Definitions Manual

for

All-Payer

Severity-adjusted DRG (APS-DRGs®) Assignment

Public Use

Version 20.0

For assistance, please call Client Services at (800) 999-DRGS (3747).

Table of Contents

LIST OF APPENDICES

CHAPTER I -- INTRODUCTION

The All-Payer Severity-adjusted DRGs (APS-DRGs®) were developed by HSS, Inc. (HSS) as a methodology for identifying and categorizing patients with different levels of resource needs and different outcomes. The APS-DRGs® are based upon research that the Centers for Medicare and Medicaid Services (CMS, formerly the Health Care Financing Administration or HCFA) sponsored for the purpose of developing a severity-adjusted set of DRGs appropriate for use in the Medicare inpatient prospective payment system. However, HSS has generalized and enhanced the CMS methodology to be applicable to non-Medicare, all-payer patient populations. In developing and maintaining APS-DRGs®, HSS has developed a classification system that:

- Is compatible with the underlying DRG structure used by CMS in the Medicare program.
- Relies only on administrative data routinely collected by hospital abstracting and billing systems.
- Is intuitively reasonable, clinically acceptable, and statistically powerful.
- Makes use of an efficient and flexible grouping algorithm.
- Is appropriate for such diverse applications as clinical performance measurement, provider profiling, financial analysis, and per-case reimbursement.

This APS-DRGs® Definitions Manual has been prepared as part of HSS's continuing commitment to the APS-DRGs® methodology. The remainder of this manual presents an overview of the APS-DRGs® methodology (Section II) and describes in detail the process for manually assigning an APS-DRGs® group number (Section III and Appendix).

CHAPTER II -- OVERVIEW OF THE APS-DRGs®

BACKGROUND

Diagnosis Related Groups (DRGs) are used throughout the health care industry to address issues of cost, effectiveness and quality of care. Most notably, they are used at both the federal and state level for the prospective reimbursement of inpatient hospital stays. Many have argued that the DRGs do not adequately adjust for patient severity and that under a DRG-based prospective payment system, this leads to reimbursement inequities. It is argued that the DRGs do not adequately differentiate sicker, more costly patients and that hospitals caring for large percentages of such patients are not reimbursed at a rate which covers their costs.

Several years ago, the Centers for Medicare and Medicaid Services (CMS, formerly the Health Care Financing Administration or HCFA) responded to these criticisms by developing a DRG-based severity system. The CMS severity-adjusted DRGs (SDRGs) refined the existing DRG structure and were better able to identify patients with different resource needs and outcomes. The SDRGs were an important step in addressing the limitations of the existing DRG structure. However, the SDRGs, like the CMS DRGs, suffered from being targeted to the over sixty-five year old population and from serious conceptual limitations in certain key areas, most notably neonatal care. In addition, because SDRGs were proposed for use as a reimbursement system, decisions were made that severely limited the number of SDRGs and thus limited the SDRG system's ability to uniformly predict severity of illness.

HSS developed the All-Payer Severity-adjusted DRGs (APS-DRGs®) in response to the on-going need in the healthcare industry for improved methods of managing healthcare resources and outcomes. APS-DRGs® are based upon the SDRG research conducted by CMS, but address the limitations discussed above. Most importantly, the APS-DRGs® are generalizable to the all-payer patient population. They include pediatric DRGs and a new, comprehensive neonatal model.

THE APS-DRGs® DEVELOPMENT PHILOSOPHY

APS-DRGs® research and development is accomplished through a process which includes both statistical analysis and clinical input. In general, since the inception of DRGs, this approach has been viewed as the most effective strategy for developing patient classification systems. Using a strictly statistical approach yields the best predictive performance, while a purely clinical approach yields the most medically meaningful system and thus a high degree of physician acceptance. Combining these two approaches (statistical and clinical) produces a system that is statistically sound from a management perspective and can be accepted and endorsed by physicians. In developing and enhancing the APS-DRGs®, clinicians evaluate diagnoses, procedures and other patient characteristics to recommend patient groupings. These grouping are then subjected to statistical analyses to determine the final APS-DRGs® classifications.

The following guidelines were used in developing the APS-DRGs®.

- APS-DRGs® are defined only using information routinely available in hospital abstract systems;
- Development efforts must result in a manageable number of final categories;
- All final APS-DRGs® must contain patients with similar clinical characteristics and similar resource utilization patterns.

SEVERITY ADJUSTMENT USING THE CMS SDRGs

The CMS DRGs designate approximately 3,000 diagnosis codes as substantial comorbid conditions or complications (CCs). These diagnoses cover a broad spectrum of disease conditions, ranging from major acute illnesses (e.g., heart attack and stroke) to minor illnesses (e.g., otitis media and urinary tract infections). The diagnoses designated as CCs are expected to increase the length of stay for 75% of the patients by at least one day. No other differentiation relative to severity or complexity is made among these diagnoses. The CMS SDRGs improved upon the original DRG definitions by dividing all diagnoses into three categories: not a CC, a CC, or a Major CC. The Major CC category included significant acute diseases, as well as chronic diseases for which an acute exacerbation presented a significant problem for the patient. When compared to CCs, treatment of patients with Major CCs required a substantial amount of additional resources.

Under CMS's SDRG structure, all paired DRG groupings (DRGs with and without CCs) were consolidated. In addition, based on clinical judgment and statistical analysis, groups of DRGs were consolidated because they contained patients with similar clinical patterns and resource use. Each "Consolidated DRG" or CDRG was evaluated to determine if it should be split based upon the presence of a Major CC, a CC, both, or neither. "CC" splits (including splits into levels of CCs) were only made when they were associated with differences in resource use that met specific quantitative criteria. The resulting CMS model recognized three different severity-adjustment scenarios. Each CDRG was severity-adjusted using one of the following scenarios:

- the CDRG was split into three severity levels: (1) no CC, (2) with a CC, (3) with a Major CC
- the CDRG was split into two severity levels: (1) no CC or a CC only (2) with a Major CC
- the CDRG was split into two severity levels: (1) no CC (2) with a CC or a Major CC

While using these three different severity approaches minimized the number of final patient classifications, the resulting model lacked a uniform clinical structure and was difficult for users to understand and remember. It also presented problems when analyzing data due to the inconsistent number of categories across CDRGs. Finally, this approach did not uniquely identify small groups of patients who were important clinically. Because of their small size, such groups did not meet the specified quantitative criteria and were often consolidated into a larger, clinically dissimilar group of patients. Because these criteria were based on numerical standards derived from a sample of Medicare inpatient claims, they had no particular validity in the context of other non-Medicare inpatient encounters.

SEVERITY ADJUSTMENT USING THE APS-DRGs®

The APS-DRGs® use diagnoses (both principal and secondaries), as well as the occurrence and degree of surgery, as discriminating variables in patient classification and severity evaluation. In a very few instances, the patient's age and discharge status are taken into consideration as well. APS-DRGs® are resource-based and may effectively and efficiently be generated from and used with administrative data.

The APS-DRGs® improve upon the SDRG model developed by CMS, particularly as they relate to the all-payer population. First, the APS-DRGs® use the same underlying structure of "Consolidated DRGs" (CDRGs) as the CMS model. Next, CDRGs are split into three resource-based severity levels: no CCs, with a CC, or with a Major CC. No aggregating of severity classes is performed. Thus, the APS-DRGs® begin with a nationally-recognized and clinically acceptable model and apply a uniform structure that is intuitively reasonable and easily explained.

Figure 1 illustrates the basic differences in structure for the three systems discussed (CMS DRGs, SDRGs and APS-DRGs®) for the CDRG of Degenerative Disorder in MDC 1. As can be seen, in the CMS DRG system there is a single DRG (DRG 12) for Degenerative Disorder. In this example, the DRG and CDRG are the same. In the SDRG system this CDRG is split into two SDRGs: one with Major CCs (with MCC) and the other without Major CCs (without MCC). Note that the "without MCC" category includes cases both with ***and*** without CCs. In the APS-DRGs® system the CDRG is split into the full three distinct classes: with a Major CC (with MCC), with a CC (with CC) and without a CC or Major CC (without CC).

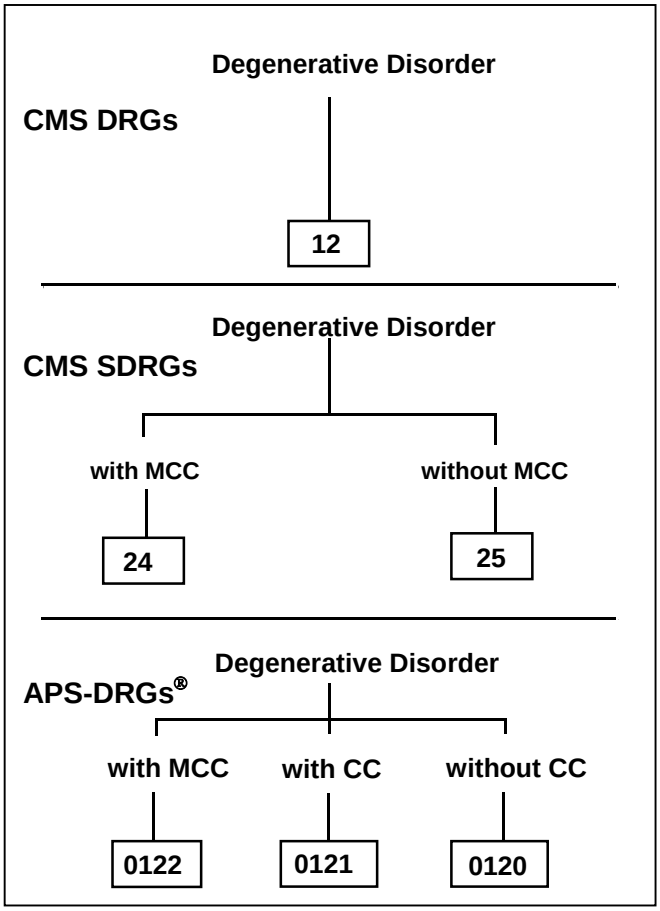

Figure 1

ADDITIONAL APS-DRGs® ENHANCEMENTS

The CMS SDRG model did not specifically deal with newborns and neonates. Although this group represents a major segment of the all-payer patient population, this type of patient does not routinely occur in the Medicare experience. The APS-DRGs® model directly addresses this issue by revamping the current CMS newborn and neonate model (MDC 15). THE APS-DRGs® model defines sets of patient classes which are based on a combination of birthweight and diagnosis. Birthweight has been shown to be the strongest predictor of resource consumption and severity for newborns and neonates.

The APS-DRGs® model also goes beyond the SDRG model in its handling of CC exclusion logic, i.e. the exception logic which considers and accounts for the relationship between a patient's principal diagnosis and secondary diagnoses when evaluating severity class assignment. Unlike the CMS SDRG model, the APS-DRGs® support Major CC exclusion logic, as well as MDC and DRG-specific severity class exclusions.

