
Software Requirements Specification



for

Thousand Smiles Digital Charts – Anesthesia Subsystem

Version 0.9.2

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Thousand Smiles Foundation

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Revision History

Name	Date	Reason For Changes	Version
Syd Logan	03/08/2021	Original	0.9
Syd Logan	03/27/2021	Create vaccinations section, update labs based on review/meeting with Dr. Nussbaum.	0.9.1
Syd Logan	04/01/2021	Final review on data with Dr. Nussbaum	0.9.2

1. Introduction

1.1 Purpose

The purpose of this document is to outline the basic requirements associated with the Anesthesia portion of the Thousand Smiles Digital Chart. The overall requirements of the system are described in a separate document. This document focuses specifically on Surgery Screening requirements that were gathered via interviews with the primary stakeholders.

The scope of this design is the data and interfaces used to record, view, and edit patient records that record anesthesiology-related data. This data is collected prior to, during, and after surgery. Thus, there are three separate bodies of data collected and stored, and broadly speaking, three separate user interfaces that are considered in this this document.

1.2 Document Conventions

There are no specific conventions associated with this document.

1.3 Intended Audience and Reading Suggestions

The intended audience includes:

Thousand Smiles Board Members: Board members should read this document to become familiar with the overall overall scope of Anesthesiology in the digital charts project. This knowledge may prove helpful as background when evaluating logistics and expenditures associated with the implementation of the system, e.g., equipment purchases.

Implementation Team: This document spells out requirements which guide the implementation of the system. It is not intended to be a design document, rather it spells out the requirements that a design must follow to be considered valid.

Anesthesiologists: This document must be read and approved by the end user(s) of the system, the anesthesiologists. Surgeons and nurses who are involved with the care of the patient and who might need to be involved with its design should read this document, though it is optional. This document will likely go through some number of revisions towards eventual approval. During this phase, the document should be read critically to identify omissions, errors, and changes so that they can be dealt with.

1.4 Product Scope

The anesthesiology portion of the digital chart is intended to provide anesthesiologists and nurses post surgery with the following capabilities:

- Allow the anesthesiologist to record a pre-operative evaluation of the patient. In this document, this is referred to as “pre-operative” data.

- Allow the anesthesiologist to refer to the pre-operative data collected above, and to record data related to anesthesiology during the surgery. In this document, data collected during surgery is referred to as “intra-operative” data.
- Allow nurse(s) to view and edit both the pre-operative and intra-operative anesthesiology data, and record post-operative data.
- Ability for all to view data (pre-, intra-, and post-operative) recorded for a patient at past clinics.
- Eliminate the need for paper charts to the extent possible.

The benefits we hope to realize by digitally recording anesthesia-related data include:

- Increased access to data by other specialists. We aim to make the data recorded by the anesthesiologist and nurses more easily located and viewed by other specialists involved with the care of the child during his or her visit at one of our clinics
- Increased reporting functionality. Migrating to a database-backed chart allows the organization to more readily generate reports; for example, number of children, types and numbers of procedures, incident counting (e.g., number of children seen with a specific condition). This data could be used for various purposes, both clinical and administrative in nature.

1.5 References

This document makes reference to the following documents

- *Software Requirements Specification for Thousand Smiles Digital Charts – Surgery Reports*
https://github.com/slogan621/tscharts/blob/master/docs/requirements/pdf/surgeryapp_requirements_0.9.pdf
- *Standard Official Mexicana NOM-024-SSA3-2010*
https://github.com/slogan621/tscharts/blob/master/docs/nom/NOM-024-SSA3-2012_English.pdf

2. Chart Content

2.1 Overview

There are three points in time, relative to a patient surgery, when anesthesiology-related data is created and/or viewed:

- Pre-surgery
- Intra-surgery
- Post-surgery

2.1.1 Pre-surgery

Prior to a surgery, the anesthesiologist performs a pre-surgery evaluation of the patient. This evaluation collects basic information related to the surgery of relevance to the anesthesiologist. This data is general in nature, including patient name, drug allergies, and the type of surgery to be performed. Refer to Section 2.2 for details on the data collected, and Section 3.2 for user-interface requirements associated with this phase.

2.1.2 Intra-surgery

The intra-surgery phase represents the time that patient is actually in surgery. It is during this phase that most of the data for the patient and the surgery is recorded by the anesthesiologist. Much of this data is temporal in nature, collected at pre-defined intervals during the surgery. As an example, blood pressure is typically collected at 15-minute intervals. During this time, access to the pre-surgery data must be provided. Refer to Section 2.3 for details on the data collected, and Section 3.3 for user-interface requirements associated with this phase.

2.1.3 Post-surgery

Post-surgery, nurses need to be able to access both the pre-surgery and intra-surgery data in order to make informed decisions regarding post-operative care of the patient. Refer to Section 2.4 for details on the data collected, and Section 3.4 for user-interface requirements associated with this phase.

2.2 Pre-surgery Data

This section lists the data items collected during pre-surgery phase by the anesthesiologist. Some of this data will be pre-filled by referring to data already collected for the patient, for example, at registration time.

In the UI, each item should have a checkbox next to it that can be used to identify the item as “significant”. Items where this checkbox is selected will show in the pre-surgical summary section of the Intra-surgery UI.

Item Name	Data Type	Range, Possible Values	Example	Required	Pre-filled	Comment
Patient Name	String	LAST, Mother last, First, Middle	GOMEZ, Perez, Alicia, Maria	Y	Y	
Date of Birth	Date	DDMMYY YYY	12OCT2020	Y	Y	
ID	Numeric		1015	Y	Y	
Height	Numeric	Centimeters, [0 - 213]	20	Y	Y	
Weight	Numeric	Kilograms [1-180]	4	Y	Y	Whole number rounded to nearest value
Today's Date	Date	DDMMYY YYY	03AUG2022	Y	Y	System clock
Planned Procedures	List/ Enumeration	See Section 2.2.1 for list of procedures.		Y	N	
Surgeons	List of String	Last, First, title		Y	N	M.D., D.O., DMD, DDS
Anesthesiologist	String	Last, First, title		Y	N	M.D., D.O., DMD, DDS
Indications for Surgery	List/ Enumeration	See Section 2.2.1 for list of procedures		Y	N	
PMHx	List/ Enumeration	See Section 2.2.2 for list		Y	Y	Initialized with data from registration medical history. Can be modified. Includes immunizations, COVID-vaccinations which currently we do not collect at registration

						time.
PSXx	List/ Enumeration	Date, Surgery Type, Notes. See Section 2.2.3 for list of surgery, procedure codes.		Y	Y	Not collected at registration time. Initialized with data collected from previous evaluations.
Anesthetic History	Yes/No questions, text	See Section 2.2.4		Y	Y	Pre-filled with data from previous surgeries recorded in our database.
Medications	Enumeration	FDA Drug database		Y	Y	Collected at registration time, editable (add, remove)
Allergies	Enumeration	FDA Drug database		Y	Y	Collected at registration time, editable (add, remove)
Laboratory and other special studies	Test, Value, OK For surgery	See Section 2.2.5.		Y	Y	
Vital Signs	Name, Value	See Section 2.2.6.		Y	Y	
AW Exam						
MP Class	Numeric	1-4		Y	N	
Prognathia	Boolean	Yes/No		Y	N	
Retrognathic	Boolean	Yes/No		Y	N	
Mandibular distance	Centimeters	2-6		Y	N	
Mouth opening	Centimeters	1-6		Y	N	

Thick Neck	Boolean	Yes/No		Y	N	
Limited Extension	Boolean	Yes/No		Y	N	
Prominent Dentition	Boolean	Yes/No		Y	N	
Large Tongue	Boolean	Yes/No		Y	N	
Prior or likely difficult airway	Boolean	Yes/No		Y	N	
Cardiac						
Rhythm	Enumeration	Regular, Irregular		Y	N	Choose one
Murmur Grade	Location, grade	See Section 2.2.7		Y	N	
Prominent Apical Impulse	Boolean	True/False		Y	N	
Pulmonary				N	N	Consists of one of more items, each described by Category, Location, Upper or Lower, Anterior or Posterior
Category	Enumeration	Bilateral, Wheezes, Rales, Crackles		Y		
Location	Enumeration	Right/Left		Y		
Upper or Lower	Enumeration	Upper/Lower		Y		
Anterior or Posterior	Enumeration	Anterior/Posterior		Y		
Pulses				Y		One or more record, based on location (left, right)
Prominent or	Enumeration	Prominent/		Y	N	

Faint		Faint				
Radial or DP	Enumeration	Radial/DP		Y	N	
Location	Enumeration	Right/Left		Y	N	
IV Access				N	N	One or more records describing potential IV access points
Visibility	Enumeration	Visible, Faint, or Prominent		Y	N	
Location	Enumeration	UE or LE		Y	N	
Anesthetic Plan	Enumeration	GA/MAC		Y	N	Choose one
Details	Enumeration	ETT, LMA, Mask,		Y	N	Choose one or more
Anesthetic Type	Enumeration	Regional or Local		Y	N	Choose one

2.2.1 Planned Procedures and Indications for Surgery

The following is a list of planned procedures and indications for surgery. Except where indicated these are based on ICD billing codes Q37 (see <https://icd.codes/icd10cm/Q37> for details).

- Cleft hard palate with bilateral cleft lip
- Cleft hard palate with unilateral cleft lip
- Cleft soft palate with bilateral cleft lip
- Cleft soft palate with unilateral cleft lip
- Cleft hard and soft palate with bilateral cleft lip
- Cleft hard and soft palate with unilateral cleft lip
- Unspecified cleft palate with bilateral cleft lip
- Unspecified cleft palate with unilateral cleft lip
- Fistula (not Q37)
- Extra-Aveolar Tooth (not Q37)
- Aveolar Defect (not Q37)
- Exam under anesthesia
- Tympanoplasty
- Tubes (not Q37)

2.2.2 PMHx

The idea here is to pre-fill using the medical history obtained at registration. To this, we augment specific items that are of interest to the anesthesiologist.

Here are the items we currently collect outside at registration time. Most of these are yes/no or true/false responses obtained from the patient or the parent(s) at registration.

- cold_cough_fever
- hiv_aids
- anemia
- asthma
- cancer
- congenitalheartdefect
- congenitalheartdefect_workup
- congenitalheartdefect_planforcare
- diabetes
- epilepsy
- bleeding_problems
- hepatitis
- tuberculosis
- troublespeaking
- troublehearing
- troubleeating
- pregnancy_duration
- pregnancy_smoke
- birth_complications
- pregnancy_complications
- mother_alcohol
- relative_cleft (which relative?, direct blood descendent)
- parents_cleft
- siblings_cleft
- first_crawl
- first_sit
- first_words
- first_walk
- birth_weight
- height
- weight

2.2.3 PSXx/ICD-9-CM Codes

See Appendix A for complete list of the surgery procedure codes. These codes will be located in the database and searchable, similar to the FDA drug database and Dental CDT code databases currently in use by our system. If a particular surgery is not found, the UI will allow for the entry of the item, which will then be inserted into the database and be made available for future searches.

2.2.4 Anesthetic History

The following table describes the Anesthetic History data recorded in the database.

Item Name	Data Type	Range, Possible Values	Example	Required	Default Value
Problem with Prior Anesthetics	Boolean	Yes/No		Y	No
Malignant Hypothermia	Boolean	Yes/No		Y	No
PONV	Boolean	Yes/No		Y	No
PONV Description	Text	0 to 1024 characters		N	“”
Motion Sickness	Boolean	Yes/No		Y	No
Motion Sickness Description	Text	0 to 1024 characters		N	“”
Transfusion Required	Boolean	Yes/No		Y	No
Transfusion Required Description	Text	0 to 1024 characters		N	“”
Other	Boolean	Yes/No		Y	No
Other Description	Text	0 to 1024 characters		N	“”

2.2.5 Vaccinations

As far as vaccinations are concerned, we will augment the registration process to query for these. A list of such vaccinations is available here <https://www.cdc.gov/vaccines/schedules/hcp/imz/child-adolescent.html#vaccines-schedule> to which we might add COVID-19 and number of dosages. The anesthesiologist can then review this information which was obtained at registration, and perhaps modify based on patient/parent interview at time of pre-surgery screening.

Common Name	Name	Trade Name
Diphtheria, tetanus, and acellular pertussis vaccine	DTaP	Daptacel® Infanrix®
Diphtheria, tetanus vaccine	DT	No Trade Name
<i>Haemophilus influenzae</i> type B vaccine	Hib (PRP-T) Hib (PRP-OMP)	ActHIB® Hiberix® PedvaxHIB®
Hepatitis A vaccine	HepA	Havrix® Vaqta®
Hepatitis B vaccine	HepB	Engerix-B® Recombivax HB®
Human papillomavirus vaccine	HPV	Gardasil 9®
Influenza vaccine (inactivated)	IIV	Multiple
Influenza vaccine (live, attenuated)	LAIV4	FluMist® Quadrivalent
Measles, mumps, and rubella vaccine	MMR	M-M-R® II
Meningococcal serogroups A, C, W, Y vaccine	MenACWY-D MenACWY-CRM MenACWY-TT	Menactra® Menveo® MenQuadfi®
Meningococcal serogroup B vaccine	MenB-4C MenB-FHbp	Bexsero® Trumenba®
Pneumococcal 13-valent conjugate vaccine	PCV13	Prevnar 13®
Pneumococcal 23-valent polysaccharide vaccine	PPSV23	Pneumovax® 23
Poliovirus vaccine (inactivated)	IPV	IPOL®
Rotavirus vaccine	RV1 RV5	Rotarix® RotaTeq®
Tetanus, diphtheria, and acellular pertussis vaccine	Tdap	Adacel® Boostrix®
Tetanus and diphtheria vaccine	Td	Tenivac® TDvax™
Varicella vaccine	VAR	Varivax®
DTaP, hepatitis B, and inactivated poliovirus vaccine	DTaP-HepB-IPV	Pediarix®
DTaP, inactivated poliovirus, and <i>Haemophilus influenzae</i> type B vaccine	DTaP-IPV/Hib	Pentacel®
DTaP and inactivated poliovirus vaccine	DTaP-IPV	Kinrix® Quadracel®
DTaP, inactivated poliovirus, <i>Haemophilus influenzae</i> type b, and hepatitis B vaccine	DTaP-IPV-Hib-HepB	Vaxelis®
Measles, mumps, rubella, and varicella vaccines	MMRV	

2.2.6 Laboratory

The following table describes the laboratory data that can be recorded in the database. Items are optional, it is up to the anesthesiologist to decide what data from a lab report to enter. Units should be specifiable as a preference, for example L vs dL. Internally, the data will be stored in the smallest of these units; the UI will display the covered value based on the selected preference.

Sources:

<https://www.mayoclinic.org/tests-procedures/complete-blood-count/about/pac-20384919>.

Ranges for CMP derived from <https://www.ucsfhealth.org/medical-tests/003468>

https://en.wikipedia.org/wiki/Complete_blood_count

http://www.health.am/encyclopedia/more/chem_20/

Item Name	Data Type	Range, Possible Values	Example	Required	Default Value
CBC					
Hemoglobin	mg/dL	11600 to 17000		Y	Mid-range
White Count	cells/mcL	3,400 to 9,600		Y	Mid-range
COVID-19 Test	Boolean	Positive/ Negative		Y	Negative
Na	Numeric	135 to 145 mEq/L		Y	Mid-range
K	Numeric	3.7 to 5.2 mEq/L		Y	Mid-range
CO2	Numeric	23 to 29 mEq/L		Y	Mid-range
Cl2 (Chloride)	Numeric	96 to 106 mEq/L		Y	Mid-range
Glucose	Numeric	70 to 100 mg/dL		Y	Mid-range
ALT	Numeric	4 to 36 U/L		Y	Mid-range
AST	Numeric	8 to 33 U/L		Y	Mid-range
Ca	Numeric	8.5 to 10.2 mg/dL		Y	Mid-range
Alb	Numeric	3.4 to 5.4 g/dL		Y	Mid-range
ALP	Numeric	44 to 147 U/L		Y	Mid-Range

BUN	Numeric	7 to 20 mg/dl		Y	Mid-Range
Creatine	Numeric	0.8 to 1.4 mg/dl		Y	Mid-Range
Direct bilirubin	Numeric	0.0 to 0.3 mg/dl		Y	Mid-Range
Gamma-GT	Numeric	0-51 U/L		Y	Mid-Range
LDH	Numeric	105 to 333 U/L		Y	Mid-Range
Phosphorus - serum	Numeric	2.4 to 4.1 mg/dl		Y	Mid-Range
Total bilirubin	Numeric	0.2 to 1.9 mg/dl		Y	Mid-Range
Total cholesterol	Numeric	100 to 240 mg/dl		Y	Mid-Range
Total protein	Numeric	Total protein: 6.3 to 7.9 g/dl		Y	Mid-Range
Uric acid	Numeric	4.1 to 8.8 mg/dl		Y	Mid-Range

The following table has units and ranges broken out based on age ranges. The UI should attempt to set a slider and other control range default based on this and the age of the patient as recorded in the EMR. The user shall be provided with a text field to enter in a value that falls out of the provided range, if necessary.

Test	Units	Adult	Pediatric (4–7 years old)	Neonate (0–1 days old)
WBC	× 10 ⁹ /L	3.6–10.6	5.0–17.0	9.0–37.0
RBC	× 10 ¹² /L	M: 4.20–6.00 F: 3.80–5.20	4.00–5.20	4.10–6.10
HGB	g/L	M: 135–180 F: 120–150	102–152	165–215
HCT	L/L	M: 0.40–0.54 F: 0.35–0.49	0.36–0.46	0.48–0.68
MCV	fL	80–100	78–94	95–125
MCH	pg	26–34	23–31	30–42
MCHC	g/L	320–360	320–360	300–340
RDW	%	11.5–14.5	11.5–14.5	elevated ^[note 6]
PLT	× 10 ⁹ /L	150–450	150–450	150–450
Neutrophils	× 10 ⁹ /L	1.7–7.5	1.5–11.0	3.7–30.0

Lymphocytes	× 10 ⁹ /L	1.0–3.2	1.5–11.1	1.6–14.1
Monocytes	× 10 ⁹ /L	0.1–1.3	0.1–1.9	0.1–4.4
Eosinophils	× 10 ⁹ /L	0.0–0.3	0.0–0.7	0.0–1.5
Basophils	× 10 ⁹ /L	0.0–0.2	0.0–0.3	0.0–0.7

2.2.7 Vital Signs

Item Name	Data Type	Range, Possible Values	Example	Required	Default Value
HR	Numeric	40 - 200		Y	Mid-range
Temperature	Numeric, Celsius	33 - 40		Y	37
Temperature Method	Enumeration	Oral, Rectal, Tympanic		Y	Oral
RR	Numeric	10 – 50		Y	Ped 20, 12 – 16 adult
BP Systolic	Numeric	60 - 200		Y	120
BP Diastolic	Numeric	30 - 120		Y	80
SpO2	Numeric	80 - 100		Y	Mid-range
Weight	Numeric, kg	0 - 180		Y	50

2.2.8 Cardiac Murmur Grades

Total of 4 records, one per location. Example: LSB, 4; Apex 2; Ao 2; PA 3

Item Name	Data Type	Range, Possible Values	Example	Required	Default Value
Murmur Grade	Numeric	1 - 4		Y	
Location	Enumeration	LSB, Apex, Ao, or PA		Y	

2.3 Intra-Surgery Data

The intra-surgery phase follows the pre-operative phase. During this phase, the anesthesiologist uses the tablet to record data gathered during the actual surgery.

There are several types of data recorded during surgery. Some data describes the methods and equipment used, for example the type and location of IV. Other data records the vital signs of the patient, for example heart rate and blood pressure is gathered at fixed intervals.

2.3.1 Preoperative Summary

The tablet will display a preoperative summary of the patient, to include basic information about the patient, the surgery, and highlighting any “significant findings as identified by the anesthesiologist. The items included in “significant findings” category were selected by the anesthesiologist at the time the pre-surgery data that was collected, see Section 2.2.

Item	Type	Example	Pre-filled	Source	Comment
Name	string	GOMEZ Alberto	Y	Database	Father Last, first
DOB	String, mil format date	12Oct2006	Y	Database	
Patient Number	Number	12345	Y	Database	
NPO	Hours	24	N	Anesthesiologist	Select hours from menu, None, 24, 48
Date	String, mil format date	12Oct2006	Y	System clock	
Allergies	set of strings separated by commas	tylenol, penicillin	Y	Database from registration med history	Latex checkbox NKMA checkbox Reactions - rash, respiratory, anaphylaxis, other [describe] - pre-op, might see during surgery.
Medications	set of strings separated by commas	tylenol, penicillin	Y	Database from registration med history	
PMHx (past medical history)	extracted from preop eval, summary of any significant	A, B, C	Y	Cardiac, diabetes, hypertension, asthma, etc.. (get this from pre-op eval)	

	findings				
PSHx (past surgical history)	extracted from preop eval, summary of any significant findings				
PAnestHx (past anesthetic history)	extracted from preop eval, summary of any significant findings	3 or 4 items			
Procedures	set of strings separated by commas, plus other and text field	Fistula repair	Y	Comes from pre-operative eval. At end, check what was done.	
Surgeons	set of names separated by commas	Name1 , name2, ...			
Anes provider/assistants	set of names separated by commas	Name1 , name2, ...			
Antibiotic given @ 'A'	Time of day	06:15 a.m. local, pre-fill, editable.			
Anes start @ 'X'	Time of day	06:15 a.m. local, pre-fill, editable.			
Induction/Intubation @ 'I'	Time of day	06:15 a.m. local, pre-fill, editable.			
Surgical Start @ 'S'	Time of day	06:15 a.m. local, pre-fill, editable.			
Surgical End @ 'E'	Time of day	06:15 a.m. local, pre-fill, editable.			
Extubation @ 'E'	Time of day	06:15 a.m. local, pre-fill, editable.			

Transport to recovery @ 'T'	Time of day	06:15 a.m. local, pre-fill, editable.			
Anes end @ 'X'	Time of day	06:15 a.m. local, pre-fill, editable.			
Recovery area in @ (before anes end)	Time of day	06:15 a.m. local, pre-fill, editable.			

2.3.2 Pre-Operative Medications

In this section, provide ability to enter, edit, modify any pre-operative medications. These are medications provided at the time of the clinic, which is a different list than the current medications that were obtained by interviewing the patient during registration and/or pre-op eval.

For each such medication, the following table indicates what is recorded.

Name	Format	Comment
Medication	string	Select from FDA DB Control
Dosage	number	Number and type (mg, ml, mcg)
Route	enumeration	PO (mouth), IV, IM (intra-muscular, PR (per-rectum)
Time	hh:mm a.m./p.m.	Local time, pre-filled current, editable

2.3.3 Timeline 1

This area is used to record various data collected during the course of the surgery at some fixed, configurable time interval, typically every 15 minutes. Here we detail the data which is recorded and visualized in this area. For heart rate and blood pressure, see Section XXX.

Item	Range/Values	Comment
O2 liters/min	1-10 in half-liter increments	Set and leave, change a few times, independent of other items below. Applies to all below.
N2O liters/min	1-10 in half-liter increments	
Sevo Des Iso vol%	Isoflurane, Sevoflurane, Desflurane, Halothane Vol % is in range [0 - 10] in .1%	Mutually exclusive (only one used per surgery)

	increments	
Drugs and route	<p>Do the below have different units? Or all same? What is/are the unit(s)? mL? Is this a cumulative value, e.g., 1, 4, 8, 16? Or is it a delta from the last recorded value, e.g., 1, 3, 4, 8? Answer: Timestamped dosage - show cumulative Infusion continuous administration, e.g. - 25mcg per kg per min/hour or mcg min/hour - start, change rate, end controls.</p>	
Fentanyl	mcg inf	
Propofol inf	mg	
Midazolam	mg	
Dexamethasone	mg	
Glycopyrrolate	mg	
Atropine	mg	
Clonidine inf	mcg	
Dexmetatomadine inf	mcg	
Ephedrine	mg	
Phenylephrine	mcg	
Epinephrine	mcg	
Fluids: NS LR D5LR (Normal Saline, Lactated Ringers, 5% Dextrose Lactated Ringers)	<p>All of these are infusion. What units? mls per hour What ranges of values? 1 - 200 pediatric, 50 - 1000 for adult, select by checkbox Default? 25 pediatric, 100 adult</p>	
LA: lidocaine (1 - 350), bupivacaine (1 - 250), mepivacaine (1 - 300), septocaine (1 - 450) (mg)	Single dosage event, not infusion, show cumulative.	
ECG Rhythm	<p>What are the units here? SR (Sinus Rhythm), ST (Sinus Tachycardia), AF (Atrial Fibrillation) This can change during the surgery.</p>	
SpO2 (%) measurement, may change, plot with time	SpO2 80-100	

EtCO ₂ (mm of Hg) measurement, may change, plot with time, from start to end. Prompt at start.	5 - 100, default is 30.	
Rep Rate/min typically one value, can change.	RR 6-40	
Ventilation		
Vent [] S (spontaneous), A (assisted), C (controlled)		
TV (m) (Tidal Volume)	ML, 50 - 1000, default 100	
PEEP/PIP (cm of H ₂ O) (checkbox, or default 0 unused)	0 - 10, default 0	
Spontaneous: S	Checkbox	Mutually exclusive, inflection point
Assisted: A	Checkbox	
Controlled: C	Checkbox	
Temp C F Site:	Oral, Rectal, Tympanic Default C. 37.	

2.3.4 Monitors

The following data records the type of monitors used during the surgery.

CheckBox	Type	Default	Comment
ECG	Boolean	False	
NIBP	Boolean	False	
Pulse Ox	Boolean	False	
Capnograph	Boolean	False	
Precordial Stethoscope	Boolean	False	
Temperature	Boolean	False	
Nerve Stimulator	Boolean	False	

2.3.5 IV

This section records data about IV – location, side and difficulty. Not mutually exclusive, there can be multiple IVs during surgery.

Name	Type/Range	Comment
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Location Enumeration: Hand, Wrist, Arm,
ACF, Saph, Foot
Side Right, left, both
Difficult Boolean

2.3.6 Fluid Totals

In this section, we display the cumulative fluid totals, as well as record EBL and Urine. Values are added on timeline as increments, here we show totals.

