# 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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A: PFI Numbers for Cardiac Diagnostic and Surgical Centers
B: Residence Codes
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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 PCl 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.

ISOLATED PATENT DUCTUS ARTERIOSUS: A pediatric CSRS form should 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 I 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 each 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.

## III. Pre-Operative Status (continued)

## 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.

# III. Pre-Operative Status (continued) 

## 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 AortoPulmonary 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.

# III. Pre-Operative Status (continued) 

## 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:

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

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

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 $>5 \mathrm{mcg} / \mathrm{kg} /$ 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.

## III. Pre-Operative Status (continued)

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 $>1.5 \mathrm{mg} / \mathrm{dl}$
$>1$ month of age Creatinine $>2.0 \mathrm{mg} / \mathrm{dl}$
18. Trisomy 21

Variable Name: DOWN_SYN
Code for any patients with Trisomy 21 (Down's Syndrome).

## III. Pre-Operative Status (continued)

## 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
Developmentally Delayed
Hepatomegaly
Preemie 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


## III. Pre-Operative Status (continued)

## 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 $101^{\circ} \mathrm{F}\left(38.5^{\circ} \mathrm{C}\right)$
*white blood count greater than 12,000
*positive blood culture/viral titer.

## III. Pre-Operative Status (continued)

## 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 postoperatively with NO increase 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 postprocedure, 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 $101^{\circ} \mathrm{F}\left(38.5^{\circ} \mathrm{C}\right)$ and Increased WBC and Positive blood culture

OR
Temperature below $98.6^{\circ} \mathrm{F}\left(37^{\circ} \mathrm{C}\right)$ 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<br>0001 Albany Medical Center Hospital<br>0135 Champlain Valley Physicians Hospital Medical Center<br>0829 Ellis Hospital<br>1005 Glens Falls Hospital<br>0746 Mary Imogene Bassett Hospital<br>0755 Rensselaer Regional Heart Institute - St. Mary's<br>0756 Rensselaer Regional Heart Institute - Samaritan<br>0818 Saratoga Hospital<br>0005 St. Peter's Hospital<br>Buffalo Area<br>0207 Buffalo General Hospital<br>0210 Erie County Medical Center<br>0213 Mercy Hospital of Buffalo<br>0215 Millard Fillmore Gates<br>0103 Women's Christian Association<br>Rochester Area<br>0116 Arnot Ogden Medical Center<br>0471 Park Ridge Hospital<br>0411 Rochester General Hospital<br>0413 Strong Memorial Hospital<br>\section*{Syracuse Area}<br>0977 Cayuga Medical Center at Ithaca<br>0628 Community General<br>0636 Crouse Hospital<br>0599 Faxton-St. Luke's Healthcare, St. Luke's Division<br>0598 St. Elizabeth Medical Center<br>0630 St. Joseph's Hospital Health Center<br>0058 United Health Services Hospital, Inc.-Wilson Hospital Division<br>0635 University Hospital SUNY Health Science Center (Upstate)

## 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 Hosptial 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

## 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: http://hospitals.nyhealth.gov/ .

## Attachment B Residence Codes

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

01 Albany
02 Allegany
03 Broome
04 Cattaraugus
05 Cayuga
06 Chautauqua
07 Chemung
08 Chenango
09 Clinton
10 Columbia
11 Cortland
12 Delaware
13 Dutchess
14 Erie
15 Essex
16 Franklin
17 Fulton
18 Genesee
19 Greene
20 Hamilton
21 Herkimer
22 Jefferson
23 Lewis
24 Livingston
25 Madison
26 Monroe
27 Montgomery
28 Nassau
29 Niagara
30 Oneida
31 Onondaga
32 Ontario
33 Orange
34 Orleans

35 Oswego
36 Otsego
37 Putnam
38 Rensselaer
39 Rockland
40 St. Lawrence
41 Saratoga
42 Schenectady
43 Schoharie
44 Schuyler
45 Seneca
46 Steuben
47 Suffolk
48 Sullivan
49 Tioga
50 Tompkins
51 Ulster
52 Warren
53 Washington
54 Wayne
55 Westchester
56 Wyoming
57 Yates
58 Bronx
59 Kings
60 Manhattan
61 Queens
62 Richmond

88 Unknown
99 Outside NYS

## Attachment C Payer Codes

01 Medicare-Fee For Service<br>02 Medicare-Managed Care<br>03 Medicaid-Fee For Service<br>04 Medicaid-Managed Care<br>05 Blue Cross<br>06 HMO/Managed Care<br>07 Other Private Insurance Company<br>11 Self Pay<br>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
Prosthetic
Common AV Valve Repair

## Anomalies of Ventricular Outflow Tract(s)

Pulmonary 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
Pulmonary Outflow Conduit
Valved
200 Homograft

Prosthetic
201
Non-Valved
Transannular Patch
With Monocusp Valve
Without Monocusp Valve
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
Autograft (Ross Procedure)
Homograft
Prosthetic
Heterograft
Aortic Root Replacement
Autograft (Ross Procedure)
Homograft
Prosthetic
LV Apex to Aorta Conduit