While the APS-DRGs® involve a larger number of cells than CMS DRGs, HSS research has shown that APS-DRGs® will yield stable relative weights in the context of a "typical" normative database. The number of APS-DRGs® categories is determined by the logical rules that are used to consolidate CMS DRGs, the desire for a uniform severity-classification structure across Consolidated DRGs, and the addition of the enhanced neonatal model required for all-payer patient populations. Figure 2 summarizes the differences between the CMS DRG and APS-DRG® models relative to the number of final groups for Version 20.0 of the two systems.

	CMS DRGs	APS-DRGs®
Number of "DRGs"	510	1121
Neonatal "DRGs"	7	21
# Consolidated DRGs	N/A	375
# Classes Medical	N/A	3
# Classes Surgical	N/A	3

Figure 2

The APS-DRGs® incorporate several significant enhancements to the casemix classification methodologies developed by CMS.

- By incorporating a uniform clinical structure to represent levels of severity, APS-DRGs® are able to achieve substantially greater clinical validity and statistical power.

- APS-DRGs®, unlike the CMS SDRGs, is an "all patient" system. It has special classification groups for neonatal patients. It has been validated against a nationally representative sample of all-payer data.

- The structure of the APS-DRGs® model is simple, explicit and easily understood. This model can easily accommodate future updates with the introduction of new technologies and changes in practice patterns.

- APS-DRGs® are inexpensive to implement, because they do not require any extra data collection. Only the standard discharge data elements that hospitals already collect are needed.

RESULTS

As discussed above, APS-DRGs® were developed as an extension of the proposed CMS SDRG model. In constructing this new system, HSS' goals were to generalize the methodology to the all-payer population and to improve the model's predictive capabilities over DRGs and SDRGs. In order to evaluate the achievement of these goals, HSS conducted a statistical analysis on a nationally representative database of over 2.5 million inpatient discharges. The R-square statistic with total charges as the dependent variable was used to evaluate the APS-DRGs® and to set the groundwork for comparison to other patient classification systems. Analyses were initially conducted using untrimmed data, so that results could be compared to the findings of other severity system evaluations, which are generally published using untrimmed data. Using the study database, a 38% reduction in variance was achieved with the existing CMS DRG system. The APS-DRGs® achieved a 48% reduction in variance using the same data. This represents a 26% improvement over the CMS DRG model. When CMS performed comparable studies using the proposed SDRG model on untrimmed data, they achieved only an 11% improvement with the SDRGs over the CMS DRGs.

The additional explanatory power exhibited by APS-DRGs® is primarily driven by a 71.4% improvement in the neonatal model. In addition, the introduction of CC exclusion logic and the application of a uniform set of severity classes contributed to this increased performance.

In further exploring the power of the system, the database was trimmed of outliers by excluding any cases exceeding 2 standard deviations from the mean of total charges for the each terminal group. The R-square improved to 56.86% in explaining the variation in charges. Similar results have been obtained in other studies using different data sources, methods, and performance measures.

DISCUSSION

APS-DRGs® have proven to be statistically and clinically relevant for analyzing inpatient healthcare encounters. The system is easy to implement since the methodology uses commonly available data and the software can be imbedded in transaction processing or analytical systems in a matter of days. The system was designed with the explicit objective of maintaining a direct relationship with the CMS DRGs.

HSS is dedicated to updating and enhancing the APS-DRGs® to keep them on the cutting edge of casemix/severity classification. HSS will adapt the APS-DRGs® system for new medical technologies, as well as changes in coding practices. As the underlying CMS DRG/SDRG model and ICD-9-CM coding structure are revamped each October, changes will be incorporated into the APS-DRGs®.

CHAPTER III -- ASSIGNING APS-DRGs®

OVERVIEW

Use the instructions provided below to manually assign APS-DRGs® to data collected on the typical hospital abstract. To manually assign APS-DRGs® you must:

1. First assign a patient to or have access to the patient's CMS Version 20.0 DRG and MDC.

2. Have access to the input variables used to derive the CMS DRG and MDC including:

   - ICD-9-CM diagnosis codes
   - ICD-9-CM procedure codes
   - age
   - discharge status

   As well as the following additional fields:

   - birthweight (if present)
   - LOS

Information needed to assign APS-DRGs® is contained in the remainder of this chapter.

The APS-DRGs® to be assigned are represented by 4-digit numbers, consisting of two parts: a 3-digit Consolidated DRG and a 1-digit severity class number. The Consolidated DRG or CDRG is derived from the patient's CMS DRG and the severity class is obtained by evaluating the patient's secondary diagnoses. The APS-DRGs® group number may be represented by the syntax "XXXY", where "XXX" is the CDRG and "Y" is the severity class.[1]

This following section of the manual (***Instructions for Non-Neonatal APS-DRGs® Assignment)*** presents step-by-step instructions for assigning APS-DRGs® to all records except newborns and neonates (i.e., records assigned to MDC 15). APS-DRGs® assignment for newborns and neonates is handled in the subsequent manual section (***Instructions for APS-DRGs® Assignment to Newborns and Neonates***).

[1] Throughout this document, APS-DRGs® are identified with a four-digit number. Current HSS specifications actually expand APS-DRGs® to a five-digit number for HIPAA compliance, by inserting a leading zero.

INSTRUCTIONS FOR NON-NEONATAL APS-DRGs® ASSIGNMENT

Use the following instructions to assign APS-DRGs® to cases ***other than newborns and neonates (i.e., generally patients in MDC 15)***. Note that during this assignment process, the patient's CMS DRG will be evaluated in Steps 5 through 11 and may be re-assigned. DRG changes during these steps are for purposes of APS-DRGs® assignment only. ***Do not change the CMS DRG assigned to the medical record.***

1. Note the DRG and MDC assigned to the patient record.

2. Is the DRG in the range 1 to 523?

- If no, the APS-DRG® group number = 4700. Go to Step 18.
- If yes, go to Step 3.

3. Is DRG = 469 or 470?

- If no, go to Step 4.
- If yes, set the patient's Consolidated DRG (CDRG) equal to the CMS DRG and append a severity class of "0". Thus, the APS-DRG® for the case is "XXX0", where "XXX" is the CDRG. Go to Step 18.

4. Is MDC = 15?

- If no, go to Step 5.
- If yes...
  - Is the patient's CMS DRG on the following list?

DRG	DESCRIPTION
103	Heart Transplant
480	Liver Transplant
481	Bone Marrow Transplant
483	Trach Vent 96+ PDX Ex Fac, Mth, Nck
495	Lung Transplant
512	Simultaneous Pancreas/Kidney Transplant
513	Pancreas Transplant

  - If no, go to the following section titled ***Instructions for Newborn and Neonatal APS-DRGs® Assignment.***
  - If yes, go to Step 12.

5. Is the CMS DRG = 50 or 51?

- If no, go to Step 6.
- If yes, check for the presence of a "miscellaneous ear, nose, mouth and throat procedure," as defined by the CMS Version 20.0 DRG assignment rules.
- Determine if any procedure code present on the medical record is a "miscellaneous ear, nose, mouth and throat procedure," as defined by the CMS Version 20.0 DRG assignment rules.
- If one of these procedures is present, set DRG = 55. Note that this new DRG is to be used for purposes of APS-DRGs® assignment only. Do not change the CMS DRG on the patient's medical record.
- If one of these procedures is not present, leave the CMS DRG unchanged.
- Proceed to Step 12.

6. Is the CMS DRG = 223, 224 or 232?

- If no, go to Step 8.
- If yes, check for the presence of a "hand or wrist procedure (except major joint)," as defined by the CMS Version 20.0 DRG assignment rules.
- Determine if any procedure code present on the medical record is a "hand or wrist procedure (except major joint)," as defined by the CMS Version 20.0 DRG assignment rules.
- If one of these procedures is present, set DRG = 229. Note that this new DRG is to be used for purposes of APS-DRGs® assignment only. Do not change the CMS DRG on the patient's medical record. Proceed to Step 12.
- If one of these procedures is not present, leave the CMS DRG unchanged and proceed to Step 7.

7. After the completion of Step 6, is CMS DRG = 232?

- If no, go to Step 12.
- If yes, check for the presence of a “shoulder, elbow or forearm procedure (except major joint),” as defined by the CMS Version 20.0 DRG assignment rules.
- Determine if any procedure code present on the medical record is a “shoulder, elbow or forearm procedure (except major joint),” as defined by the CMS Version 20.0 DRG assignment rules.

- If one of these procedure is present, set DRG = 224. Note that this new DRG is used for purposes of APS-DRGs® assignment only. Do no change the CMS DRG on the patient's medical record.
- If one of these procedures is not present, leave the CMS DRG unchanged.
- Proceed to Step 12.

8. Is the CMS DRG = 268?

- If no, go to Step 9.
- If yes, check for the presence of a "breast, perianal or pilondal procedure", as defined by the CMS Version 20.0 DRG assignment rules.
- Proceed to Step 12.

9. Is the CMS DRG = 323?

- If no, go to Step 10.
- If yes, check for the presence of non-operating room procedure code "9851" (extracorporeal shockwave lithrotripsy (ESWL) of the kidney, ureter and/or bladder) in any position on the medical record.
- If the code "9851" is present, set DRG = 323.
- If the code "9851" is not present, set DRG = 324.
- Go to Step 12.

10. Is CMS DRG = 506, 508 or 510?

- If no, go to Step 11.
- If yes, check for the presence of a "burn significant trauma diagnosis," as defined by the CMS Version 20.0 DRG assignment rules.
- If a "burn significant trauma diagnosis," as defined by the CMS Version 20.0 DRG assignment rules is present, leave the CMS DRG as assigned.
- If a "burn significant trauma diagnosis," as defined by the CMS Version 20.0 DRG assignment rules is ***not*** present, reset the CMS DRG as follows.
  - ✓ If CMS DRG = 506, set DRG = 507.
  - ✓ If CMS DRG = 508, set DRG = 509.
  - ✓ If CMS DRG = 510, set DRG = 511.
- Go to Step 12.

11. Is CMS DRG = 521?

- If no, go to Step 12.
- If yes, check for the presence of a “rehabilitation therapy, non-operating room procedure,” as defined by the CMS Version 20.0 DRG assignment rules.
- Determine if any procedure code present on the medical record is a “rehabilitation therapy, non-operating room procedure,” as defined by the CMS Version 20.0 DRG assignment rules.
- If one of these rehabilitation procedures is present, DRG = 522.
- If a rehabilitation procedure is not present, DRG = 523.
- Go to Step 12.