Name	Type/Range	Input or Output	Comment
Total	mL, 5 to 100	Input	Automatically updated as other fluids recorded during surgery e.g., IV
EBL	mL, 5 to 100	Output	Estimated blood loss
Urine	mL, 5 to 100	Output	

2.3.7 Airway

Nasal Cannula Boolean
Mask Boolean
Airway Needed? Boolean
Ventilation Easy [] Difficult [] Enumeration Easy | Difficult
Oral Boolean
ETT Boolean
Nasal Enumeration Left | Right | Both | None
Mouth Size 3, 3.5, 4, 4.5, 5, 5.5, 6, 6.5, 7, 7.5
Mouth Measurement @ cm 8 – 25 cm
Cuff Boolean
Air Boolean
LMA Size 1.5, 2, 2.5, 3, 4, 5
LMA Flex Boolean
Laryngoscope blade: # miller: 1, 1.5, 2, 3
mac: 1, 1.5, 2, 3, 4
Grade I. II. III. IV
Blind Boolean
Fiberoptic Boolean
Magill Boolean
Difficult Boolean
Attempts 1, 2, 3, 4

2.3.8 Extubation

Field	Type	Comment
Extubation	Enumeration Asleep, Awake, N/A	

2.4 Post Surgery Data

TBD

3. User Interface Requirements

TBD

4. Other Nonfunctional Requirements

4.1 Performance Requirements

- The system should provide 99.9999% uptime during the clinic
- Search and access to the database should occur with a latency of no more than 5 seconds.

4.2 Safety Requirements

There are no specific safety requirements associated with this subsystem.

4.3 Security Requirements

We assume that the patient digital chart, and the anesthesiology sub-system in particular, does not need to adhere to HIPAA requirements, and does not require HIPAA certification. **Standard Official Mexicana NOM-024-SSA3-2010, which establishes the functional objectives and functions, must observe the products of Systems of Electronic Filing to ensure the interoperability, processing, interpretation, confidentiality, safety and use of standards and catalogues of the electronic records health information. An English translation of this standard is available, see References, above, for a link.**

The system communication on the day of the clinic will occur locally and not leave the local network.

Users of the system will have accounts and must authenticate prior to using the digital chart. The user names and their passwords are unique to this system and are not the same used by the volunteer system; only a subset of our volunteers should be granted access to patient data. The database itself is physically and administratively separate from the volunteer database. Passwords will be encrypted on the system, and logging will be used to track account creation, login, and logoff activity.

4.4 Software Quality Attributes

There are no specific SQA attributes associated with this subsystem.

4.5 Business Rules

Access to the system during the clinic will be limited to authenticated users. There are no specific rules associated with who can authenticate.

Between clinics, database access will be restricted to the administrator of the system for purposes of backup and maintenance only. The patient data, and user account information, will not be accessible on the Internet except for purposes of backup and maintenance.

5. Other Requirements

No additional requirements have been identified for this subsystem as of now.

Appendix 1: ICD-9-CM Diagnosis and Procedure Codes

Source: <https://www.cms.gov/Medicare/Coding/ICD9ProviderDiagnosticCodes/codes>

0001 Therapeutic ultrasound of vessels of head and neck
0002 Therapeutic ultrasound of heart
0003 Therapeutic ultrasound of peripheral vascular vessels
0009 Other therapeutic ultrasound
0010 Implantation of chemotherapeutic agent
0011 Infusion of drotrecogin alfa (activated)
0012 Administration of inhaled nitric oxide
0013 Injection or infusion of nesiritide
0014 Injection or infusion of oxazolidinone class of antibiotics
0015 High-dose infusion interleukin-2 [IL-2]
0016 Pressurized treatment of venous bypass graft [conduit] with pharmaceutical substance
0017 Infusion of vasopressor agent
0018 Infusion of immunosuppressive antibody therapy
0019 Disruption of blood brain barrier via infusion [BBBD]
0021 Intravascular imaging of extracranial cerebral vessels
0022 Intravascular imaging of intrathoracic vessels
0023 Intravascular imaging of peripheral vessels
0024 Intravascular imaging of coronary vessels
0025 Intravascular imaging of renal vessels

0028 Intravascular imaging, other specified vessel(s)
0029 Intravascular imaging, unspecified vessel(s)
0031 Computer assisted surgery with CT/CTA
0032 Computer assisted surgery with MR/MRA
0033 Computer assisted surgery with fluoroscopy
0034 Imageless computer assisted surgery
0035 Computer assisted surgery with multiple datasets
0039 Other computer assisted surgery
0040 Procedure on single vessel
0041 Procedure on two vessels
0042 Procedure on three vessels
0043 Procedure on four or more vessels
0044 Procedure on vessel bifurcation
0045 Insertion of one vascular stent
0046 Insertion of two vascular stents
0047 Insertion of three vascular stents
0048 Insertion of four or more vascular stents
0049 Supersaturated oxygen therapy
0050 Implantation of cardiac resynchronization pacemaker without mention of defibrillation, total system [CRT-P]
0051 Implantation of cardiac resynchronization defibrillator, total system [CRT-D]
0052 Implantation or replacement of transvenous lead [electrode] into left ventricular coronary venous system
0053 Implantation or replacement of cardiac resynchronization pacemaker pulse generator only [CRT-P]
0054 Implantation or replacement of cardiac resynchronization defibrillator pulse generator only [CRT-D]
0055 Insertion of drug-eluting stent(s) of other peripheral vessel(s)
0056 Insertion or replacement of implantable pressure sensor with lead for intracardiac or great vessel hemodynamic monitoring
0057 Implantation or replacement of subcutaneous device for intracardiac or great vessel hemodynamic monitoring
0058 Insertion of intra-aneurysm sac pressure monitoring device (intraoperative)
0059 Intravascular pressure measurement of coronary arteries
0060 Insertion of drug-eluting stent(s) of superficial femoral artery
0061 Percutaneous angioplasty of extracranial vessel(s)
0062 Percutaneous angioplasty of intracranial vessel(s)
0063 Percutaneous insertion of carotid artery stent(s)

0064 Percutaneous insertion of other extracranial artery stent(s)
0065 Percutaneous insertion of intracranial vascular stent(s)
0066 Percutaneous transluminal coronary angioplasty [PTCA]
0067 Intravascular pressure measurement of intrathoracic arteries
0068 Intravascular pressure measurement of peripheral arteries
0069 Intravascular pressure measurement, other specified and unspecified vessels
0070 Revision of hip replacement, both acetabular and femoral components
0071 Revision of hip replacement, acetabular component
0072 Revision of hip replacement, femoral component
0073 Revision of hip replacement, acetabular liner and/or femoral head only
0074 Hip bearing surface, metal-on-polyethylene
0075 Hip bearing surface, metal-on-metal
0076 Hip bearing surface, ceramic-on-ceramic
0077 Hip bearing surface, ceramic-on-polyethylene
0080 Revision of knee replacement, total (all components)
0081 Revision of knee replacement, tibial component
0082 Revision of knee replacement, femoral component
0083 Revision of knee replacement, patellar component
0084 Revision of total knee replacement, tibial insert (liner)
0085 Resurfacing hip, total, acetabulum and femoral head
0086 Resurfacing hip, partial, femoral head
0087 Resurfacing hip, partial, acetabulum
0091 Transplant from live related donor
0092 Transplant from live non-related donor
0093 Transplant from cadaver
0094 Intra-operative neurophysiologic monitoring
0095 Injection or infusion of glucarpidase
0096 Infusion of 4-Factor Prothrombin Complex Concentrate
0101 Cisternal puncture
0102 Ventriculopuncture through previously implanted catheter
0109 Other cranial puncture
0110 Intracranial pressure monitoring
0111 Closed [percutaneous] [needle] biopsy of cerebral meninges
0112 Open biopsy of cerebral meninges
0113 Closed [percutaneous] [needle] biopsy of brain
0114 Open biopsy of brain

0115 Biopsy of skull
0116 Intracranial oxygen monitoring
0117 Brain temperature monitoring
0118 Other diagnostic procedures on brain and cerebral meninges
0119 Other diagnostic procedures on skull
0120 Cranial implantation or replacement of neurostimulator pulse generator
0121 Incision and drainage of cranial sinus
0122 Removal of intracranial neurostimulator lead(s)
0123 Reopening of craniotomy site
0124 Other craniotomy
0125 Other craniectomy
0126 Insertion of catheter(s) into cranial cavity or tissue
0127 Removal of catheter(s) from cranial cavity or tissue
0128 Placement of intracerebral catheter(s) via burr hole(s)
0129 Removal of cranial neurostimulator pulse generator
0131 Incision of cerebral meninges
0132 Lobotomy and tractotomy
0139 Other incision of brain
0141 Operations on thalamus
0142 Operations on globus pallidus
0151 Excision of lesion or tissue of cerebral meninges
0152 Hemispherectomy
0153 Lobectomy of brain
0159 Other excision or destruction of lesion or tissue of brain
016 Excision of lesion of skull
0201 Opening of cranial suture
0202 Elevation of skull fracture fragments
0203 Formation of cranial bone flap
0204 Bone graft to skull
0205 Insertion of skull plate
0206 Other cranial osteoplasty
0207 Removal of skull plate
0211 Simple suture of dura mater of brain
0212 Other repair of cerebral meninges
0213 Ligation of meningeal vessel
0214 Choroid plexectomy

0221 Insertion or replacement of external ventricular drain [EVD]
0222 Intracranial ventricular shunt or anastomosis
0231 Ventricular shunt to structure in head and neck
0232 Ventricular shunt to circulatory system
0233 Ventricular shunt to thoracic cavity
0234 Ventricular shunt to abdominal cavity and organs
0235 Ventricular shunt to urinary system
0239 Ventricular shunt to extracranial site NEC
0241 Irrigation and exploration of ventricular shunt
0242 Replacement of ventricular shunt
0243 Removal of ventricular shunt
0291 Lysis of cortical adhesions
0292 Repair of brain
0293 Implantation or replacement of intracranial neurostimulator lead(s)
0294 Insertion or replacement of skull tongs or halo traction device
0295 Removal of skull tongs or halo traction device
0296 Insertion of sphenoidal electrodes
0299 Other operations on skull, brain, and cerebral meninges
0301 Removal of foreign body from spinal canal
0302 Reopening of laminectomy site
0309 Other exploration and decompression of spinal canal
031 Division of intraspinal nerve root
0321 Percutaneous chordotomy
0329 Other chordotomy
0331 Spinal tap
0332 Biopsy of spinal cord or spinal meninges
0339 Other diagnostic procedures on spinal cord and spinal canal structures
034 Excision or destruction of lesion of spinal cord or spinal meninges
0351 Repair of spinal meningocele
0352 Repair of spinal myelomeningocele
0353 Repair of vertebral fracture
0359 Other repair and plastic operations on spinal cord structures
036 Lysis of adhesions of spinal cord and nerve roots
0371 Spinal subarachnoid-peritoneal shunt
0372 Spinal subarachnoid-ureteral shunt
0379 Other shunt of spinal theca

038 Injection of destructive agent into spinal canal
0390 Insertion of catheter into spinal canal for infusion of therapeutic or palliative substances
0391 Injection of anesthetic into spinal canal for analgesia
0392 Injection of other agent into spinal canal
0393 Implantation or replacement of spinal neurostimulator lead(s)
0394 Removal of spinal neurostimulator lead(s)
0395 Spinal blood patch
0396 Percutaneous denervation of facet
0397 Revision of spinal thecal shunt
0398 Removal of spinal thecal shunt
0399 Other operations on spinal cord and spinal canal structures
0401 Excision of acoustic neuroma
0402 Division of trigeminal nerve
0403 Division or crushing of other cranial and peripheral nerves
0404 Other incision of cranial and peripheral nerves
0405 Gasserian ganglionectomy
0406 Other cranial or peripheral ganglionectomy
0407 Other excision or avulsion of cranial and peripheral nerves
0411 Closed [percutaneous] [needle] biopsy of cranial or peripheral nerve or ganglion
0412 Open biopsy of cranial or peripheral nerve or ganglion
0419 Other diagnostic procedures on cranial and peripheral nerves and ganglia
042 Destruction of cranial and peripheral nerves
043 Suture of cranial and peripheral nerves
0441 Decompression of trigeminal nerve root
0442 Other cranial nerve decompression
0443 Release of carpal tunnel
0444 Release of tarsal tunnel
0449 Other peripheral nerve or ganglion decompression or lysis of adhesions
045 Cranial or peripheral nerve graft
046 Transposition of cranial and peripheral nerves
0471 Hypoglossal-facial anastomosis
0472 Accessory-facial anastomosis
0473 Accessory-hypoglossal anastomosis
0474 Other anastomosis of cranial or peripheral nerve
0475 Revision of previous repair of cranial and peripheral nerves
0476 Repair of old traumatic injury of cranial and peripheral nerves

0479 Other neuroplasty
0480 Peripheral nerve injection, not otherwise specified
0481 Injection of anesthetic into peripheral nerve for analgesia
0489 Injection of other agent, except neurolytic
0491 Neurectasis
0492 Implantation or replacement of peripheral neurostimulator lead(s)
0493 Removal of peripheral neurostimulator lead(s)
0499 Other operations on cranial and peripheral nerves
050 Division of sympathetic nerve or ganglion
0511 Biopsy of sympathetic nerve or ganglion
0519 Other diagnostic procedures on sympathetic nerves or ganglia
0521 Sphenopalatine ganglionectomy
0522 Cervical sympathectomy
0523 Lumbar sympathectomy
0524 Presacral sympathectomy
0525 Periarterial sympathectomy
0529 Other sympathectomy and ganglionectomy
0531 Injection of anesthetic into sympathetic nerve for analgesia
0532 Injection of neurolytic agent into sympathetic nerve
0539 Other injection into sympathetic nerve or ganglion
0581 Repair of sympathetic nerve or ganglion
0589 Other operations on sympathetic nerves or ganglia
059 Other operations on nervous system
0601 Aspiration of thyroid field
0602 Reopening of wound of thyroid field
0609 Other incision of thyroid field
0611 Closed [percutaneous] [needle] biopsy of thyroid gland
0612 Open biopsy of thyroid gland
0613 Biopsy of parathyroid gland
0619 Other diagnostic procedures on thyroid and parathyroid glands
062 Unilateral thyroid lobectomy
0631 Excision of lesion of thyroid
0639 Other partial thyroidectomy
064 Complete thyroidectomy
0650 Substernal thyroidectomy, not otherwise specified
0651 Partial substernal thyroidectomy

0652 Complete substernal thyroidectomy
066 Excision of lingual thyroid
067 Excision of thyroglossal duct or tract
0681 Complete parathyroidectomy
0689 Other parathyroidectomy
0691 Division of thyroid isthmus
0692 Ligation of thyroid vessels
0693 Suture of thyroid gland
0694 Thyroid tissue reimplantation
0695 Parathyroid tissue reimplantation
0698 Other operations on thyroid glands
0699 Other operations on parathyroid glands
0700 Exploration of adrenal field, not otherwise specified
0701 Unilateral exploration of adrenal field
0702 Bilateral exploration of adrenal field
0711 Closed [percutaneous] [needle] biopsy of adrenal gland
0712 Open biopsy of adrenal gland
0713 Biopsy of pituitary gland, transfrontal approach
0714 Biopsy of pituitary gland, transsphenoidal approach
0715 Biopsy of pituitary gland, unspecified approach
0716 Biopsy of thymus
0717 Biopsy of pineal gland
0719 Other diagnostic procedures on adrenal glands, pituitary gland, pineal gland, and thymus
0721 Excision of lesion of adrenal gland
0722 Unilateral adrenalectomy
0729 Other partial adrenalectomy
073 Bilateral adrenalectomy
0741 Incision of adrenal gland
0742 Division of nerves to adrenal glands
0743 Ligation of adrenal vessels
0744 Repair of adrenal gland
0745 Reimplantation of adrenal tissue
0749 Other operations on adrenal glands, nerves, and vessels
0751 Exploration of pineal field
0752 Incision of pineal gland
0753 Partial excision of pineal gland

0754 Total excision of pineal gland
0759 Other operations on pineal gland
0761 Partial excision of pituitary gland, transfrontal approach
0762 Partial excision of pituitary gland, transsphenoidal approach
0763 Partial excision of pituitary gland, unspecified approach
0764 Total excision of pituitary gland, transfrontal approach
0765 Total excision of pituitary gland, transsphenoidal approach
0768 Total excision of pituitary gland, other specified approach
0769 Total excision of pituitary gland, unspecified approach
0771 Exploration of pituitary fossa
0772 Incision of pituitary gland
0779 Other operations on hypophysis
0780 Thymectomy, not otherwise specified
0781 Other partial excision of thymus
0782 Other total excision of thymus
0783 Thoracoscopic partial excision of thymus
0784 Thoracoscopic total excision of thymus
0791 Exploration of thymus field
0792 Other incision of thymus
0793 Repair of thymus
0794 Transplantation of thymus
0795 Thoracoscopic incision of thymus
0798 Other and unspecified thoracoscopic operations on thymus
0799 Other and unspecified operations on thymus
0801 Incision of lid margin
0802 Severing of blepharorrhaphy
0809 Other incision of eyelid
0811 Biopsy of eyelid
0819 Other diagnostic procedures on eyelid
0820 Removal of lesion of eyelid, not otherwise specified
0821 Excision of chalazion
0822 Excision of other minor lesion of eyelid
0823 Excision of major lesion of eyelid, partial-thickness
0824 Excision of major lesion of eyelid, full-thickness
0825 Destruction of lesion of eyelid
0831 Repair of blepharoptosis by frontalis muscle technique with suture

0832 Repair of blepharoptosis by frontalis muscle technique with fascial sling
0833 Repair of blepharoptosis by resection or advancement of levator muscle or aponeurosis
0834 Repair of blepharoptosis by other levator muscle techniques
0835 Repair of blepharoptosis by tarsal technique
0836 Repair of blepharoptosis by other techniques
0837 Reduction of overcorrection of ptosis
0838 Correction of lid retraction
0841 Repair of entropion or ectropion by thermocauterization
0842 Repair of entropion or ectropion by suture technique
0843 Repair of entropion or ectropion with wedge resection
0844 Repair of entropion or ectropion with lid reconstruction
0849 Other repair of entropion or ectropion
0851 Canthotomy
0852 Blepharorrhaphy
0859 Other adjustment of lid position
0861 Reconstruction of eyelid with skin flap or graft
0862 Reconstruction of eyelid with mucous membrane flap or graft
0863 Reconstruction of eyelid with hair follicle graft
0864 Reconstruction of eyelid with tarsoconjunctival flap
0869 Other reconstruction of eyelid with flaps or grafts
0870 Reconstruction of eyelid, not otherwise specified
0871 Reconstruction of eyelid involving lid margin, partial-thickness
0872 Other reconstruction of eyelid, partial-thickness
0873 Reconstruction of eyelid involving lid margin, full-thickness
0874 Other reconstruction of eyelid, full-thickness
0881 Linear repair of laceration of eyelid or eyebrow
0882 Repair of laceration involving lid margin, partial-thickness
0883 Other repair of laceration of eyelid, partial-thickness
0884 Repair of laceration involving lid margin, full-thickness
0885 Other repair of laceration of eyelid, full-thickness
0886 Lower eyelid rhytidectomy
0887 Upper eyelid rhytidectomy
0889 Other eyelid repair
0891 Electrosurgical epilation of eyelid
0892 Cryosurgical epilation of eyelid
0893 Other epilation of eyelid

0899 Other operations on eyelids
090 Incision of lacrimal gland
0911 Biopsy of lacrimal gland
0912 Biopsy of lacrimal sac
0919 Other diagnostic procedures on lacrimal system
0920 Excision of lacrimal gland, not otherwise specified
0921 Excision of lesion of lacrimal gland
0922 Other partial dacryoadenectomy
0923 Total dacryoadenectomy
093 Other operations on lacrimal gland
0941 Probing of lacrimal punctum
0942 Probing of lacrimal canaliculi
0943 Probing of nasolacrimal duct
0944 Intubation of nasolacrimal duct
0949 Other manipulation of lacrimal passage
0951 Incision of lacrimal punctum
0952 Incision of lacrimal canaliculi
0953 Incision of lacrimal sac
0959 Other incision of lacrimal passages
096 Excision of lacrimal sac and passage
0971 Correction of everted punctum
0972 Other repair of punctum
0973 Repair of canaliculus
0981 Dacryocystorhinostomy [DCR]
0982 Conjunctivocystorhinostomy
0983 Conjunctivorhinostomy with insertion of tube or stent
0991 Obliteration of lacrimal punctum
0999 Other operations on lacrimal system
100 Removal of embedded foreign body from conjunctiva by incision
101 Other incision of conjunctiva
1021 Biopsy of conjunctiva
1029 Other diagnostic procedures on conjunctiva
1031 Excision of lesion or tissue of conjunctiva
1032 Destruction of lesion of conjunctiva
1033 Other destructive procedures on conjunctiva
1041 Repair of symblepharon with free graft

1042 Reconstruction of conjunctival cul-de-sac with free graft
1043 Other reconstruction of conjunctival cul-de-sac
1044 Other free graft to conjunctiva
1049 Other conjunctivoplasty
105 Lysis of adhesions of conjunctiva and eyelid
106 Repair of laceration of conjunctiva
1091 Subconjunctival injection
1099 Other operations on conjunctiva
110 Magnetic removal of embedded foreign body from cornea
111 Incision of cornea
1121 Scraping of cornea for smear or culture
1122 Biopsy of cornea
1129 Other diagnostic procedures on cornea
1131 Transposition of pterygium
1132 Excision of pterygium with corneal graft
1139 Other excision of pterygium
1141 Mechanical removal of corneal epithelium
1142 Thermocauterization of corneal lesion
1143 Cryotherapy of corneal lesion
1149 Other removal or destruction of corneal lesion
1151 Suture of corneal laceration
1152 Repair of postoperative wound dehiscence of cornea
1153 Repair of corneal laceration or wound with conjunctival flap
1159 Other repair of cornea
1160 Corneal transplant, not otherwise specified
1161 Lamellar keratoplasty with autograft
1162 Other lamellar keratoplasty
1163 Penetrating keratoplasty with autograft
1164 Other penetrating keratoplasty
1169 Other corneal transplant
1171 Keratomileusis
1172 Keratophakia
1173 Keratoprosthesis
1174 Thermokeratoplasty
1175 Radial keratotomy
1176 Epikeratophakia

1179 Other reconstructive and refractive surgery on cornea
1191 Tattooing of cornea
1192 Removal of artificial implant from cornea
1199 Other operations on cornea
1200 Removal of intraocular foreign body from anterior segment of eye, not otherwise specified
1201 Removal of intraocular foreign body from anterior segment of eye with use of magnet
1202 Removal of intraocular foreign body from anterior segment of eye without use of magnet
1211 Iridotomy with transfixion
1212 Other iridotomy
1213 Excision of prolapsed iris
1214 Other iridectomy
1221 Diagnostic aspiration of anterior chamber of eye
1222 Biopsy of iris
1229 Other diagnostic procedures on iris, ciliary body, sclera, and anterior chamber
1231 Lysis of goniosynechiae
1232 Lysis of other anterior synechiae
1233 Lysis of posterior synechiae
1234 Lysis of corneovitreal adhesions
1235 Coreoplasty
1239 Other iridoplasty
1240 Removal of lesion of anterior segment of eye, not otherwise specified
1241 Destruction of lesion of iris, nonexcisional
1242 Excision of lesion of iris
1243 Destruction of lesion of ciliary body, nonexcisional
1244 Excision of lesion of ciliary body
1251 Goniopuncture without goniotomy
1252 Goniotomy without goniopuncture
1253 Goniotomy with goniopuncture
1254 Trabeculotomy ab externo
1255 Cyclodialysis
1259 Other facilitation of intraocular circulation
1261 Trephination of sclera with iridectomy
1262 Thermocauterization of sclera with iridectomy
1263 Iridencleisis and iridotasis
1264 Trabeculectomy ab externo
1265 Other scleral fistulization with iridectomy

1266 Postoperative revision of scleral fistulization procedure
1267 Insertion of aqueous drainage device
1269 Other scleral fistulizing procedure
1271 Cyclodiathermy
1272 Cyclocryotherapy
1273 Cyclophotocoagulation
1274 Diminution of ciliary body, not otherwise specified
1279 Other glaucoma procedures
1281 Suture of laceration of sclera
1282 Repair of scleral fistula
1283 Revision of operative wound of anterior segment, not elsewhere classified
1284 Excision or destruction of lesion of sclera
1285 Repair of scleral staphyloma with graft
1286 Other repair of scleral staphyloma
1287 Scleral reinforcement with graft
1288 Other scleral reinforcement
1289 Other operations on sclera
1291 Therapeutic evacuation of anterior chamber
1292 Injection into anterior chamber
1293 Removal or destruction of epithelial downgrowth from anterior chamber
1297 Other operations on iris
1298 Other operations on ciliary body
1299 Other operations on anterior chamber
1300 Removal of foreign body from lens, not otherwise specified
1301 Removal of foreign body from lens with use of magnet
1302 Removal of foreign body from lens without use of magnet
1311 Intracapsular extraction of lens by temporal inferior route
1319 Other intracapsular extraction of lens
132 Extracapsular extraction of lens by linear extraction technique
133 Extracapsular extraction of lens by simple aspiration (and irrigation) technique
1341 Phacoemulsification and aspiration of cataract
1342 Mechanical phacofragmentation and aspiration of cataract by posterior route
1343 Mechanical phacofragmentation and other aspiration of cataract
1351 Extracapsular extraction of lens by temporal inferior route
1359 Other extracapsular extraction of lens
1364 Discission of secondary membrane [after cataract]

