

---

***All Payer Severity-adjusted DRGs  
(APS-DRGs<sup>®</sup>)***

***Normalized Charge, LOS, and Mortality Weights***

***Version 0302H  
(for APS-DRGs<sup>®</sup> Version 20.0)***



Copyright © 2003. HSS, Inc. All Rights Reserved  
For assistance, please call Client Services at (800) 999-DRGS (3747).

---

# *Table of Contents*

## ***Chapter I -- Overview***

Overview ..... I.1

## ***Chapter II -- Methods***

Data ..... II.1  
 APS-DRGs® Weight Calculation..... II.1  
 Results ..... II.3  
 Data Quality and APS-DRGs® Assignment..... II.3

## ***Chapter III -- Final Weights***

Final Weights ..... III.1

## ***Chapter IV -- Summary***

Summary ..... IV.1

## ***Chapter V -- Distribution***

Distribution ..... V.1

# *List of Appendices*

## *Appendix A*

Product Release Notes

# *OVERVIEW*

Charge, length of stay (LOS), and mortality weights for Version 20.0 All-Payer Severity-adjusted DRGs (APS-DRGs®) provide statistically valid, normative standards to help users identify differences in expected resource use and outcomes based on patients' clinical characteristics. Such weights also can be used to assess the performance of individual providers against national benchmarks. HSS, Inc. (HSS) has generated these weights from a large, nationally representative database containing more than 7.4 million discharges from nearly 1,000 hospitals in 28 states. The large size of the input database allows considerable precision in the estimation process.

The HSS estimation procedure closely parallels methods used by the federal Centers for Medicare & Medicaid Services (CMS, formerly HCFA, the Health Care Financing Administration) in developing weights for the Medicare Prospective Payment System (PPS). The process begins by adjusting charges reported on individual records for differences in labor costs across hospitals. It then systematically trims both charges and LOS, excluding observations with reported values outside predetermined levels. Means are recalculated and weights are derived by dividing these means by averages calculated across all inlier records. Results are inspected for logical consistency and reasonableness. When problems appear to exist because of small cell sizes, weights are imputed. Final weights are produced by normalizing weights so that their average across all records in the input database uniformly equals 1.000.

# ***METHODS***

## ***DATA***

Data from the 2000 National Inpatient Sample (NIS) of the Healthcare Cost and Utilization Project were used to develop the weights. This data source was developed by the Agency for Healthcare Research and Quality using a stratified probability sample of hospitals from 28 states to create a nationally representative 20 percent sample of all U.S. community hospitals. Strata are by hospital size, location, ownership, and teaching status. Within each stratum, sampling probabilities are directly proportional to the number of hospitals located in the 28 participating states and inversely proportional to the total number of U.S. community hospitals.

The 2000 NIS contains information on all inpatient stays from 994 hospitals, a total of 7,450,992 records. These data were linked to appropriate wage indexes published by the federal Centers for Medicare & Medicaid Services (CMS, formerly HCFA, the Health Care Financing Administration). (The NIS contains identifiers to enable such linkages for hospitals in every state except Georgia, Hawaii, Kansas, South Carolina, Texas, and Tennessee, where confidentiality restrictions prohibit hospital identification. For these six states, we used the overall, state average wage index for all NIS hospitals in each state.)

## ***APS-DRGs® WEIGHT CALCULATION***

The calculation of weights for the Version 20.0 APS-DRGs® is similar to the methodology used by CMS in developing the annual DRG relative weights. This involves several steps, as described below.

### **STEP 1. ASSIGN VERSION 20.0 APS-DRGs® TO THE DATA.**

The 7.4+ million discharges described above were assigned to appropriate Version 20.0 APS-DRGs® using Healthcare AdVantage™. As appropriate, the ICD-9-CM diagnosis and procedure codes found in the NIS were mapped into Version 20.0 codes. An output file was then created containing linking variables, APS-DRGs®, APS-MDCs, and return codes. Finally, a series of summary statistics were calculated from the output files to assess data quality and other analytic issues.