12. Assign a Consolidated DRG.

Using the patient's CMS DRG or the "re-assigned" DRG from Steps 5 through 11, turn to Appendix A (DRG to Consolidated DRG Mapping). Locate the applicable DRG in the left-most column of the appendix table. In most cases, the Consolidated DRG (CDRG) is directly assigned from the CMS or "re-assigned" DRG and can be found in the column labeled "CDRG #". If assignment of a CDRG requires any special instructions, a notation will appear in the column labeled "SPECIAL RULES". Details on this "SPECIAL RULES" column and applicable instructions are included with Appendix A.

13. Assign a Severity Class to Each Secondary Diagnosis.

One at a time, examine each secondary diagnosis to determine whether or not the diagnosis qualifies as a CC or Major CC (MCC). Note all secondary diagnoses that are considered CCs or Major CCs. Proceed to Step 14 if secondary diagnoses are present and at least one qualifies as a CC or Major CC. If the case does not contain any CC or Major CC diagnoses, go to Step 16.

14. Check for MDC-Specific Severity Class (CC) Exclusions.

If the MDC assigned to the record is ***not*** listed below, proceed to Step 15.

MDC	DESCRIPTION
24	Multiple Significant Trauma
25	HIV Infections

Certain diagnoses are not considered to be either CCs or Major CCs (MCCs), when they occur within one of the MDCs listed above. The secondary diagnoses excluded are used for assignment to the MDC and its DRGs. Thus, the effect of these diagnoses on severity is accounted for by assignment to the MDC itself. Because they are instrumental in MDC assignment (or to all DRGs within the MDC), they are not used for further severity adjustment.

- Using the above table (patient's MDC), determine if ***any*** of the CC or Major CC diagnosis codes identified in Step 13 are part of the MDC definition.

- If a diagnosis code ***is*** part of the MDC definition, it is excluded for the MDC. Re-set the severity class of this code ***only*** to zero (0).

- If a code ***is not*** present, leave the code's severity class as originally determined in Step 13.

- When this look-up process is complete, proceed to Step 15.

15. Check for CDRG-Specific Severity Class (CC) Exclusions.

If the CDRG assigned to the record is ***not*** listed below, proceed to Step 16.

CDRG	DESCRIPTION
27	Traumatic Stupor & Coma, Coma > 1 Hr
121	Circ Disor W AMI, Disch Alive
123	Circ Disor W AMI, Expired
124	Circ Dis Ex AMI W Card Cath & Complx DX
259	Mastectomy for Malignancy
372	Vaginal Delivery W Complic Diagnoses
383	Oth Antepartum DX W Medical Complic
489	HIV W Major Related Condition
492	Chemotherapy W Acute Leukemia as Sec DX
506	Full Burn W Graft or Inhal W Sign Trauma
507	Full Burn W Graft or Inhal W/O Sign Trauma
508	Full Burn W/O Graft or Inhal W Sign Trauma
510	Non-Extensive Burns W Sign Trauma
512	Simultaneous Pancreas/Kidney Transplant
513	Pancreas Transplant

Certain diagnoses are not considered to be either CCs or Major CCs (MCCs), when they occur within one of the listed CDRGs. The secondary diagnoses excluded are used for assignment to the CDRG. Thus, the effect of these diagnoses on severity adjustment is accounted for by assignment to the CDRG itself. Because they are instrumental in CDRG assignment they are not used for further severity adjustment.

- Using Appendix A, DRG to Consolidated DRG (CDRG) Mapping, and the above table (patient's CDRG), determine if ***any*** of the CC or Major CC diagnosis codes identified in Step 13 are part of the CDRG definition.

- If a diagnosis code ***is*** part of the CDRG definition, it is excluded for the CDRG. Re-set the severity class of this code ***only*** to zero (0).

- If a code ***is not*** present, leave the code's severity class as originally determined in Step 13.

- When this look-up process is complete, proceed to Step 16.

16. Assign Final Severity Class.

After reviewing all qualifying diagnoses, assign a final severity class to the record using the following rules:

- If at least one non-excluded Major CC is present, assign a final severity class of two (2) and go to Step 17.

- If at least one non-excluded CC is present (but no Major CCs), assign a final severity class of one (1). Go to Step 17.

- If no CCs or Major CCs are present, assign the record a final severity class of zero (0). Go to Step 17.

- If all CCs or Major CCs are excluded, assign a severity class of zero (0) and go to Step 17.

17. Assign APS-DRGs® Group Number.

Set the APS-DRGs® group number equal to the CDRG number from Step 12, plus the one-digit severity class from Step 16. This is represented by the syntax "XXXY", where "XXX" is the CDRG number and "Y" is the final severity class number.

18. APS-DRGs® Assignment Complete.

The APS-DRGs® assignment process is complete. Do not follow any additional instructions.

INSTRUCTIONS FOR NEWBORN AND NEONATAL APS-DRGs® ASSIGNMENT

Steps for assigning APS-DRGs® to newborns and neonates follow.

1. Note the DRG and MDC assigned to the patient record.

2. Is MDC = 15?

- If no, go to the previous section titled ***Instructions for Non-Neonatal APS-DRGs® Assignment.***
- If yes...
  - Is the patient's CMS DRG on the following list?

DRG	DESCRIPTION
103	Heart Transplant
480	Liver Transplant
481	Bone Marrow Transplant
483	Trach Vent 96+ PDX Ex Fac, Mth, Nck
495	Lung Transplant
512	Simultaneous Pancreas/Kidney Transplant
513	Pancreas Transplant

  - If no, go to Step 3
  - If yes, go to the previous section titled ***Instructions for Non-Neonatal APS-DRGs® Assignment.***

3. Is DRG = 469 or 470?

- If no, go to Step 4.
- If yes, set the patient's Consolidated DRG (CDRG) equal to the CMS DRG and append a severity class of "0". Thus, the APS-DRG® for the case is "XXX0", where "XXX" is the CDRG. Go to Step 17.

4. Check that the patient's discharge status is a valid inpatient UB-92 code. Is discharge status in the range 01 - 08, 20, 30, 50, 51, 61 - 64, 71 or 72?

- If no, APS-DRG® = 4700 (Ungroupable). Go to Step 17.
- If yes, go to Step 5.

5. Check that the patient has a valid length of stay in the range of 000 - 999.

- If no, APS-DRG® = 4700 (Ungroupable). Go to Step 17.
- If yes, go to Step 6.

6. Did the patient expire (i.e., discharge status equal to 20)?

- If no, go to Step 7.

- If yes, assign the patient to one of the following APS-DRGs® based on length of stay. Then go to Step 17.

LOS VALUE	APS-DRGS®
< 2 days	9000, Neonatal Death, LOS < 2 Days
2 - 4 days	9001, Neonatal Death, LOS 2 - 4 Days
> 4 days	9002, Neonatal Death, LOS > 4 Days

7. Was the patient transferred to another acute care facility (i.e., discharge status equal to 02 *only*)?

- If no, go to Step 8.
- If yes, assign the patient to one of the following APS-DRGs® based on length of stay. Then go to Step 17.

LOS VALUE	APS-DRGS®
< 2 days	9010, Neonatal Transfer, LOS < 2 Days
2 - 4 days	9011, Neonatal Transfer, LOS 2 - 4 Days
> 4 days	9012, Neonatal Transfer, LOS > 4 Days

8. Is a birthweight value in grams present for the patient?

- If no, go to Step 9.
- If yes, assign a birthweight category as follows:

BIRTHWEIGHT VALUE	BIRTHWEIGHT CATEGORY
< 100 Grams	9 (Error)
100 - 999 Grams	0 (< 1,000 Grams)
1,000 - 2,499 Grams	1 (1,000 - 2,499 Grams)
2,500 - 9,000 Grams	2 (> 2,499 Grams)
> 9,000 Grams	9 (Error)

- Go to Step 10.

9. Compute a birthweight value for the patient using the following rules.

Check all ICD-9-CM diagnosis codes, both principal and secondary, to determine if any are in the range 76400 - 76519.

- If ***no*** diagnoses are in this range, assign a birthweight category of "2" (birthweight > 2499 grams). Go to Step 10.
- If one or more diagnosis codes are in this range, assign a birthweight category code to ***each*** diagnosis using the following table.

DIAGNOSIS CODE	BIRTHWEIGHT CATEGORY
76401 - 76403, 76411 - 76413, 76421 - 76423, 76491 - 76493, 76501 - 76503, 76511 - 76513	0 (< 1,000 Grams)
76404 - 76408, 76414 - 76418, 76424 - 76428, 76494 - 76498, 76504 - 76508, 76514 - 76518	1 (1,000 - 2,499 Grams)
76409, 76419, 76429 76499, 76509, 76519	2 (> 2,499 Grams)
76400, 76410, 76420 76490, 76500, 76510	9 (Error)

- If the patient has one birthweight diagnosis code, record the birthweight category of this code for use in subsequent steps.
- If the patient has ***more*** than one birthweight diagnosis code and all codes are assigned to the same birthweight category, record this category for use in subsequent steps.
- If the patient has ***more*** than one birthweight diagnosis code and these codes are in ***different*** birthweight categories, assign a birthweight category of "9".
- Go to Step 10.

10. Has a birthweight category of "9" (Error) been assigned in either Step 8 or 9?

- If no, go to Step 11.
- If yes, APS-DRG® = 4700 (Ungroupable). Go to Step 17.

11. Did the patient have respiratory assistance, as designated by one of the following procedure codes? Check all ICD-9-CM procedure codes present for the patient.

CODE	DESCRIPTION
9670	Continuous Mechanical Ventilation -- Unspecified Duration
9671	Continuous Mechanical Ventilation -- < 96 Hours
9672	Continuous Mechanical Ventilation -- 96+ Hours
9390	Continuous Positive Airway Pressure (CPAP)

- If no, go to Step 12.
- If yes, assign one of the following APS-DRGs® based on the birthweight category derived in Steps 9 or 10.

BIRTHWEIGHT CATEGORY	APS-DRGs®
0 (< 1,000 Grams)	9100, Respiratory Assistance, Birthweight < 1000 Grams
1 (1,000 - 2,499 Grams)	9101, Respiratory Assistance, Birthweight 1,000 - 2,499 Grams
2 (> 2,499 Grams)	9102, Respiratory Assistance, Birthweight 2,500+ Grams

- Go to Step 17.

12. Did the patient have a principal *or* secondary diagnosis of respiratory distress syndrome, as indicated by ICD-9-CM diagnosis code "769"?

- If no, go to Step 13.
- If yes, assign one of the following APS-DRGs® using the birthweight category derived in Steps 9 or 10.

BIRTHWEIGHT CATEGORY	APS-DRGs®
0 (< 1,000 Grams)	9110, Respiratory Distress, Birthweight < 1,000 Grams
1 (1,000 - 2,499 Grams)	9111, Respiratory Distress, Birthweight 1,000 - 2,499 Grams
2 (> 2,499 Grams)	9112, Respiratory Distress, Birthweight > 2,500+ Grams

- Go to Step 17.

13. For remaining cases, set the Consolidated DRG (CDRG).

- Assign a CDRG based on the birthweight category code derived in Steps 9 or 10.