1365 Excision of secondary membrane [after cataract]
1366 Mechanical fragmentation of secondary membrane [after cataract]
1369 Other cataract extraction
1370 Insertion of pseudophakos, not otherwise specified
1371 Insertion of intraocular lens prosthesis at time of cataract extraction, one-stage
1372 Secondary insertion of intraocular lens prosthesis
138 Removal of implanted lens
1390 Operation on lens, not elsewhere classified
1391 Implantation of intraocular telescope prosthesis
1400 Removal of foreign body from posterior segment of eye, not otherwise specified
1401 Removal of foreign body from posterior segment of eye with use of magnet
1402 Removal of foreign body from posterior segment of eye without use of magnet
1411 Diagnostic aspiration of vitreous
1419 Other diagnostic procedures on retina, choroid, vitreous, and posterior chamber
1421 Destruction of chorioretinal lesion by diathermy
1422 Destruction of chorioretinal lesion by cryotherapy
1423 Destruction of chorioretinal lesion by xenon arc photocoagulation
1424 Destruction of chorioretinal lesion by laser photocoagulation
1425 Destruction of chorioretinal lesion by photocoagulation of unspecified type
1426 Destruction of chorioretinal lesion by radiation therapy
1427 Destruction of chorioretinal lesion by implantation of radiation source
1429 Other destruction of chorioretinal lesion
1431 Repair of retinal tear by diathermy
1432 Repair of retinal tear by cryotherapy
1433 Repair of retinal tear by xenon arc photocoagulation
1434 Repair of retinal tear by laser photocoagulation
1435 Repair of retinal tear by photocoagulation of unspecified type
1439 Other repair of retinal tear
1441 Scleral buckling with implant
1449 Other scleral buckling
1451 Repair of retinal detachment with diathermy
1452 Repair of retinal detachment with cryotherapy
1453 Repair of retinal detachment with xenon arc photocoagulation
1454 Repair of retinal detachment with laser photocoagulation
1455 Repair of retinal detachment with photocoagulation of unspecified type
1459 Other repair of retinal detachment

146 Removal of surgically implanted material from posterior segment of eye
1471 Removal of vitreous, anterior approach
1472 Other removal of vitreous
1473 Mechanical vitrectomy by anterior approach
1474 Other mechanical vitrectomy
1475 Injection of vitreous substitute
1479 Other operations on vitreous
1481 Implantation of epiretinal visual prosthesis
1482 Removal of epiretinal visual prosthesis
1483 Revision or replacement of epiretinal visual prosthesis
149 Other operations on retina, choroid, and posterior chamber
1501 Biopsy of extraocular muscle or tendon
1509 Other diagnostic procedures on extraocular muscles and tendons
1511 Recession of one extraocular muscle
1512 Advancement of one extraocular muscle
1513 Resection of one extraocular muscle
1519 Other operations on one extraocular muscle involving temporary detachment from globe
1521 Lengthening procedure on one extraocular muscle
1522 Shortening procedure on one extraocular muscle
1529 Other operations on one extraocular muscle
153 Operations on two or more extraocular muscles involving temporary detachment from globe, one or both eyes
154 Other operations on two or more extraocular muscles, one or both eyes
155 Transposition of extraocular muscles
156 Revision of extraocular muscle surgery
157 Repair of injury of extraocular muscle
159 Other operations on extraocular muscles and tendons
1601 Orbitotomy with bone flap
1602 Orbitotomy with insertion of orbital implant
1609 Other orbitotomy
161 Removal of penetrating foreign body from eye, not otherwise specified
1621 Ophthalmoscopy
1622 Diagnostic aspiration of orbit
1623 Biopsy of eyeball and orbit
1629 Other diagnostic procedures on orbit and eyeball
1631 Removal of ocular contents with synchronous implant into scleral shell

1639 Other evisceration of eyeball

1641 Enucleation of eyeball with synchronous implant into Tenon's capsule with attachment of muscles

1642 Enucleation of eyeball with other synchronous implant

1649 Other enucleation of eyeball

1651 Exenteration of orbit with removal of adjacent structures

1652 Exenteration of orbit with therapeutic removal of orbital bone

1659 Other exenteration of orbit

1661 Secondary insertion of ocular implant

1662 Revision and reinsertion of ocular implant

1663 Revision of enucleation socket with graft

1664 Other revision of enucleation socket

1665 Secondary graft to exenteration cavity

1666 Other revision of exenteration cavity

1669 Other secondary procedures after removal of eyeball

1671 Removal of ocular implant

1672 Removal of orbital implant

1681 Repair of wound of orbit

1682 Repair of rupture of eyeball

1689 Other repair of injury of eyeball or orbit

1691 Retrobulbar injection of therapeutic agent

1692 Excision of lesion of orbit

1693 Excision of lesion of eye, unspecified structure

1698 Other operations on orbit

1699 Other operations on eyeball

1711 Laparoscopic repair of direct inguinal hernia with graft or prosthesis

1712 Laparoscopic repair of indirect inguinal hernia with graft or prosthesis

1713 Laparoscopic repair of inguinal hernia with graft or prosthesis, not otherwise specified

1721 Laparoscopic bilateral repair of direct inguinal hernia with graft or prosthesis

1722 Laparoscopic bilateral repair of indirect inguinal hernia with graft or prosthesis

1723 Laparoscopic bilateral repair of inguinal hernia, one direct and one indirect, with graft or prosthesis

1724 Laparoscopic bilateral repair of inguinal hernia with graft or prosthesis, not otherwise specified

1731 Laparoscopic multiple segmental resection of large intestine

1732 Laparoscopic cecectomy

1733 Laparoscopic right hemicolectomy

1734 Laparoscopic resection of transverse colon
1735 Laparoscopic left hemicolectomy
1736 Laparoscopic sigmoidectomy
1739 Other laparoscopic partial excision of large intestine
1741 Open robotic assisted procedure
1742 Laparoscopic robotic assisted procedure
1743 Percutaneous robotic assisted procedure
1744 Endoscopic robotic assisted procedure
1745 Thoracoscopic robotic assisted procedure
1749 Other and unspecified robotic assisted procedure
1751 Implantation of rechargeable cardiac contractility modulation [CCM], total system
1752 Implantation or replacement of cardiac contractility modulation [CCM] rechargeable pulse generator only
1753 Percutaneous atherectomy of extracranial vessel(s)
1754 Percutaneous atherectomy of intracranial vessel(s)
1755 Transluminal coronary atherectomy
1756 Atherectomy of other non-coronary vessel(s)
1761 Laser interstitial thermal therapy [LITT] of lesion or tissue of brain under guidance
1762 Laser interstitial thermal therapy [LITT] of lesion or tissue of head and neck under guidance
1763 Laser interstitial thermal therapy [LITT] of lesion or tissue of liver under guidance
1769 Laser interstitial thermal therapy [LITT] of lesion or tissue of other and unspecified site under guidance
1770 Intravenous infusion of clofarabine
1771 Non-coronary intra-operative fluorescence vascular angiography [IFVA]
1781 Insertion of antimicrobial envelope
1801 Piercing of ear lobe
1802 Incision of external auditory canal
1809 Other incision of external ear
1811 Otoscopy
1812 Biopsy of external ear
1819 Other diagnostic procedures on external ear
1821 Excision of preauricular sinus
1829 Excision or destruction of other lesion of external ear
1831 Radical excision of lesion of external ear
1839 Other excision of external ear
184 Suture of laceration of external ear
185 Surgical correction of prominent ear

186 Reconstruction of external auditory canal
1871 Construction of auricle of ear
1872 Reattachment of amputated ear
1879 Other plastic repair of external ear
189 Other operations on external ear
190 Stapes mobilization
1911 Stapedectomy with incus replacement
1919 Other stapedectomy
1921 Revision of stapedectomy with incus replacement
1929 Other revision of stapedectomy
193 Other operations on ossicular chain
194 Myringoplasty
1952 Type II tympanoplasty
1953 Type III tympanoplasty
1954 Type IV tympanoplasty
1955 Type V tympanoplasty
196 Revision of tympanoplasty
199 Other repair of middle ear
2001 Myringotomy with insertion of tube
2009 Other myringotomy
201 Removal of tympanostomy tube
2021 Incision of mastoid
2022 Incision of petrous pyramid air cells
2023 Incision of middle ear
2031 Electrocochleography
2032 Biopsy of middle and inner ear
2039 Other diagnostic procedures on middle and inner ear
2041 Simple mastoidectomy
2042 Radical mastoidectomy
2049 Other mastoidectomy
2051 Excision of lesion of middle ear
2059 Other excision of middle ear
2061 Fenestration of inner ear (initial)
2062 Revision of fenestration of inner ear
2071 Endolymphatic shunt
2072 Injection into inner ear

2079 Other incision, excision, and destruction of inner ear
208 Operations on eustachian tube
2091 Tympanosympathectomy
2092 Revision of mastoidectomy
2093 Repair of oval and round windows
2094 Injection of tympanum
2095 Implantation of electromagnetic hearing device
2096 Implantation or replacement of cochlear prosthetic device, not otherwise specified
2097 Implantation or replacement of cochlear prosthetic device, single channel
2098 Implantation or replacement of cochlear prosthetic device, multiple channel
2099 Other operations on middle and inner ear
2100 Control of epistaxis, not otherwise specified
2101 Control of epistaxis by anterior nasal packing
2102 Control of epistaxis by posterior (and anterior) packing
2103 Control of epistaxis by cauterization (and packing)
2104 Control of epistaxis by ligation of ethmoidal arteries
2105 Control of epistaxis by (transantral) ligation of the maxillary artery
2106 Control of epistaxis by ligation of the external carotid artery
2107 Control of epistaxis by excision of nasal mucosa and skin grafting of septum and lateral nasal wall
2109 Control of epistaxis by other means
211 Incision of nose
2121 Rhinoscopy
2122 Biopsy of nose
2129 Other diagnostic procedures on nose
2130 Excision or destruction of lesion of nose, not otherwise specified
2131 Local excision or destruction of intranasal lesion
2132 Local excision or destruction of other lesion of nose
214 Resection of nose
215 Submucous resection of nasal septum
2161 Turbinectomy by diathermy or cryosurgery
2162 Fracture of the turbinates
2169 Other turbinectomy
2171 Closed reduction of nasal fracture
2172 Open reduction of nasal fracture
2181 Suture of laceration of nose

2182 Closure of nasal fistula
2183 Total nasal reconstruction
2184 Revision rhinoplasty
2185 Augmentation rhinoplasty
2186 Limited rhinoplasty
2187 Other rhinoplasty
2188 Other septoplasty
2189 Other repair and plastic operations on nose
2191 Lysis of adhesions of nose
2199 Other operations on nose
2200 Aspiration and lavage of nasal sinus, not otherwise specified
2201 Puncture of nasal sinus for aspiration or lavage
2202 Aspiration or lavage of nasal sinus through natural ostium
2211 Closed [endoscopic] [needle] biopsy of nasal sinus
2212 Open biopsy of nasal sinus
2219 Other diagnostic procedures on nasal sinuses
222 Intranasal antrotomy
2231 Radical maxillary antrotomy
2239 Other external maxillary antrotomy
2241 Frontal sinusotomy
2242 Frontal sinusectomy
2250 Sinusotomy, not otherwise specified
2251 Ethmoidotomy
2252 Sphenoidotomy
2253 Incision of multiple nasal sinuses
2260 Sinusectomy, not otherwise specified
2261 Excision of lesion of maxillary sinus with Caldwell-Luc approach
2262 Excision of lesion of maxillary sinus with other approach
2263 Ethmoidectomy
2264 Sphenoidectomy
2271 Closure of nasal sinus fistula
2279 Other repair of nasal sinus
229 Other operations on nasal sinuses
2301 Extraction of deciduous tooth
2309 Extraction of other tooth
2311 Removal of residual root

2319 Other surgical extraction of tooth
232 Restoration of tooth by filling
233 Restoration of tooth by inlay
2341 Application of crown
2342 Insertion of fixed bridge
2343 Insertion of removable bridge
2349 Other dental restoration
235 Implantation of tooth
236 Prosthetic dental implant
2370 Root canal, not otherwise specified
2371 Root canal therapy with irrigation
2372 Root canal therapy with apicoectomy
2373 Apicoectomy
240 Incision of gum or alveolar bone
2411 Biopsy of gum
2412 Biopsy of alveolus
2419 Other diagnostic procedures on teeth, gums, and alveoli
242 Gingivoplasty
2431 Excision of lesion or tissue of gum
2432 Suture of laceration of gum
2439 Other operations on gum
244 Excision of dental lesion of jaw
245 Alveoloplasty
246 Exposure of tooth
247 Application of orthodontic appliance
248 Other orthodontic operation
2491 Extension or deepening of buccolabial or lingual sulcus
2499 Other dental operations
2501 Closed [needle] biopsy of tongue
2502 Open biopsy of tongue
2509 Other diagnostic procedures on tongue
251 Excision or destruction of lesion or tissue of tongue
252 Partial glossectomy
253 Complete glossectomy
254 Radical glossectomy
2551 Suture of laceration of tongue

2559 Other repair and plastic operations on tongue
2591 Lingual frenotomy
2592 Lingual frenectomy
2593 Lysis of adhesions of tongue
2594 Other glossotomy
2599 Other operations on tongue
260 Incision of salivary gland or duct
2611 Closed [needle] biopsy of salivary gland or duct
2612 Open biopsy of salivary gland or duct
2619 Other diagnostic procedures on salivary glands and ducts
2621 Marsupialization of salivary gland cyst
2629 Other excision of salivary gland lesion
2630 Sialoadenectomy, not otherwise specified
2631 Partial sialoadenectomy
2632 Complete sialoadenectomy
2641 Suture of laceration of salivary gland
2642 Closure of salivary fistula
2649 Other repair and plastic operations on salivary gland or duct
2691 Probing of salivary duct
2699 Other operations on salivary gland or duct
270 Drainage of face and floor of mouth
271 Incision of palate
2721 Biopsy of bony palate
2722 Biopsy of uvula and soft palate
2723 Biopsy of lip
2724 Biopsy of mouth, unspecified structure
2729 Other diagnostic procedures on oral cavity
2731 Local excision or destruction of lesion or tissue of bony palate
2732 Wide excision or destruction of lesion or tissue of bony palate
2741 Labial frenectomy
2742 Wide excision of lesion of lip
2743 Other excision of lesion or tissue of lip
2749 Other excision of mouth
2751 Suture of laceration of lip
2752 Suture of laceration of other part of mouth
2753 Closure of fistula of mouth

2754 Repair of cleft lip
2755 Full-thickness skin graft to lip and mouth
2756 Other skin graft to lip and mouth
2757 Attachment of pedicle or flap graft to lip and mouth
2759 Other plastic repair of mouth
2761 Suture of laceration of palate
2762 Correction of cleft palate
2763 Revision of cleft palate repair
2764 Insertion of palatal implant
2769 Other plastic repair of palate
2771 Incision of uvula
2772 Excision of uvula
2773 Repair of uvula
2779 Other operations on uvula
2791 Labial frenotomy
2792 Incision of mouth, unspecified structure
2799 Other operations on oral cavity
280 Incision and drainage of tonsil and peritonsillar structures
2811 Biopsy of tonsils and adenoids
2819 Other diagnostic procedures on tonsils and adenoids
282 Tonsillectomy without adenoidectomy
283 Tonsillectomy with adenoidectomy
284 Excision of tonsil tag
285 Excision of lingual tonsil
286 Adenoidectomy without tonsillectomy
287 Control of hemorrhage after tonsillectomy and adenoidectomy
2891 Removal of foreign body from tonsil and adenoid by incision
2892 Excision of lesion of tonsil and adenoid
2899 Other operations on tonsils and adenoids
290 Pharyngotomy
2911 Pharyngoscopy
2912 Pharyngeal biopsy
2919 Other diagnostic procedures on pharynx
292 Excision of branchial cleft cyst or vestige
2931 Cricopharyngeal myotomy
2932 Pharyngeal diverticulectomy

2933 Pharyngectomy (partial)
2939 Other excision or destruction of lesion or tissue of pharynx
294 Plastic operation on pharynx
2951 Suture of laceration of pharynx
2952 Closure of branchial cleft fistula
2953 Closure of other fistula of pharynx
2954 Lysis of pharyngeal adhesions
2959 Other repair of pharynx
2991 Dilation of pharynx
2992 Division of glossopharyngeal nerve
2999 Other operations on pharynx
3001 Marsupialization of laryngeal cyst
3009 Other excision or destruction of lesion or tissue of larynx
301 Hemilaryngectomy
3021 Epiglottidectomy
3022 Vocal cordectomy
3029 Other partial laryngectomy
303 Complete laryngectomy
304 Radical laryngectomy
310 Injection of larynx
311 Temporary tracheostomy
3121 Mediastinal tracheostomy
3129 Other permanent tracheostomy
313 Other incision of larynx or trachea
3141 Tracheoscopy through artificial stoma
3142 Laryngoscopy and other tracheoscopy
3143 Closed [endoscopic] biopsy of larynx
3144 Closed [endoscopic] biopsy of trachea
3145 Open biopsy of larynx or trachea
3148 Other diagnostic procedures on larynx
3149 Other diagnostic procedures on trachea
315 Local excision or destruction of lesion or tissue of trachea
3161 Suture of laceration of larynx
3162 Closure of fistula of larynx
3163 Revision of laryngostomy
3164 Repair of laryngeal fracture

3169 Other repair of larynx
3171 Suture of laceration of trachea
3172 Closure of external fistula of trachea
3173 Closure of other fistula of trachea
3174 Revision of tracheostomy
3175 Reconstruction of trachea and construction of artificial larynx
3179 Other repair and plastic operations on trachea
3191 Division of laryngeal nerve
3192 Lysis of adhesions of trachea or larynx
3193 Replacement of laryngeal or tracheal stent
3194 Injection of locally-acting therapeutic substance into trachea
3195 Tracheoesophageal fistulization
3198 Other operations on larynx
3199 Other operations on trachea
3201 Endoscopic excision or destruction of lesion or tissue of bronchus
3209 Other local excision or destruction of lesion or tissue of bronchus
321 Other excision of bronchus
3220 Thoracoscopic excision of lesion or tissue of lung
3221 Plication of emphysematous bleb
3222 Lung volume reduction surgery
3223 Open ablation of lung lesion or tissue
3224 Percutaneous ablation of lung lesion or tissue
3225 Thoracoscopic ablation of lung lesion or tissue
3226 Other and unspecified ablation of lung lesion or tissue
3227 Bronchoscopic bronchial thermoplasty, ablation of airway smooth muscle
3228 Endoscopic excision or destruction of lesion or tissue of lung
3229 Other local excision or destruction of lesion or tissue of lung
3230 Thoracoscopic segmental resection of lung
3239 Other and unspecified segmental resection of lung
3241 Thoracoscopic lobectomy of lung
3249 Other lobectomy of lung
3250 Thoracoscopic pneumonectomy
3259 Other and unspecified pneumonectomy
326 Radical dissection of thoracic structures
329 Other excision of lung
330 Incision of bronchus

331 Incision of lung
3320 Thoracoscopic lung biopsy
3321 Bronchoscopy through artificial stoma
3322 Fiber-optic bronchoscopy
3323 Other bronchoscopy
3324 Closed [endoscopic] biopsy of bronchus
3325 Open biopsy of bronchus
3326 Closed [percutaneous] [needle] biopsy of lung
3327 Closed endoscopic biopsy of lung
3328 Open biopsy of lung
3329 Other diagnostic procedures on lung or bronchus
3331 Destruction of phrenic nerve for collapse of lung
3332 Artificial pneumothorax for collapse of lung
3333 Pneumoperitoneum for collapse of lung
3334 Thoracoplasty
3339 Other surgical collapse of lung
3341 Suture of laceration of bronchus
3342 Closure of bronchial fistula
3343 Closure of laceration of lung
3348 Other repair and plastic operations on bronchus
3349 Other repair and plastic operations on lung
3350 Lung transplantation, not otherwise specified
3351 Unilateral lung transplantation
3352 Bilateral lung transplantation
336 Combined heart-lung transplantation
3371 Endoscopic insertion or replacement of bronchial valve(s), single lobe
3372 Endoscopic pulmonary airway flow measurement
3373 Endoscopic insertion or replacement of bronchial valve(s), multiple lobes
3378 Endoscopic removal of bronchial device(s) or substances
3379 Endoscopic insertion of other bronchial device or substances
3391 Bronchial dilation
3392 Ligation of bronchus
3393 Puncture of lung
3398 Other operations on bronchus
3399 Other operations on lung
3401 Incision of chest wall

3402 Exploratory thoracotomy
3403 Reopening of recent thoracotomy site
3404 Insertion of intercostal catheter for drainage
3405 Creation of pleuroperitoneal shunt
3406 Thoracoscopic drainage of pleural cavity
3409 Other incision of pleura
341 Incision of mediastinum
3420 Thoracoscopic pleural biopsy
3421 Transpleural thoracoscopy
3422 Mediastinoscopy
3423 Biopsy of chest wall
3424 Other pleural biopsy
3425 Closed [percutaneous] [needle] biopsy of mediastinum
3426 Open mediastinal biopsy
3427 Biopsy of diaphragm
3428 Other diagnostic procedures on chest wall, pleura, and diaphragm
3429 Other diagnostic procedures on mediastinum
343 Excision or destruction of lesion or tissue of mediastinum
344 Excision or destruction of lesion of chest wall
3451 Decortication of lung
3452 Thoracoscopic decortication of lung
3459 Other excision of pleura
346 Scarification of pleura
3471 Suture of laceration of chest wall
3472 Closure of thoracostomy
3473 Closure of other fistula of thorax
3474 Repair of pectus deformity
3479 Other repair of chest wall
3481 Excision of lesion or tissue of diaphragm
3482 Suture of laceration of diaphragm
3483 Closure of fistula of diaphragm
3484 Other repair of diaphragm
3485 Implantation of diaphragmatic pacemaker
3489 Other operations on diaphragm
3491 Thoracentesis
3492 Injection into thoracic cavity

3493 Repair of pleura
3499 Other operations on thorax
3500 Closed heart valvotomy, unspecified valve
3501 Closed heart valvotomy, aortic valve
3502 Closed heart valvotomy, mitral valve
3503 Closed heart valvotomy, pulmonary valve
3504 Closed heart valvotomy, tricuspid valve
3505 Endovascular replacement of aortic valve
3506 Transapical replacement of aortic valve
3507 Endovascular replacement of pulmonary valve
3508 Transapical replacement of pulmonary valve
3509 Endovascular replacement of unspecified heart valve
3510 Open heart valvuloplasty without replacement, unspecified valve
3511 Open heart valvuloplasty of aortic valve without replacement
3512 Open heart valvuloplasty of mitral valve without replacement
3513 Open heart valvuloplasty of pulmonary valve without replacement
3514 Open heart valvuloplasty of tricuspid valve without replacement
3520 Open and other replacement of unspecified heart valve
3521 Open and other replacement of aortic valve with tissue graft
3522 Open and other replacement of aortic valve
3523 Open and other replacement of mitral valve with tissue graft
3524 Open and other replacement of mitral valve
3525 Open and other replacement of pulmonary valve with tissue graft
3526 Open and other replacement of pulmonary valve
3527 Open and other replacement of tricuspid valve with tissue graft
3528 Open and other replacement of tricuspid valve
3531 Operations on papillary muscle
3532 Operations on chordae tendineae
3533 Annuloplasty
3534 Infundibulectomy
3535 Operations on trabeculae carneae cordis
3539 Operations on other structures adjacent to valves of heart
3541 Enlargement of existing atrial septal defect
3542 Creation of septal defect in heart
3550 Repair of unspecified septal defect of heart with prosthesis
3551 Repair of atrial septal defect with prosthesis, open technique

3552 Repair of atrial septal defect with prosthesis, closed technique
3553 Repair of ventricular septal defect with prosthesis, open technique
3554 Repair of endocardial cushion defect with prosthesis
3555 Repair of ventricular septal defect with prosthesis, closed technique
3560 Repair of unspecified septal defect of heart with tissue graft
3561 Repair of atrial septal defect with tissue graft
3562 Repair of ventricular septal defect with tissue graft
3563 Repair of endocardial cushion defect with tissue graft
3570 Other and unspecified repair of unspecified septal defect of heart
3571 Other and unspecified repair of atrial septal defect
3572 Other and unspecified repair of ventricular septal defect
3573 Other and unspecified repair of endocardial cushion defect
3581 Total repair of tetralogy of fallot
3582 Total repair of total anomalous pulmonary venous connection
3583 Total repair of truncus arteriosus
3584 Total correction of transposition of great vessels, not elsewhere classified
3591 Interatrial transposition of venous return
3592 Creation of conduit between right ventricle and pulmonary artery
3593 Creation of conduit between left ventricle and aorta
3594 Creation of conduit between atrium and pulmonary artery
3595 Revision of corrective procedure on heart
3596 Percutaneous balloon valvuloplasty
3597 Percutaneous mitral valve repair with implant
3598 Other operations on septa of heart
3599 Other operations on valves of heart
3603 Open chest coronary artery angioplasty
3604 Intracoronary artery thrombolytic infusion
3606 Insertion of non-drug-eluting coronary artery stent(s)
3607 Insertion of drug-eluting coronary artery stent(s)
3609 Other removal of coronary artery obstruction
3610 Aortocoronary bypass for heart revascularization, not otherwise specified
3611 (Aorto)coronary bypass of one coronary artery
3612 (Aorto)coronary bypass of two coronary arteries
3613 (Aorto)coronary bypass of three coronary arteries
3614 (Aorto)coronary bypass of four or more coronary arteries
3615 Single internal mammary-coronary artery bypass

3616 Double internal mammary-coronary artery bypass
3617 Abdominal-coronary artery bypass
3619 Other bypass anastomosis for heart revascularization
362 Heart revascularization by arterial implant
3631 Open chest transmyocardial revascularization
3632 Other transmyocardial revascularization
3633 Endoscopic transmyocardial revascularization
3634 Percutaneous transmyocardial revascularization
3639 Other heart revascularization
3691 Repair of aneurysm of coronary vessel
3699 Other operations on vessels of heart
370 Pericardiocentesis
3710 Incision of heart, not otherwise specified
3711 Cardiotomy
3712 Pericardiotomy
3720 Noninvasive programmed electrical stimulation [NIPS]
3721 Right heart cardiac catheterization
3722 Left heart cardiac catheterization
3723 Combined right and left heart cardiac catheterization
3724 Biopsy of pericardium
3725 Biopsy of heart
3726 Catheter based invasive electrophysiologic testing
3727 Cardiac mapping
3728 Intracardiac echocardiography
3729 Other diagnostic procedures on heart and pericardium
3731 Pericardiectomy
3732 Excision of aneurysm of heart
3733 Excision or destruction of other lesion or tissue of heart, open approach
3734 Excision or destruction of other lesion or tissue of heart, endovascular approach
3735 Partial ventriculectomy
3736 Excision, destruction, or exclusion of left atrial appendage (LAA)
3737 Excision or destruction of other lesion or tissue of heart, thoroscopic approach
3741 Implantation of prosthetic cardiac support device around the heart
3749 Other repair of heart and pericardium
3751 Heart transplantation
3752 Implantation of total internal biventricular heart replacement system