**STEP 2. CREATE HOSPITAL-LEVEL WAGE FILE AND MERGE TO PATIENT FILE.**

The CMS Wage Index History File was linked to the 2000 NIS hospital weight file to obtain the associated wage index for each sample hospital. For states that prohibit hospital identification, state average wage indexes were assigned. For hospitals represented in the NIS but not on the History file (primarily specialty hospitals), indexes were assigned using the geographic information available on the NIS.

The hospital-level file was then merged to the patient-level file. Charges on the input were adjusted by dividing a portion of each hospital-specific charge by the wage index for the area in which the hospital was located. The CMS wage index reflects total hospital salaries and hours excluding the salaries and hours associated with skilled nursing facilities and other non-hospital cost centers, home office salaries and hours, and the fringe benefits associated with hospital and home office salaries. The portion of the charges adjusted by the CMS wage index was 71.10 percent (CMS's October 2000 estimate of the portion of the "hospital market basket" for labor-related items).

**STEP 3. CALCULATE AND APPLY TRIMS.**

Initial outlier trim points were calculated at 3.0 standard deviations from the overall arithmetic mean of the log-transformed LOS and charges. Using these trimmed data, a second set of trim points was calculated, again using 3.0 standard deviations from the arithmetic mean of the log-transformed data.

Trim points for the APS-DRGs<sup>®</sup> were then merged onto the patient file and used to identify outliers to be excluded from the remainder of the calculations. Note that outliers were determined variable by variable; for example, records containing charge outliers were not necessarily excluded from the calculations of LOS and mortality weights. Summary weights were re-estimated by APS-DRGs<sup>®</sup>, APS-MDC, and CDRG.

**STEP 4. IDENTIFY AND ASSESS ATYPICAL PATTERNS THAT MIGHT AFFECT WEIGHTS.**

As an additional quality-control measure, certain APS-DRGs<sup>®</sup> were identified and examined, especially when they involved atypical patterns of weights. The purpose of this step was to identify potential problems in the preceding data processing steps and to ensure that apparently unusual empirical results were based upon adequate data resources. The focus of this step included the following types of APS-DRGs<sup>®</sup>:

- APS-DRGs<sup>®</sup> with no observations.
- APS-DRGs<sup>®</sup> containing less than 50 observations.
- Weights for APS-DRGs<sup>®</sup> that were five times greater than the weight for the Consolidated DRG (CDRG).
- Weights for APS-DRGs<sup>®</sup> that were non-monotonic; that is, less than weights of less severe APS-DRGs<sup>®</sup> within the same CDRG.

**STEP 5. PERFORM IMPUTATIONS.**

The weights for all APS-DRGs<sup>®</sup> containing less than 25 observations were imputed by calculating a weighted average. Estimated weights from the national data were supplemented with additional information obtained from similar APS-DRGs<sup>®</sup>. More weight was given to the average LOS, charge, and mortality statistics for individual APS-DRGs<sup>®</sup> as the number of cases increased and as the variance of those statistics declined.

**STEP 6. CALCULATE RELATIVE WEIGHTS.**

The final, post-imputation estimated average LOS, charge, and mortality for individual APS-DRGs<sup>®</sup> was then divided by the overall LOS, charge, and mortality average to determine the relative weights. The latter was calculated by dividing the total days, charges, or deaths in the input database by the number of inlier records for that particular variable.

Normalized weights for the APS-DRGs<sup>®</sup> were standardized to ensure that the average weight calculated across all discharge records in the input database was 1.000 after adjustment. This was done by comparing the overall average charge, LOS, and mortality weights before and after the weights were adjusted.

**RESULTS**

The input data set contained a total of 7,450,992 records. Applying national sampling weights, these records represent more than 36 million discharges from community hospitals in the United States during 2000. After eliminating 2,017 records with a missing principal diagnosis, 7,448,975 records were available for developing weights.

**DATA QUALITY AND APS-DRGs<sup>®</sup> ASSIGNMENT**

Frequencies for the Version 20.0 APS-DRGs<sup>®</sup> were examined for variation and compared to results from previous years. Less than 2.1 percent of the records were ungroupable (APS-DRG 4700), with the majority failing to group due to invalid principal diagnoses. Few records (n=90) were assigned to APS-DRG 4690, *Principal Diagnosis Invalid As Discharge Diagnosis*.

