NEW YORK STATE DEPARTMENT OF HEALTH
DIVISION OF PRIMARY & ACUTE CARE SERVICES
CARDIAC SERVICES PROGRAM

Instructions and Data Element Definitions
January 2008

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

CARDIAC SERVICES PROGRAM CONTACTS:
One University Place, Suite 209
Rensselaer, NY 12144-3455
Phone: (518) 402-1016
Fax: (518) 402-6992

Paula M. Waselauskas RN MSN, Administrator, pmw03@health.state.ny.us
Kimberly S. Cozzens MA, Cardiac Initiatives Research Manager, ksc06@health.state.ny.us
Christina L. Johnson, Clinical Data Coordinator, clf07@health.state.ny.us

Table of Contents

Table of Contents (continued)

Table of Contents (continued)

V. Discharge Information

Attachments

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 2008 reporting schedule is as follows.

Quarter 1 (1/1/08 – 3/31/08 Discharges) due on or before May 31, 2008
Quarter 2 (4/1/08 – 6/30/08 Discharges) due on or before August 31, 2008
Quarter 3 (7/1/08 – 9/30/08 Discharges) due on or before November 30, 2008
Quarter 4 (10/1/08 – 12/31/08 Discharges) due on or before February 28, 2009

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.

Revision Highlights and Coding Clarification

New Data Elements

The following data elements have been added to the Pediatric CSRS data collection system effective January 2008. The definitions for these elements are provided in the main text of this document.

Gestational Age at Birth in Weeks (Pg 14)

Revised Data Elements

The following data elements have been revised effective January 2008.   Please see complete definitions in the main text of this document.

Previous Interventional Cath Procedure (Pg 16) – This element now includes cath procedures prior to the current admission. A clarification has also been added that interventions performed in-utero can be reported for this data element.

Diagnosis Codes (Attachment D) – A new code has been added: #155 – Malalignment VSD.

Procedure Codes (Attachment E) – Codes #240 and #250 are now noted as corresponding to the Ross Procedure.

Data Clarifications

The following are recent data clarifications or reminders of recent data changes. For all data elements, please consult the main body of this document to obtain the complete data element definition and all relevant notes, interpretations and clarifications.

There is an expanded list of examples for reporting the risk factors "Major Extracardiac Anomalies" (Pg 19) and "Pre-existing Neurologic Abnormality" (Pg 20).

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

Nasal CPAP is not reportable as Pre-operative ventilator dependence.

All diagnoses that apply to a patient, even those that have had a previous surgical correction, should be reported.

Revision Highlights and Coding Clarification (continued)

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 operation **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 visit to the operating room.**

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 complete a form for implantations of pacemakers, AICD, or other procedures done in the catheterization lab.

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

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, 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.

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)

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 pre-operative 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 visit to the operating room involving a surgery of 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_** visit to the operating room 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 went to the operating room for any cardiac operation prior to the present operating room visit 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 D - 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. 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 E – Congenital and Acquired Cardiac Procedure Codes.

List up to 4 cardiac procedures performed during this operating room visit.

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 E.

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 documented in the patient's medical record:

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, PRISMA) within 14 days prior to surgery.

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:

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 no 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.

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 during the same hospital admission.

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).

III. Pre-Operative Status (continued)

19. Major Extracardiac Anomalies

Variable Name: CARDANOM

Examples include but are not limited to:

Non-Down's Syndrome chromosomal abnormalities	Tracheo-esophageal (TE) fistula
	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 will be asked to specify the nature 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

Code when systolic pressure reaches > 50% systemic or when elevated pulmonary vascular resistance exists.

Note: Either pulmonary artery pressure > 50% systemic pressure by echo estimate or direct measurement at catheterization would meet criteria.

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

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

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.

III. Pre-Operative Status (continued)

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.

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
<div align="center">

OR
</div>

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 Primsa, post-procedure.

DO NOT code if the patient required dialysis (or CRRT) within 14 days before the procedure.

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 6 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 an indication of where the patient was discharged to, will be sent back during data verification and validation efforts.

Died in

Variable Name: STATUS, DISWHERE

Check the appropriate box.