- 3753 Replacement or repair of thoracic unit of (total) replacement heart system
- 3754 Replacement or repair of other implantable component of (total) replacement heart system
- 3755 Removal of internal biventricular heart replacement system
- 3760 Implantation or insertion of biventricular external heart assist system
- 3761 Implant of pulsation balloon
- 3762 Insertion of temporary non-implantable extracorporeal circulatory assist device
- 3763 Repair of heart assist system
- 3764 Removal of external heart assist system(s) or device(s)
- 3765 Implant of single ventricular (extracorporeal) external heart assist system
- 3766 Insertion of implantable heart assist system
- 3767 Implantation of cardiomyostimulation system
- 3768 Insertion of percutaneous external heart assist device
- 3770 Initial insertion of lead [electrode], not otherwise specified
- 3771 Initial insertion of transvenous lead [electrode] into ventricle
- 3772 Initial insertion of transvenous leads [electrodes] into atrium and ventricle
- 3773 Initial insertion of transvenous lead [electrode] into atrium
- 3774 Insertion or replacement of epicardial lead [electrode] into epicardium
- 3775 Revision of lead [electrode]
- 3776 Replacement of transvenous atrial and/or ventricular lead(s) [electrode]
- 3777 Removal of lead(s) [electrode] without replacement
- 3778 Insertion of temporary transvenous pacemaker system
- 3779 Revision or relocation of cardiac device pocket
- 3780 Insertion of permanent pacemaker, initial or replacement, type of device not specified
- 3781 Initial insertion of single-chamber device, not specified as rate responsive
- 3782 Initial insertion of single-chamber device, rate responsive
- 3783 Initial insertion of dual-chamber device
- 3785 Replacement of any type pacemaker device with single-chamber device, not specified as rate responsive
- 3786 Replacement of any type of pacemaker device with single-chamber device, rate responsive
- 3787 Replacement of any type pacemaker device with dual-chamber device
- 3789 Revision or removal of pacemaker device
- 3790 Insertion of left atrial appendage device
- 3791 Open chest cardiac massage
- 3792 Injection of therapeutic substance into heart
- 3793 Injection of therapeutic substance into pericardium
- 3794 Implantation or replacement of automatic cardioverter/defibrillator, total system [AICD]

3795 Implantation of automatic cardioverter/defibrillator lead(s) only
3796 Implantation of automatic cardioverter/defibrillator pulse generator only
3797 Replacement of automatic cardioverter/defibrillator lead(s) only
3798 Replacement of automatic cardioverter/defibrillator pulse generator only
3799 Other operations on heart and pericardium
3800 Incision of vessel, unspecified site
3801 Incision of vessel, intracranial vessels
3802 Incision of vessel, other vessels of head and neck
3803 Incision of vessel, upper limb vessels
3804 Incision of vessel, aorta
3805 Incision of vessel, other thoracic vessels
3806 Incision of vessel, abdominal arteries
3807 Incision of vessel, abdominal veins
3808 Incision of vessel, lower limb arteries
3809 Incision of vessel, lower limb veins
3810 Endarterectomy, unspecified site
3811 Endarterectomy, intracranial vessels
3812 Endarterectomy, other vessels of head and neck
3813 Endarterectomy, upper limb vessels
3814 Endarterectomy, aorta
3815 Endarterectomy, other thoracic vessels
3816 Endarterectomy, abdominal arteries
3818 Endarterectomy, lower limb arteries
3821 Biopsy of blood vessel
3822 Percutaneous angiography
3823 Intravascular spectroscopy
3824 Intravascular imaging of coronary vessel(s) by optical coherence tomography [OCT]
3825 Intravascular imaging of non-coronary vessel(s) by optical coherence tomography [OCT]
3826 Insertion of implantable pressure sensor without lead for intracardiac or great vessel hemodynamic monitoring
3829 Other diagnostic procedures on blood vessels
3830 Resection of vessel with anastomosis, unspecified site
3831 Resection of vessel with anastomosis, intracranial vessels
3832 Resection of vessel with anastomosis, other vessels of head and neck
3833 Resection of vessel with anastomosis, upper limb vessels
3834 Resection of vessel with anastomosis, aorta

3835 Resection of vessel with anastomosis, other thoracic vessels
3836 Resection of vessel with anastomosis, abdominal arteries
3837 Resection of vessel with anastomosis, abdominal veins
3838 Resection of vessel with anastomosis, lower limb arteries
3839 Resection of vessel with anastomosis, lower limb veins
3840 Resection of vessel with replacement, unspecified site
3841 Resection of vessel with replacement, intracranial vessels
3842 Resection of vessel with replacement, other vessels of head and neck
3843 Resection of vessel with replacement, upper limb vessels
3844 Resection of vessel with replacement, aorta, abdominal
3845 Resection of vessel with replacement, thoracic vessels
3846 Resection of vessel with replacement, abdominal arteries
3847 Resection of vessel with replacement, abdominal veins
3848 Resection of vessel with replacement, lower limb arteries
3849 Resection of vessel with replacement, lower limb veins
3850 Ligation and stripping of varicose veins, unspecified site
3851 Ligation and stripping of varicose veins, intracranial vessels
3852 Ligation and stripping of varicose veins, other vessels of head and neck
3853 Ligation and stripping of varicose veins, upper limb vessels
3855 Ligation and stripping of varicose veins, other thoracic vessels
3857 Ligation and stripping of varicose veins, abdominal veins
3859 Ligation and stripping of varicose veins, lower limb veins
3860 Other excision of vessels, unspecified site
3861 Other excision of vessels, intracranial vessels
3862 Other excision of vessels, other vessels of head and neck
3863 Other excision of vessels, upper limb vessels
3864 Other excision of vessels, aorta, abdominal
3865 Other excision of vessels, thoracic vessels
3866 Other excision of vessels, abdominal arteries
3867 Other excision of vessels, abdominal veins
3868 Other excision of vessels, lower limb arteries
3869 Other excision of vessels, lower limb veins
387 Interruption of the vena cava
3880 Other surgical occlusion of vessels, unspecified site
3881 Other surgical occlusion of vessels, intracranial vessels
3882 Other surgical occlusion of vessels, other vessels of head and neck

3883 Other surgical occlusion of vessels, upper limb vessels
3884 Other surgical occlusion of vessels, aorta, abdominal
3885 Other surgical occlusion of vessels, thoracic vessels
3886 Other surgical occlusion of vessels, abdominal arteries
3887 Other surgical occlusion of vessels, abdominal veins
3888 Other surgical occlusion of vessels, lower limb arteries
3889 Other surgical occlusion of vessels, lower limb veins
3891 Arterial catheterization
3892 Umbilical vein catheterization
3893 Venous catheterization, not elsewhere classified
3894 Venous cutdown
3895 Venous catheterization for renal dialysis
3897 Central venous catheter placement with guidance
3898 Other puncture of artery
3899 Other puncture of vein
390 Systemic to pulmonary artery shunt
391 Intra-abdominal venous shunt
3921 Caval-pulmonary artery anastomosis
3922 Aorta-subclavian-carotid bypass
3923 Other intrathoracic vascular shunt or bypass
3924 Aorta-renal bypass
3925 Aorta-iliac-femoral bypass
3926 Other intra-abdominal vascular shunt or bypass
3927 Arteriovenostomy for renal dialysis
3928 Extracranial-intracranial (EC-IC) vascular bypass
3929 Other (peripheral) vascular shunt or bypass
3930 Suture of unspecified blood vessel
3931 Suture of artery
3932 Suture of vein
3941 Control of hemorrhage following vascular surgery
3942 Revision of arteriovenous shunt for renal dialysis
3943 Removal of arteriovenous shunt for renal dialysis
3949 Other revision of vascular procedure
3950 Angioplasty of other non-coronary vessel(s)
3951 Clipping of aneurysm
3952 Other repair of aneurysm

3953 Repair of arteriovenous fistula
3954 Re-entry operation (aorta)
3955 Reimplantation of aberrant renal vessel
3956 Repair of blood vessel with tissue patch graft
3957 Repair of blood vessel with synthetic patch graft
3958 Repair of blood vessel with unspecified type of patch graft
3959 Other repair of vessel
3961 Extracorporeal circulation auxiliary to open heart surgery
3962 Hypothermia (systemic) incidental to open heart surgery
3963 Cardioplegia
3964 Intraoperative cardiac pacemaker
3965 Extracorporeal membrane oxygenation [ECMO]
3966 Percutaneous cardiopulmonary bypass
3971 Endovascular implantation of other graft in abdominal aorta
3972 Endovascular (total) embolization or occlusion of head and neck vessels
3973 Endovascular implantation of graft in thoracic aorta
3974 Endovascular removal of obstruction from head and neck vessel(s)
3975 Endovascular embolization or occlusion of vessel(s) of head or neck using bare coils
3976 Endovascular embolization or occlusion of vessel(s) of head or neck using bioactive coils
3977 Temporary (partial) therapeutic endovascular occlusion of vessel
3978 Endovascular implantation of branching or fenestrated graft(s) in aorta
3979 Other endovascular procedures on other vessels
3981 Implantation or replacement of carotid sinus stimulation device, total system
3982 Implantation or replacement of carotid sinus stimulation lead(s) only
3983 Implantation or replacement of carotid sinus stimulation pulse generator only
3984 Revision of carotid sinus stimulation lead(s) only
3985 Revision of carotid sinus stimulation pulse generator
3986 Removal of carotid sinus stimulation device, total system
3987 Removal of carotid sinus stimulation lead(s) only
3988 Removal of carotid sinus stimulation pulse generator only
3989 Other operations on carotid body, carotid sinus and other vascular bodies
3990 Insertion of non-drug-eluting peripheral (non-coronary) vessel stent(s)
3991 Freeing of vessel
3992 Injection of sclerosing agent into vein
3993 Insertion of vessel-to-vessel cannula
3994 Replacement of vessel-to-vessel cannula

3995 Hemodialysis
3996 Total body perfusion
3997 Other perfusion
3998 Control of hemorrhage, not otherwise specified
3999 Other operations on vessels
400 Incision of lymphatic structures
4011 Biopsy of lymphatic structure
4019 Other diagnostic procedures on lymphatic structures
4021 Excision of deep cervical lymph node
4022 Excision of internal mammary lymph node
4023 Excision of axillary lymph node
4024 Excision of inguinal lymph node
4029 Simple excision of other lymphatic structure
403 Regional lymph node excision
4040 Radical neck dissection, not otherwise specified
4041 Radical neck dissection, unilateral
4042 Radical neck dissection, bilateral
4050 Radical excision of lymph nodes, not otherwise specified
4051 Radical excision of axillary lymph nodes
4052 Radical excision of periaortic lymph nodes
4053 Radical excision of iliac lymph nodes
4054 Radical groin dissection
4059 Radical excision of other lymph nodes
4061 Cannulation of thoracic duct
4062 Fistulization of thoracic duct
4063 Closure of fistula of thoracic duct
4064 Ligation of thoracic duct
4069 Other operations on thoracic duct
409 Other operations on lymphatic structures
4100 Bone marrow transplant, not otherwise specified
4101 Autologous bone marrow transplant without purging
4102 Allogeneic bone marrow transplant with purging
4103 Allogeneic bone marrow transplant without purging
4104 Autologous hematopoietic stem cell transplant without purging
4105 Allogeneic hematopoietic stem cell transplant without purging
4106 Cord blood stem cell transplant

4107 Autologous hematopoietic stem cell transplant with purging
4108 Allogeneic hematopoietic stem cell transplant with purging
4109 Autologous bone marrow transplant with purging
411 Puncture of spleen
412 Splenotomy
4131 Biopsy of bone marrow
4132 Closed [aspiration] [percutaneous] biopsy of spleen
4133 Open biopsy of spleen
4138 Other diagnostic procedures on bone marrow
4139 Other diagnostic procedures on spleen
4141 Marsupialization of splenic cyst
4142 Excision of lesion or tissue of spleen
4143 Partial splenectomy
415 Total splenectomy
4191 Aspiration of bone marrow from donor for transplant
4192 Injection into bone marrow
4193 Excision of accessory spleen
4194 Transplantation of spleen
4195 Repair and plastic operations on spleen
4198 Other operations on bone marrow
4199 Other operations on spleen
4201 Incision of esophageal web
4209 Other incision of esophagus
4210 Esophagostomy, not otherwise specified
4211 Cervical esophagostomy
4212 Exteriorization of esophageal pouch
4219 Other external fistulization of esophagus
4221 Operative esophagoscopy by incision
4222 Esophagoscopy through artificial stoma
4223 Other esophagoscopy
4224 Closed [endoscopic] biopsy of esophagus
4225 Open biopsy of esophagus
4229 Other diagnostic procedures on esophagus
4231 Local excision of esophageal diverticulum
4232 Local excision of other lesion or tissue of esophagus
4233 Endoscopic excision or destruction of lesion or tissue of esophagus

4239 Other destruction of lesion or tissue of esophagus
4240 Esophagectomy, not otherwise specified
4241 Partial esophagectomy
4242 Total esophagectomy
4251 Intrathoracic esophagoesophagostomy
4252 Intrathoracic esophagogastrostomy
4253 Intrathoracic esophageal anastomosis with interposition of small bowel
4254 Other intrathoracic esophagoenterostomy
4255 Intrathoracic esophageal anastomosis with interposition of colon
4256 Other intrathoracic esophagocolostomy
4258 Intrathoracic esophageal anastomosis with other interposition
4259 Other intrathoracic anastomosis of esophagus
4261 Antesternal esophagoesophagostomy
4262 Antesternal esophagogastrostomy
4263 Antesternal esophageal anastomosis with interposition of small bowel
4264 Other antesternal esophagoenterostomy
4265 Antesternal esophageal anastomosis with interposition of colon
4266 Other antesternal esophagocolostomy
4268 Other antesternal esophageal anastomosis with interposition
4269 Other antesternal anastomosis of esophagus
427 Esophagomyotomy
4281 Insertion of permanent tube into esophagus
4282 Suture of laceration of esophagus
4283 Closure of esophagostomy
4284 Repair of esophageal fistula, not elsewhere classified
4285 Repair of esophageal stricture
4286 Production of subcutaneous tunnel without esophageal anastomosis
4287 Other graft of esophagus
4289 Other repair of esophagus
4291 Ligation of esophageal varices
4292 Dilation of esophagus
4299 Other operations on esophagus
430 Gastrotomy
4311 Percutaneous [endoscopic] gastrostomy [PEG]
4319 Other gastrostomy
433 Pyloromyotomy

4341 Endoscopic excision or destruction of lesion or tissue of stomach
4342 Local excision of other lesion or tissue of stomach
4349 Other destruction of lesion or tissue of stomach
435 Partial gastrectomy with anastomosis to esophagus
436 Partial gastrectomy with anastomosis to duodenum
437 Partial gastrectomy with anastomosis to jejunum
4381 Partial gastrectomy with jejunal transposition
4382 Laparoscopic vertical (sleeve) gastrectomy
4389 Open and other partial gastrectomy
4391 Total gastrectomy with intestinal interposition
4399 Other total gastrectomy
4400 Vagotomy, not otherwise specified
4401 Truncal vagotomy
4402 Highly selective vagotomy
4403 Other selective vagotomy
4411 Transabdominal gastroscopy
4412 Gastroscopy through artificial stoma
4413 Other gastroscopy
4414 Closed [endoscopic] biopsy of stomach
4415 Open biopsy of stomach
4419 Other diagnostic procedures on stomach
4421 Dilation of pylorus by incision
4422 Endoscopic dilation of pylorus
4429 Other pyloroplasty
4431 High gastric bypass
4432 Percutaneous [endoscopic] gastrojejunostomy
4438 Laparoscopic gastroenterostomy
4439 Other gastroenterostomy without gastrectomy
4440 Suture of peptic ulcer, not otherwise specified
4441 Suture of gastric ulcer site
4442 Suture of duodenal ulcer site
4443 Endoscopic control of gastric or duodenal bleeding
4444 Transcatheter embolization for gastric or duodenal bleeding
4449 Other control of hemorrhage of stomach or duodenum
445 Revision of gastric anastomosis
4461 Suture of laceration of stomach

4462 Closure of gastrostomy
4463 Closure of other gastric fistula
4464 Gastropexy
4465 Esophagogastroplasty
4466 Other procedures for creation of esophagogastric sphincteric competence
4467 Laparoscopic procedures for creation of esophagogastric sphincteric competence
4468 Laparoscopic gastroplasty
4469 Other repair of stomach
4491 Ligation of gastric varices
4492 Intraoperative manipulation of stomach
4493 Insertion of gastric bubble (balloon)
4494 Removal of gastric bubble (balloon)
4495 Laparoscopic gastric restrictive procedure
4496 Laparoscopic revision of gastric restrictive procedure
4497 Laparoscopic removal of gastric restrictive device(s)
4498 (Laparoscopic) adjustment of size of adjustable gastric restrictive device
4499 Other operations on stomach
4500 Incision of intestine, not otherwise specified
4501 Incision of duodenum
4502 Other incision of small intestine
4503 Incision of large intestine
4511 Transabdominal endoscopy of small intestine
4512 Endoscopy of small intestine through artificial stoma
4513 Other endoscopy of small intestine
4514 Closed [endoscopic] biopsy of small intestine
4515 Open biopsy of small intestine
4516 Esophagogastroduodenoscopy [EGD] with closed biopsy
4519 Other diagnostic procedures on small intestine
4521 Transabdominal endoscopy of large intestine
4522 Endoscopy of large intestine through artificial stoma
4523 Colonoscopy
4524 Flexible sigmoidoscopy
4525 Closed [endoscopic] biopsy of large intestine
4526 Open biopsy of large intestine
4527 Intestinal biopsy, site unspecified
4528 Other diagnostic procedures on large intestine

4529 Other diagnostic procedures on intestine, site unspecified
4530 Endoscopic excision or destruction of lesion of duodenum
4531 Other local excision of lesion of duodenum
4532 Other destruction of lesion of duodenum
4533 Local excision of lesion or tissue of small intestine, except duodenum
4534 Other destruction of lesion of small intestine, except duodenum
4541 Excision of lesion or tissue of large intestine
4542 Endoscopic polypectomy of large intestine
4543 Endoscopic destruction of other lesion or tissue of large intestine
4549 Other destruction of lesion of large intestine
4550 Isolation of intestinal segment, not otherwise specified
4551 Isolation of segment of small intestine
4552 Isolation of segment of large intestine
4561 Multiple segmental resection of small intestine
4562 Other partial resection of small intestine
4563 Total removal of small intestine
4571 Open and other multiple segmental resection of large intestine
4572 Open and other cecectomy
4573 Open and other right hemicolectomy
4574 Open and other resection of transverse colon
4575 Open and other left hemicolectomy
4576 Open and other sigmoidectomy
4579 Other and unspecified partial excision of large intestine
4581 Laparoscopic total intra-abdominal colectomy
4582 Open total intra-abdominal colectomy
4583 Other and unspecified total intra-abdominal colectomy
4590 Intestinal anastomosis, not otherwise specified
4591 Small-to-small intestinal anastomosis
4592 Anastomosis of small intestine to rectal stump
4593 Other small-to-large intestinal anastomosis
4594 Large-to-large intestinal anastomosis
4595 Anastomosis to anus
4601 Exteriorization of small intestine
4602 Resection of exteriorized segment of small intestine
4603 Exteriorization of large intestine
4604 Resection of exteriorized segment of large intestine

4610 Colostomy, not otherwise specified
4611 Temporary colostomy
4613 Permanent colostomy
4614 Delayed opening of colostomy
4620 Ileostomy, not otherwise specified
4621 Temporary ileostomy
4622 Continent ileostomy
4623 Other permanent ileostomy
4624 Delayed opening of ileostomy
4631 Delayed opening of other enterostomy
4632 Percutaneous (endoscopic) jejunostomy [PEJ]
4639 Other enterostomy
4640 Revision of intestinal stoma, not otherwise specified
4641 Revision of stoma of small intestine
4642 Repair of pericostomy hernia
4643 Other revision of stoma of large intestine
4650 Closure of intestinal stoma, not otherwise specified
4651 Closure of stoma of small intestine
4652 Closure of stoma of large intestine
4660 Fixation of intestine, not otherwise specified
4661 Fixation of small intestine to abdominal wall
4662 Other fixation of small intestine
4663 Fixation of large intestine to abdominal wall
4664 Other fixation of large intestine
4671 Suture of laceration of duodenum
4672 Closure of fistula of duodenum
4673 Suture of laceration of small intestine, except duodenum
4674 Closure of fistula of small intestine, except duodenum
4675 Suture of laceration of large intestine
4676 Closure of fistula of large intestine
4679 Other repair of intestine
4680 Intra-abdominal manipulation of intestine, not otherwise specified
4681 Intra-abdominal manipulation of small intestine
4682 Intra-abdominal manipulation of large intestine
4685 Dilation of intestine
4686 Endoscopic insertion of colonic stent(s)

4687 Other insertion of colonic stent(s)
4691 Myotomy of sigmoid colon
4692 Myotomy of other parts of colon
4693 Revision of anastomosis of small intestine
4694 Revision of anastomosis of large intestine
4695 Local perfusion of small intestine
4696 Local perfusion of large intestine
4697 Transplant of intestine
4699 Other operations on intestines
4701 Laparoscopic appendectomy
4709 Other appendectomy
4711 Laparoscopic incidental appendectomy
4719 Other incidental appendectomy
472 Drainage of appendiceal abscess
4791 Appendicostomy
4792 Closure of appendiceal fistula
4799 Other operations on appendix
480 Proctotomy
481 Proctostomy
4821 Transabdominal proctosigmoidoscopy
4822 Proctosigmoidoscopy through artificial stoma
4823 Rigid proctosigmoidoscopy
4824 Closed [endoscopic] biopsy of rectum
4825 Open biopsy of rectum
4826 Biopsy of perirectal tissue
4829 Other diagnostic procedures on rectum, rectosigmoid and perirectal tissue
4831 Radical electrocoagulation of rectal lesion or tissue
4832 Other electrocoagulation of rectal lesion or tissue
4833 Destruction of rectal lesion or tissue by laser
4834 Destruction of rectal lesion or tissue by cryosurgery
4835 Local excision of rectal lesion or tissue
4836 [Endoscopic] polypectomy of rectum
4840 Pull-through resection of rectum, not otherwise specified
4841 Soave submucosal resection of rectum
4842 Laparoscopic pull-through resection of rectum
4843 Open pull-through resection of rectum

4849 Other pull-through resection of rectum
4850 Abdominoperineal resection of the rectum, not otherwise specified
4851 Laparoscopic abdominoperineal resection of the rectum
4852 Open abdominoperineal resection of the rectum
4859 Other abdominoperineal resection of the rectum
4861 Transsacral rectosigmoidectomy
4862 Anterior resection of rectum with synchronous colostomy
4863 Other anterior resection of rectum
4864 Posterior resection of rectum
4865 Duhamel resection of rectum
4869 Other resection of rectum
4871 Suture of laceration of rectum
4872 Closure of proctostomy
4873 Closure of other rectal fistula
4874 Rectorectostomy
4875 Abdominal proctopexy
4876 Other proctopexy
4879 Other repair of rectum
4881 Incision of perirectal tissue
4882 Excision of perirectal tissue
4891 Incision of rectal stricture
4892 Anorectal myectomy
4893 Repair of perirectal fistula
4899 Other operations on rectum and perirectal tissue
4901 Incision of perianal abscess
4902 Other incision of perianal tissue
4903 Excision of perianal skin tags
4904 Other excision of perianal tissue
4911 Anal fistulotomy
4912 Anal fistulectomy
4921 Anoscopy
4922 Biopsy of perianal tissue
4923 Biopsy of anus
4929 Other diagnostic procedures on anus and perianal tissue
4931 Endoscopic excision or destruction of lesion or tissue of anus
4939 Other local excision or destruction of lesion or tissue of anus

4941 Reduction of hemorrhoids
4942 Injection of hemorrhoids
4943 Cauterization of hemorrhoids
4944 Destruction of hemorrhoids by cryotherapy
4945 Ligation of hemorrhoids
4946 Excision of hemorrhoids
4947 Evacuation of thrombosed hemorrhoids
4949 Other procedures on hemorrhoids
4951 Left lateral anal sphincterotomy
4952 Posterior anal sphincterotomy
4959 Other anal sphincterotomy
496 Excision of anus
4971 Suture of laceration of anus
4972 Anal cerclage
4973 Closure of anal fistula
4974 Gracilis muscle transplant for anal incontinence
4975 Implantation or revision of artificial anal sphincter
4976 Removal of artificial anal sphincter
4979 Other repair of anal sphincter
4991 Incision of anal septum
4992 Insertion of subcutaneous electrical anal stimulator
4993 Other incision of anus
4994 Reduction of anal prolapse
4995 Control of (postoperative) hemorrhage of anus
4999 Other operations on anus
500 Hepatotomy
5011 Closed (percutaneous) [needle] biopsy of liver
5012 Open biopsy of liver
5013 Transjugular liver biopsy
5014 Laparoscopic liver biopsy
5019 Other diagnostic procedures on liver
5021 Marsupialization of lesion of liver
5022 Partial hepatectomy
5023 Open ablation of liver lesion or tissue
5024 Percutaneous ablation of liver lesion or tissue
5025 Laparoscopic ablation of liver lesion or tissue

5026 Other and unspecified ablation of liver lesion or tissue
5029 Other destruction of lesion of liver
503 Lobectomy of liver
504 Total hepatectomy
5051 Auxiliary liver transplant
5059 Other transplant of liver
5061 Closure of laceration of liver
5069 Other repair of liver
5091 Percutaneous aspiration of liver
5092 Extracorporeal hepatic assistance
5093 Localized perfusion of liver
5094 Other injection of therapeutic substance into liver
5099 Other operations on liver
5101 Percutaneous aspiration of gallbladder
5102 Trocar cholecystostomy
5103 Other cholecystostomy
5104 Other cholecystotomy
5110 Endoscopic retrograde cholangiopancreatography [ERCP]
5111 Endoscopic retrograde cholangiography [ERC]
5112 Percutaneous biopsy of gallbladder or bile ducts
5113 Open biopsy of gallbladder or bile ducts
5114 Other closed [endoscopic] biopsy of biliary duct or sphincter of Oddi
5115 Pressure measurement of sphincter of Oddi
5119 Other diagnostic procedures on biliary tract
5121 Other partial cholecystectomy
5122 Cholecystectomy
5123 Laparoscopic cholecystectomy
5124 Laparoscopic partial cholecystectomy
5131 Anastomosis of gallbladder to hepatic ducts
5132 Anastomosis of gallbladder to intestine
5133 Anastomosis of gallbladder to pancreas
5134 Anastomosis of gallbladder to stomach
5135 Other gallbladder anastomosis
5136 Choledochenterostomy
5137 Anastomosis of hepatic duct to gastrointestinal tract
5139 Other bile duct anastomosis