BIRTHWEIGHT CATEGORY	CDRG
0 (< 1,000 Grams)	386 Neonate, Birthweight < 1000 Grams
1 (1,000 - 2,499 Grams)	388 Neonate, Birthweight 1,000 - 2,499 Grams
2 (> 2,499 Grams)	391 Neonate, Birthweight 2500+ Grams

- Go to Step 14.

14. Is CDRG = 386?

- If no, go to Step 15.
- If yes, APS-DRG® = 3860. Go to Step 17.

15. Are secondary diagnosis codes present?

- If no, assign a severity class of zero (0) and go to Step 16.
- If yes, examine each diagnosis, both principal and secondary, to determine if it is a CC and, if so, the class of CC to which it belongs. Assign one of the following severity class values based on that determination.

CC SEVERITY CLASS DESCRIPTION	SEVERITY CLASS FOR NEONATAL APS-DRGS® ASSIGNMENT
Incidental	1
Moderate	2
Major	3

After all codes have been evaluated, take the ***highest*** severity class and use this as the case's final severity class.

16. Assign an APS-DRGs® Group Number to remaining cases.

Set the APS-DRGs® group number equal to the CDRG from Step 13, plus the one-digit final severity class from Step 15. This is represented by the syntax "XXXY", where "XXX" is the CDRG number and "Y" is the highest neonatal severity class value. Remember, if no secondary diagnoses are present on the medical record or the secondary diagnoses present do not quality as neonatal complications, the assigned severity class is zero (0).

17. APS-DRGs® Assignment Complete.

The APS-DRGs® assignment process is complete. Do not follow any additional instructions. For reference a diagram of the APS-DRGs® neonatal model is presented in Figure 3.

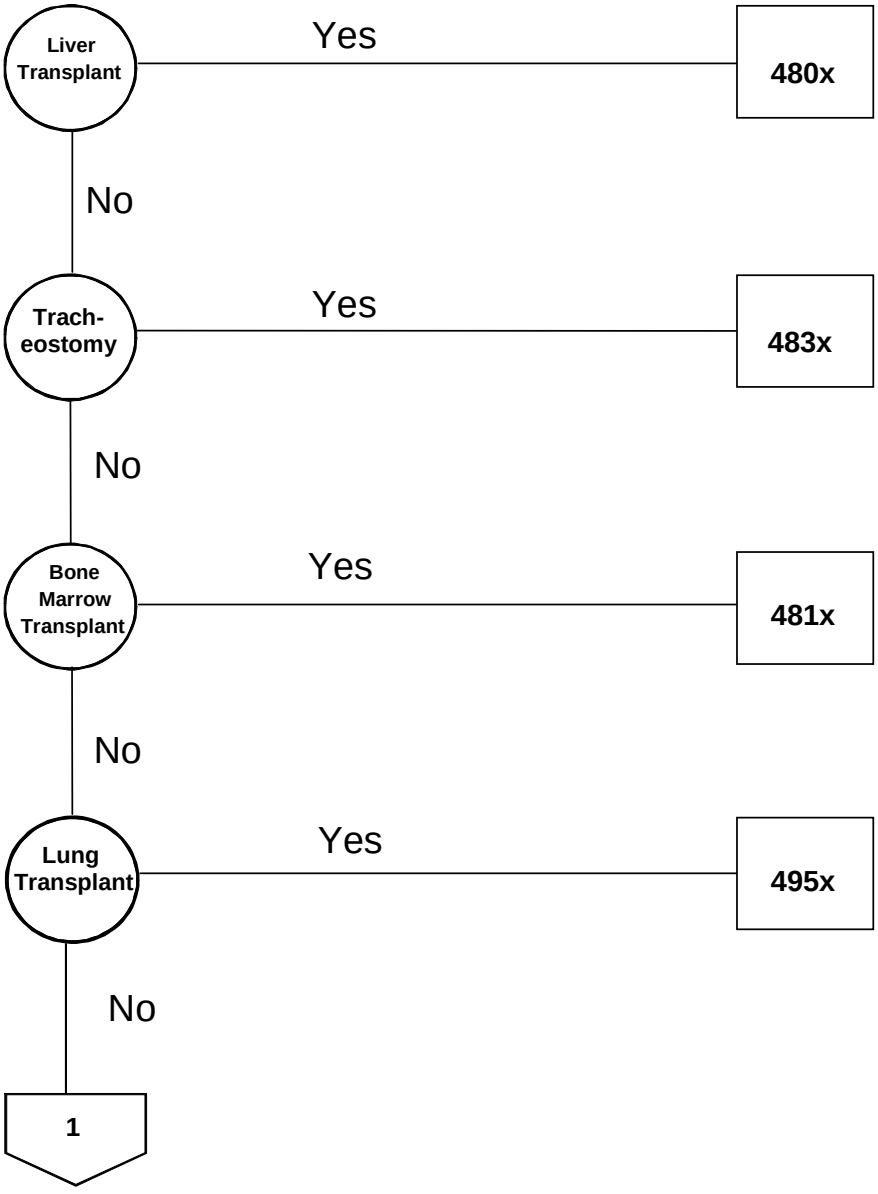

Figure 3

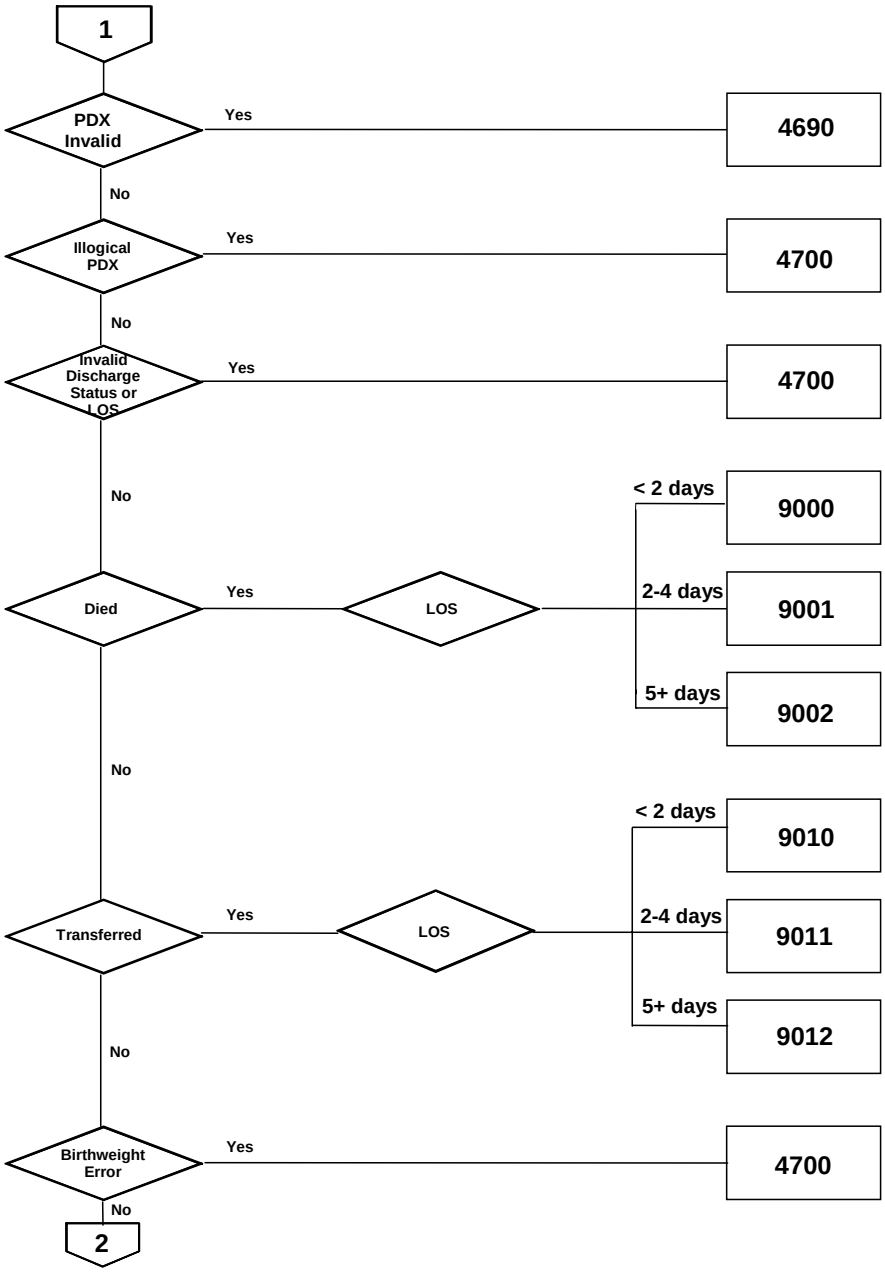

Figure 3 (Continued)

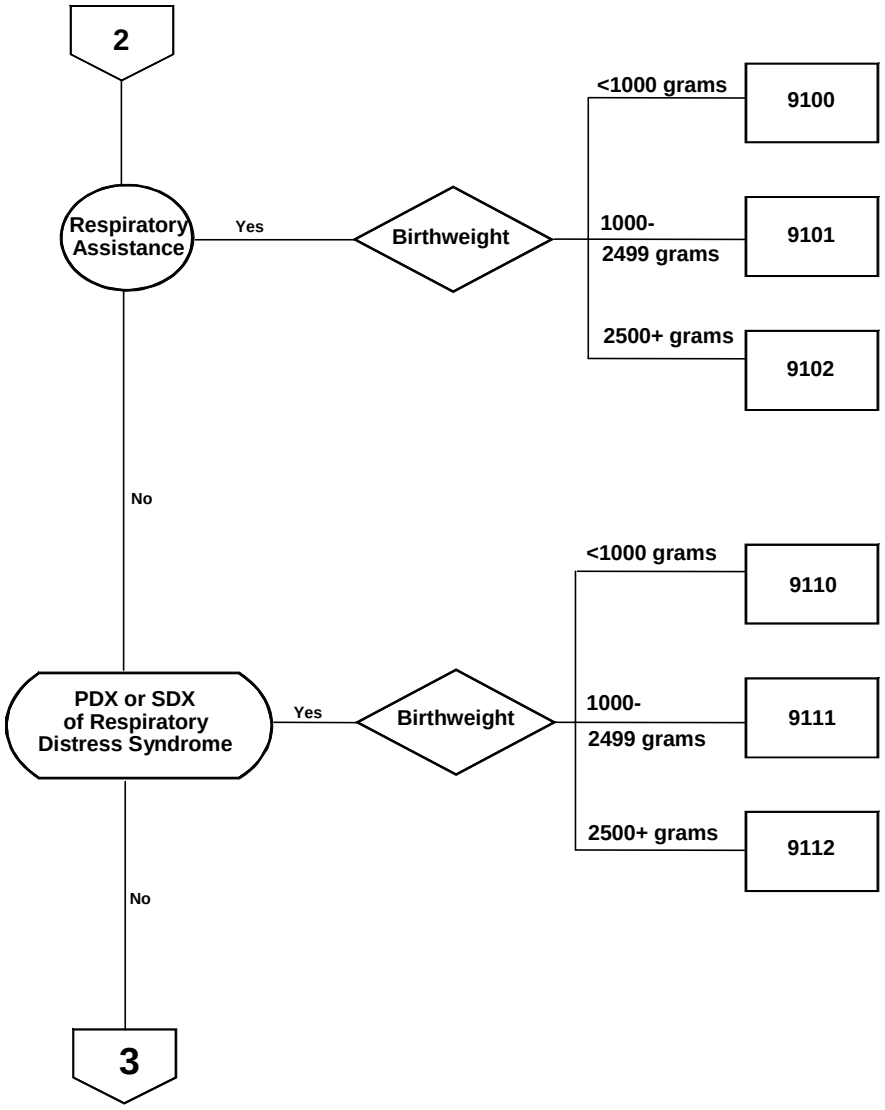

Figure 3 (Continued)