Low-volume APS-DRGs<sup>®</sup> were similar to previous years' results. Table 1 lists the ten (10) APS-DRGs<sup>®</sup> with no observations in the study data. Note that six (6) of these ten (10) APS-DRGs<sup>®</sup> represent two (2) new (and temporary) DRGs that CMS created for FY 2003, 526 and 527 – Percutaneous Cardiovascular Procedure with Drug-Eluting Stent with and without AMI. The ICD-9-CM procedure code that defines these new, temporary DRGs (36.07, Insertion of drug-eluting coronary artery stents) is also new for FY 2003, and thus did not appear in the 2000 NIS data upon which these weights were based. Weights for the six APS-DRGs<sup>®</sup> in these two new CMS DRGs were, therefore, taken from existing, parallel DRGs 516 and 517 – Percutaneous Cardiovascular Procedures with and without AMI. For further details, please see the discussion of the FY 2003 changes CMS made to MDC 5, in the next chapter.

Table 2 lists the 32 APS-DRGs® with fewer than 50 weighted cases nationally in 2000, based upon their observed frequency in the NIS. Note that many of these low-volume APS-DRGs® are elective procedures done in an ambulatory setting (for example, eye procedures, circumcision, and sterilization). Even when performed as an inpatient, few patients have Major CCs associated with them.



# FINAL WEIGHTS

Approximately 0.77 percent of the records exceeded the individual APS-DRGs® charge outlier thresholds, while 0.49 percent of records were identified as LOS outliers. After excluding these records, the imputation procedure described above was performed for APS-DRGs® with relatively low volume, and final weights were calculated. The final weights were compared to previous years, taking into account changes in the APS-DRGs® made in moving from Version 19 to Version 20. These CMS-originated changes include reclassifying existing codes into different DRGs and making the following additional changes for FY 2003:

1. **MDC 1 – NERVOUS SYSTEM:** CMS made the following changes to MDC 1:

- Adult Craniotomy (Revised DRGs 1 and 2): Previously, adult craniotomy patients (age > 17) were categorized into DRGs 1 or 2 based on the presence of head trauma. The Centers for Medicare and Medicaid Services (CMS) has redefined these DRGs based on the presence or absence of a complication and/or comorbidity (CC), and has revised DRG titles, as follows:

DRG	DESCRIPTION
1	Craniotomy Age > 17 with CC
2	Craniotomy Age > 17 without CC

- DRG Revisions for Patients with Stroke Symptoms: To improve the clinical and resource cohesiveness of current DRGs 14 (Specific Cerebrovascular Disorders Except Transient Ischemic Attack) and 15 (Transient Ischemic Attack and Precerebral Occlusions), CMS has re-assigned diagnosis codes and created a third new DRG (DRG 524). Revised and new DRG titles are:

DRG	DESCRIPTION
14	Intracranial Hemorrhage and Stroke with Infarction
15	Nonspecific Cerebrovascular Accident and Precerebral Occlusion without Infarction
524	Transient Ischemia

Please see page 49988 of the August 1, 2002 Federal Register for a list of diagnosis codes assigned to each DRG. Note that in the process of re-assigning codes, diagnosis codes 437.3 (cerebral aneurysm, nonruptured) and 784.3 (aphasia) were moved from DRG 14 to DRGs 34 and 35 (Other Disorders of the Nervous System with and without CC).

2. **MDC 5 – CIRCULATORY SYSTEM:** CMS made the following changes to MDC 5.

- Heart Assist System (New DRG 525): CMS has created a new DRG 525 (Heart Assist System Implant) for cases with replacement, repair, and implantation of a heart assist system. This new DRG consists of any case with an MDC 5 principal diagnosis, plus one of the following “heart assist system” procedure codes: 37.62, 37.63, 37.65, and 37.66. These procedures were moved from DRGs 104 and 105 (Cardiac Valve and Other Major Cardiothoracic Procedures with or without Cardiac Catheterization).
- Drug-Eluting Stents (New DRGs 526 and 527): CMS has created two new DRGs that parallel existing DRGs 516 (Percutaneous Cardiovascular Procedures with AMI) and 517 (Percutaneous Cardiovascular Procedures without AMI, with Coronary Artery Stent), to categorize cases involving insertion of a drug-eluting coronary artery stent (new procedure code 36.07). These DRGs are:

DRG	DESCRIPTION
526	Percutaneous Cardiovascular Procedure with Drug-Eluting Stent with AMI
527	Percutaneous Cardiovascular Procedure with Drug-Eluting Stent without AMI

The FDA has not yet approved the drug-eluting stent technology for general use, but is expected to do so in 2003. Because CMS cannot pay for this technology prior to FDA approval, DRGs 526 and 527 will not be activated until April 1, 2003. If the FDA approves drug-eluting stents prior to April 1, 2003, cases with procedure code 36.07 will be paid using the relative weights for DRG 517.

New DRGs 526 and 527 are considered temporary. CMS notes that the addition of temporary DRGs 526 and 527 is warranted by unique circumstances surrounding this break through technology. Once claim data reflecting the use of these stents is available, it is expected that these cases will be combined with other cases in DRGs 516 and 517. CMS continues to remind the industry that the vast majority of new technologies will continue to be routinely incorporated into existing DRGs.

- Rheumatic Heart Failure: Rheumatic heart failure (diagnosis code 398.91) was added to the list of complex cardiovascular diagnoses used for assignment to DRG 124 (Circulatory Disorders Except AMI with Cardiac Catheterization and Complex Diagnosis). As a result of this change, catheterization cases with rheumatic heart disease are now assigned to DRG 124 instead of DRG 125 (Circulatory Disorders Except AMI with Cardiac Catheterization without Complex Diagnosis).
- Radioactive Element Implant: Cases in MDC 5 with procedure code 92.27 (implantation or insertion of radioactive elements) were previously assigned to DRG 468 (Extensive O.R. Procedure Unrelated to Principle Diagnosis), if there is no indication of a percutaneous cardiovascular procedure that would qualify them for assignment to DRG 517 (Percutaneous Cardiovascular Procedure Without AMI With Coronary Artery Stent Implant). To prevent assignment to DRG 468, CMS has assigned these cases to DRG 120 (Other Circulatory System O.R. Procedures).

3. **MDC 10 – ENDOCRINE, NUTRITIONAL, AND METABOLIC DISEASES AND DISORDERS:** CMS evaluated the assignment of existing and new cystic fibrosis diagnosis codes. Existing code 277.00 (cystic fibrosis without mention of meconium ileus), as well as new diagnosis code 277.09 (cystic fibrosis with other manifestations), were assigned to MDC 10, DRGs 296 through 298 (Nutritional and Metabolic Disease). Other cystic fibrosis diagnosis codes are now assigned to MDCs 4 (Respiratory System), 6 (Digestive System), and 15 (Newborns and Neonates), as follows:

Code	DESCRIPTION	assigned to	
		MDC	DRGs
277.01	Existing Code; Cystic fibrosis with mention of meconium ileus	15	387, 389
277.02	New Code; Cystic fibrosis with pulmonary manifestations	4	79, 80, 81
277.03	New Code; Cystic fibrosis with gastrointestinal manifestations	6	188, 189, 190