5141 Common duct exploration for removal of calculus
5142 Common duct exploration for relief of other obstruction
5143 Insertion of choledochohepatic tube for decompression
5149 Incision of other bile ducts for relief of obstruction
5151 Exploration of common duct
5159 Other incision of other bile duct
5161 Excision of cystic duct remnant
5162 Excision of ampulla of Vater (with reimplantation of common duct)
5163 Other excision of common duct
5164 Endoscopic excision or destruction of lesion of biliary ducts or sphincter of Oddi
5169 Excision of other bile duct
5171 Simple suture of common bile duct
5172 Choledochoplasty
5179 Repair of other bile ducts
5181 Dilation of sphincter of Oddi
5182 Pancreatic sphincterotomy
5183 Pancreatic sphincteroplasty
5184 Endoscopic dilation of ampulla and biliary duct
5185 Endoscopic sphincterotomy and papillotomy
5186 Endoscopic insertion of nasobiliary drainage tube
5187 Endoscopic insertion of stent (tube) into bile duct
5188 Endoscopic removal of stone(s) from biliary tract
5189 Other operations on sphincter of Oddi
5191 Repair of laceration of gallbladder
5192 Closure of cholecystostomy
5193 Closure of other biliary fistula
5194 Revision of anastomosis of biliary tract
5195 Removal of prosthetic device from bile duct
5196 Percutaneous extraction of common duct stones
5198 Other percutaneous procedures on biliary tract
5199 Other operations on biliary tract
5201 Drainage of pancreatic cyst by catheter
5209 Other pancreatotomy
5211 Closed [aspiration] [needle] [percutaneous] biopsy of pancreas
5212 Open biopsy of pancreas
5213 Endoscopic retrograde pancreatography [ERP]

5214 Closed [endoscopic] biopsy of pancreatic duct
5219 Other diagnostic procedures on pancreas
5221 Endoscopic excision or destruction of lesion or tissue of pancreatic duct
5222 Other excision or destruction of lesion or tissue of pancreas or pancreatic duct
523 Marsupialization of pancreatic cyst
524 Internal drainage of pancreatic cyst
5251 Proximal pancreatectomy
5252 Distal pancreatectomy
5253 Radical subtotal pancreatectomy
5259 Other partial pancreatectomy
526 Total pancreatectomy
527 Radical pancreaticoduodenectomy
5280 Pancreatic transplant, not otherwise specified
5281 Reimplantation of pancreatic tissue
5282 Homotransplant of pancreas
5283 Heterotransplant of pancreas
5284 Autotransplantation of cells of Islets of Langerhans
5285 Allotransplantation of cells of Islets of Langerhans
5286 Transplantation of cells of Islets of Langerhans, not otherwise specified
5292 Cannulation of pancreatic duct
5293 Endoscopic insertion of stent (tube) into pancreatic duct
5294 Endoscopic removal of stone(s) from pancreatic duct
5295 Other repair of pancreas
5296 Anastomosis of pancreas
5297 Endoscopic insertion of nasopancreatic drainage tube
5298 Endoscopic dilation of pancreatic duct
5299 Other operations on pancreas
5300 Unilateral repair of inguinal hernia, not otherwise specified
5301 Other and open repair of direct inguinal hernia
5302 Other and open repair of indirect inguinal hernia
5303 Other and open repair of direct inguinal hernia with graft or prosthesis
5304 Other and open repair of indirect inguinal hernia with graft or prosthesis
5305 Repair of inguinal hernia with graft or prosthesis, not otherwise specified
5310 Bilateral repair of inguinal hernia, not otherwise specified
5311 Other and open bilateral repair of direct inguinal hernia
5312 Other and open bilateral repair of indirect inguinal hernia

5313 Other and open bilateral repair of inguinal hernia, one direct and one indirect
5314 Other and open bilateral repair of direct inguinal hernia with graft or prosthesis
5315 Other and open bilateral repair of indirect inguinal hernia with graft or prosthesis
5316 Other and open bilateral repair of inguinal hernia, one direct and one indirect, with graft or prosthesis
5317 Bilateral inguinal hernia repair with graft or prosthesis, not otherwise specified
5321 Unilateral repair of femoral hernia with graft or prosthesis
5329 Other unilateral femoral herniorrhaphy
5331 Bilateral repair of femoral hernia with graft or prosthesis
5339 Other bilateral femoral herniorrhaphy
5341 Other and open repair of umbilical hernia with graft or prosthesis
5342 Laparoscopic repair of umbilical hernia with graft or prosthesis
5343 Other laparoscopic umbilical herniorrhaphy
5349 Other open umbilical herniorrhaphy
5351 Incisional hernia repair
5359 Repair of other hernia of anterior abdominal wall
5361 Other open incisional hernia repair with graft or prosthesis
5362 Laparoscopic incisional hernia repair with graft or prosthesis
5363 Other laparoscopic repair of other hernia of anterior abdominal wall with graft or prosthesis
5369 Other and open repair of other hernia of anterior abdominal wall with graft or prosthesis
5371 Laparoscopic repair of diaphragmatic hernia, abdominal approach
5372 Other and open repair of diaphragmatic hernia, abdominal approach
5375 Repair of diaphragmatic hernia, abdominal approach, not otherwise specified
5380 Repair of diaphragmatic hernia with thoracic approach, not otherwise specified
5381 Plication of the diaphragm
5382 Repair of parasternal hernia
5383 Laparoscopic repair of diaphragmatic hernia, with thoracic approach
5384 Other and open repair of diaphragmatic hernia, with thoracic approach
539 Other hernia repair
540 Incision of abdominal wall
5411 Exploratory laparotomy
5412 Reopening of recent laparotomy site
5419 Other laparotomy
5421 Laparoscopy
5422 Biopsy of abdominal wall or umbilicus
5423 Biopsy of peritoneum

5424 Closed [percutaneous] [needle] biopsy of intra-abdominal mass
5425 Peritoneal lavage
5429 Other diagnostic procedures on abdominal region
543 Excision or destruction of lesion or tissue of abdominal wall or umbilicus
544 Excision or destruction of peritoneal tissue
5451 Laparoscopic lysis of peritoneal adhesions
5459 Other lysis of peritoneal adhesions
5461 Reclosure of postoperative disruption of abdominal wall
5462 Delayed closure of granulating abdominal wound
5463 Other suture of abdominal wall
5464 Suture of peritoneum
5471 Repair of gastroschisis
5472 Other repair of abdominal wall
5473 Other repair of peritoneum
5474 Other repair of omentum
5475 Other repair of mesentery
5491 Percutaneous abdominal drainage
5492 Removal of foreign body from peritoneal cavity
5493 Creation of cutaneoperitoneal fistula
5494 Creation of peritoneovascular shunt
5495 Incision of peritoneum
5496 Injection of air into peritoneal cavity
5497 Injection of locally-acting therapeutic substance into peritoneal cavity
5498 Peritoneal dialysis
5499 Other operations of abdominal region
5501 Nephrotomy
5502 Nephrostomy
5503 Percutaneous nephrostomy without fragmentation
5504 Percutaneous nephrostomy with fragmentation
5511 Pyelotomy
5512 Pyelostomy
5521 Nephroscopy
5522 Pyeloscopy
5523 Closed [percutaneous] [needle] biopsy of kidney
5524 Open biopsy of kidney
5529 Other diagnostic procedures on kidney

5531 Marsupialization of kidney lesion
5532 Open ablation of renal lesion or tissue
5533 Percutaneous ablation of renal lesion or tissue
5534 Laparoscopic ablation of renal lesion or tissue
5535 Other and unspecified ablation of renal lesion or tissue
5539 Other local destruction or excision of renal lesion or tissue
554 Partial nephrectomy
5551 Nephroureterectomy
5552 Nephrectomy of remaining kidney
5553 Removal of transplanted or rejected kidney
5554 Bilateral nephrectomy
5561 Renal autotransplantation
5569 Other kidney transplantation
557 Nephropexy
5581 Suture of laceration of kidney
5582 Closure of nephrostomy and pyelostomy
5583 Closure of other fistula of kidney
5584 Reduction of torsion of renal pedicle
5585 Symphysiotomy for horseshoe kidney
5586 Anastomosis of kidney
5587 Correction of ureteropelvic junction
5589 Other repair of kidney
5591 Decapsulation of kidney
5592 Percutaneous aspiration of kidney (pelvis)
5593 Replacement of nephrostomy tube
5594 Replacement of pyelostomy tube
5595 Local perfusion of kidney
5596 Other injection of therapeutic substance into kidney
5597 Implantation or replacement of mechanical kidney
5598 Removal of mechanical kidney
5599 Other operations on kidney
560 Transurethral removal of obstruction from ureter and renal pelvis
561 Ureteral meatotomy
562 Ureterotomy
5631 Ureteroscopy
5632 Closed percutaneous biopsy of ureter

5633 Closed endoscopic biopsy of ureter
5634 Open biopsy of ureter
5635 Endoscopy (cystoscopy) (looposcopy) of ileal conduit
5639 Other diagnostic procedures on ureter
5640 Ureterectomy, not otherwise specified
5641 Partial ureterectomy
5642 Total ureterectomy
5651 Formation of cutaneous uretero-ileostomy
5652 Revision of cutaneous uretero-ileostomy
5661 Formation of other cutaneous ureterostomy
5662 Revision of other cutaneous ureterostomy
5671 Urinary diversion to intestine
5672 Revision of ureterointestinal anastomosis
5673 Nephrocystanastomosis, not otherwise specified
5674 Ureteroneocystostomy
5675 Transureteroureterostomy
5679 Other anastomosis or bypass of ureter
5681 Lysis of intraluminal adhesions of ureter
5682 Suture of laceration of ureter
5683 Closure of ureterostomy
5684 Closure of other fistula of ureter
5685 Ureteropexy
5686 Removal of ligature from ureter
5689 Other repair of ureter
5691 Dilation of ureteral meatus
5692 Implantation of electronic ureteral stimulator
5693 Replacement of electronic ureteral stimulator
5694 Removal of electronic ureteral stimulator
5695 Ligation of ureter
5699 Other operations on ureter
570 Transurethral clearance of bladder
5711 Percutaneous aspiration of bladder
5712 Lysis of intraluminal adhesions with incision into bladder
5717 Percutaneous cystostomy
5718 Other suprapubic cystostomy
5719 Other cystotomy

5721 Vesicostomy
5722 Revision or closure of vesicostomy
5731 Cystoscopy through artificial stoma
5732 Other cystoscopy
5733 Closed [transurethral] biopsy of bladder
5734 Open biopsy of bladder
5739 Other diagnostic procedures on bladder
5741 Transurethral lysis of intraluminal adhesions
5749 Other transurethral excision or destruction of lesion or tissue of bladder
5751 Excision of urachus
5759 Open excision or destruction of other lesion or tissue of bladder
576 Partial cystectomy
5771 Radical cystectomy
5779 Other total cystectomy
5781 Suture of laceration of bladder
5782 Closure of cystostomy
5783 Repair of fistula involving bladder and intestine
5784 Repair of other fistula of bladder
5785 Cystourethroplasty and plastic repair of bladder neck
5786 Repair of bladder exstrophy
5787 Reconstruction of urinary bladder
5788 Other anastomosis of bladder
5789 Other repair of bladder
5791 Sphincterotomy of bladder
5792 Dilation of bladder neck
5793 Control of (postoperative) hemorrhage of bladder
5794 Insertion of indwelling urinary catheter
5795 Replacement of indwelling urinary catheter
5796 Implantation of electronic bladder stimulator
5797 Replacement of electronic bladder stimulator
5798 Removal of electronic bladder stimulator
5799 Other operations on bladder
580 Urethrotomy
581 Urethral meatotomy
5821 Perineal urethroscopy
5822 Other urethroscopy

5823 Biopsy of urethra
5824 Biopsy of periurethral tissue
5829 Other diagnostic procedures on urethra and periurethral tissue
5831 Endoscopic excision or destruction of lesion or tissue of urethra
5839 Other local excision or destruction of lesion or tissue of urethra
5841 Suture of laceration of urethra
5842 Closure of urethrostomy
5843 Closure of other fistula of urethra
5844 Reanastomosis of urethra
5845 Repair of hypospadias or epispadias
5846 Other reconstruction of urethra
5847 Urethral meatoplasty
5849 Other repair of urethra
585 Release of urethral stricture
586 Dilation of urethra
5891 Incision of periurethral tissue
5892 Excision of periurethral tissue
5893 Implantation of artificial urinary sphincter [AUS]
5899 Other operations on urethra and periurethral tissue
5900 Retroperitoneal dissection, not otherwise specified
5902 Other lysis of perirenal or periureteral adhesions
5903 Laparoscopic lysis of perirenal or periureteral adhesions
5909 Other incision of perirenal or periureteral tissue
5911 Other lysis of perivesical adhesions
5912 Laparoscopic lysis of perivesical adhesions
5919 Other incision of perivesical tissue
5921 Biopsy of perirenal or perivesical tissue
5929 Other diagnostic procedures on perirenal tissue, perivesical tissue, and retroperitoneum
593 Plication of urethrovesical junction
594 Suprapubic sling operation
595 Retropubic urethral suspension
596 Paraurethral suspension
5971 Levator muscle operation for urethrovesical suspension
5972 Injection of implant into urethra and/or bladder neck
5979 Other repair of urinary stress incontinence
598 Ureteral catheterization

5991 Excision of perirenal or perivesical tissue
5992 Other operations on perirenal or perivesical tissue
5993 Replacement of ureterostomy tube
5994 Replacement of cystostomy tube
5995 Ultrasonic fragmentation of urinary stones
5999 Other operations on urinary system
600 Incision of prostate
6011 Closed [percutaneous] [needle] biopsy of prostate
6012 Open biopsy of prostate
6013 Closed [percutaneous] biopsy of seminal vesicles
6014 Open biopsy of seminal vesicles
6015 Biopsy of periprostatic tissue
6018 Other diagnostic procedures on prostate and periprostatic tissue
6019 Other diagnostic procedures on seminal vesicles
6021 Transurethral (ultrasound) guided laser induced prostatectomy (TULIP)
6029 Other transurethral prostatectomy
603 Suprapubic prostatectomy
604 Retropubic prostatectomy
605 Radical prostatectomy
6061 Local excision of lesion of prostate
6062 Perineal prostatectomy
6069 Other prostatectomy
6071 Percutaneous aspiration of seminal vesicle
6072 Incision of seminal vesicle
6073 Excision of seminal vesicle
6079 Other operations on seminal vesicles
6081 Incision of periprostatic tissue
6082 Excision of periprostatic tissue
6091 Percutaneous aspiration of prostate
6092 Injection into prostate
6093 Repair of prostate
6094 Control of (postoperative) hemorrhage of prostate
6095 Transurethral balloon dilation of the prostatic urethra
6096 Transurethral destruction of prostate tissue by microwave thermotherapy
6097 Other transurethral destruction of prostate tissue by other thermotherapy
6099 Other operations on prostate

610 Incision and drainage of scrotum and tunica vaginalis
6111 Biopsy of scrotum or tunica vaginalis
6119 Other diagnostic procedures on scrotum and tunica vaginalis
612 Excision of hydrocele (of tunica vaginalis)
613 Excision or destruction of lesion or tissue of scrotum
6141 Suture of laceration of scrotum and tunica vaginalis
6142 Repair of scrotal fistula
6149 Other repair of scrotum and tunica vaginalis
6191 Percutaneous aspiration of tunica vaginalis
6192 Excision of lesion of tunica vaginalis other than hydrocele
6199 Other operations on scrotum and tunica vaginalis
620 Incision of testis
6211 Closed [percutaneous] [needle] biopsy of testis
6212 Open biopsy of testis
6219 Other diagnostic procedures on testes
622 Excision or destruction of testicular lesion
623 Unilateral orchiectomy
6241 Removal of both testes at same operative episode
6242 Removal of remaining testis
625 Orchiopexy
6261 Suture of laceration of testis
6269 Other repair of testis
627 Insertion of testicular prosthesis
6291 Aspiration of testis
6292 Injection of therapeutic substance into testis
6299 Other operations on testes
6301 Biopsy of spermatic cord, epididymis, or vas deferens
6309 Other diagnostic procedures on spermatic cord, epididymis, and vas deferens
631 Excision of varicocele and hydrocele of spermatic cord
632 Excision of cyst of epididymis
633 Excision of other lesion or tissue of spermatic cord and epididymis
634 Epididymectomy
6351 Suture of laceration of spermatic cord and epididymis
6352 Reduction of torsion of testis or spermatic cord
6353 Transplantation of spermatic cord
6359 Other repair of spermatic cord and epididymis

636 Vasotomy
6370 Male sterilization procedure, not otherwise specified
6371 Ligation of vas deferens
6372 Ligation of spermatic cord
6373 Vasectomy
6381 Suture of laceration of vas deferens and epididymis
6382 Reconstruction of surgically divided vas deferens
6383 Epididymovasostomy
6384 Removal of ligature from vas deferens
6385 Removal of valve from vas deferens
6389 Other repair of vas deferens and epididymis
6391 Aspiration of spermatocele
6392 Epididymotomy
6393 Incision of spermatic cord
6394 Lysis of adhesions of spermatic cord
6395 Insertion of valve in vas deferens
6399 Other operations on spermatic cord, epididymis, and vas deferens
640 Circumcision
6411 Biopsy of penis
6419 Other diagnostic procedures on penis
642 Local excision or destruction of lesion of penis
643 Amputation of penis
6441 Suture of laceration of penis
6442 Release of chordee
6443 Construction of penis
6444 Reconstruction of penis
6445 Replantation of penis
6449 Other repair of penis
645 Operations for sex transformation, not elsewhere classified
6491 Dorsal or lateral slit of prepuce
6492 Incision of penis
6493 Division of penile adhesions
6494 Fitting of external prosthesis of penis
6495 Insertion or replacement of non-inflatable penile prosthesis
6496 Removal of internal prosthesis of penis
6497 Insertion or replacement of inflatable penile prosthesis

6498 Other operations on penis
6499 Other operations on male genital organs
6501 Laparoscopic oophorotomy
6509 Other oophorotomy
6511 Aspiration biopsy of ovary
6512 Other biopsy of ovary
6513 Laparoscopic biopsy of ovary
6514 Other laparoscopic diagnostic procedures on ovaries
6519 Other diagnostic procedures on ovaries
6521 Marsupialization of ovarian cyst
6522 Wedge resection of ovary
6523 Laparoscopic marsupialization of ovarian cyst
6524 Laparoscopic wedge resection of ovary
6525 Other laparoscopic local excision or destruction of ovary
6529 Other local excision or destruction of ovary
6531 Laparoscopic unilateral oophorectomy
6539 Other unilateral oophorectomy
6541 Laparoscopic unilateral salpingo-oophorectomy
6549 Other unilateral salpingo-oophorectomy
6551 Other removal of both ovaries at same operative episode
6552 Other removal of remaining ovary
6553 Laparoscopic removal of both ovaries at same operative episode
6554 Laparoscopic removal of remaining ovary
6561 Other removal of both ovaries and tubes at same operative episode
6562 Other removal of remaining ovary and tube
6563 Laparoscopic removal of both ovaries and tubes at same operative episode
6564 Laparoscopic removal of remaining ovary and tube
6571 Other simple suture of ovary
6572 Other reimplantation of ovary
6573 Other salpingo-oophoroplasty
6574 Laparoscopic simple suture of ovary
6575 Laparoscopic reimplantation of ovary
6576 Laparoscopic salpingo-oophoroplasty
6579 Other repair of ovary
6581 Laparoscopic lysis of adhesions of ovary and fallopian tube
6589 Other lysis of adhesions of ovary and fallopian tube

6591 Aspiration of ovary
6592 Transplantation of ovary
6593 Manual rupture of ovarian cyst
6594 Ovarian denervation
6595 Release of torsion of ovary
6599 Other operations on ovary
6601 Salpingotomy
6602 Salpingostomy
6611 Biopsy of fallopian tube
6619 Other diagnostic procedures on fallopian tubes
6621 Bilateral endoscopic ligation and crushing of fallopian tubes
6622 Bilateral endoscopic ligation and division of fallopian tubes
6629 Other bilateral endoscopic destruction or occlusion of fallopian tubes
6631 Other bilateral ligation and crushing of fallopian tubes
6632 Other bilateral ligation and division of fallopian tubes
6639 Other bilateral destruction or occlusion of fallopian tubes
664 Total unilateral salpingectomy
6651 Removal of both fallopian tubes at same operative episode
6652 Removal of remaining fallopian tube
6661 Excision or destruction of lesion of fallopian tube
6662 Salpingectomy with removal of tubal pregnancy
6663 Bilateral partial salpingectomy, not otherwise specified
6669 Other partial salpingectomy
6671 Simple suture of fallopian tube
6672 Salpingo-oophorostomy
6673 Salpingo-salpingostomy
6674 Salpingo-uterostomy
6679 Other repair of fallopian tube
668 Insufflation of fallopian tube
6691 Aspiration of fallopian tube
6692 Unilateral destruction or occlusion of fallopian tube
6693 Implantation or replacement of prosthesis of fallopian tube
6694 Removal of prosthesis of fallopian tube
6695 Insufflation of therapeutic agent into fallopian tubes
6696 Dilation of fallopian tube
6697 Burying of fimbriae in uterine wall

6699 Other operations on fallopian tubes
670 Dilation of cervical canal
6711 Endocervical biopsy
6712 Other cervical biopsy
6719 Other diagnostic procedures on cervix
672 Conization of cervix
6731 Marsupialization of cervical cyst
6732 Destruction of lesion of cervix by cauterization
6733 Destruction of lesion of cervix by cryosurgery
6739 Other excision or destruction of lesion or tissue of cervix
674 Amputation of cervix
6751 Transabdominal cerclage of cervix
6759 Other repair of internal cervical os
6761 Suture of laceration of cervix
6762 Repair of fistula of cervix
6769 Other repair of cervix
680 Hysterotomy
6811 Digital examination of uterus
6812 Hysteroscopy
6813 Open biopsy of uterus
6814 Open biopsy of uterine ligaments
6815 Closed biopsy of uterine ligaments
6816 Closed biopsy of uterus
6819 Other diagnostic procedures on uterus and supporting structures
6821 Division of endometrial synechiae
6822 Incision or excision of congenital septum of uterus
6823 Endometrial ablation
6824 Uterine artery embolization [UAE] with coils
6825 Uterine artery embolization [UAE] without coils
6829 Other excision or destruction of lesion of uterus
6831 Laparoscopic supracervical hysterectomy [LSH]
6839 Other and unspecified subtotal abdominal hysterectomy
6841 Laparoscopic total abdominal hysterectomy
6849 Other and unspecified total abdominal hysterectomy
6851 Laparoscopically assisted vaginal hysterectomy (LAVH)
6859 Other and unspecified vaginal hysterectomy

6861 Laparoscopic radical abdominal hysterectomy
6869 Other and unspecified radical abdominal hysterectomy
6871 Laparoscopic radical vaginal hysterectomy [LRVH]
6879 Other and unspecified radical vaginal hysterectomy
688 Pelvic evisceration
689 Other and unspecified hysterectomy
6901 Dilation and curettage for termination of pregnancy
6902 Dilation and curettage following delivery or abortion
6909 Other dilation and curettage
6919 Other excision or destruction of uterus and supporting structures
6921 Interposition operation
6922 Other uterine suspension
6923 Vaginal repair of chronic inversion of uterus
6929 Other repair of uterus and supporting structures
693 Paracervical uterine denervation
6941 Suture of laceration of uterus
6942 Closure of fistula of uterus
6949 Other repair of uterus
6951 Aspiration curettage of uterus for termination of pregnancy
6952 Aspiration curettage following delivery or abortion
6959 Other aspiration curettage of uterus
696 Menstrual extraction or regulation
697 Insertion of intrauterine contraceptive device
6991 Insertion of therapeutic device into uterus
6992 Artificial insemination
6993 Insertion of laminaria
6994 Manual replacement of inverted uterus
6995 Incision of cervix
6996 Removal of cerclage material from cervix
6997 Removal of other penetrating foreign body from cervix
6998 Other operations on supporting structures of uterus
6999 Other operations on cervix and uterus
700 Culdocentesis
7011 Hymenotomy
7012 Culdotomy
7013 Lysis of intraluminal adhesions of vagina

7014 Other vaginotomy
7021 Vaginoscopy
7022 Culdoscopy
7023 Biopsy of cul-de-sac
7024 Vaginal biopsy
7029 Other diagnostic procedures on vagina and cul-de-sac
7031 Hymenectomy
7032 Excision or destruction of lesion of cul-de-sac
7033 Excision or destruction of lesion of vagina
704 Obliteration and total excision of vagina
7050 Repair of cystocele and rectocele
7051 Repair of cystocele
7052 Repair of rectocele
7053 Repair of cystocele and rectocele with graft or prosthesis
7054 Repair of cystocele with graft or prosthesis
7055 Repair of rectocele with graft or prosthesis
7061 Vaginal construction
7062 Vaginal reconstruction
7063 Vaginal construction with graft or prosthesis
7064 Vaginal reconstruction with graft or prosthesis
7071 Suture of laceration of vagina
7072 Repair of colovaginal fistula
7073 Repair of rectovaginal fistula
7074 Repair of other vaginoenteric fistula
7075 Repair of other fistula of vagina
7076 Hymenorrhaphy
7077 Vaginal suspension and fixation
7078 Vaginal suspension and fixation with graft or prosthesis
7079 Other repair of vagina
708 Obliteration of vaginal vault
7091 Other operations on vagina
7092 Other operations on cul-de-sac
7093 Other operations on cul-de-sac with graft or prosthesis
7094 Insertion of biological graft
7095 Insertion of synthetic graft or prosthesis
7101 Lysis of vulvar adhesions