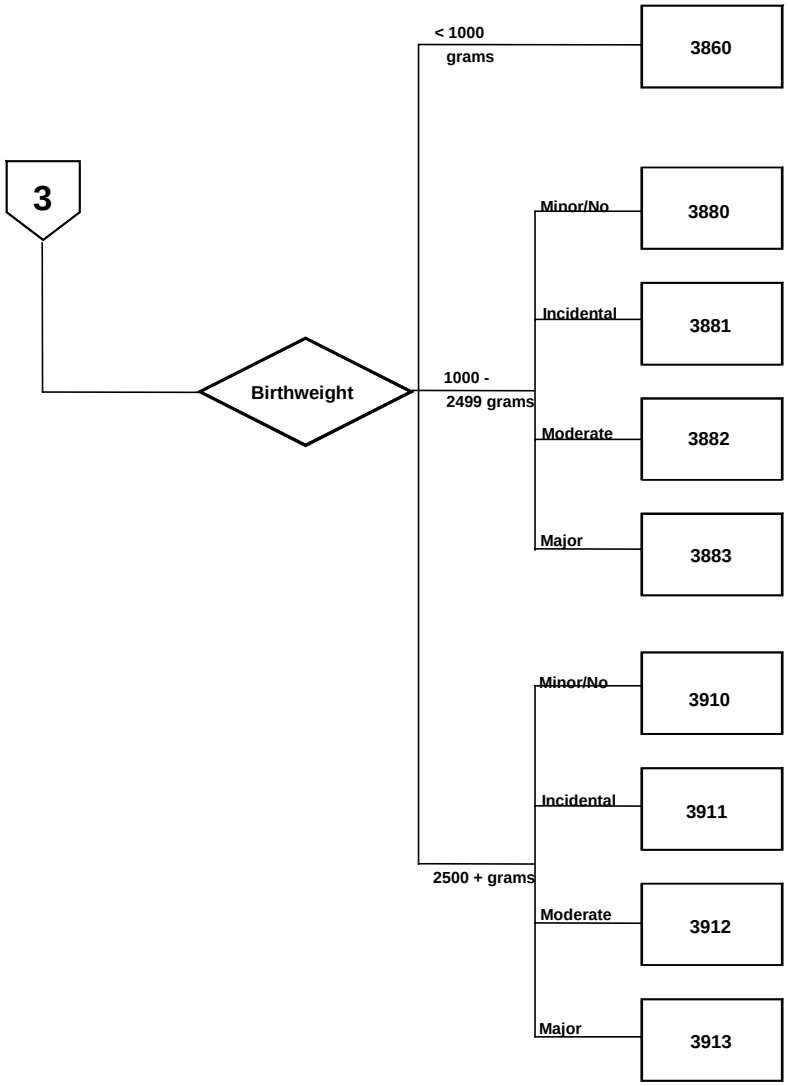

Figure 3 (Continued)

APPENDIX A

DRG to Consolidated DRG (CDRG) Mapping

Appendix A

DRG to Consolidated DRG (CDRG) Mapping

The following table is used for deriving a Consolidated DRG (CDRG) from a CMS DRG. For this look-up process, use the CMS DRG originally assigned to the medical record or the DRG re-assigned during Steps 5 through 11 of the APS-DRGs® assignment process for non-neonates (see the Section of Chapter III titled ***Instructions for Non-Neonatal APS-DRGs® Assignment***).

The following table presents four columns of information:

CMS DRG
SPECIAL RULES
CDRG #
CDRG DESCRIPTION

Locate the patient's CMS DRG or "re-assigned" DRG in the left-most column, i.e. the column labeled CMS DRG. If the SPECIAL RULES column is blank, then assign the case to the CDRG number listed in the third column from the left, i.e. the column labeled "CDRG #".

When the SPECIAL RULES column is not blank, proceed as follows.

AGE > 17 or AGE 0 - 17

These notations indicate that one of two CDRGs will be assigned based on the patient's age. If the patient's age is unknown or can't be calculated, assign the patient to an APS-DRG® of "4700" (Ungroupable) and do not process the case further. If the patient's age is in the range of 0 to 17, assign the CDRG to the right of the "AGE 0 - 17" notation. All other cases, are assigned to the CDRG to the right of the notation "AGE > 17".

CDRG EXCL

Assign the case to the listed CDRG. Be aware, however, that cases assigned to this particular CDRG are subject to CDRG-specific severity class (CC) exclusions as explained in Step 15 of the APS-DRGs® assignment process for non-neonates (see the section of Chapter III titled ***Instructions for Non-Neonatal APS-DRGs® Assignment***). Step 15 must be carefully followed anytime an assigned CDRG is accompanied by a "CDRG EXCL" notation in the "SPECIAL RULES" column.

CHK DRG

There are special DRG "re-assignment" steps associated with each of the CMS DRGs marked with this notation. Prior to assigning the case to the listed CDRG, be sure that you have verified that the CMS DRG you are using is appropriate and is ***not*** subject to re-assignment. This type of DRG re-assignment is covered in Steps 5 through 8 and 10 through 11 of the APS-DRGs® assignment process for non-neonates (see the section of Chapter III titled ***Instructions for Non-Neonatal APS-DRGs® Assignment***).

MDC EXCL

Assign the case to the listed CDRG. Be aware, however, that cases assigned to this particular CDRG are subject to MDC-specific severity class (CC) exclusions as explained in Step 14 of the APS-DRGs® assignment process for non-neonates (see the section of Chapter III titled ***Instructions for Non-Neonatal APS-DRGs® Assignment***). Step 14 must be carefully followed anytime a CDRG is accompanied by a "MDC EXCL" notation.

NEONATE

This Appendix can not be used to assign CDRGs to newborn and neonatal cases. Refer to the section of Chapter III titled ***Instructions for Newborn and Neonatal APS-DRGs® Assignment*** for guidelines on assigning CDRGs and APS-DRGs® to such cases.

W ESWL, W/O ESWL

These notations indicate that one of two CDRGs will be assigned based on the presence or absence of non-operating room procedure code "9851". If this procedure code is present on the medical record (in any position), assign the case to the CDRG to the right of the notation "W ESWL". All other cases are assigned to the CDRG to the right of the "W/O ESWL" label. This process is detailed in Step 9 of the APS-DRGs® assignment process for non-neonates (see the section of Chapter III titled ***Instructions for Non-Neonatal APS-DRGs® Assignment***).

CMS DRG	SPECIAL RULES	CDRG #	CDRG DESCRIPTION
001		001	CRANIOTOMY AGE >17
002		001	CRANIOTOMY AGE >17
003		003	CRANIOTOMY AGE 0-17
004		004	SPINAL PROCEDURES
005		005	EXTRACRANIAL VASCULAR PROCEDURES
006		006	CARPAL TUNNEL RELEASE
007		007	PERIPH&CRAN NERV&OTH NERV SYS PROC
008		007	PERIPH&CRAN NERV&OTH NERV SYS PROC
009		009	SPINAL DISORDERS & INJURIES
010		010	NERVOUS SYSTEM NEOPLASMS
011		010	NERVOUS SYSTEM NEOPLASMS
012		012	DEGENERATIVE NERVOUS SYSTEM DISORDERS
013		013	MULTIPLE SCLEROSIS & CEREBELLAR ATAXIA
014		014	INTRACRAN HEM & STROKE W INFARCT
015		015	NONSPEC CVA & PREC OCC W/O INFARCT
016		016	NONSPECIFIC CEREBROVASC DISORDERS
017		016	NONSPECIFIC CEREBROVASC DISORDERS
018		018	CRANIAL & PERIPH NERVE DISORDERS
019		018	CRANIAL & PERIPH NERVE DISORDERS
020		020	NERV SYSTEM INFECT EXC VIRAL MENINGITIS
021		021	VIRAL MENINGITIS
022		022	HYPERTENSIVE ENCEPHALOPATHY
023		023	NONTRAUMATIC STUPOR & COMA
024		024	SEIZURE & HEADACHE AGE >17
025		024	SEIZURE & HEADACHE AGE >17
026		026	SEIZURE & HEADACHE AGE 0-17
027	CDRG EXCL	027	TRAUMATIC STUPOR & COMA,COMA >1 HR
028		028	TRAUM STUPOR&COMA,COMA<1 HR,AGE >17
029		028	TRAUM STUPOR&COMA,COMA<1 HR,AGE >17
030		030	TRAUM STUPOR & COMA,COMA <1 HR,AGE 0-17
031		031	CONCUSSION AGE >17
032		031	CONCUSSION AGE >17
033		033	CONCUSSION AGE 0-17
034		034	OTHER DISORDERS OF NERVOUS SYSTEM
035		034	OTHER DISORDERS OF NERVOUS SYSTEM
036		042	INTRAOCULAR PROCS EXC IRIS & LENS
037		037	ORBITAL PROCEDURES
038		038	PRIMARY IRIS PROCEDURES
039		039	LENS PROCEDURES WITH OR W/O VITRECTOMY
040		040	EXTRAOCULAR PROCS EXCEPT ORBIT AGE >17
041		041	EXTRAOCULAR PROCS EXCEPT ORBIT AGE 0-17
042		042	INTRAOCULAR PROCS EXC IRIS & LENS
043	AGE > 17	046	OTHER DISORDERS OF THE EYE AGE >17
	AGE 0 - 17	048	OTHER DISORDERS OF THE EYE AGE 0-17
044		044	ACUTE MAJOR EYE INFECTIONS
045		045	NEUROLOGICAL EYE DISORDERS
046		046	OTHER DISORDERS OF THE EYE AGE >17
047		046	OTHER DISORDERS OF THE EYE AGE >17
048		048	OTHER DISORDERS OF THE EYE AGE 0-17
049		049	MAJOR HEAD & NECK PROCEDURES
050	CHK DRG	051	SALIVARY GLAND PROCEDURES
051	CHK DRG	051	SALIVARY GLAND PROCEDURES
052		052	CLEFT LIP & PALATE REPAIR
053		053	SINUS & MASTOID PROCEDURES AGE >17
054		054	SINUS & MASTOID PROCEDURES AGE 0-17
055		056	MISC EAR,NOSE,MOUTH & THROAT PROCEDURES
056		056	MISC EAR,NOSE,MOUTH & THROAT PROCEDURES
057		057	T&A PROC,EX TONSLCT/ADNDCT ONLY AGE >17
058		058	T&A PROC,EX TONSLCT/ADNDCT ONLY AGE 0-17
059		059	TONSILLECT &/OR ADENOIDECT ONLY AGE >17