4. **MDC 11 – KIDNEY AND URINARY TRACT:**
- Insertion of Totally Implantable Vascular Access Device (VAD): CMS has redesignated procedure code 86.07 (insertion of totally implantable VAD) as an O.R. procedure in MDC 11 and assigned this code to DRG 315 (Other Kidney and Urinary Tract O.R. Procedures). This procedure was previously considered a nonoperative procedure that did not affect DRG assignment.
  - Bladder Reconstruction: Procedure code 57.87 (reconstruction of urinary bladder) has been reclassified from a minor to a major bladder procedure. As such, it has been reassigned from DRGs 308 and 309 (Minor Bladder Procedures with and without CC) to DRGs 303, 304, and 305 (Kidney, Ureter, and Major Bladder Procedures).
5. **MDC 23 – FACTORS INFLUENCING HEALTH STATUS AND OTHER CONTACTS WITH HEALTH SERVICES:** CMS has added diagnosis code V10.53 (history of malignancy, renal pelvis) to the list of history of malignancy codes in DRG 465 (Aftercare with History of Malignancy as Secondary Diagnosis).
6. **CHANGES TO THE PRE-MDC HIERARCHY – TRACHEOSTOMY:** CMS has changed the definition of DRG 483 (Tracheostomy Except for Face, Mouth and Neck Diagnosis) to include patients receiving continuous mechanical ventilation greater than 96 hours (code 96.72). DRG 483 has been re-titled “Tracheostomy with Mechanical Ventilation 96+ Hours or Principal Diagnosis Except Face, Mouth and Neck Diagnosis.” CMS has clarified that any patient with a tracheostomy and procedure code 96.72, even with a face, mouth, or neck diagnosis, will be assigned to the higher-weighted DRG 483.
7. **SURGICAL HIERARCHY REVISIONS:** CMS revised the following surgical hierarchies:
- Pre-MDC Hierarchy: CMS has reordered DRG 495 (Lung Transplant) above DRG 512 (Simultaneous Pancreas/Kidney Transplant).

- MDC 5 (Circulatory System): CMS has placed new DRG 525 (Heart Assist System Implant) above DRGs 104 and 105 (Cardiac Valve and Other Major Cardiothoracic Procedures with or without Cardiac Catheterization, respectively). In addition, the following MDC 5 DRGs were reordered to accommodate the creation of new DRGs 526 and 527. DRGs are listed in hierarchical order:

DRG	DESCRIPTION
115	Permanent Cardiac Pacemaker Implant with AMI, Heart Failure or Shock, or AICD Lead or Generator
116	Other Permanent Cardiac Pacemaker Implant
526	Percutaneous Cardiovascular Procedure with Drug-Eluting Stent with AMI
516	Percutaneous Cardiovascular Procedures with AMI
527	Percutaneous Cardiovascular Procedure with Drug-Eluting Stent without AMI
517	Percutaneous Cardiovascular Procedures without AMI, with Coronary Artery Stent Implant
518	Percutaneous Cardiovascular Procedures without AMI, without Coronary Artery Stent Implant
478	Other Vascular Procedures with CC
479	Other Vascular Procedures without CC

8. **REVIEW OF PROCEDURE CODES ASSIGNED TO DRGs 468, 476 AND 477 – O.R. PROCEDURES UNRELATED TO THE PRINCIPAL DIAGNOSIS:** CMS reviewed the cases assigned to DRG 468 (Extensive O.R. Procedure Unrelated to Principal Diagnosis), DRG 476 (Prostatic O.R. Procedure Unrelated to Principal Diagnosis), and DRG 477 (Non-Extensive O.R. Procedure Unrelated to Principal Diagnosis). As a result of this review, CMS has made the following changes:
  - DRG 468 (Extensive OR Procedures Unrelated to Principal Diagnosis): CMS has removed several procedure codes from DRG 468 and assigned them to MDC-specific surgical DRGs. (Please see pages 49999 – 50000 of the August 1, 2002 Federal Register for a list of procedure codes assigned to each MDC-specific surgical DRG.) Changes affect the following MDCs: 6 (Digestive System), 7 (Hepatobiliary System and Pancreas), 8 (Musculoskeletal System and Connective Tissue), 9 (Skin, Subcutaneous Tissue, and Breast), 10 (Endocrine, Nutritional and Metabolic Diseases and Disorders), 11 (Kidney and Urinary Tract), 12 (Male Reproductive System), 13 (Female Reproductive System), and 16 (Blood, Blood Forming Organs, and Immunological Disorders).

In general,

*Charge weights* ranged from 0.100 to 29.236 with a *mean charge* of \$13,241.41.

*LOS weights* ranged from 0.222 to 18.186 with a *mean LOS* of 4.5096 days.

*Mortality weights* ranged from 0 to 36.441 with a *mean mortality* of 0.0247 deaths per discharge.

To calculate an *expected charge* (*expected LOS*, or *expected mortality*) for a given discharge record, simply multiply the *charge weight* (*LOS weight*, or *mortality weight*) obtained by applying APS-DRGs® to that record, by the *mean charge* (*mean LOS*, or *mean mortality*) noted above.

