	<b>0</b> ,
260	Repair with Pulmonary Valvotomy
261	Repair with Transannular Patch
262	Repair with Non-valved Conduit
	Repair with Valved Conduit
263	Homograft
264	Prosthetic
265	Repair with reduction/plasty of PAs
	Repair with pulmonary valve replacement
266	Homograft
267	Prosthetic

# **Truncus Arteriosus**

262	Repair with Non-Valved Conduit	
	Repair with Valved Conduit	
263	Homograft	
264	Prosthetic	

# Univentricular Heart (Single Ventricle)

	Fontan Operations
270	Direct RV-PA Connection
	Total Cavopulmonary Connection
271	Lateral tunnel – nonfenestrated
272	Lateral tunnel – fenestrated
273	Extracardiac – nonfenestrated
274	Extracardiac – fenestrated
275	Septation of Single Ventricle
	Hypoplastic Right Ventricle
	Valved
200	Homograft
201	Prosthetic
202	Non-Valved
	Transannular Patch
210	With Monocusp Valve
211	Without Monocusp Valve
	Hypoplastic Left Ventricle
280	Norwood
290	Damus Kaye Stansel (DSK)

# **Transposition of Great Arteries or Double Outlet RV**

310	Arterial Switch
311	Senning Procedure
312	Mustard Procedure
313	Intraventricular Repair of DORV

# **Transposition of Great Arteries or Double Outlet RV (continued)**

	Rastelli Procedure
	RV-PA Conduit
	Valved
320	Homograft
321	Prosthetic
322	Non-Valved
325	REV operation (Modified Rastelli)
	LV-PA Conduit \
	Valved
326	Homograft
327	Prosthetic
328	Non-Valved

# **Great Vessel Anomalies**

330	PDA Ligation
331	Repair Aortopulmonary Window
332	Reimplantation of left or right pulmonary artery
333	Repair Sinus of Valsalva Aneurysm
	Aortic Repair (Coarctation or Interruption)
340	End to end anastomosis
348	End to side anastomosis
341	Subclavian flap angioplasty
342	Onlay Patch
343	Interposition graft
344	Vascular Ring Division
345	Repair of PA Sling
346	Reimplantation of Innominate Artery
347	Aortoplexy

# **Coronary Artery Anomalies**

	Translocation of LCA to Aorta
350	Direct
351	Transpulmonary Tunnel (Takeuchi)
352	Coronary Artery Ligation
353	Coronary Fistula Ligation

# Cardiomyopathies

360	Left Ventricular Reconstruction (Batiste Procedure, Surgical Ventricular
	Restoration)
361	Radical Myomectomy

### **Interval Procedures**

370	Pulmonary Artery Band
375	Unifocalization of Pulmonary Vessels
	Shunts
381	Central Aortopulmonary Shunt
	Blalock Taussig Shunts
382	Classical
383	Modified
	Glenn Shunts
384	Unidirectional (Classical)
385	Bidirectional
386	Bilateral Bidirectional
390	Cardiac Arrhythmia Surgery
398	Other Operations for Congenital Heart Disease

# **400-998 Acquired Heart Disease** — Operations Performed With or Without Extracorporeal Circulation

401	Mitral Valvotomy
402	Pericardiectomy (with extracorporeal circulation)
403	Stab Wound of Heart or Great Vessel Repair (without extracorporeal circulation)
404	Saccular Áortic Aneurysm

# **Repair Of Aortic Deceleration Injury**

420	With Shunt
421	Without Shunt

### Other

498 Other Operation for Acquired Heart Disease (without extracorporeal circulation)

# **Valve Repair**

500	Aortic
501	Mitral
502	Tricuspid
503	Pulmonary

# **Valve Replacement**

510-518*	Ross Procedure
520-528*	Aortic Mechanical
530-538*	Aortic Heterograft
540-548*	Aortic Homograft

# Valve Replacement (continued)

550-558*	Mitral Mechanical
560-568*	Mitral Heterograft
600-608*	Mitral Homograft
570-578*	Tricuspid Mechanical
580-588*	Tricuspid Heterograft
590-598*	Pulmonary

\*REOPERATIONS: For Valve Replacement (510-608), use third digit to indicate reason for reoperation, as below. Note, the information below is specific to the valve reported. For example, a patient with previous aortic valve replacement who is now having mitral valve replacement (mechanical) would be reported using code 550 because this is not a re-operation on the mitral valve. In the event of multiple valve surgery, the third digit may be different for each valve code reported, i.e. one valve may be a re-op and the other(s) may not.

Use code 7 – Complication of Transcatheter Valve Replacement in the event of an unsuccessful Transcatheter Valve Replacement which requires surgical valve replacement.