CMS DRG	SPECIAL RULES	CDRG #	CDRG DESCRIPTION
060		060	TONSILLECT &/OR ADENOIDECT ONLY AGE 0-17
061		061	MYRINGOTOMY W TUBE INSERTION AGE >17
062		062	MYRINGOTOMY W TUBE INSERTION AGE 0-17
063		063	OTHER EAR,NOSE,MOUTH & THROAT O.R. PROCS
064		064	EAR, NOSE, MOUTH & THROAT MALIGNANCY
065		065	DYSEQUILIBRIUM
066		066	EPISTAXIS
067		067	EPIGLOTTITIS
068		068	OTITIS MEDIA & URI AGE >17
069		068	OTITIS MEDIA & URI AGE >17
070		070	OTITIS MEDIA & URI AGE 0-17
071		071	LARYNGOTRACHEITIS
072	AGE > 17	073	OTH EAR,NOSE,MOUTH & THROAT DX AGE >17
	AGE 0 - 17	074	OTH EAR,NOSE,MOUTH & THROAT DX AGE 0-17
073		073	OTH EAR,NOSE,MOUTH & THROAT DX AGE >17
074		074	OTH EAR,NOSE,MOUTH & THROAT DX AGE 0-17
075		075	MAJOR CHEST PROCEDURES
076		076	OTHER RESP SYSTEM O.R. PROCEDURES
077		076	OTHER RESP SYSTEM O.R. PROCEDURES
078		078	PULMONARY EMBOLISM
079		079	RESP INFECT & INFLAM AGE >17
080		079	RESP INFECT & INFLAM AGE >17
081		081	RESP INFECT & INFLAM AGE 0-17
082		082	RESPIRATORY NEOPLASMS
083		083	MAJOR CHEST TRAUMA
084		083	MAJOR CHEST TRAUMA
085		094	PNEUMOTHORAX & PLEURAL EFFUSION
086		094	PNEUMOTHORAX & PLEURAL EFFUSION
087		087	PULMONARY EDEMA & RESPIRATORY FAILURE
088		088	CHRONIC OBSTRUCTIVE PULMONARY DISEASE
089		089	SIMP PNEU, PLRSY, INSTIT DIS AGE >17
090		089	SIMP PNEU, PLRSY, INSTIT DIS AGE >17
091		091	SIMP PNEU, PLRSY, INSTIT DIS AGE 0-17
092	AGE > 17	089	SIMP PNEU, PLRSY, INSTIT DIS AGE >17
	AGE 0 - 17	091	SIMP PNEU, PLRSY, INSTIT DIS AGE 0-17
093	AGE > 17	089	SIMP PNEU, PLRSY, INSTIT DIS AGE >17
	AGE 0 - 17	091	SIMP PNEU, PLRSY, INSTIT DIS AGE 0-17
094		094	PNEUMOTHORAX & PLEURAL EFFUSION
095		094	PNEUMOTHORAX & PLEURAL EFFUSION
096		096	BRONCHITIS & ASTHMA AGE >17
097		096	BRONCHITIS & ASTHMA AGE >17
098		098	BRONCHITIS & ASTHMA AGE 0-17
099		099	RESPIRATORY SIGNS & SYMPTOMS
100		099	RESPIRATORY SIGNS & SYMPTOMS
101		101	OTHER RESP SYSTEM DIAGNOSES
102		101	OTHER RESP SYSTEM DIAGNOSES
103		103	HEART TRANSPLANT
104		104	CARDIAC VALVE PROC WITH CARD CATH
105		105	CARDIAC VALVE PROC W/O CARD CATH
106		106	CORONARY BYPASS WITH PTCA
107		107	CORONARY BYPASS WITH CARDIAC CATH
108		108	OTHER CARDIOTHORACIC PROCEDURES
109		109	CORONARY BYPASS W/O CARDIAC CATH
110		110	MAJOR CARDIOVASCULAR PROCS
111		110	MAJOR CARDIOVASCULAR PROCS
113		113	AMPUT FOR CIRC DISOR EXC UPPR LIMB & TOE
114		114	UPPR LIMB & TOE AMPUT FOR CIRC DISOR
115		115	PERM PACEMKR IMPL W AMI,HEART FAIL,SHCK
116		116	OTH PERM CARD PACEMKR IMPLANT
117		117	CARD PACEMKR REVISION EXC DEVICE REPLACE

CMS DRG	SPECIAL RULES	CDRG #	CDRG DESCRIPTION
118		118	CARDIAC PACEMAKER DEVICE REPLACEMENT
119		119	VEIN LIGATION & STRIPPING
120		120	OTHER CIRCULATORY SYSTEM O.R. PROCEDURES
121	CDRG EXCL	121	CIRC DISOR W AMI, DISCH ALIVE
122	CDRG EXCL	121	CIRC DISOR W AMI, DISCH ALIVE
123	CDRG EXCL	123	CIRC DISOR W AMI, EXPIRED
124	CDRG EXCL	124	CIRC DIS EX AMI W CARD CATH & COMPLX DX
125		125	CIRC DIS EX AMI W CARD CATH W/O COMPLX DX
126		126	ACUTE & SUBACUTE ENDOCARDITIS
127		127	HEART FAILURE & SHOCK
128		128	DEEP VEIN THROMBOPHLEBITIS
129		129	CARDIAC ARREST, UNEXPLAINED
130		130	PERIPHERAL VASCULAR DISORDERS
131		130	PERIPHERAL VASCULAR DISORDERS
132		132	ATHEROSCLEROSIS
133		132	ATHEROSCLEROSIS
134		134	HYPERTENSION
135		135	CARD CONGEN & VALV DISOR AGE >17
136		135	CARD CONGEN & VALV DISOR AGE >17
137		137	CARD CONGEN & VALV DISOR AGE 0-17
138		138	CARD ARRHYTHMIA & CONDUCTN DISOR
139		138	CARD ARRHYTHMIA & CONDUCTN DISOR
140		140	ANGINA PECTORIS
141		141	SYNCOPE & COLLAPSE
142		141	SYNCOPE & COLLAPSE
143		143	CHEST PAIN
144		144	OTH CIRCULATORY SYSTEM DIAGNOSES
145		144	OTH CIRCULATORY SYSTEM DIAGNOSES
146		148	MAJOR SMALL & LARGE BOWEL PROCS
147		148	MAJOR SMALL & LARGE BOWEL PROCS
148		148	MAJOR SMALL & LARGE BOWEL PROCS
149		148	MAJOR SMALL & LARGE BOWEL PROCS
150		150	PERITONEAL ADHESIOLYSIS
151		150	PERITONEAL ADHESIOLYSIS
152		152	MINOR SMALL & LARGE BOWEL PROCS
153		152	MINOR SMALL & LARGE BOWEL PROCS
154		154	STOMACH,ESOPH & DUOD PROC AGE >17
155		154	STOMACH,ESOPH & DUOD PROC AGE >17
156		156	STOMACH,ESOPH & DUOD PROC AGE 0-17
157		157	ANAL & STOMAL PROCEDURES
158		157	ANAL & STOMAL PROCEDURES
159		159	HERNIA PROC EXC ING,FEMOR AGE >17
160		159	HERNIA PROC EXC ING,FEMOR AGE >17
161		161	ING & FEMORAL HERNIA PROC AGE >17
162		161	ING & FEMORAL HERNIA PROC AGE >17
163		163	HERNIA PROCEDURES AGE 0-17
164		164	APPENDECTOMY W COMPLIC PRINC DX
165		164	APPENDECTOMY W COMPLIC PRINC DX
166		166	APPENDECTOMY W/O COMPLIC PRINC DX
167		166	APPENDECTOMY W/O COMPLIC PRINC DX
168		168	MOUTH PROCEDURES
169		168	MOUTH PROCEDURES
170		170	OTHER DIGESTIVE SYSTEM O.R. PROCS
171		170	OTHER DIGESTIVE SYSTEM O.R. PROCS
172		172	DIGESTIVE MALIGNANCY
173		172	DIGESTIVE MALIGNANCY
174		174	G.I. HEMORRHAGE
175		174	G.I. HEMORRHAGE
176		176	COMPLICATED PEPTIC ULCER
177		177	UNCOMPLICATED PEPTIC ULCER