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

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
0208 Children's Hospital of Buffalo
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
0367 Samaritan Medical Center
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)

Attachment A (continued)

PFI Numbers for Cardiac Diagnostic and Surgical Centers

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
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 Medical Center, Jewish Hospital Medical Center 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 (continued)

PFI Numbers for Cardiac Diagnostic and Surgical Centers

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
2968 North General Hospital
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
1471 SVCMC-St. Vincent's Manhattan
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	35	Oswego
02	Allegany	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		

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

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   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
114   PFO

Attachment D
Primary Cardiac Diagnosis Codes (continued)

Anomalies of Atrioventricular Valve(s)

Tricuspid Valve
120   Ebstein's Anomaly
121   Tricuspid Stenosis
122   Tricuspid Regurgitation
123   Straddling Tricuspid Valve
Mitral Valve
130   Supravalvular Mitral Stenosis
131   Valvular Mitral Stenosis
132   Subvalvular Mitral Stenosis
133   Mitral Regurgitation
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)
Complete AVSD
161   Balanced
162   Unbalanced

Attachment D
Primary Cardiac Diagnosis Codes (continued)

Univentricular Heart (Single Ventricle)

170	Double/Common Inlet LV
171	Double/Common Inlet RV
	Tricuspid Atresia
172	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
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	RV-PA Continuity
241	TOF with Pulmonary Valve Atresia
242	Absent Pulmonary Valve Syndrome

Attachment D
Primary Cardiac Diagnosis Codes (continued)

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
284   Aortic Coarctation
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

Attachment D
Primary Cardiac Diagnosis Codes (continued)

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   Cardiac
821   Pulmonary

Cardiac Neoplasms

900   Atrial
901   Ventricular
902   Valvular
903   Great Vessel

Attachment E

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

Attachment E (continued)

Congenital and Acquired Cardiac Procedure Codes

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
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)

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
Pulmonary 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)

Attachment E (continued)

Congenital and Acquired Cardiac Procedure Codes

Anomalies of Ventricular Outflow Tract(s) (continued)

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

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

Univentricule 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

Attachment E (continued)

Congenital and Acquired Cardiac Procedure Codes

Univentricular Heart (Single Ventricle) (continued)

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
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

Attachment E (continued)

Congenital and Acquired Cardiac Procedure Codes

Great Vessel Anomalies (continued)

Aortic Repair (Coarctation or Interruption)
340   End to end 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

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

Attachment E (continued)

Congenital and Acquired Cardiac Procedure Codes

400-998   Acquired Heart Disease – Operations Performed With or Without Extracorporeal Circulation

401   Mitral Valvotomy
402   Pericardiectomy
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)

Valvuloplasty - Single Valve

500   Aortic
501   Mitral
502   Tricuspid

Replacement - Single Valve

510-518*   Ross Procedure
520-528*   Aortic Mechanical
530-538*   Aortic Heterograft
540-548*   Aortic Homograft
550-558*   Mitral Mechanical
560-568*   Mitral Heterograft
570-578*   Tricuspid Mechanical
580-588*   Tricuspid Heterograft
590-598*   Pulmonary
600-608*   Mitral Valve Homograft

Attachment E (continued)

Congenital and Acquired Cardiac Procedure Codes

Multiple Valve Surgery - Valvuloplasty Or Replacement

610-618*   Double, Including Tricuspid
620-628*   Double, Not Including Tricuspid
630-638*   Triple

      *REOPERATIONS: For Single Valve Replacement or Multiple Valve Surgery (510-638), use third digit to indicate reason for reoperation, as follows:

          0 Not a Reoperation   4 Failed Valvuloplasty
          1 Periprosthetic Leak   5 Disease of Another Valve
          2 Prosthetic Endocarditis   8 Other Reason
          3 Prosthetic Malfunction

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
715   Growth Factor Installation

Attachment E (continued)

Congenital and Acquired Cardiac Procedure Codes

Combined CABG With Other

720 Acquired Ventricular Septal Defect
721 Resection or Plication of LV Aneurysm
722 Carotid Endarterectomy
723 Implantation of AICD
724 Ventricular Reconstruction (Batiste Procedure, Surgical Ventricular Restoration)

Please Note: If you code a 720-724 then you must complete the CABG Information under the Procedural Information Section of the Form.

Valve Surgery And CABG

740 Mitral Valve Replacement Plus Single or Multiple CABG
741 Mitral Valvuloplasty Plus Single or Multiple CABG
742 Aortic Valvuloplasty or Replacement Plus Single or Multiple CABG
744 Double Valvuloplasty or Replacement, including Tricuspid, Plus Single or Multiple CABG
745 Double Valvuloplasty or Replacement, not including Tricuspid, plus Single or Multiple CABG
746 Other Single Valve Surgery Plus Single or Multiple CABG
747 Other Multiple Valve Surgery Plus Single or Multiple CABG

Please Note: If you code a 740-747 then you must complete the CABG Information under the Procedural Information Section of the Form.

Surgery For Complication Of CAD Without CABG

760 Acquired Ventricular Septal Defect
761 Resection or Plication of LV Aneurysm
762 Ventricular Reconstruction (Batiste Procedure, Surgical Ventricular Restoration)

Radiofrequency or Operative Ablation

770 Atrial
771 Ventricular
772 Maze Procedure

Attachment E (continued)

Congenital and Acquired Cardiac Procedure Codes

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
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

Attachment E (continued)

Congenital and Acquired Cardiac Procedure Codes

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
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)