The imputation procedure described above “adjusted the original estimated weights” for 84 APS-DRGs®. Many of these adjustments were relatively minor. At least 90 percent of the information was derived from the APS-DRGs® in the original study data for all three final weights in the ten (10) APS-DRGs® shown in Table 3. At the other extreme, none of the final weight was derived from the APS-DRGs® in the original study data for the ten (10) APS-DRGs® shown in Table 1. The 44 APS-DRGs® shown in Table 4 received less than half of their final weight from the APS-DRGs® original information for at least one weight. Table 5 contains a list of the remaining 20 APS-DRGs® with adjusted final weights where at least half of the information comes from its own data for all three sets of weights and at least one weight uses less than 90 percent of the information.

APS-DRGs® are represented in the tables as five-digit numbers, consisting of two parts: a four-digit Consolidated DRG and a one-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-DRG® group number may be represented by the syntax "XXXXY," where "XXXX" is the CDRG and "Y" is the severity class.

TABLE 1	
APS-DRGs® (N=10) With No Observations In Data Used To Estimate Weights	
00382	PRIMARY IRIS PROCEDURES W MCC
03302	URETHRAL STRICTURE AGE 0-17 W MCC
03512	STERILIZATION, MALE W MCC
05082	FULL BRN WO GR OR INHAL W SIG TR W MCC
05260	PERC CV PR W DRUG STENT W AMI WO CC
05261	PERC CV PR W DRUG STENT W AMI W CC
05262	PERC CV PR W DRUG STENT W AMI W MCC
05270	PERC CV PR W DRUG STENT WO AMI WO CC
05271	PERC CV PR W DRUG STENT WO AMI W CC
05272	PERC CV PR W DRUG STENT WO AMI W MCC

<b>TABLE 2</b>	
<b>APS-DRGs® (N=32) With Fewer Than 50 Observations in 2000 NIS</b>	
00062	CARPAL TUNNEL RELEASE W MCC
00392	LENS PROCS WITH OR W/O VITRECTOMY W MCC
00412	EXTRAOCUL PROC EXC ORBIT AGE 0-17 W MCC
00482	OTHER DISORDERS OF EYE AGE 0-17 W MCC
00592	TONSILLCT &/OR ADNDCT ONLY AGE>17 W MCC
01030	HEART TRANSPLANT W/O CC
02322	ARTHROSCOPY W MCC
02672	PERIANAL & PILONIDAL PROCEDURES W MCC
02912	THYROGLOSSAL PROCEDURES W MCC
03142	URETHRAL PROCEDURES, AGE 0-17 W MCC
03272	KIDNY, URIN TRACT SIGN, SYMP 0-17 W MCC
03300	URETHRAL STRICTURE AGE 0-17 W/O CC
03301	URETHRAL STRICTURE AGE 0-17 W CC
03402	TESTES PROCEDURES AGE 0-17 W MCC
03422	CIRCUMCISION AGE >17 W MCC
03431	CIRCUMCISION AGE 0-17 W CC
03432	CIRCUMCISION AGE 0-17 W MCC
03510	STERILIZATION, MALE W/O CC
03511	STERILIZATION, MALE W CC
03622	ENDOSCOPIC TUBAL INTERRUPTION W MCC
03822	FALSE LABOR W MCC
04121	HISTORY OF MALIGNANCY W CC
04122	HISTORY OF MALIGNANCY W MCC
04482	ALLERGIC REACTIONS AGE 0-17 W/O CC
05060	FULL BRN W GR OR INHAL W SIG TR WO CC
05062	FULL BRN W GR OR INHAL W SIG TR W MCC
05080	FULL BRN WO GR OR INHAL W SIG TR WO CC
05081	FULL BRN WO GR OR INHAL W SIG TR W CC
05100	NON-EXT BURNS W SIG TRAUMA WO CC
05101	NON-EXT BURNS W SIG TRAUMA W CC
05102	NON-EXT BURNS W SIG TRAUMA W MCC
05132	PANCREAS TRANSPLANT W MCC