CMS DRG	SPECIAL RULES	CDRG #	CDRG DESCRIPTION
178		177	UNCOMPLICATED PEPTIC ULCER
179		179	INFLAMMATORY BOWEL DISEASE
180		180	G.I. OBSTRUCTION
181		180	G.I. OBSTRUCTION
182		182	ESPHGITIS,GE,MISC DIG DIS AGE >17
183		182	ESPHGITIS,GE,MISC DIG DIS AGE >17
184		184	ESPHGITIS,GE,MISC DIG DIS AGE 0-17
185		185	DENTAL & ORAL DISORDERS AGE >17
186		186	DENTAL & ORAL DISORDERS AGE 0-17
187	AGE > 17	185	DENTAL & ORAL DISORDERS AGE >17
	AGE 0 - 17	186	DENTAL & ORAL DISORDERS AGE 0-17
188		188	OTHER DIGESTIVE SYSTEM DX AGE >17
189		188	OTHER DIGESTIVE SYSTEM DX AGE >17
190		190	OTHER DIGESTIVE SYSTEM DX AGE 0-17
191		191	PANCREAS,LIVER & SHUNT PROCEDURES
192		191	PANCREAS,LIVER & SHUNT PROCEDURES
193		193	BIL PROC, EX ONLY CHOLCYST W/WO CDE
194		193	BIL PROC, EX ONLY CHOLCYST W/WO CDE
195		195	CHOLECYSTECTOMY W C.D.E.
196		195	CHOLECYSTECTOMY W C.D.E.
197		197	CHOLECYSTMY,EX LAPSCPC W/O C.D.E.
198		197	CHOLECYSTMY,EX LAPSCPC W/O C.D.E.
199		199	HEPATOBIL DIAGNOSTIC PROCEDURE
200		199	HEPATOBIL DIAGNOSTIC PROCEDURE
201		201	OTHER HEPATOBIL, PANCREAS O.R. PROC
202		205	DISORDERS OF LIVER, EX MALIGNANCY
203		203	MALIGNANCY OF HEPATOBIL SYST OR PANCREAS
204		204	DISORDERS OF PANCREAS EXCEPT MALIGNANCY
205		205	DISORDERS OF LIVER, EX MALIGNANCY
206		205	DISORDERS OF LIVER, EX MALIGNANCY
207		207	DISORDERS OF THE BILIARY TRACT
208		207	DISORDERS OF THE BILIARY TRACT
209		209	MAJ JOINT/LIMB REATTACH PROC, LOW EXTREM
210		210	HIP&FEMUR PROC,EX MAJ JNT,AGE >17
211		210	HIP&FEMUR PROC,EX MAJ JNT,AGE >17
212		212	HIP&FEMUR PROC,EX MAJ JNT,AGE 0-17
213		213	AMPUT FOR MUSCSKL SYST & CONN TISS DISOR
216		216	BIOPSIES OF MUSCSKL SYST & CONN TISSUE
217		217	WND DBRD,SK GRFT EX HAND,MUSSKL,CONN TIS
218		218	LW EXT&HUM PROC,EX HIP,FT,FEM >17
219		218	LW EXT&HUM PROC,EX HIP,FT,FEM >17
220		220	LW EXT&HUM PROC,EX HIP,FT,FEM 0-17
223	CHK DRG	223	SHOULDER, ELBOW, FOREARM PROCEDURES
224	CHK DRG	223	SHOULDER, ELBOW, FOREARM PROCEDURES
225		225	FOOT PROCEDURES
226		226	SOFT TISSUE PROCEDURES
227		226	SOFT TISSUE PROCEDURES
228		228	HAND & WRIST PROCEDURES
229		228	HAND & WRIST PROCEDURES
230		230	LOC EXCIS,REMOV INT FIX DEV HIP,FEMUR
231		231	LOC EXCIS,REMOV INT FIX DEV EX HIP,FEMUR
232	CHK DRG	232	ARTHROSCOPY
233		233	OTH MUSCSKL & CONN TISS O.R. PROC
234		233	OTH MUSCSKL & CONN TISS O.R. PROC
235		235	FRACTURES OF FEMUR
236		236	FRACTURES OF HIP & PELVIS
237		237	SPRAIN,STRAIN,DISLOC OF HIP,PELVIS,THIGH
238		238	OSTEOMYELITIS
239		239	PATH FX & MUSCSKL & CONNECT TISSUE MALIG
240		240	CONNECTIVE TISSUE DISORDERS

CMS DRG	SPECIAL RULES	CDRG #	CDRG DESCRIPTION
241		240	CONNECTIVE TISSUE DISORDERS
242		242	SEPTIC ARTHRITIS
243		243	MEDICAL BACK PROBLEMS
244		246	BONE DISEASES & ARTHROPATHIES
245		246	BONE DISEASES & ARTHROPATHIES
246		246	BONE DISEASES & ARTHROPATHIES
247		247	SIGNS&SYMPTOMS OF MUSCSKL SYST&CONN TISS
248		248	TENDONITIS, MYOSITIS & BURSITIS
249		249	AFTERCARE, MUSCSKL SYST & CONN TISSUE
250		253	FX, SPR, STR, DSL UPPER EXT, AGE >17
251		253	FX, SPR, STR, DSL UPPER EXT, AGE >17
252		255	FX, SPR, STR, DSL UPPER EXT, AGE 0-17
253		253	FX, SPR, STR, DSL UPPER EXT, AGE >17
254		253	FX, SPR, STR, DSL UPPER EXT, AGE >17
255		255	FX, SPR, STR, DSL UPPER EXT, AGE 0-17
256		256	OTHER MUSCSKL SYST & CONN TISS DIAGNOSES
257	CDRG EXCL	259	MASTECTOMY FOR MALIGNANCY
258	CDRG EXCL	259	MASTECTOMY FOR MALIGNANCY
259	CDRG EXCL	259	MASTECTOMY FOR MALIGNANCY
260	CDRG EXCL	259	MASTECTOMY FOR MALIGNANCY
261		261	BREAST PROC NON-MALIG,EX BIOP&LOC EXCIS
262		262	BREAST BIOPSY & LOC EXCIS FOR NON-MALIG
263		263	SKN GRFT/DEBRID,SKN ULCR,CELLULIT
264		263	SKN GRFT/DEBRID,SKN ULCR,CELLULIT
265		265	SKN GRFT/DEBRID,EX SKN ULCR,CELLUL
266		265	SKN GRFT/DEBRID,EX SKN ULCR,CELLUL
267		267	PERIANAL & PILONIDAL PROCEDURES
268	CHK DRG	269	SKIN, SUBCUT TISSUE & BREAST PROC
269		269	SKIN, SUBCUT TISSUE & BREAST PROC
270		269	SKIN, SUBCUT TISSUE & BREAST PROC
271		272	MAJOR SKIN DISORDERS
272		272	MAJOR SKIN DISORDERS
273		272	MAJOR SKIN DISORDERS
274		274	MALIGNANT BREAST DISORDERS
275		274	MALIGNANT BREAST DISORDERS
276		276	NON-MALIGNANT BREAST DISORDERS
277		277	CELLULITIS AGE >17
278		277	CELLULITIS AGE >17
279		279	CELLULITIS AGE 0-17
280		280	TRAUMA SKN,SUBCUT TISS&BREAST AGE>17
281		280	TRAUMA SKN,SUBCUT TISS&BREAST AGE>17
282		282	TRAUMA SKN,SUBCUT TISS&BREAST AGE 0-17
283		283	MINOR SKIN DISORDERS
284		283	MINOR SKIN DISORDERS
285		285	AMPUT LOWR LIMB ENDOCR,NUTR,METAB DISOR
286		286	ADRENAL & PITUITARY PROCEDURES
287		287	SKN GRFT,WND DBRD ENDOC,NUTR,METAB DISOR
288		288	O.R. PROCEDURES FOR OBESITY
289		289	PARATHYROID PROCEDURES
290		290	THYROID PROCEDURES
291		291	THYROGLOSSAL PROCEDURES
292		292	OTH ENDOCR,NUTRIT,METAB O.R. PROC
293		292	OTH ENDOCR,NUTRIT,METAB O.R. PROC
294		295	DIABETES
295		295	DIABETES
296		296	NUTRIT & MISC METAB DISOR AGE >17
297		296	NUTRIT & MISC METAB DISOR AGE >17
298		298	NUTRIT & MISC METAB DISOR AGE 0-17
299	AGE > 17	296	NUTRIT & MISC METAB DISOR AGE >17
	AGE 0 - 17	298	NUTRIT & MISC METAB DISOR AGE 0-17

CMS DRG	SPECIAL RULES	CDRG #	CDRG DESCRIPTION
300		300	ENDOCRINE DISORDERS
301		300	ENDOCRINE DISORDERS
302		302	KIDNEY TRANSPLANT
303		303	KIDNEY,URETR & MAJ BLADDR PROC FOR NEOPL
304		304	KIDNEY,URETR & MAJ BLADDR PROC NONNEO
305		304	KIDNEY,URETR & MAJ BLADDR PROC NONNEO
306		306	PROSTATECTOMY
307		306	PROSTATECTOMY
308		308	MINOR BLADDER PROCEDURES
309		308	MINOR BLADDER PROCEDURES
310		310	TRANSURETHRAL PROCEDURES
311		310	TRANSURETHRAL PROCEDURES
312		312	URETHRAL PROCEDURES, AGE >17
313		312	URETHRAL PROCEDURES, AGE >17
314		314	URETHRAL PROCEDURES, AGE 0-17
315		315	OTHER KIDNEY & URINARY TRACT O.R. PROCS
316		316	RENAL FAILURE
317		317	ADMIT FOR RENAL DIALYSIS
318		318	KIDNEY & URINARY TRACT NEOPLASMS
319		318	KIDNEY & URINARY TRACT NEOPLASMS
320		320	KIDNEY,URIN TRACT INFECT AGE >17
321		320	KIDNEY,URIN TRACT INFECT AGE >17
322		322	KIDNEY,URIN TRACT INFECT AGE 0-17
323	W ESWL	323	URINARY STONES W ESW LITHOTRIPSY
	W/O ESWL	324	URINARY STONES W /O ESW LITHOTRIPSY
324		324	URINARY STONES W /O ESW LITHOTRIPSY
325		325	KIDNY,URIN TRACT SIGN,SYMP AGE >17
326		325	KIDNY,URIN TRACT SIGN,SYMP AGE >17
327		327	KIDNY,URIN TRACT SIGN,SYMP AGE 0-17
328		328	URETHRAL STRICTURE AGE >17
329		328	URETHRAL STRICTURE AGE >17
330		330	URETHRAL STRICTURE AGE 0-17
331		331	OTH KIDNEY & URIN TRACT DX AGE >17
332		331	OTH KIDNEY & URIN TRACT DX AGE >17
333		333	OTH KIDNEY & URIN TRACT DX AGE 0-17
334		334	MAJOR MALE PELVIC PROCEDURES
335		334	MAJOR MALE PELVIC PROCEDURES
336		336	TRANSURETHRAL PROSTATECTOMY
337		336	TRANSURETHRAL PROSTATECTOMY
338	AGE > 17	339	TESTES PROCEDURES, AGE >17
	AGE 0 - 17	340	TESTES PROCEDURES, AGE 0-17
339		339	TESTES PROCEDURES, AGE >17
340		340	TESTES PROCEDURES, AGE 0-17
341		341	PENIS PROCEDURES
342		342	CIRCUMCISION AGE >17
343		343	CIRCUMCISION AGE 0-17
344		344	OTH MALE REPRO SYST O.R. PROCS FOR MALIG
345		345	OTH MALE REPRO SYST O.R. PROCS EX MALIG
346		346	MALIGNANCY, MALE REPRO SYSTEM,
347		346	MALIGNANCY, MALE REPRO SYSTEM,
348		348	BENIGN PROSTATIC HYPERTROPHY
349		348	BENIGN PROSTATIC HYPERTROPHY
350		350	INFLAMMATION OF THE MALE REPRO SYSTEM
351		351	STERILIZATION, MALE
352		352	OTHER MALE REPRODUCTIVE SYSTEM DIAGNOSES
353		353	PELVIC EVISC,RAD HYSTERECT & RAD VULVECT
354		354	UTER,ADNEX PROC NON-OV/ADNEX MALIG
355		354	UTER,ADNEX PROC NON-OV/ADNEX MALIG
356		356	FEMALE REPRO SYSTEM RECONSTRUCTIVE PROCS
357		357	UTER&ADNEX PROC FOR OVAR,ADNEXAL MALIG