7109 Other incision of vulva and perineum
7111 Biopsy of vulva
7119 Other diagnostic procedures on vulva
7121 Percutaneous aspiration of Bartholin's gland (cyst)
7122 Incision of Bartholin's gland (cyst)
7123 Marsupialization of Bartholin's gland (cyst)
7124 Excision or other destruction of Bartholin's gland (cyst)
7129 Other operations on Bartholin's gland
713 Other local excision or destruction of vulva and perineum
714 Operations on clitoris
715 Radical vulvectomy
7161 Unilateral vulvectomy
7162 Bilateral vulvectomy
7171 Suture of laceration of vulva or perineum
7172 Repair of fistula of vulva or perineum
7179 Other repair of vulva and perineum
718 Other operations on vulva
719 Other operations on female genital organs
720 Low forceps operation
721 Low forceps operation with episiotomy
7221 Mid forceps operation with episiotomy
7229 Other mid forceps operation
7231 High forceps operation with episiotomy
7239 Other high forceps operation
724 Forceps rotation of fetal head
7251 Partial breech extraction with forceps to aftercoming head
7252 Other partial breech extraction
7253 Total breech extraction with forceps to aftercoming head
7254 Other total breech extraction
726 Forceps application to aftercoming head
7271 Vacuum extraction with episiotomy
7279 Other vacuum extraction
728 Other specified instrumental delivery
729 Unspecified instrumental delivery
7301 Induction of labor by artificial rupture of membranes
7309 Other artificial rupture of membranes

731 Other surgical induction of labor
7321 Internal and combined version without extraction
7322 Internal and combined version with extraction
733 Failed forceps
734 Medical induction of labor
7351 Manual rotation of fetal head
7359 Other manually assisted delivery
736 Episiotomy
738 Operations on fetus to facilitate delivery
7391 External version assisting delivery
7392 Replacement of prolapsed umbilical cord
7393 Incision of cervix to assist delivery
7394 Pubiotomy to assist delivery
7399 Other operations assisting delivery
740 Classical cesarean section
741 Low cervical cesarean section
742 Extraperitoneal cesarean section
743 Removal of extratubal ectopic pregnancy
744 Cesarean section of other specified type
7491 Hysterotomy to terminate pregnancy
7499 Other cesarean section of unspecified type
750 Intra-amniotic injection for abortion
751 Diagnostic amniocentesis
752 Intrauterine transfusion
7531 Amnioscopy
7532 Fetal EKG (scalp)
7533 Fetal blood sampling and biopsy
7534 Other fetal monitoring
7535 Other diagnostic procedures on fetus and amnion
7536 Correction of fetal defect
7537 Amnioinfusion
7538 Fetal pulse oximetry
754 Manual removal of retained placenta
7550 Repair of current obstetric laceration of uterus, not otherwise specified
7551 Repair of current obstetric laceration of cervix
7552 Repair of current obstetric laceration of corpus uteri

7561 Repair of current obstetric laceration of bladder and urethra
7562 Repair of current obstetric laceration of rectum and sphincter ani
7569 Repair of other current obstetric laceration
757 Manual exploration of uterine cavity, postpartum
758 Obstetric tamponade of uterus or vagina
7591 Evacuation of obstetrical incisional hematoma of perineum
7592 Evacuation of other hematoma of vulva or vagina
7593 Surgical correction of inverted uterus
7594 Immediate postpartum manual replacement of inverted uterus
7599 Other obstetric operations
7601 Sequestrectomy of facial bone
7609 Other incision of facial bone
7611 Biopsy of facial bone
7619 Other diagnostic procedures on facial bones and joints
762 Local excision or destruction of lesion of facial bone
7631 Partial mandibulectomy
7639 Partial ostectomy of other facial bone
7641 Total mandibulectomy with synchronous reconstruction
7642 Other total mandibulectomy
7643 Other reconstruction of mandible
7644 Total ostectomy of other facial bone with synchronous reconstruction
7645 Other total ostectomy of other facial bone
7646 Other reconstruction of other facial bone
765 Temporomandibular arthroplasty
7661 Closed osteoplasty [osteotomy] of mandibular ramus
7662 Open osteoplasty [osteotomy] of mandibular ramus
7663 Osteoplasty [osteotomy] of body of mandible
7664 Other orthognathic surgery on mandible
7665 Segmental osteoplasty [osteotomy] of maxilla
7666 Total osteoplasty [osteotomy] of maxilla
7667 Reduction genioplasty
7668 Augmentation genioplasty
7669 Other facial bone repair
7670 Reduction of facial fracture, not otherwise specified
7671 Closed reduction of malar and zygomatic fracture
7672 Open reduction of malar and zygomatic fracture

7673 Closed reduction of maxillary fracture
7674 Open reduction of maxillary fracture
7675 Closed reduction of mandibular fracture
7676 Open reduction of mandibular fracture
7677 Open reduction of alveolar fracture
7678 Other closed reduction of facial fracture
7679 Other open reduction of facial fracture
7691 Bone graft to facial bone
7692 Insertion of synthetic implant in facial bone
7693 Closed reduction of temporomandibular dislocation
7694 Open reduction of temporomandibular dislocation
7695 Other manipulation of temporomandibular joint
7696 Injection of therapeutic substance into temporomandibular joint
7697 Removal of internal fixation device from facial bone
7699 Other operations on facial bones and joints
7700 Sequestrectomy, unspecified site
7701 Sequestrectomy, scapula, clavicle, and thorax [ribs and sternum]
7702 Sequestrectomy, humerus
7703 Sequestrectomy, radius and ulna
7704 Sequestrectomy, carpals and metacarpals
7705 Sequestrectomy, femur
7706 Sequestrectomy, patella
7707 Sequestrectomy, tibia and fibula
7708 Sequestrectomy, tarsals and metatarsals
7709 Sequestrectomy, other bones
7710 Other incision of bone without division, unspecified site
7711 Other incision of bone without division, scapula, clavicle, and thorax [ribs and sternum]
7712 Other incision of bone without division, humerus
7713 Other incision of bone without division, radius and ulna
7714 Other incision of bone without division, carpals and metacarpals
7715 Other incision of bone without division, femur
7716 Other incision of bone without division, patella
7717 Other incision of bone without division, tibia and fibula
7718 Other incision of bone without division, tarsals and metatarsals
7719 Other incision of bone without division, other bones
7720 Wedge osteotomy, unspecified site

7721 Wedge osteotomy, scapula, clavicle, and thorax [ribs and sternum]
7722 Wedge osteotomy, humerus
7723 Wedge osteotomy, radius and ulna
7724 Wedge osteotomy, carpals and metacarpals
7725 Wedge osteotomy, femur
7726 Wedge osteotomy, patella
7727 Wedge osteotomy, tibia and fibula
7728 Wedge osteotomy, tarsals and metatarsals
7729 Wedge osteotomy, other bones
7730 Other division of bone, unspecified site
7731 Other division of bone, scapula, clavicle, and thorax [ribs and sternum]
7732 Other division of bone, humerus
7733 Other division of bone, radius and ulna
7734 Other division of bone, carpals and metacarpals
7735 Other division of bone, femur
7736 Other division of bone, patella
7737 Other division of bone, tibia and fibula
7738 Other division of bone, tarsals and metatarsals
7739 Other division of bone, other bones
7740 Biopsy of bone, unspecified site
7741 Biopsy of bone, scapula, clavicle, and thorax [ribs and sternum]
7742 Biopsy of bone, humerus
7743 Biopsy of bone, radius and ulna
7744 Biopsy of bone, carpals and metacarpals
7745 Biopsy of bone, femur
7746 Biopsy of bone, patella
7747 Biopsy of bone, tibia and fibula
7748 Biopsy of bone, tarsals and metatarsals
7749 Biopsy of bone, other bones
7751 Bunionectomy with soft tissue correction and osteotomy of the first metatarsal
7752 Bunionectomy with soft tissue correction and arthrodesis
7753 Other bunionectomy with soft tissue correction
7754 Excision or correction of bunionette
7756 Repair of hammer toe
7757 Repair of claw toe
7758 Other excision, fusion and repair of toes

7759 Other bunionectomy

7760 Local excision of lesion or tissue of bone, unspecified site

7761 Local excision of lesion or tissue of bone, scapula, clavicle, and thorax [ribs and sternum]

7762 Local excision of lesion or tissue of bone, humerus

7763 Local excision of lesion or tissue of bone, radius and ulna

7764 Local excision of lesion or tissue of bone, carpals and metacarpals

7765 Local excision of lesion or tissue of bone, femur

7766 Local excision of lesion or tissue of bone, patella

7767 Local excision of lesion or tissue of bone, tibia and fibula

7768 Local excision of lesion or tissue of bone, tarsals and metatarsals

7769 Local excision of lesion or tissue of bone, other bones

7770 Excision of bone for graft, unspecified site

7771 Excision of bone for graft, scapula, clavicle, and thorax [ribs and sternum]

7772 Excision of bone for graft, humerus

7773 Excision of bone for graft, radius and ulna

7774 Excision of bone for graft, carpals and metacarpals

7775 Excision of bone for graft, femur

7776 Excision of bone for graft, patella

7777 Excision of bone for graft, tibia and fibula

7778 Excision of bone for graft, tarsals and metatarsals

7779 Excision of bone for graft, other bones

7780 Other partial ostectomy, unspecified site

7781 Other partial ostectomy, scapula, clavicle, and thorax [ribs and sternum]

7782 Other partial ostectomy, humerus

7783 Other partial ostectomy, radius and ulna

7784 Other partial ostectomy, carpals and metacarpals

7785 Other partial ostectomy, femur

7786 Other partial ostectomy, patella

7787 Other partial ostectomy, tibia and fibula

7788 Other partial ostectomy, tarsals and metatarsals

7789 Other partial ostectomy, other bones

7790 Total ostectomy, unspecified site

7791 Total ostectomy, scapula, clavicle, and thorax [ribs and sternum]

7792 Total ostectomy, humerus

7793 Total ostectomy, radius and ulna

7794 Total ostectomy, carpals and metacarpals

7795 Total ostectomy, femur
7796 Total ostectomy, patella
7797 Total ostectomy, tibia and fibula
7798 Total ostectomy, tarsals and metatarsals
7799 Total ostectomy, other bones
7800 Bone graft, unspecified site
7801 Bone graft, scapula, clavicle, and thorax [ribs and sternum]
7802 Bone graft, humerus
7803 Bone graft, radius and ulna
7804 Bone graft, carpals and metacarpals
7805 Bone graft, femur
7806 Bone graft, patella
7807 Bone graft, tibia and fibula
7808 Bone graft, tarsals and metatarsals
7809 Bone graft, other bones
7810 Application of external fixator device, unspecified site
7811 Application of external fixator device, scapula, clavicle, and thorax [ribs and sternum]
7812 Application of external fixator device, humerus
7813 Application of external fixator device, radius and ulna
7814 Application of external fixator device, carpals and metacarpals
7815 Application of external fixator device, femur
7816 Application of external fixator device, patella
7817 Application of external fixator device, tibia and fibula
7818 Application of external fixator device, tarsals and metatarsals
7819 Application of external fixator device, other bones
7820 Limb shortening procedures, unspecified site
7822 Limb shortening procedures, humerus
7823 Limb shortening procedures, radius and ulna
7824 Limb shortening procedures, carpals and metacarpals
7825 Limb shortening procedures, femur
7827 Limb shortening procedures, tibia and fibula
7828 Limb shortening procedures, tarsals and metatarsals
7829 Limb shortening procedures, other bones
7830 Limb lengthening procedures, unspecified site
7832 Limb lengthening procedures, humerus
7833 Limb lengthening procedures, radius and ulna

7834 Limb lengthening procedures, carpals and metacarpals
7835 Limb lengthening procedures, femur
7837 Limb lengthening procedures, tibia and fibula
7838 Limb lengthening procedures, tarsals and metatarsals
7839 Limb lengthening procedures, other bones
7840 Other repair or plastic operations on bone, unspecified site
7841 Other repair or plastic operations on bone, scapula, clavicle, and thorax [ribs and sternum]
7842 Other repair or plastic operations on bone, humerus
7843 Other repair or plastic operations on bone, radius and ulna
7844 Other repair or plastic operations on bone, carpals and metacarpals
7845 Other repair or plastic operations on bone, femur
7846 Other repair or plastic operations on bone, patella
7847 Other repair or plastic operations on bone, tibia and fibula
7848 Other repair or plastic operations on bone, tarsals and metatarsals
7849 Other repair or plastic operations on bone, other bones
7850 Internal fixation of bone without fracture reduction, unspecified site
7851 Internal fixation of bone without fracture reduction, scapula, clavicle, and thorax [ribs and sternum]
7852 Internal fixation of bone without fracture reduction, humerus
7853 Internal fixation of bone without fracture reduction, radius and ulna
7854 Internal fixation of bone without fracture reduction, carpals and metacarpals
7855 Internal fixation of bone without fracture reduction, femur
7856 Internal fixation of bone without fracture reduction, patella
7857 Internal fixation of bone without fracture reduction, tibia and fibula
7858 Internal fixation of bone without fracture reduction, tarsals and metatarsals
7859 Internal fixation of bone without fracture reduction, other bones
7860 Removal of implanted devices from bone, unspecified site
7861 Removal of implanted devices from bone, scapula, clavicle, and thorax [ribs and sternum]
7862 Removal of implanted devices from bone, humerus
7863 Removal of implanted devices from bone, radius and ulna
7864 Removal of implanted devices from bone, carpals and metacarpals
7865 Removal of implanted devices from bone, femur
7866 Removal of implanted devices from bone, patella
7867 Removal of implanted devices from bone, tibia and fibula
7868 Removal of implanted devices from bone, tarsals and metatarsals
7869 Removal of implanted devices from bone, other bones

- 7870 Osteoclasia, unspecified site
- 7871 Osteoclasia, scapula, clavicle, and thorax [ribs and sternum]
- 7872 Osteoclasia, humerus
- 7873 Osteoclasia, radius and ulna
- 7874 Osteoclasia, carpals and metacarpals
- 7875 Osteoclasia, femur
- 7876 Osteoclasia, patella
- 7877 Osteoclasia, tibia and fibula
- 7878 Osteoclasia, tarsals and metatarsals
- 7879 Osteoclasia, other bones
- 7880 Diagnostic procedures on bone, not elsewhere classified, unspecified site
- 7881 Diagnostic procedures on bone, not elsewhere classified, scapula, clavicle, and thorax [ribs and sternum]
- 7882 Diagnostic procedures on bone, not elsewhere classified, humerus
- 7883 Diagnostic procedures on bone, not elsewhere classified, radius and ulna
- 7884 Diagnostic procedures on bone, not elsewhere classified, carpals and metacarpals
- 7885 Diagnostic procedures on bone, not elsewhere classified, femur
- 7886 Diagnostic procedures on bone, not elsewhere classified, patella
- 7887 Diagnostic procedures on bone, not elsewhere classified, tibia and fibula
- 7888 Diagnostic procedures on bone, not elsewhere classified, tarsals and metatarsals
- 7889 Diagnostic procedures on bone, not elsewhere classified, other bones
- 7890 Insertion of bone growth stimulator, unspecified site
- 7891 Insertion of bone growth stimulator, scapula, clavicle and thorax [ribs and sternum]
- 7892 Insertion of bone growth stimulator, humerus
- 7893 Insertion of bone growth stimulator, radius and ulna
- 7894 Insertion of bone growth stimulator, carpals and metacarpals
- 7895 Insertion of bone growth stimulator, femur
- 7896 Insertion of bone growth stimulator, patella
- 7897 Insertion of bone growth stimulator, tibia and fibula
- 7898 Insertion of bone growth stimulator, tarsals and metatarsals
- 7899 Insertion of bone growth stimulator, other bones
- 7900 Closed reduction of fracture without internal fixation, unspecified site
- 7901 Closed reduction of fracture without internal fixation, humerus
- 7902 Closed reduction of fracture without internal fixation, radius and ulna
- 7903 Closed reduction of fracture without internal fixation, carpals and metacarpals
- 7904 Closed reduction of fracture without internal fixation, phalanges of hand

7905 Closed reduction of fracture without internal fixation, femur
7906 Closed reduction of fracture without internal fixation, tibia and fibula
7907 Closed reduction of fracture without internal fixation, tarsals and metatarsals
7908 Closed reduction of fracture without internal fixation, phalanges of foot
7909 Closed reduction of fracture without internal fixation, other specified bone
7910 Closed reduction of fracture with internal fixation, unspecified site
7911 Closed reduction of fracture with internal fixation, humerus
7912 Closed reduction of fracture with internal fixation, radius and ulna
7913 Closed reduction of fracture with internal fixation, carpals and metacarpals
7914 Closed reduction of fracture with internal fixation, phalanges of hand
7915 Closed reduction of fracture with internal fixation, femur
7916 Closed reduction of fracture with internal fixation, tibia and fibula
7917 Closed reduction of fracture with internal fixation, tarsals and metatarsals
7918 Closed reduction of fracture with internal fixation, phalanges of foot
7919 Closed reduction of fracture with internal fixation, other specified bone
7920 Open reduction of fracture without internal fixation, unspecified site
7921 Open reduction of fracture without internal fixation, humerus
7922 Open reduction of fracture without internal fixation, radius and ulna
7923 Open reduction of fracture without internal fixation, carpals and metacarpals
7924 Open reduction of fracture without internal fixation, phalanges of hand
7925 Open reduction of fracture without internal fixation, femur
7926 Open reduction of fracture without internal fixation, tibia and fibula
7927 Open reduction of fracture without internal fixation, tarsals and metatarsals
7928 Open reduction of fracture without internal fixation, phalanges of foot
7929 Open reduction of fracture without internal fixation, other specified bone
7930 Open reduction of fracture with internal fixation, unspecified site
7931 Open reduction of fracture with internal fixation, humerus
7932 Open reduction of fracture with internal fixation, radius and ulna
7933 Open reduction of fracture with internal fixation, carpals and metacarpals
7934 Open reduction of fracture with internal fixation, phalanges of hand
7935 Open reduction of fracture with internal fixation, femur
7936 Open reduction of fracture with internal fixation, tibia and fibula
7937 Open reduction of fracture with internal fixation, tarsals and metatarsals
7938 Open reduction of fracture with internal fixation, phalanges of foot
7939 Open reduction of fracture with internal fixation, other specified bone
7940 Closed reduction of separated epiphysis, unspecified site

7941 Closed reduction of separated epiphysis, humerus
7942 Closed reduction of separated epiphysis, radius and ulna
7945 Closed reduction of separated epiphysis, femur
7946 Closed reduction of separated epiphysis, tibia and fibula
7949 Closed reduction of separated epiphysis, other specified bone
7950 Open reduction of separated epiphysis, unspecified site
7951 Open reduction of separated epiphysis, humerus
7952 Open reduction of separated epiphysis, radius and ulna
7955 Open reduction of separated epiphysis, femur
7956 Open reduction of separated epiphysis, tibia and fibula
7959 Open reduction of separated epiphysis, other specified bone
7960 Debridement of open fracture, unspecified site
7961 Debridement of open fracture site, humerus
7962 Debridement of open fracture site, radius and ulna
7963 Debridement of open fracture site, carpals and metacarpals
7964 Debridement of open fracture site, phalanges of hand
7965 Debridement of open fracture site, femur
7966 Debridement of open fracture site, tibia and fibula
7967 Debridement of open fracture site, tarsals and metatarsals
7968 Debridement of open fracture site, phalanges of foot
7969 Debridement of open fracture site, other specified bone
7970 Closed reduction of dislocation of unspecified site
7971 Closed reduction of dislocation of shoulder
7972 Closed reduction of dislocation of elbow
7973 Closed reduction of dislocation of wrist
7974 Closed reduction of dislocation of hand and finger
7975 Closed reduction of dislocation of hip
7976 Closed reduction of dislocation of knee
7977 Closed reduction of dislocation of ankle
7978 Closed reduction of dislocation of foot and toe
7979 Closed reduction of dislocation of other specified sites
7980 Open reduction of dislocation of unspecified site
7981 Open reduction of dislocation of shoulder
7982 Open reduction of dislocation of elbow
7983 Open reduction of dislocation of wrist
7984 Open reduction of dislocation of hand and finger

7985 Open reduction of dislocation of hip
7986 Open reduction of dislocation of knee
7987 Open reduction of dislocation of ankle
7988 Open reduction of dislocation of foot and toe
7989 Open reduction of dislocation of other specified sites
7990 Unspecified operation on bone injury, unspecified site
7991 Unspecified operation on bone injury, humerus
7992 Unspecified operation on bone injury, radius and ulna
7993 Unspecified operation on bone injury, carpals and metacarpals
7994 Unspecified operation on bone injury, phalanges of hand
7995 Unspecified operation on bone injury, femur
7996 Unspecified operation on bone injury, tibia and fibula
7997 Unspecified operation on bone injury, tarsals and metatarsals
7998 Unspecified operation on bone injury, phalanges of foot
7999 Unspecified operation on bone injury, other specified bone
8000 Arthrotomy for removal of prosthesis without replacement, unspecified site
8001 Arthrotomy for removal of prosthesis without replacement, shoulder
8002 Arthrotomy for removal of prosthesis without replacement, elbow
8003 Arthrotomy for removal of prosthesis without replacement, wrist
8004 Arthrotomy for removal of prosthesis without replacement, hand and finger
8005 Arthrotomy for removal of prosthesis without replacement, hip
8006 Arthrotomy for removal of prosthesis without replacement, knee
8007 Arthrotomy for removal of prosthesis without replacement, ankle
8008 Arthrotomy for removal of prosthesis without replacement, foot and toe
8009 Arthrotomy for removal of prosthesis without replacement, other specified sites
8010 Other arthrotomy, unspecified site
8011 Other arthrotomy, shoulder
8012 Other arthrotomy, elbow
8013 Other arthrotomy, wrist
8014 Other arthrotomy, hand and finger
8015 Other arthrotomy, hip
8016 Other arthrotomy, knee
8017 Other arthrotomy, ankle
8018 Other arthrotomy, foot and toe
8019 Other arthrotomy, other specified sites
8020 Arthroscopy, unspecified site

8021 Arthroscopy, shoulder
8022 Arthroscopy, elbow
8023 Arthroscopy, wrist
8024 Arthroscopy, hand and finger
8025 Arthroscopy, hip
8026 Arthroscopy, knee
8027 Arthroscopy, ankle
8028 Arthroscopy, foot and toe
8029 Arthroscopy, other specified sites
8030 Biopsy of joint structure, unspecified site
8031 Biopsy of joint structure, shoulder
8032 Biopsy of joint structure, elbow
8033 Biopsy of joint structure, wrist
8034 Biopsy of joint structure, hand and finger
8035 Biopsy of joint structure, hip
8036 Biopsy of joint structure, knee
8037 Biopsy of joint structure, ankle
8038 Biopsy of joint structure, foot and toe
8039 Biopsy of joint structure, other specified sites
8040 Division of joint capsule, ligament, or cartilage, unspecified site
8041 Division of joint capsule, ligament, or cartilage, shoulder
8042 Division of joint capsule, ligament, or cartilage, elbow
8043 Division of joint capsule, ligament, or cartilage, wrist
8044 Division of joint capsule, ligament, or cartilage, hand and finger
8045 Division of joint capsule, ligament, or cartilage, hip
8046 Division of joint capsule, ligament, or cartilage, knee
8047 Division of joint capsule, ligament, or cartilage, ankle
8048 Division of joint capsule, ligament, or cartilage, foot and toe
8049 Division of joint capsule, ligament, or cartilage, other specified sites
8050 Excision or destruction of intervertebral disc, unspecified
8051 Excision of intervertebral disc
8052 Intervertebral chemonucleolysis
8053 Repair of the anulus fibrosus with graft or prosthesis
8054 Other and unspecified repair of the anulus fibrosus
8059 Other destruction of intervertebral disc
806 Excision of semilunar cartilage of knee

8070 Synovectomy, unspecified site
8071 Synovectomy, shoulder
8072 Synovectomy, elbow
8073 Synovectomy, wrist
8074 Synovectomy, hand and finger
8075 Synovectomy, hip
8076 Synovectomy, knee
8077 Synovectomy, ankle
8078 Synovectomy, foot and toe
8079 Synovectomy, other specified sites
8080 Other local excision or destruction of lesion of joint, unspecified site
8081 Other local excision or destruction of lesion of joint, shoulder
8082 Other local excision or destruction of lesion of joint, elbow
8083 Other local excision or destruction of lesion of joint, wrist
8084 Other local excision or destruction of lesion of joint, hand and finger
8085 Other local excision or destruction of lesion of joint, hip
8086 Other local excision or destruction of lesion of joint, knee
8087 Other local excision or destruction of lesion of joint, ankle
8088 Other local excision or destruction of lesion of joint, foot and toe
8089 Other local excision or destruction of lesion of joint, other specified sites
8090 Other excision of joint, unspecified site
8091 Other excision of joint, shoulder
8092 Other excision of joint, elbow
8093 Other excision of joint, wrist
8094 Other excision of joint, hand and finger
8095 Other excision of joint, hip
8096 Other excision of joint, knee
8097 Other excision of joint, ankle
8098 Other excision of joint, foot and toe
8099 Other excision of joint, other specified sites
8100 Spinal fusion, not otherwise specified
8101 Atlas-axis spinal fusion
8102 Other cervical fusion of the anterior column, anterior technique
8103 Other cervical fusion of the posterior column, posterior technique
8104 Dorsal and dorsolumbar fusion of the anterior column, anterior technique
8105 Dorsal and dorsolumbar fusion of the posterior column, posterior technique

8106 Lumbar and lumbosacral fusion of the anterior column, anterior technique
8107 Lumbar and lumbosacral fusion of the posterior column, posterior technique
8108 Lumbar and lumbosacral fusion of the anterior column, posterior technique
8111 Ankle fusion
8112 Triple arthrodesis
8113 Subtalar fusion
8114 Midtarsal fusion
8115 Tarsometatarsal fusion
8116 Metatarsophalangeal fusion
8117 Other fusion of foot
8118 Subtalar joint arthroereisis
8120 Arthrodesis of unspecified joint
8121 Arthrodesis of hip
8122 Arthrodesis of knee
8123 Arthrodesis of shoulder
8124 Arthrodesis of elbow
8125 Carporadial fusion
8126 Metacarpocarpal fusion
8127 Metacarpophalangeal fusion
8128 Interphalangeal fusion
8129 Arthrodesis of other specified joints
8130 Refusion of spine, not otherwise specified
8131 Refusion of atlas-axis spine
8132 Refusion of other cervical spine, anterior column, anterior technique
8133 Refusion of other cervical spine, posterior column, posterior technique
8134 Refusion of dorsal and dorsolumbar spine, anterior column, anterior technique
8135 Refusion of dorsal and dorsolumbar spine, posterior column, posterior technique
8136 Refusion of lumbar and lumbosacral spine, anterior column, anterior technique
8137 Refusion of lumbar and lumbosacral spine, posterior column, posterior technique
8138 Refusion of lumbar and lumbosacral spine, anterior column, posterior technique
8139 Refusion of spine, not elsewhere classified
8140 Repair of hip, not elsewhere classified
8142 Five-in-one repair of knee
8143 Triad knee repair
8144 Patellar stabilization
8145 Other repair of the cruciate ligaments