- 0 Not a Reoperation
- 1 Periprosthetic Leak
- 2 Prosthetic Endocarditis
- 3 Prosthetic Malfunction
- 4 Failed Surgical Valve Repair
- 5 Disease of Another Valve
- 6 Failed Catheter-based Valve Repair
- 7 Complication of Transcatheter Valve Replacement
- 8 Other Reason

# **Adjunct Valve Information**

Transcatheter Valve Replacement
640 Transfemoral Approach
641 Transapical Approach

Note: Use these codes in conjunction with the valve replacement codes above to indicate if the valve replacement was performed using a transcatheter (transcutaneous) approach. You must also report the appropriate code for valve replacement. Report these procedures no matter where in the hospital they are performed.

### Valve Conduits

660 Apical Aortic Conduit

Note: Record aortic valve and ascending aorta replacement under aneurysms.

# **Coronary Artery Bypass Grafts**

670 Coronary Artery Bypass Graft

Please Note: If you code a 670 then you must complete the CABG Information under the Procedural Information section of the form.

### Other Revascularization

- 710 Transmyocardial Revascularization
- 711 Percutaneous Coronary Intervention in the same setting as CABG or Valve surgery
- 715 Growth Factor Installation

### Additional Procedures with or without CABG

- 760 Acquired Ventricular Septal Defect
- 761 Resection or Plication of LV Aneurysm
- 762 Ventricular Reconstruction (Batiste Procedure, Surgical Ventricular Restoration)
- 763 Carotid Endarterectomy (report only if done with another reportable cardiac surgical procedure)
- 764 Implantation of AICD (report only if done with another reportable cardiac surgical procedure)

## **Radiofrequency or Operative Ablation**

- 770 Atrial
- 771 Ventricular
- 772 Maze Procedure

# **Aortic Aneurysm Repair/Aortic Root Replacement**

- 780 Ascending Aorta, With Graft, With Coronary Reimplantation
- 781 Ascending Aorta, Replacement or Repair, Without Coronary Reimplantation
- 782 Transverse Aorta
- 783 Descending Thoracic Aorta (Excluding Acute Deceleration Injury)
- 784 Thoracoabdominal
- Aortic Root Replacement or Repair, With Graft, With Coronary Reimplantation

# **Dissecting Aneurysm Surgery**

- 800 Intraluminal Graft
- 801 Intraluminal Graft with Aortic Valve Suspension
- 802 Tube Graft with Aortic Valve Suspension
- 803 Tube Graft with Aortic Valve Replacement
- 818 Other Dissecting Aneurysm Surgery

# **Transplant Procedures**

- 820 Heart Transplant
- 821 Heart and Lung Transplant
- 822 Lung Transplant
- 830 Left Ventricular Assist Device (LVAD) Extracorporeal
- 831 Left Ventricular Assist Device (LVAD) Implantable

# **Transplant Procedures (continued)**

Right Ventricular Assist Device (RVAD)
Bi-Ventricular Assist Device (BIVAD)
Extracorporeal Membrane Oxygenation (ECMO)
Ventricular Assist Device as a Destination Therapy (must also code either 830 or 831)
Artificial Heart

### Other

902	Pulmonary Embolectomy
903	Stab Wound of Heart or Great Vessel Repair (with extracorporeal circulation)
904	Removal of Intracardiac Tumor
905	Removal of Intracardiac Catheter (surgical)
906	Repair of Aortic Deceleration Injury (With Aortofemoral Bypass)
907	Repair of a Cardiac Laceration due to Trauma
915	Septal Myomectomy
916	Ventricular Myomectomy
920	Ventricular Free Wall Rupture
998	Other Operation for Acquired Heart Disease (with extracorporeal circulation)

# **Attachment E**

# **Primary Cardiac Diagnosis Codes**

**NYSDOH Cardiac Advisory Committee** 

# **Atrial Situs Anomalies**

- 010 Situs Inversus
- 011 Situs Ambiguous/Heterotaxy Syndrome

## **Cardiac Position Anomalies**

- 020 Dextrocardia021 Mesocardia022 Ectopia cordis
- **Anomalies of Pulmonary Veins**

.00	D - ('-   A   D	
100	Partial Anomalous Re	aturn

Total Anomalous Return

- 101 Supracardiac
- 102 Cardiac
- 103 Infracardiac
- 104 Mixed
- 105 Pulmonary Vein Stenosis
- 106 Cor Triatrialum

# **Anomalies of Atrial Septum**

- 110 Secundum ASD
- 111 Single Atrium
- 112 Unroofed Coronary Sinus
- 113 Sinus Venosus ASD

Tricuspid Valve

114 PFO

# **Anomalies of Atrioventricular Valve(s)**

	1110	aopia vaivo
120		Ebstein's Anomaly
121		Tricuspid Stenosis
122		Tricuspid Regurgitation
123		Straddling Tricuspid Valve
		- 1 1 / 1

#### Mitral Valve

- Supravalvular Mitral Stenosis
  Valvular Mitral Stenosis
  Subvalvular Mitral Stenosis
- 133 Mitral Regurgitation