CMS DRG	SPECIAL RULES	CDRG #	CDRG DESCRIPTION
358		358	UTER&ADNEX PROC FOR NON-MALIG
359		358	UTER&ADNEX PROC FOR NON-MALIG
360		360	VAGINA, CERVIX & VULVA PROCEDURES
361		361	LAPAROSCOPY & INCISIONAL TUBAL INTERRUPT
362		362	ENDOSCOPIC TUBAL INTERRUPTION
363		363	D&C,CONIZATION&RADIO-IMPLANT, FOR MALIG
364		364	D&C,CONIZATION EXCEPT FOR MALIGNANCY
365		365	OTHER FEMALE REPRO SYSTEM O.R. PROC
366		366	MALIGNANCY, FEMALE REPRO SYSTEM
367		366	MALIGNANCY, FEMALE REPRO SYSTEM
368		368	INFECTIONS, FEMALE REPRODUCTIVE SYSTEM
369		369	MENSTRUAL&OTHER FEMALE REPRO SYST DISOR
370		370	CESAREAN SECTION
371		370	CESAREAN SECTION
372	CDRG EXCL	372	VAGINAL DELIVERY W COMPLIC DIAGNOSES
373		373	VAGINAL DELIVERY W/O COMPLIC DIAGNOSES
374		374	VAGINAL DELIVERY W STERIL &/OR D&C
375		375	VAG DELIV W O.R. PROC EX STERIL &/OR D&C
376		376	POSTPART & POST ABORT DX W/O O.R. PROC
377		377	POSTPART & POST ABORT DX W O.R. PROC
378		378	ECTOPIC PREGNANCY
379		379	THREATENED ABORTION
380		380	ABORTION W/O D&C
381		381	ABORTION W D&C,ASPIR CURETT,HYSTEROTOMY
382		382	FALSE LABOR
383	CDRG EXCL	383	OTH ANTEPARTUM DX W MEDICAL COMPLIC
384		384	OTH ANTEPARTUM DX W/O MEDICAL COMPLIC
385	NEONATE		
386	NEONATE		
387	NEONATE		
388	NEONATE		
389	NEONATE		
390	NEONATE		
391	NEONATE		
392		392	SPLENECTOMY AGE >17
393		393	SPLENECTOMY AGE 0-17
394		394	OTH O.R PROC OF BLOOD&BLOOD FORM ORGANS
395		395	RED BLOOD CELL DISORDERS AGE >17
396		396	RED BLOOD CELL DISORDERS AGE 0-17
397		397	COAGULATION DISORDERS
398		398	RETICULOENDOTHELIAL & IMMUN DISOR
399		398	RETICULOENDOTHELIAL & IMMUN DISOR
400		400	LYMPHOMA & LEUKEMIA W MAJOR O.R. PROC
401		401	LYMPHOMA&NONACU LEUK OTH O.R PROC
402		401	LYMPHOMA&NONACU LEUK OTH O.R PROC
403		403	LYMPHOMA & NON-ACUTE LEUKEMIA
404		403	LYMPHOMA & NON-ACUTE LEUKEMIA
405		405	ACUTE LEUKEMIA W/O MAJ O.R PROC AGE 0-17
406		406	MYEL DIS/PRLY DIF NEO&MAJ O.R.PROC
407		406	MYEL DIS,PRLY DIF NEO&MAJ O.R.PROC
408		408	MYEL DIS,PRLY DIF NEO&OTH O.R.PROC
409		409	RADIOTHERAPY
410		410	CHEMOTHERAPY W/O ACUTE LUKEMIA AS SEC DX
411		412	HISTORY OF MALIGNANCY
412		412	HISTORY OF MALIGNANCY
413		413	OTH MYEL DIS/POORLY DIFF NEOPL DX
414		413	OTH MYEL DIS/POORLY DIFF NEOPL DX
415		415	O.R. PROC FOR INFECTIOUS & PARASITIC DIS
416		416	SEPTICEMIA AGE >17
417		417	SEPTICEMIA AGE 0-17

CMS DRG	SPECIAL RULES	CDRG #	CDRG DESCRIPTION
418		418	POSTOPERATIVE & POST-TRAUMATIC INFECTION
419		419	FEVER OF UNKNOWN ORIGIN AGE >17
420		419	FEVER OF UNKNOWN ORIGIN AGE >17
421		421	VIRAL ILLNESS AGE >17
422		422	VIRAL ILL&FEVER OF UNKNWN ORIG AGE 0-17
423		423	OTH INFECTIOUS & PARASITIC DIS DIAGNOSES
424		424	O.R PROC W PRINC DX OF MENTAL ILLNESS
425		425	ACU ADJ REACT & PSYCHOSOCIAL DYSFUNCTION
426		426	DEPRESSIVE NEUROSES
427		427	NEUROSES EXCEPT DEPRESSIVE
428		428	DISORDERS OF PERSONALITY&IMPULSE CONTROL
429		429	ORGANIC DISTURBANCES&MENTAL RETARDATION
430		430	PSYCHOSES
431		431	CHILDHOOD MENTAL DISORDERS
432		432	OTHER MENTAL DISORDER DIAGNOSES
433		433	ALCOHOL/DRUG ABUSE, DEPENDENCE, LEFT AMA
439		439	SKIN GRAFTS FOR INJURIES
440		440	WOUND DEBRIDEMENTS FOR INJURIES
441		441	HAND PROCEDURES FOR INJURIES
442		442	OTHER O.R PROCEDURES FOR INJURIES
443		442	OTHER O.R PROCEDURES FOR INJURIES
444		444	TRAUMATIC INJURY AGE >17
445		444	TRAUMATIC INJURY AGE >17
446		446	TRAUMATIC INJURY AGE 0-17
447		447	ALLERGIC REACTIONS AGE >17
448		448	ALLERGIC REACTIONS AGE 0-17
449		449	POISON&TOXIC EFFECTS DRUGS AGE >17
450		449	POISON&TOXIC EFFECTS DRUGS AGE >17
451		451	POISON&TOXIC EFFECTS DRUGS AGE 0-17
452		452	COMPLICATIONS OF TREATMENT
453		452	COMPLICATIONS OF TREATMENT
454		454	OTH INJURY,POISON&TOXIC EFFECT DX
455		454	OTH INJURY,POISON&TOXIC EFFECT DX
461		461	O.R. PROC W DX OTH CONTACT W HEALTH SERV
462		462	REHABILITATION
463		463	SIGNS & SYMPTOMS
464		463	SIGNS & SYMPTOMS
465		465	AFTERCARE
466		465	AFTERCARE
467		467	OTHER FACTORS INFLUENCING HEALTH STATUS
468		468	EXTENS O.R. PROC UNRELATED TO PRINC DX
469		469	PRINC DX INVALID AS DISCHARGE DIAGNOSIS
470		470	UNGROUPABLE
471		471	BILAT OR MULT MAJ JOINT PROC, LOW EXTREM
473		473	ACU LEUKEMIA W/O MAJOR O.R PROC AGE >17
475		475	RESP SYSTEM DX WITH VENTILATOR SUPPORT
476		476	PROSTATIC O.R PROC UNRELATED TO PRINC DX
477		477	NON-EXTEN O.R PROC UNRELATED TO PRINC DX
478		478	OTHER VASCULAR PROCEDURES
479		478	OTHER VASCULAR PROCEDURES
480		480	LIVER TRANSPLANT
481		481	BONE MARROW TRANSPLANT
482		482	TRACHMY FOR FACE,MOUTH AND NECK DIAG
483		483	TRACH VENT 96+ PDX EX FAC, MTH, NCK
484	MDC EXCL	484	CRANIOTOMY, MULTIPLE SIGNIFICANT TRAUMA
485	MDC EXCL	485	LIMB REATTACH,HIP&FEMUR,MULT SIGN TRAUMA
486	MDC EXCL	486	OTHER O.R. PROC FOR MULT SIGN TRAUMA
487	MDC EXCL	487	OTHER MULTIPLE SIGNIFICANT TRAUMA
488	MDC EXCL	488	HIV W EXTENSIVE O.R. PROCEDURE

CMS DRG	SPECIAL RULES	CDRG #	CDRG DESCRIPTION
489	MDC & CDRG EXCL	489	HIV W MAJOR RELATED CONDITION
490	MDC EXCL	490	HIV W OR W/O OTHER RELATED CONDITION
491		491	MAJ JOINT/LIMB REATTACH PROC, UPP EXTREM
492	CDRG EXCL	492	CHEMOTHERAPY W ACUTE LUKEMIA AS SEC DX
493		493	LAPAROSCOPIC CHOLECYSTECT W/O CDE
494		493	LAPAROSCOPIC CHOLECYSTECT W/O CDE
495		495	LUNG TRANSPLANT
496		496	COMB ANT/POST SPINAL FUSION
497		497	SPINAL FUSION EXCEPT CERVICAL
498		497	SPINAL FUSION EXCEPT CERVICAL
499		499	BACK & NECK PROC EXC SPINAL FUSION
500		499	BACK & NECK PROC EXC SPINAL FUSION
501		501	KNEE PROC W PDX OF INFECTION
502		501	KNEE PROC W PDX OF INFECTION
503		503	KNEE PROC W/O PDX OF INFECTION
504		504	EXTENS 3RD DEG BURN W SKIN GRAFT
505		505	EXTENS 3RD DEG BURN WO SKIN GRAFT
506	CHK DRG CDRG EXCL	506	FULL BRN W GR OR INHAL W SIG TR
507	CDRG EXCL	507	FULL BRN W GR OR INHAL WO SIG TR
508	CHK DRG CDRG EXCL	508	FULL BRN WO GR OR INHAL W SIG TR
509	CDRG EXCL	509	FULL BRN WO GR OR INHAL WO SIG TR
510	CHK DRG CDRG EXCL	510	NON-EXT BURNS W SIG TRAUMA
511	CDRG EXCL	511	NON-EXT BURNS WO SIG TRAUMA
512		512	SIMULTANEOUS PANCREAS/KIDNEY TRANSPLANT
513		513	PANCREAS TRANSPLANT
514		514	CARDIAC DEFIBRILLATOR W CARD CATH
515		515	CARDIAC DEFIBRILLATOR WO CARD CATH
516		516	PERCUTANEOUS CARDIOVASC PROC W AMI
517		517	PERC CARD PROC W COR ART STENT WO AMI
518		518	PERC CARD PROC WO COR ART STENT WO AMI
519		519	CERVICAL SPINAL FUSION
520		519	CERVICAL SPINAL FUSION
521	CHK DRG		
522	CHK DRG	522	ALC/DRUG ABUSE OR DEPEND W REHAB
523	CHK DRG	523	ALC/DRUG ABUSE OR DEPEND WO REHAB
524		524	TRANSIENT ISCHEMIA
525		525	HEART ASSIST SYSTEM IMPLANT
526		526	PERC CV PR W DRUG STENT W AMI
527		527	PERC CV PR W DRUG STENT W/O AMI