8146 Other repair of the collateral ligaments
8147 Other repair of knee
8149 Other repair of ankle
8151 Total hip replacement
8152 Partial hip replacement
8153 Revision of hip replacement, not otherwise specified
8154 Total knee replacement
8155 Revision of knee replacement, not otherwise specified
8156 Total ankle replacement
8157 Replacement of joint of foot and toe
8159 Revision of joint replacement of lower extremity, not elsewhere classified
8162 Fusion or refusion of 2-3 vertebrae
8163 Fusion or refusion of 4-8 vertebrae
8164 Fusion or refusion of 9 or more vertebrae
8165 Percutaneous vertebroplasty
8166 Percutaneous vertebral augmentation
8171 Arthroplasty of metacarpophalangeal and interphalangeal joint with implant
8172 Arthroplasty of metacarpophalangeal and interphalangeal joint without implant
8173 Total wrist replacement
8174 Arthroplasty of carpocarpal or carpometacarpal joint with implant
8175 Arthroplasty of carpocarpal or carpometacarpal joint without implant
8179 Other repair of hand, fingers, and wrist
8180 Other total shoulder replacement
8181 Partial shoulder replacement
8182 Repair of recurrent dislocation of shoulder
8183 Other repair of shoulder
8184 Total elbow replacement
8185 Other repair of elbow
8188 Reverse total shoulder replacement
8191 Arthrocentesis
8192 Injection of therapeutic substance into joint or ligament
8193 Suture of capsule or ligament of upper extremity
8194 Suture of capsule or ligament of ankle and foot
8195 Suture of capsule or ligament of other lower extremity
8196 Other repair of joint
8197 Revision of joint replacement of upper extremity

8198 Other diagnostic procedures on joint structures
8199 Other operations on joint structures
8201 Exploration of tendon sheath of hand
8202 Myotomy of hand
8203 Bursotomy of hand
8204 Incision and drainage of palmar or thenar space
8209 Other incision of soft tissue of hand
8211 Tenotomy of hand
8212 Fasciotomy of hand
8219 Other division of soft tissue of hand
8221 Excision of lesion of tendon sheath of hand
8222 Excision of lesion of muscle of hand
8229 Excision of other lesion of soft tissue of hand
8231 Bursectomy of hand
8232 Excision of tendon of hand for graft
8233 Other tenonectomy of hand
8234 Excision of muscle or fascia of hand for graft
8235 Other fasciectomy of hand
8236 Other myectomy of hand
8239 Other excision of soft tissue of hand
8241 Suture of tendon sheath of hand
8242 Delayed suture of flexor tendon of hand
8243 Delayed suture of other tendon of hand
8244 Other suture of flexor tendon of hand
8245 Other suture of other tendon of hand
8246 Suture of muscle or fascia of hand
8251 Advancement of tendon of hand
8252 Recession of tendon of hand
8253 Reattachment of tendon of hand
8254 Reattachment of muscle of hand
8255 Other change in hand muscle or tendon length
8256 Other hand tendon transfer or transplantation
8257 Other hand tendon transposition
8258 Other hand muscle transfer or transplantation
8259 Other hand muscle transposition
8261 Pollicization operation carrying over nerves and blood supply

8269 Other reconstruction of thumb
8271 Tendon pulley reconstruction of hand
8272 Plastic operation on hand with graft of muscle or fascia
8279 Plastic operation on hand with other graft or implant
8281 Transfer of finger, except thumb
8282 Repair of cleft hand
8283 Repair of macrodactyly
8284 Repair of mallet finger
8285 Other tenodesis of hand
8286 Other tenoplasty of hand
8289 Other plastic operations on hand
8291 Lysis of adhesions of hand
8292 Aspiration of bursa of hand
8293 Aspiration of other soft tissue of hand
8294 Injection of therapeutic substance into bursa of hand
8295 Injection of therapeutic substance into tendon of hand
8296 Other injection of locally-acting therapeutic substance into soft tissue of hand
8299 Other operations on muscle, tendon, and fascia of hand
8301 Exploration of tendon sheath
8302 Myotomy
8303 Bursotomy
8309 Other incision of soft tissue
8311 Achillotenotomy
8312 Adductor tenotomy of hip
8313 Other tenotomy
8314 Fasciotomy
8319 Other division of soft tissue
8321 Open biopsy of soft tissue
8329 Other diagnostic procedures on muscle, tendon, fascia, and bursa, including that of hand
8331 Excision of lesion of tendon sheath
8332 Excision of lesion of muscle
8339 Excision of lesion of other soft tissue
8341 Excision of tendon for graft
8342 Other tenonectomy
8343 Excision of muscle or fascia for graft
8344 Other fasciectomy

8345 Other myectomy
8349 Other excision of soft tissue
835 Bursectomy
8361 Suture of tendon sheath
8362 Delayed suture of tendon
8363 Rotator cuff repair
8364 Other suture of tendon
8365 Other suture of muscle or fascia
8371 Advancement of tendon
8372 Recession of tendon
8373 Reattachment of tendon
8374 Reattachment of muscle
8375 Tendon transfer or transplantation
8376 Other tendon transposition
8377 Muscle transfer or transplantation
8379 Other muscle transposition
8381 Tendon graft
8382 Graft of muscle or fascia
8383 Tendon pulley reconstruction other than hand
8384 Release of clubfoot, not elsewhere classified
8385 Other change in muscle or tendon length
8386 Quadricepsplasty
8387 Other plastic operations on muscle
8388 Other plastic operations on tendon
8389 Other plastic operations on fascia
8391 Lysis of adhesions of muscle, tendon, fascia, and bursa
8392 Insertion or replacement of skeletal muscle stimulator
8393 Removal of skeletal muscle stimulator
8394 Aspiration of bursa
8395 Aspiration of other soft tissue
8396 Injection of therapeutic substance into bursa
8397 Injection of therapeutic substance into tendon
8398 Injection of locally acting therapeutic substance into other soft tissue
8399 Other operations on muscle, tendon, fascia, and bursa
8400 Upper limb amputation, not otherwise specified
8401 Amputation and disarticulation of finger

8402 Amputation and disarticulation of thumb
8403 Amputation through hand
8404 Disarticulation of wrist
8405 Amputation through forearm
8406 Disarticulation of elbow
8407 Amputation through humerus
8408 Disarticulation of shoulder
8409 Interthoracoscaphular amputation
8410 Lower limb amputation, not otherwise specified
8411 Amputation of toe
8412 Amputation through foot
8413 Disarticulation of ankle
8414 Amputation of ankle through malleoli of tibia and fibula
8415 Other amputation below knee
8416 Disarticulation of knee
8417 Amputation above knee
8418 Disarticulation of hip
8419 Abdominopelvic amputation
8421 Thumb reattachment
8422 Finger reattachment
8423 Forearm, wrist, or hand reattachment
8424 Upper arm reattachment
8425 Toe reattachment
8426 Foot reattachment
8427 Lower leg or ankle reattachment
8428 Thigh reattachment
8429 Other reattachment of extremity
843 Revision of amputation stump
8440 Implantation or fitting of prosthetic limb device, not otherwise specified
8441 Fitting of prosthesis of upper arm and shoulder
8442 Fitting of prosthesis of lower arm and hand
8443 Fitting of prosthesis of arm, not otherwise specified
8444 Implantation of prosthetic device of arm
8445 Fitting of prosthesis above knee
8446 Fitting of prosthesis below knee
8447 Fitting of prosthesis of leg, not otherwise specified

8448 Implantation of prosthetic device of leg
8451 Insertion of interbody spinal fusion device
8452 Insertion of recombinant bone morphogenetic protein
8453 Implantation of internal limb lengthening device with kinetic distraction
8454 Implantation of other internal limb lengthening device
8455 Insertion of bone void filler
8456 Insertion or replacement of (cement) spacer
8457 Removal of (cement) spacer
8459 Insertion of other spinal devices
8460 Insertion of spinal disc prosthesis, not otherwise specified
8461 Insertion of partial spinal disc prosthesis, cervical
8462 Insertion of total spinal disc prosthesis, cervical
8463 Insertion of spinal disc prosthesis, thoracic
8464 Insertion of partial spinal disc prosthesis, lumbosacral
8465 Insertion of total spinal disc prosthesis, lumbosacral
8466 Revision or replacement of artificial spinal disc prosthesis, cervical
8467 Revision or replacement of artificial spinal disc prosthesis, thoracic
8468 Revision or replacement of artificial spinal disc prosthesis, lumbosacral
8469 Revision or replacement of artificial spinal disc prosthesis, not otherwise specified
8471 Application of external fixator device, monoplanar system
8472 Application of external fixator device, ring system
8473 Application of hybrid external fixator device
8480 Insertion or replacement of interspinous process device(s)
8481 Revision of interspinous process device(s)
8482 Insertion or replacement of pedicle-based dynamic stabilization device(s)
8483 Revision of pedicle-based dynamic stabilization device(s)
8484 Insertion or replacement of facet replacement device(s)
8485 Revision of facet replacement device(s)
8491 Amputation, not otherwise specified
8492 Separation of equal conjoined twins
8493 Separation of unequal conjoined twins
8494 Insertion of sternal fixation device with rigid plates
8499 Other operations on musculoskeletal system
850 Mastotomy
8511 Closed [percutaneous] [needle] biopsy of breast
8512 Open biopsy of breast

8519 Other diagnostic procedures on breast
8520 Excision or destruction of breast tissue, not otherwise specified
8521 Local excision of lesion of breast
8522 Resection of quadrant of breast
8523 Subtotal mastectomy
8524 Excision of ectopic breast tissue
8525 Excision of nipple
8531 Unilateral reduction mammoplasty
8532 Bilateral reduction mammoplasty
8533 Unilateral subcutaneous mastectomy with synchronous implant
8534 Other unilateral subcutaneous mastectomy
8535 Bilateral subcutaneous mastectomy with synchronous implant
8536 Other bilateral subcutaneous mastectomy
8541 Unilateral simple mastectomy
8542 Bilateral simple mastectomy
8543 Unilateral extended simple mastectomy
8544 Bilateral extended simple mastectomy
8545 Unilateral radical mastectomy
8546 Bilateral radical mastectomy
8547 Unilateral extended radical mastectomy
8548 Bilateral extended radical mastectomy
8550 Augmentation mammoplasty, not otherwise specified
8551 Unilateral injection into breast for augmentation
8552 Bilateral injection into breast for augmentation
8553 Unilateral breast implant
8554 Bilateral breast implant
8555 Fat graft to breast
856 Mastopexy
8570 Total reconstruction of breast, not otherwise specified
8571 Latissimus dorsi myocutaneous flap
8572 Transverse rectus abdominis myocutaneous (TRAM) flap, pedicled
8573 Transverse rectus abdominis myocutaneous (TRAM) flap, free
8574 Deep inferior epigastric artery perforator (DIEP) flap, free
8575 Superficial inferior epigastric artery (SIEA) flap, free
8576 Gluteal artery perforator (GAP) flap, free
8579 Other total reconstruction of breast

8581 Suture of laceration of breast
8582 Split-thickness graft to breast
8583 Full-thickness graft to breast
8584 Pedicle graft to breast
8585 Muscle flap graft to breast
8586 Transposition of nipple
8587 Other repair or reconstruction of nipple
8589 Other mammoplasty
8591 Aspiration of breast
8592 Injection of therapeutic agent into breast
8593 Revision of implant of breast
8594 Removal of implant of breast
8595 Insertion of breast tissue expander
8596 Removal of breast tissue expander
8599 Other operations on the breast
8601 Aspiration of skin and subcutaneous tissue
8602 Injection or tattooing of skin lesion or defect
8603 Incision of pilonidal sinus or cyst
8604 Other incision with drainage of skin and subcutaneous tissue
8605 Incision with removal of foreign body or device from skin and subcutaneous tissue
8606 Insertion of totally implantable infusion pump
8607 Insertion of totally implantable vascular access device [VAD]
8609 Other incision of skin and subcutaneous tissue
8611 Closed biopsy of skin and subcutaneous tissue
8619 Other diagnostic procedures on skin and subcutaneous tissue
8621 Excision of pilonidal cyst or sinus
8622 Excisional debridement of wound, infection, or burn
8623 Removal of nail, nail bed, or nail fold
8624 Chemosurgery of skin
8625 Dermabrasion
8626 Ligation of dermal appendage
8627 Debridement of nail, nail bed, or nail fold
8628 Nonexcisional debridement of wound, infection or burn
863 Other local excision or destruction of lesion or tissue of skin and subcutaneous tissue
864 Radical excision of skin lesion
8651 Replantation of scalp

8659 Closure of skin and subcutaneous tissue of other sites
8660 Free skin graft, not otherwise specified
8661 Full-thickness skin graft to hand
8662 Other skin graft to hand
8663 Full-thickness skin graft to other sites
8664 Hair transplant
8665 Heterograft to skin
8666 Homograft to skin
8667 Dermal regenerative graft
8669 Other skin graft to other sites
8670 Pedicle or flap graft, not otherwise specified
8671 Cutting and preparation of pedicle grafts or flaps
8672 Advancement of pedicle graft
8673 Attachment of pedicle or flap graft to hand
8674 Attachment of pedicle or flap graft to other sites
8675 Revision of pedicle or flap graft
8681 Repair for facial weakness
8682 Facial rhytidectomy
8683 Size reduction plastic operation
8684 Relaxation of scar or web contracture of skin
8685 Correction of syndactyly
8686 Onychoplasty
8687 Fat graft of skin and subcutaneous tissue
8689 Other repair and reconstruction of skin and subcutaneous tissue
8690 Extraction of fat for graft or banking
8691 Excision of skin for graft
8692 Electrolysis and other epilation of skin
8693 Insertion of tissue expander
8694 Insertion or replacement of single array neurostimulator pulse generator, not specified as rechargeable
8695 Insertion or replacement of multiple array neurostimulator pulse generator, not specified as rechargeable
8696 Insertion or replacement of other neurostimulator pulse generator
8697 Insertion or replacement of single array rechargeable neurostimulator pulse generator
8698 Insertion or replacement of multiple array (two or more) rechargeable neurostimulator pulse generator
8699 Other operations on skin and subcutaneous tissue

8701 Pneumoencephalogram
8702 Other contrast radiogram of brain and skull
8703 Computerized axial tomography of head
8704 Other tomography of head
8705 Contrast dacryocystogram
8706 Contrast radiogram of nasopharynx
8707 Contrast laryngogram
8708 Cervical lymphangiogram
8709 Other soft tissue x-ray of face, head, and neck
8711 Full-mouth x-ray of teeth
8712 Other dental x-ray
8713 Temporomandibular contrast arthrogram
8714 Contrast radiogram of orbit
8715 Contrast radiogram of sinus
8716 Other x-ray of facial bones
8717 Other x-ray of skull
8721 Contrast myelogram
8722 Other x-ray of cervical spine
8723 Other x-ray of thoracic spine
8724 Other x-ray of lumbosacral spine
8729 Other x-ray of spine
8731 Endotracheal bronchogram
8732 Other contrast bronchogram
8733 Mediastinal pneumogram
8734 Intrathoracic lymphangiogram
8735 Contrast radiogram of mammary ducts
8736 Xerography of breast
8737 Other mammography
8738 Sinogram of chest wall
8739 Other soft tissue x-ray of chest wall
8741 Computerized axial tomography of thorax
8742 Other tomography of thorax
8743 X-ray of ribs, sternum, and clavicle
8744 Routine chest x-ray, so described
8749 Other chest x-ray
8751 Percutaneous hepatic cholangiogram

8752 Intravenous cholangiogram
8753 Intraoperative cholangiogram
8754 Other cholangiogram
8759 Other biliary tract x-ray
8761 Barium swallow
8762 Upper GI series
8763 Small bowel series
8764 Lower GI series
8765 Other x-ray of intestine
8766 Contrast pancreatogram
8769 Other digestive tract x-ray
8771 Computerized axial tomography of kidney
8772 Other nephrotomogram
8773 Intravenous pyelogram
8774 Retrograde pyelogram
8775 Percutaneous pyelogram
8776 Retrograde cystourethrogram
8777 Other cystogram
8778 Ileal conduitogram
8779 Other x-ray of the urinary system
8781 X-ray of gravid uterus
8782 Gas contrast hysterosalpingogram
8783 Opaque dye contrast hysterosalpingogram
8784 Percutaneous hysteroqram
8785 Other x-ray of fallopian tubes and uterus
8789 Other x-ray of female genital organs
8791 Contrast seminal vesiculogram
8792 Other x-ray of prostate and seminal vesicles
8793 Contrast epididymogram
8794 Contrast vasogram
8795 Other x-ray of epididymis and vas deferens
8799 Other x-ray of male genital organs
8801 Computerized axial tomography of abdomen
8802 Other abdomen tomography
8803 Sinogram of abdominal wall
8804 Abdominal lymphangiogram

8809 Other soft tissue x-ray of abdominal wall
8811 Pelvic opaque dye contrast radiography
8812 Pelvic gas contrast radiography
8813 Other peritoneal pneumogram
8814 Retroperitoneal fistulogram
8815 Retroperitoneal pneumogram
8816 Other retroperitoneal x-ray
8819 Other x-ray of abdomen
8821 Skeletal x-ray of shoulder and upper arm
8822 Skeletal x-ray of elbow and forearm
8823 Skeletal x-ray of wrist and hand
8824 Skeletal x-ray of upper limb, not otherwise specified
8825 Pelvimetry
8826 Other skeletal x-ray of pelvis and hip
8827 Skeletal x-ray of thigh, knee, and lower leg
8828 Skeletal x-ray of ankle and foot
8829 Skeletal x-ray of lower limb, not otherwise specified
8831 Skeletal series
8832 Contrast arthrogram
8833 Other skeletal x-ray
8834 Lymphangiogram of upper limb
8835 Other soft tissue x-ray of upper limb
8836 Lymphangiogram of lower limb
8837 Other soft tissue x-ray of lower limb
8838 Other computerized axial tomography
8839 X-ray, other and unspecified
8840 Arteriography using contrast material, unspecified site
8841 Arteriography of cerebral arteries
8842 Aortography
8843 Arteriography of pulmonary arteries
8844 Arteriography of other intrathoracic vessels
8845 Arteriography of renal arteries
8846 Arteriography of placenta
8847 Arteriography of other intra-abdominal arteries
8848 Arteriography of femoral and other lower extremity arteries
8849 Arteriography of other specified sites

8850 Angiocardiology, not otherwise specified
8851 Angiocardiology of venae cavae
8852 Angiocardiology of right heart structures
8853 Angiocardiology of left heart structures
8854 Combined right and left heart angiocardiology
8855 Coronary arteriography using a single catheter
8856 Coronary arteriography using two catheters
8857 Other and unspecified coronary arteriography
8858 Negative-contrast cardiac roentgenography
8859 Intra-operative coronary fluorescence vascular angiography
8860 Phlebography using contrast material, unspecified site
8861 Phlebography of veins of head and neck using contrast material
8862 Phlebography of pulmonary veins using contrast material
8863 Phlebography of other intrathoracic veins using contrast material
8864 Phlebography of the portal venous system using contrast material
8865 Phlebography of other Intra-Abdominal veins using contrast material
8866 Phlebography of femoral and other lower extremity veins using contrast material
8867 Phlebography of other specified sites using contrast material
8868 Impedance phlebography
8871 Diagnostic ultrasound of head and neck
8872 Diagnostic ultrasound of heart
8873 Diagnostic ultrasound of other sites of thorax
8874 Diagnostic ultrasound of digestive system
8875 Diagnostic ultrasound of urinary system
8876 Diagnostic ultrasound of abdomen and retroperitoneum
8877 Diagnostic ultrasound of peripheral vascular system
8878 Diagnostic ultrasound of gravid uterus
8879 Other diagnostic ultrasound
8881 Cerebral thermography
8882 Ocular thermography
8883 Bone thermography
8884 Muscle thermography
8885 Breast thermography
8886 Blood vessel thermography
8889 Thermography of other sites
8890 Diagnostic imaging, not elsewhere classified

8891 Magnetic resonance imaging of brain and brain stem
8892 Magnetic resonance imaging of chest and myocardium
8893 Magnetic resonance imaging of spinal canal
8894 Magnetic resonance imaging of musculoskeletal
8895 Magnetic resonance imaging of pelvis, prostate, and bladder
8896 Other intraoperative magnetic resonance imaging
8897 Magnetic resonance imaging of other and unspecified sites
8898 Bone mineral density studies
8901 Interview and evaluation, described as brief
8902 Interview and evaluation, described as limited
8903 Interview and evaluation, described as comprehensive
8904 Other interview and evaluation
8905 Diagnostic interview and evaluation, not otherwise specified
8906 Consultation, described as limited
8907 Consultation, described as comprehensive
8908 Other consultation
8909 Consultation, not otherwise specified
8910 Intracarotid amobarbital test
8911 Tonometry
8912 Nasal function study
8913 Neurologic examination
8914 Electroencephalogram
8915 Other nonoperative neurologic function tests
8916 Transillumination of newborn skull
8917 Polysomnogram
8918 Other sleep disorder function tests
8919 Video and radio-telemetered electroencephalographic monitoring
8921 Urinary manometry
8922 Cystometrogram
8923 Urethral sphincter electromyogram
8924 Uroflowmetry [UFR]
8925 Urethral pressure profile [UPP]
8926 Gynecological examination
8929 Other nonoperative genitourinary system measurements
8931 Dental examination
8932 Esophageal manometry

8933 Digital examination of enterostomy stoma
8934 Digital examination of rectum
8935 Transillumination of nasal sinuses
8936 Manual examination of breast
8937 Vital capacity determination
8938 Other nonoperative respiratory measurements
8939 Other nonoperative measurements and examinations
8941 Cardiovascular stress test using treadmill
8942 Masters' two-step stress test
8943 Cardiovascular stress test using bicycle ergometer
8944 Other cardiovascular stress test
8945 Artificial pacemaker rate check
8946 Artificial pacemaker artifact wave form check
8947 Artificial pacemaker electrode impedance check
8948 Artificial pacemaker voltage or amperage threshold check
8949 Automatic implantable cardioverter/defibrillator (AICD) check
8950 Ambulatory cardiac monitoring
8951 Rhythm electrocardiogram
8952 Electrocardiogram
8953 Vectorcardiogram (with ECG)
8954 Electrographic monitoring
8955 Phonocardiogram with ECG lead
8956 Carotid pulse tracing with ECG lead
8957 Apexcardiogram (with ECG lead)
8958 Plethysmogram
8959 Other nonoperative cardiac and vascular measurements
8960 Continuous intra-arterial blood gas monitoring
8961 Systemic arterial pressure monitoring
8962 Central venous pressure monitoring
8963 Pulmonary artery pressure monitoring
8964 Pulmonary artery wedge monitoring
8965 Measurement of systemic arterial blood gases
8966 Measurement of mixed venous blood gases
8967 Monitoring of cardiac output by oxygen consumption technique
8968 Monitoring of cardiac output by other technique
8969 Monitoring of coronary blood flow

897 General physical examination

898 Autopsy

9001 Microscopic examination of specimen from nervous system and of spinal fluid, bacterial smear

9002 Microscopic examination of specimen from nervous system and of spinal fluid, culture

9003 Microscopic examination of specimen from nervous system and of spinal fluid, culture and sensitivity

9004 Microscopic examination of specimen from nervous system and of spinal fluid, parasitology

9005 Microscopic examination of specimen from nervous system and of spinal fluid, toxicology

9006 Microscopic examination of specimen from nervous system and of spinal fluid, cell block and Papanicolaou smear

9009 Microscopic examination of specimen from nervous system and of spinal fluid, other microscopic examination

9011 Microscopic examination of specimen from endocrine gland, not elsewhere classified, bacterial smear

9012 Microscopic examination of specimen from endocrine gland, not elsewhere classified, culture

9013 Microscopic examination of specimen from endocrine gland, not elsewhere classified, culture and sensitivity

9014 Microscopic examination of specimen from endocrine gland, not elsewhere classified, parasitology

9015 Microscopic examination of specimen from endocrine gland, not elsewhere classified, toxicology

9016 Microscopic examination of specimen from endocrine gland, not elsewhere classified, cell block and Papanicolaou smear

9019 Microscopic examination of specimen from endocrine gland, not elsewhere classified, other microscopic examination

9021 Microscopic examination of specimen from eye, bacterial smear

9022 Microscopic examination of specimen from eye, culture

9023 Microscopic examination of specimen from eye, culture and sensitivity

9024 Microscopic examination of specimen from eye, parasitology

9025 Microscopic examination of specimen from eye, toxicology

9026 Microscopic examination of specimen from eye, cell block and Papanicolaou smear

9029 Microscopic examination of specimen from eye, other microscopic examination

9031 Microscopic examination of specimen from ear, nose, throat, and larynx, bacterial smear

9032 Microscopic examination of specimen from ear, nose, throat, and larynx, culture

9033 Microscopic examination of specimen from ear, nose, throat, and larynx, culture and sensitivity

9034 Microscopic examination of specimen from ear, nose, throat, and larynx, parasitology

9035 Microscopic examination of specimen from ear, nose, throat, and larynx, toxicology

- 9036 Microscopic examination of specimen from ear, nose, throat, and larynx, cell block and Papanicolaou smear
- 9039 Microscopic examination of specimen from ear, nose, throat, and larynx, other microscopic examination
- 9041 Microscopic examination of specimen from trachea, bronchus, pleura, lung, and other thoracic specimen, and of sputum, bacterial smear
- 9042 Microscopic examination of specimen from trachea, bronchus, pleura, lung, and other thoracic specimen, and of sputum, culture
- 9043 Microscopic examination of specimen from trachea, bronchus, pleura, lung, and other thoracic specimen, and of sputum, culture and sensitivity
- 9044 Microscopic examination of specimen from trachea, bronchus, pleura, lung, and other thoracic specimen, and of sputum, parasitology
- 9045 Microscopic examination of specimen from trachea, bronchus, pleura, lung, and other thoracic specimen, and of sputum, toxicology
- 9046 Microscopic examination of specimen from trachea, bronchus, pleura, lung, and other thoracic specimen, and of sputum, cell block and Papanicolaou smear
- 9049 Microscopic examination of specimen from trachea, bronchus, pleura, lung, and other thoracic specimen, and of sputum, other microscopic examination
- 9051 Microscopic examination of blood, bacterial smear
- 9052 Microscopic examination of blood, culture
- 9053 Microscopic examination of blood, culture and sensitivity
- 9054 Microscopic examination of blood, parasitology
- 9055 Microscopic examination of blood, toxicology
- 9056 Microscopic examination of blood, cell block and Papanicolaou smear
- 9059 Microscopic examination of blood, other microscopic examination
- 9061 Microscopic examination of specimen from spleen and of bone marrow, bacterial smear
- 9062 Microscopic examination of specimen from spleen and of bone marrow, culture
- 9063 Microscopic examination of specimen from spleen and of bone marrow, culture and sensitivity
- 9064 Microscopic examination of specimen from spleen and of bone marrow, parasitology
- 9065 Microscopic examination of specimen from spleen and of bone marrow, toxicology
- 9066 Microscopic examination of specimen from spleen and of bone marrow, cell block and Papanicolaou smear
- 9069 Microscopic examination of specimen from spleen and of bone marrow, other microscopic examination
- 9071 Microscopic examination of specimen from lymph node and of lymph, bacterial smear
- 9072 Microscopic examination of specimen from lymph node and of lymph, culture
- 9073 Microscopic examination of specimen from lymph node and of lymph, culture and sensitivity
- 9074 Microscopic examination of specimen from lymph node and of lymph, parasitology
- 9075 Microscopic examination of specimen from lymph node and of lymph, toxicology