<b>Anomalies</b>	of Atric	oventricular	Valve(s)	(continued)
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134	Straddling Mitral Valve	
135	Papillary Muscle Abnormality	
	Common AV Valve Abnormality	
140	Stenosis	
141	Regurgitation	
142	Malaligned	

## **Anomalies of Ventricular Septum**

- 150 Perimembranous VSD
- 151 Doubly committed VSD (Subarterial)
- 152 Inlet VSD
- 153 Muscular VSD
- 154 Multiple VSDs
- 155 Malalignment VSD

# **Atrioventricular Septal Defects (AVSD)**

- 160 Partial AVSD (Primum ASD)
- 163 Transitional / Intermediate AV Canal

Complete AVSD

- 161 Balanced
- 162 Unbalanced

# **Univentricular Heart (Single Ventricle)**

170	Double/Common inlet LV
171	Double/Common Inlet RV

Tricuspid Atresia

- . With IVS
- 173 With VSD
- 174 With TGA
- 175 Mitral Atresia
- 176 Indeterminate Ventricle

Hypoplastic Right Ventricle

- 180 Pulmonary atresia with IVS
- 181 Other type of hypoplastic RV

Hypoplastic Left Ventricle

- 190 Classical HLHS (Aortic Atresia w/ Hypoplastic LV)
- 191 Any other Hypoplastic LV

### **Anomalies of Ventricular Outflow Tracts**

200	Pulmonary Ventricular Outflow Tract
201	Pulmonary Valve Stenosis
209	Supravalvar Pulmonary Stenosis

# **Anomalies of Ventricular Outflow Tracts (continued)**

202	Subvalvular/Infundibular Pulmonary Stenosis
203	Double Chamber Right Ventricle
204	Branch Pulmonary Artery Stenosis
205	Hypoplastic Pulmonary Arteries
206	Pulmonary Valve Regurgitation
207	Main Pulmonary Artery Atresia
208	Branch Pulmonary Artery Atresia
	Aortic Ventricular Outflow Tract
210	Valvular Aortic Stenosis
	Subvalvular Aortic Stenosis
211	Discrete
212	Long Segment/Tunnel
220	Supravalvular Aortic Stenosis
230	Aortic Valve Atresia
231	Aortic Valve Regurgitation
232	Aorto-Ventricular Tunnel

# **Tetralogy of Fallot (TOF)**

240	<b>RV-PA Continuity</b>
-----	-------------------------

- 241 TOF with Pulmonary Valve Atresia
- 242 Absent Pulmonary Valve Syndrome

### **Truncus Arterious**

250	Type I
	<i>,</i> ,

- 251 Type II
- 252 Type III

# **Transposition of the Great Arteries (TGA)**

- 260 D-TGA
- 261 Congenitally Corrected Transposition

# **Double Outlet Right Ventricle (DORV)**

- 270 Subaortic VSD
- 271 Subpulmonic VSD
- 272 Uncommitted VSD
- 273 Doubly Committed VSD
- 274 Restrictive VSD

### **Great Vessel Anomalies**

- 280 Aortopulmonary Window
- 281 Patent Ductus Arteriosus
- 282 Origin of L/R PA from Aorta
- 283 Sinus of Valsalva Aneurysm/Fistula

# **Great Vessel Anomalies (continued)**

- 284 Aortic Coarctation
- 297 Hypoplastic Aortic Arch
- 285 Aortic Interruption
  - Aortic Aneurysm
- 286 Ascending
- 287 Descending
- 288 Transverse
- 289 Vascular Ring
- 290 Origin of LPA from RPA (PA sling)
- 291 Discontinuous PAs
- 292 Bronchial PA Blood Flow (MAPCA)
- 293 Isolated LSVC
- 294 Bilateral SVCs
- 295 Azygous/Hemiazygous Continuous IVC
- 296 Other Great Vessel Anomalies

## **Coronary Artery Anomalies**

- 300 Coronary Artery Fistula
- 301 Coronary Artery Sinusoids
- 302 Coronary Artery Stenosis
- 303 Coronary Artery Aneurysm
- 304 Anomalous Origin Coronary Artery
- 305 Atresia Left Main Coronary Artery
- 306 Atresia Right Main Coronary Artery

# **Cardiac Rhythm Anomalies**

- 310 Supraventricular tachycardia
- 311 Ventricular tachycardia
- 312 Sinus bradycardia
- 313 Heart Block

# Cardiomyopathies

Hypertrophic

- 320 Left Ventricle
- 321 Right Ventricle
- 322 Dilated
- 398 Other Diagnoses NOT Listed

# **Acquired Disease**

- 400 Kawasaki's Disease
- 401 Endocarditis
- 402 Myocarditis
- 403 Traumatic

# **Organ Failure**

820 Cardiac821 Pulmonary

# **Cardiac Neoplasms**

900 Atrial

901 Ventricular

902 Valvular

903 Great Vessel

2011 Discharges