## Tetralogy of Fallot

260 Repair with Pulmonary Valvotomy
261 Repair with Transannular Patch
262 Repair with Non-valved Conduit
Repair with Valved Conduit
Homograft
Prosthetic
Repair with reduction/plasty of PAs
Repair with pulmonary valve replacement
Homograft
Prosthetic
Truncus Arteriosus
262 Repair with Non-Valved Conduit
Repair with Valved Conduit
Homograft
Prosthetic

## Univentricular Heart (Single Ventricle)

Fontan Operations
Direct RV-PA Connection
Total Cavopulmonary Connection
Lateral tunnel - nonfenestrated
Lateral tunnel - fenestrated
Extracardiac - nonfenestrated
Extracardiac - fenestrated
Septation of Single Ventricle
Hypoplastic Right Ventricle
Valved
Homograft
Prosthetic
Non-Valved
Transannular Patch
With Monocusp Valve
Without Monocusp Valve
Hypoplastic Left Ventricle
Norwood
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

Homograft

Prosthetic
Non-Valved
REV operation (Modified Rastelli)
LV-PA Conduit
Valved
Homograft
Prosthetic
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)
End to end anastomosis
End to side anastomosis
Subclavian flap angioplasty
Onlay Patch
Interposition graft
Vascular Ring Division
Repair of PA Sling
Reimplantation of Innominate Artery
Aortoplexy

## Coronary Artery Anomalies

Translocation of LCA to Aorta

## 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

Classical
Modified
Glenn Shunts
Unidirectional (Classical)
Bidirectional
Bilateral Bidirectional
Cardiac Arrhythmia Surgery
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 Aortic 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
5 Disease of Another Valve
1 Periprosthetic Leak
6 Failed Catheter-based Valve Repair
2 Prosthetic Endocarditis
7 Complication of Transcatheter Valve Replacement
3 Prosthetic Malfunction Replacemen

## 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
$762 \begin{aligned} & \text { Ventricular Reconstruction (Batiste Procedure, Surgical Ventricular } \\ & \text { Restoration) }\end{aligned}$
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
785 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)

832 Right Ventricular Assist Device (RVAD)
833 Bi-Ventricular Assist Device (BIVAD)
834 Extracorporeal Membrane Oxygenation (ECMO)
840 Ventricular Assist Device as a Destination Therapy (must also code either 830 or 831)
901 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 Dextrocardia
021 Mesocardia
022 Ectopia cordis

## Anomalies of Pulmonary Veins

## 100 Partial Anomalous Return

Total Anomalous Return
101 Supracardiac
102 Cardiac
103
104
105
106 Cor Triatrialum

## Anomalies of Atrial Septum

110 Secundum ASD
111 Single Atrium
112 Unroofed Coronary Sinus
113 Sinus Venosus ASD
114 PFO
Anomalies of Atrioventricular Valve(s)

[^0]Anomalies of Atrioventricular Valve(s) (continued)
134 Straddling Mitral Valve
135
Papillary Muscle Abnormality
Common AV Valve Abnormality
Stenosis
Regurgitation
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

Mitral Atresia
176 Indeterminate VentricleHypoplastic Right Ventricle
Pulmonary atresia with IVSOther type of hypoplastic RVHypoplastic Left Ventricle
Classical HLHS (Aortic Atresia w/ Hypoplastic LV)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)

Subvalvular/Infundibular Pulmonary Stenosis
Double Chamber Right Ventricle
Branch Pulmonary Artery Stenosis
Hypoplastic Pulmonary Arteries
Pulmonary Valve Regurgitation
Main Pulmonary Artery Atresia
Branch Pulmonary Artery Atresia
Aortic Ventricular Outflow Tract
Valvular Aortic Stenosis
Subvalvular Aortic Stenosis
Discrete
Long Segment/Tunnel
Supravalvular Aortic Stenosis
Aortic Valve Atresia
Aortic Valve Regurgitation
Aorto-Ventricular Tunnel

## Tetralogy of Fallot (TOF)

240 RV-PA Continuity
241 TOF with Pulmonary Valve Atresia
242 Absent Pulmonary Valve Syndrome
Truncus Arterious
250 Type 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

## Cardiac Rhythm Anomalies

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

## Cardiomyopathies

HypertrophicLeft VentricleRight Ventricle
Dilated
Other Diagnoses NOT Listed
Acquired Disease
400 Kawasaki's Disease
401 Endocarditis
402 Myocarditis
403 Traumatic

820 Cardiac
821 Pulmonary

## Cardiac Neoplasms

900 Atrial
901 Ventricular
902 Valvular
903 Great Vessel


[^0]:    Tricuspid Valve

    120
    121
    122
    Ebstein's Anomaly
    Tricuspid Stenosis
    Tricuspid Regurgitation
    Straddling Tricuspid Valve
    Mitral Valve
    Supravalvular Mitral Stenosis
    Valvular Mitral Stenosis
    Subvalvular Mitral Stenosis
    Mitral Regurgitation