9076 Microscopic examination of specimen from lymph node and of lymph, cell block and Papanicolaou smear

9079 Microscopic examination of specimen from lymph node and of lymph, other microscopic examination

9081 Microscopic examination of specimen from upper gastrointestinal tract and of vomitus, bacterial smear

9082 Microscopic examination of specimen from upper gastrointestinal tract and of vomitus, culture

9083 Microscopic examination of specimen from upper gastrointestinal tract and of vomitus, culture and sensitivity

9084 Microscopic examination of specimen from upper gastrointestinal tract and of vomitus, parasitology

9085 Microscopic examination of specimen from upper gastrointestinal tract and of vomitus, toxicology

9086 Microscopic examination of specimen from upper gastrointestinal tract and of vomitus, cell block and Papanicolaou smear

9089 Microscopic examination of specimen from upper gastrointestinal tract and of vomitus, other microscopic examination

9091 Microscopic examination of specimen from lower gastrointestinal tract and of stool, bacterial smear

9092 Microscopic examination of specimen from lower gastrointestinal tract and of stool, culture

9093 Microscopic examination of specimen from lower gastrointestinal tract and of stool, culture and sensitivity

9094 Microscopic examination of specimen from lower gastrointestinal tract and of stool, parasitology

9095 Microscopic examination of specimen from lower gastrointestinal tract and of stool, toxicology

9096 Microscopic examination of specimen from lower gastrointestinal tract and of stool, cell block and Papanicolaou smear

9099 Microscopic examination of specimen from lower gastrointestinal tract and of stool, other microscopic examination

9101 Microscopic examination of specimen from liver, biliary tract, and pancreas, bacterial smear

9102 Microscopic examination of specimen from liver, biliary tract, and pancreas, culture

9103 Microscopic examination of specimen from liver, biliary tract, and pancreas, culture and sensitivity

9104 Microscopic examination of specimen from liver, biliary tract, and pancreas, parasitology

9105 Microscopic examination of specimen from liver, biliary tract, and pancreas, toxicology

9106 Microscopic examination of specimen from liver, biliary tract, and pancreas, cell block and Papanicolaou smear

9109 Microscopic examination of specimen from liver, biliary tract, and pancreas, other microscopic examination

9111 Microscopic examination of peritoneal and retroperitoneal specimen, bacterial smear

9112 Microscopic examination of peritoneal and retroperitoneal specimen, culture

9113 Microscopic examination of peritoneal and retroperitoneal specimen, culture and sensitivity

9114 Microscopic examination of peritoneal and retroperitoneal specimen, parasitology

9115 Microscopic examination of peritoneal and retroperitoneal specimen, toxicology

9116 Microscopic examination of peritoneal and retroperitoneal specimen, cell block and Papanicolaou smear

9119 Microscopic examination of peritoneal and retroperitoneal specimen, other microscopic examination

9121 Microscopic examination of specimen from kidney, ureter, perirenal and periureteral tissue, bacterial smear

9122 Microscopic examination of specimen from kidney, ureter, perirenal and periureteral tissue, culture

9123 Microscopic examination of specimen from kidney, ureter, perirenal and periureteral tissue, culture and sensitivity

9124 Microscopic examination of specimen from kidney, ureter, perirenal and periureteral tissue, parasitology

9125 Microscopic examination of specimen from kidney, ureter, perirenal and periureteral tissue, toxicology

9126 Microscopic examination of specimen from kidney, ureter, perirenal and periureteral tissue, cell block and Papanicolaou smear

9129 Microscopic examination of specimen from kidney, ureter, perirenal and periureteral tissue, other microscopic examination

9131 Microscopic examination of specimen from bladder, urethra, prostate, seminal vesicle, perivesical tissue, and of urine and semen, bacterial smear

9132 Microscopic examination of specimen from bladder, urethra, prostate, seminal vesicle, perivesical tissue, and of urine and semen, culture

9133 Microscopic examination of specimen from bladder, urethra, prostate, seminal vesicle, perivesical tissue, and of urine and semen, culture and sensitivity

9134 Microscopic examination of specimen from bladder, urethra, prostate, seminal vesicle, perivesical tissue, and of urine and semen, parasitology

9135 Microscopic examination of specimen from bladder, urethra, prostate, seminal vesicle, perivesical tissue, and of urine and semen, toxicology

9136 Microscopic examination of specimen from bladder, urethra, prostate, seminal vesicle, perivesical tissue, and of urine and semen, cell block and Papanicolaou smear

9139 Microscopic examination of specimen from bladder, urethra, prostate, seminal vesicle, perivesical tissue, and of urine and semen, other microscopic examination

9141 Microscopic examination of specimen from female genital tract, bacterial smear

9142 Microscopic examination of specimen from female genital tract, culture

9143 Microscopic examination of specimen from female genital tract, culture and sensitivity

9144 Microscopic examination of specimen from female genital tract, parasitology

9145 Microscopic examination of specimen from female genital tract, toxicology

9146 Microscopic examination of specimen from female genital tract, cell block and Papanicolaou smear

- 9149 Microscopic examination of specimen from female genital tract, other microscopic examination
- 9151 Microscopic examination of specimen from musculoskeletal system and of joint fluid, bacterial smear
- 9152 Microscopic examination of specimen from musculoskeletal system and of joint fluid, culture
- 9153 Microscopic examination of specimen from musculoskeletal system and of joint fluid, culture and sensitivity
- 9154 Microscopic examination of specimen from musculoskeletal system and of joint fluid, parasitology
- 9155 Microscopic examination of specimen from musculoskeletal system and of joint fluid, toxicology
- 9156 Microscopic examination of specimen from musculoskeletal system and of joint fluid, cell block and Papanicolaou smear
- 9159 Microscopic examination of specimen from musculoskeletal system and of joint fluid, other microscopic examination
- 9161 Microscopic examination of specimen from skin and other integument, bacterial smear
- 9162 Microscopic examination of specimen from skin and other integument, culture
- 9163 Microscopic examination of specimen from skin and other integument, culture and sensitivity
- 9164 Microscopic examination of specimen from skin and other integument, parasitology
- 9165 Microscopic examination of specimen from skin and other integument, toxicology
- 9166 Microscopic examination of specimen from skin and other integument, cell block and Papanicolaou smear
- 9169 Microscopic examination of specimen from skin and other integument, other microscopic examination
- 9171 Microscopic examination of specimen from operative wound, bacterial smear
- 9172 Microscopic examination of specimen from operative wound, culture
- 9173 Microscopic examination of specimen from operative wound, culture and sensitivity
- 9174 Microscopic examination of specimen from operative wound, parasitology
- 9175 Microscopic examination of specimen from operative wound, toxicology
- 9176 Microscopic examination of specimen from operative wound, cell block and Papanicolaou smear
- 9179 Microscopic examination of specimen from operative wound, other microscopic examination
- 9181 Microscopic examination of specimen from other site, bacterial smear
- 9182 Microscopic examination of specimen from other site, culture
- 9183 Microscopic examination of specimen from other site, culture and sensitivity
- 9184 Microscopic examination of specimen from other site, parasitology
- 9185 Microscopic examination of specimen from other site, toxicology
- 9186 Microscopic examination of specimen from other site, cell block and Papanicolaou smear
- 9189 Microscopic examination of specimen from other site, other microscopic examination

9191 Microscopic examination of specimen from unspecified site, bacterial smear
9192 Microscopic examination of specimen from unspecified site, culture
9193 Microscopic examination of specimen from unspecified site, culture and sensitivity
9194 Microscopic examination of specimen from unspecified site, parasitology
9195 Microscopic examination of specimen from unspecified site, toxicology
9196 Microscopic examination of specimen from unspecified site, cell block and Papanicolaou smear
9199 Microscopic examination of specimen from unspecified site, other microscopic examination
9201 Thyroid scan and radioisotope function studies
9202 Liver scan and radioisotope function study
9203 Renal scan and radioisotope function study
9204 Gastrointestinal scan and radioisotope function study
9205 Cardiovascular and hematopoietic scan and radioisotope function study
9209 Other radioisotope function studies
9211 Cerebral scan
9212 Scan of other sites of head
9213 Parathyroid scan
9214 Bone scan
9215 Pulmonary scan
9216 Scan of lymphatic system
9217 Placental scan
9218 Total body scan
9219 Scan of other sites
9220 Infusion of liquid brachytherapy radioisotope
9221 Superficial radiation
9222 Orthovoltage radiation
9223 Radioisotopic teleradiotherapy
9224 Teleradiotherapy using photons
9225 Teleradiotherapy using electrons
9226 Teleradiotherapy of other particulate radiation
9227 Implantation or insertion of radioactive elements
9228 Injection or instillation of radioisotopes
9229 Other radiotherapeutic procedure
9230 Stereotactic radiosurgery, not otherwise specified
9231 Single source photon radiosurgery
9232 Multi-source photon radiosurgery

9233 Particulate radiosurgery
9239 Stereotactic radiosurgery, not elsewhere classified
9241 Intra-operative electron radiation therapy
9301 Functional evaluation
9302 Orthotic evaluation
9303 Prosthetic evaluation
9304 Manual testing of muscle function
9305 Range of motion testing
9306 Measurement of limb length
9307 Body measurement
9308 Electromyography
9309 Other diagnostic physical therapy procedure
9311 Assisting exercise
9312 Other active musculoskeletal exercise
9313 Resistive exercise
9314 Training in joint movements
9315 Mobilization of spine
9316 Mobilization of other joints
9317 Other passive musculoskeletal exercise
9318 Breathing exercise
9319 Exercise, not elsewhere classified
9321 Manual and mechanical traction
9322 Ambulation and gait training
9323 Fitting of orthotic device
9324 Training in use of prosthetic or orthotic device
9325 Forced extension of limb
9326 Manual rupture of joint adhesions
9327 Stretching of muscle or tendon
9328 Stretching of fascia
9329 Other forcible correction of musculoskeletal deformity
9331 Assisted exercise in pool
9332 Whirlpool treatment
9333 Other hydrotherapy
9334 Diathermy
9335 Other heat therapy
9336 Cardiac retraining

9337 Prenatal training
9338 Combined physical therapy without mention of the components
9339 Other physical therapy
9341 Spinal traction using skull device
9342 Other spinal traction
9343 Intermittent skeletal traction
9344 Other skeletal traction
9345 Thomas' splint traction
9346 Other skin traction of limbs
9351 Application of plaster jacket
9352 Application of neck support
9353 Application of other cast
9354 Application of splint
9355 Dental wiring
9356 Application of pressure dressing
9357 Application of other wound dressing
9358 Application of pressure trousers
9359 Other immobilization, pressure, and attention to wound
9361 Osteopathic manipulative treatment for general mobilization
9362 Osteopathic manipulative treatment using high-velocity, low-amplitude forces
9363 Osteopathic manipulative treatment using low-velocity, high-amplitude forces
9364 Osteopathic manipulative treatment using isotonic, isometric forces
9365 Osteopathic manipulative treatment using indirect forces
9366 Osteopathic manipulative treatment to move tissue fluids
9367 Other specified osteopathic manipulative treatment
9371 Dyslexia training
9372 Dysphasia training
9373 Esophageal speech training
9374 Speech defect training
9375 Other speech training and therapy
9376 Training in use of lead dog for the blind
9377 Training in braille or moon
9378 Other rehabilitation for the blind
9381 Recreation therapy
9382 Educational therapy
9383 Occupational therapy

9384 Music therapy
9385 Vocational rehabilitation
9389 Rehabilitation, not elsewhere classified
9390 Non-invasive mechanical ventilation
9391 Intermittent positive pressure breathing [IPPB]
9393 Nonmechanical methods of resuscitation
9394 Respiratory medication administered by nebulizer
9395 Hyperbaric oxygenation
9396 Other oxygen enrichment
9397 Decompression chamber
9398 Other control of atmospheric pressure and composition
9399 Other respiratory procedures
9401 Administration of intelligence test
9402 Administration of psychologic test
9403 Character analysis
9408 Other psychologic evaluation and testing
9409 Psychologic mental status determination, not otherwise specified
9411 Psychiatric mental status determination
9412 Routine psychiatric visit, not otherwise specified
9413 Psychiatric commitment evaluation
9419 Other psychiatric interview and evaluation
9421 Narcoanalysis
9422 Lithium therapy
9423 Neuroleptic therapy
9424 Chemical shock therapy
9425 Other psychiatric drug therapy
9426 Subconvulsive electroshock therapy
9427 Other electroshock therapy
9429 Other psychiatric somatotherapy
9431 Psychoanalysis
9432 Hypnotherapy
9433 Behavior therapy
9434 Individual therapy for psychosexual dysfunction
9435 Crisis intervention
9436 Play psychotherapy
9437 Exploratory verbal psychotherapy

9438 Supportive verbal psychotherapy
9439 Other individual psychotherapy
9441 Group therapy for psychosexual dysfunction
9442 Family therapy
9443 Psychodrama
9444 Other group therapy
9445 Drug addiction counseling
9446 Alcoholism counseling
9449 Other counseling
9451 Referral for psychotherapy
9452 Referral for psychiatric aftercare
9453 Referral for alcoholism rehabilitation
9454 Referral for drug addiction rehabilitation
9455 Referral for vocational rehabilitation
9459 Referral for other psychologic rehabilitation
9461 Alcohol rehabilitation
9462 Alcohol detoxification
9463 Alcohol rehabilitation and detoxification
9464 Drug rehabilitation
9465 Drug detoxification
9466 Drug rehabilitation and detoxification
9467 Combined alcohol and drug rehabilitation
9468 Combined alcohol and drug detoxification
9469 Combined alcohol and drug rehabilitation and detoxification
9501 Limited eye examination
9502 Comprehensive eye examination
9503 Extended ophthalmologic work-up
9504 Eye examination under anesthesia
9505 Visual field study
9506 Color vision study
9507 Dark adaptation study
9509 Eye examination, not otherwise specified
9511 Fundus photography
9512 Fluorescein angiography or angioscopy of eye
9513 Ultrasound study of eye
9514 X-ray study of eye

9515 Ocular motility study
9516 P32 and other tracer studies of eye
9521 Electroretinogram [ERG]
9522 Electro-oculogram [EOG]
9523 Visual evoked potential [VEP]
9524 Electronystagmogram [ENG]
9525 Electromyogram of eye [EMG]
9526 Tonography, provocative tests, and other glaucoma testing
9531 Fitting and dispensing of spectacles
9532 Prescription, fitting, and dispensing of contact lens
9533 Dispensing of other low vision aids
9534 Ocular prosthetics
9535 Orthoptic training
9536 Ophthalmologic counseling and instruction
9541 Audiometry
9542 Clinical test of hearing
9543 Audiological evaluation
9544 Clinical vestibular function tests
9545 Rotation tests
9546 Other auditory and vestibular function tests
9547 Hearing examination, not otherwise specified
9548 Fitting of hearing aid
9549 Other nonoperative procedures related to hearing
9601 Insertion of nasopharyngeal airway
9602 Insertion of oropharyngeal airway
9603 Insertion of esophageal obturator airway
9604 Insertion of endotracheal tube
9605 Other intubation of respiratory tract
9606 Insertion of Sengstaken tube
9607 Insertion of other (nasal-)gastric tube
9608 Insertion of (nasal-)intestinal tube
9609 Insertion of rectal tube
9611 Packing of external auditory canal
9614 Vaginal packing
9615 Insertion of vaginal mold
9616 Other vaginal dilation

9617 Insertion of vaginal diaphragm
9618 Insertion of other vaginal pessary
9619 Rectal packing
9621 Dilation of frontonasal duct
9622 Dilation of rectum
9623 Dilation of anal sphincter
9624 Dilation and manipulation of enterostomy stoma
9625 Therapeutic distention of bladder
9626 Manual reduction of rectal prolapse
9627 Manual reduction of hernia
9628 Manual reduction of enterostomy prolapse
9629 Reduction of intussusception of alimentary tract
9631 Gastric cooling
9632 Gastric freezing
9633 Gastric lavage
9634 Other irrigation of (naso-)gastric tube
9635 Gastric gavage
9636 Irrigation of gastrostomy or enterostomy
9637 Proctoclysis
9638 Removal of impacted feces
9639 Other transanal enema
9641 Irrigation of cholecystostomy and other biliary tube
9642 Irrigation of pancreatic tube
9643 Digestive tract instillation, except gastric gavage
9644 Vaginal douche
9645 Irrigation of nephrostomy and pyelostomy
9646 Irrigation of ureterostomy and ureteral catheter
9647 Irrigation of cystostomy
9648 Irrigation of other indwelling urinary catheter
9649 Other genitourinary instillation
9651 Irrigation of eye
9652 Irrigation of ear
9653 Irrigation of nasal passages
9654 Dental scaling, polishing, and debridement
9655 Tracheostomy toilette
9656 Other lavage of bronchus and trachea

9657 Irrigation of vascular catheter
9658 Irrigation of wound catheter
9659 Other irrigation of wound
966 Enteral infusion of concentrated nutritional substances
9670 Continuous invasive mechanical ventilation of unspecified duration
9671 Continuous invasive mechanical ventilation for less than 96 consecutive hours
9672 Continuous invasive mechanical ventilation for 96 consecutive hours or more
9701 Replacement of (nasal-)gastric or esophagostomy tube
9702 Replacement of gastrostomy tube
9703 Replacement of tube or enterostomy device of small intestine
9704 Replacement of tube or enterostomy device of large intestine
9705 Replacement of stent (tube) in biliary or pancreatic duct
9711 Replacement of cast on upper limb
9712 Replacement of cast on lower limb
9713 Replacement of other cast
9714 Replacement of other device for musculoskeletal immobilization
9715 Replacement of wound catheter
9716 Replacement of wound packing or drain
9721 Replacement of nasal packing
9722 Replacement of dental packing
9723 Replacement of tracheostomy tube
9724 Replacement and refitting of vaginal diaphragm
9725 Replacement of other vaginal pessary
9726 Replacement of vaginal or vulvar packing or drain
9729 Other nonoperative replacements
9731 Removal of eye prosthesis
9732 Removal of nasal packing
9733 Removal of dental wiring
9734 Removal of dental packing
9735 Removal of dental prosthesis
9736 Removal of other external mandibular fixation device
9737 Removal of tracheostomy tube
9738 Removal of sutures from head and neck
9739 Removal of other therapeutic device from head and neck
9741 Removal of thoracotomy tube or pleural cavity drain
9742 Removal of mediastinal drain

9743 Removal of sutures from thorax
9744 Nonoperative removal of heart assist system
9749 Removal of other device from thorax
9751 Removal of gastrostomy tube
9752 Removal of tube from small intestine
9753 Removal of tube from large intestine or appendix
9754 Removal of cholecystostomy tube
9755 Removal of T-tube, other bile duct tube, or liver tube
9756 Removal of pancreatic tube or drain
9759 Removal of other device from digestive system
9761 Removal of pyelostomy and nephrostomy tube
9762 Removal of ureterostomy tube and ureteral catheter
9763 Removal of cystostomy tube
9764 Removal of other urinary drainage device
9765 Removal of urethral stent
9769 Removal of other device from urinary system
9771 Removal of intrauterine contraceptive device
9772 Removal of intrauterine pack
9773 Removal of vaginal diaphragm
9774 Removal of other vaginal pessary
9775 Removal of vaginal or vulvar packing
9779 Removal of other device from genital tract
9781 Removal of retroperitoneal drainage device
9782 Removal of peritoneal drainage device
9783 Removal of abdominal wall sutures
9784 Removal of sutures from trunk, not elsewhere classified
9785 Removal of packing from trunk, not elsewhere classified
9786 Removal of other device from abdomen
9787 Removal of other device from trunk
9788 Removal of external immobilization device
9789 Removal of other therapeutic device
9801 Removal of intraluminal foreign body from mouth without incision
9802 Removal of intraluminal foreign body from esophagus without incision
9803 Removal of intraluminal foreign body from stomach and small intestine without incision
9804 Removal of intraluminal foreign body from large intestine without incision
9805 Removal of intraluminal foreign body from rectum and anus without incision

9811 Removal of intraluminal foreign body from ear without incision
9812 Removal of intraluminal foreign body from nose without incision
9813 Removal of intraluminal foreign body from pharynx without incision
9814 Removal of intraluminal foreign body from larynx without incision
9815 Removal of intraluminal foreign body from trachea and bronchus without incision
9816 Removal of intraluminal foreign body from uterus without incision
9817 Removal of intraluminal foreign body from vagina without incision
9818 Removal of intraluminal foreign body from artificial stoma without incision
9819 Removal of intraluminal foreign body from urethra without incision
9820 Removal of foreign body, not otherwise specified
9821 Removal of superficial foreign body from eye without incision
9822 Removal of other foreign body without incision from head and neck
9823 Removal of foreign body from vulva without incision
9824 Removal of foreign body from scrotum or penis without incision
9825 Removal of other foreign body without incision from trunk except scrotum, penis, or vulva
9826 Removal of foreign body from hand without incision
9827 Removal of foreign body without incision from upper limb, except hand
9828 Removal of foreign body from foot without incision
9829 Removal of foreign body without incision from lower limb, except foot
9851 Extracorporeal shockwave lithotripsy [ESWL] of the kidney, ureter and/or bladder
9852 Extracorporeal shockwave lithotripsy [ESWL] of the gallbladder and/or bile duct
9859 Extracorporeal shockwave lithotripsy of other sites
9900 Perioperative autologous transfusion of whole blood or blood components
9901 Exchange transfusion
9902 Transfusion of previously collected autologous blood
9903 Other transfusion of whole blood
9904 Transfusion of packed cells
9905 Transfusion of platelets
9906 Transfusion of coagulation factors
9907 Transfusion of other serum
9908 Transfusion of blood expander
9909 Transfusion of other substance
9910 Injection or infusion of thrombolytic agent
9911 Injection of Rh immune globulin
9912 Immunization for allergy
9913 Immunization for autoimmune disease

9914 Injection or infusion of immunoglobulin
9915 Parenteral infusion of concentrated nutritional substances
9916 Injection of antidote
9917 Injection of insulin
9918 Injection or infusion of electrolytes
9919 Injection of anticoagulant
9920 Injection or infusion of platelet inhibitor
9921 Injection of antibiotic
9922 Injection of other anti-infective
9923 Injection of steroid
9924 Injection of other hormone
9925 Injection or infusion of cancer chemotherapeutic substance
9926 Injection of tranquilizer
9927 Iontophoresis
9928 Injection or infusion of biological response modifier [BRM] as an antineoplastic agent
9929 Injection or infusion of other therapeutic or prophylactic substance
9931 Vaccination against cholera
9932 Vaccination against typhoid and paratyphoid fever
9933 Vaccination against tuberculosis
9934 Vaccination against plague
9935 Vaccination against tularemia
9936 Administration of diphtheria toxoid
9937 Vaccination against pertussis
9938 Administration of tetanus toxoid
9939 Administration of diphtheria-tetanus-pertussis, combined
9941 Administration of poliomyelitis vaccine
9942 Vaccination against smallpox
9943 Vaccination against yellow fever
9944 Vaccination against rabies
9945 Vaccination against measles
9946 Vaccination against mumps
9947 Vaccination against rubella
9948 Administration of measles-mumps-rubella vaccine
9951 Prophylactic vaccination against the common cold
9952 Prophylactic vaccination against influenza
9953 Prophylactic vaccination against arthropod-borne viral encephalitis

9954 Prophylactic vaccination against other arthropod-borne viral diseases
9955 Prophylactic administration of vaccine against other diseases
9956 Administration of tetanus antitoxin
9957 Administration of botulism antitoxin
9958 Administration of other antitoxins
9959 Other vaccination and inoculation
9960 Cardiopulmonary resuscitation, not otherwise specified
9961 Atrial cardioversion
9962 Other electric countershock of heart
9963 Closed chest cardiac massage
9964 Carotid sinus stimulation
9969 Other conversion of cardiac rhythm
9971 Therapeutic plasmapheresis
9972 Therapeutic leukopheresis
9973 Therapeutic erythrocytapheresis
9974 Therapeutic plateletpheresis
9975 Administration of neuroprotective agent
9976 Extracorporeal immunoabsorption
9977 Application or administration of an adhesion barrier substance
9978 Aquapheresis
9979 Other therapeutic apheresis
9981 Hypothermia (central) (local)
9982 Ultraviolet light therapy
9983 Other phototherapy
9984 Isolation
9985 Hyperthermia for treatment of cancer
9986 Non-invasive placement of bone growth stimulator
9988 Therapeutic photopheresis
9991 Acupuncture for anesthesia
9992 Other acupuncture
9993 Rectal massage (for levator spasm)
9994 Prostatic massage
9995 Stretching of foreskin
9996 Collection of sperm for artificial insemination
9997 Fitting of denture
9998 Extraction of milk from lactating breast

9999 Other miscellaneous procedures