<b>TABLE 3</b>	
<b>APS-DRGs® (N=10) Where APS-DRGs®-Level Data Contribute at Least 90 Percent of Their Information for All Three Final Weights</b>	
00411	EXTRAOCUL PROC EXC ORBIT AGE 0-17 W CC
00622	MYRINGOTMY W TUBE INSERT AGE 0-17 W MCC
00672	EPIGLOTTITIS W MCC
02202	LW EXT&HUM PRC, EX HIP, FT, FEM 0-17 W MCC
02372	SPRN, STRN, DISLOC HIP, PELVIS, THIGH W MCC
02762	NON-MALIGNANT BREAST DISORDERS W MCC
03612	LAPAROSCPY & INCIS TUBAL INTERRUPT W MCC
04880	HIV W EXTENSIVE O.R. PROCEDURE W/O CC
05092	FULL BRN WO GR OR INHAL WO SIG TR W MCC
05122	SIM PANCREAS/KIDNEY TRANSPLANT W MCC

<b>TABLE 4</b> <b>APS-DRGs® (N=44) Where APS-DRGs®-Level Data Contribute Less Than</b> <b>50 Percent of Their Information for At Least One Final Weight</b>	
00062	CARPAL TUNNEL RELEASE W MCC
00392	LENS PROCS WITH OR W/O VITRECTOMY W MCC
00412	EXTRAOCUL PROC EXC ORBIT AGE 0-17 W MCC
00482	OTHER DISORDERS OF EYE AGE 0-17 W MCC
00512	SALIVARY GLAND PROCEDURES W MCC
00592	TONSILLCT &/OR ADNDCT ONLY AGE>17 W MCC
01030	HEART TRANSPLANT W/O CC
02322	ARTHROSCOPY W MCC
02552	FX,SPR,STR,DSL UP EXT,AGE 0-17 W MCC
02672	PERIANAL & PILONIDAL PROCEDURES W MCC
02822	TRAUMA SKN,SUBCUT TISS&BRST 0-17 W MCC
02911	THYROGLOSSAL PROCEDURES W CC
02912	THYROGLOSSAL PROCEDURES W MCC
03142	URETHRAL PROCEDURES, AGE 0-17 W MCC
03272	KIDNY,URIN TRACT SIGN,SYMP 0-17 W MCC
03300	URETHRAL STRICTURE AGE 0-17 W/O CC
03301	URETHRAL STRICTURE AGE 0-17 W CC
03402	TESTES PROCEDURES AGE 0-17 W MCC
03422	CIRCUMCISION AGE >17 W MCC
03431	CIRCUMCISION AGE 0-17 W CC
03432	CIRCUMCISION AGE 0-17 W MCC
03510	STERILIZATION, MALE W/O CC
03511	STERILIZATION, MALE W CC
03522	OTHER MALE REPRODUCTIVE SYSTEM DX W MCC
03622	ENDOSCOPIC TUBAL INTERRUPTION W MCC
03802	ABORTION W/O D&C W MCC
03822	FALSE LABOR W MCC
03932	SPLENECTOMY AGE 0-17 W MCC
04121	HISTORY OF MALIGNANCY W CC
04122	HISTORY OF MALIGNANCY W MCC
04462	TRAUMATIC INJURY AGE 0-17 W MCC
04482	ALLERGIC REACTIONS AGE 0-17 W/O CC
04950	LUNG TRANSPLANT W/O CC
05051	EXTENS 3RD DEG BURN WO SKIN GRAFT W CC
05060	FULL BRN W GR OR INHAL W SIG TR WO CC
05061	FULL BRN W GR OR INHAL W SIG TR W CC
05062	FULL BRN W GR OR INHAL W SIG TR W MCC
05080	FULL BRN WO GR OR INHAL W SIG TR WO CC
05081	FULL BRN WO GR OR INHAL W SIG TR W CC
05100	NON-EXT BURNS W SIG TRAUMA WO CC
05101	NON-EXT BURNS W SIG TRAUMA W CC
05102	NON-EXT BURNS W SIG TRAUMA W MCC
05131	PANCREAS TRANSPLANT W CC
05132	PANCREAS TRANSPLANT W MCC

<b>TABLE 5</b>	
<b>APS-DRGs® (N=20) Where APS-DRGs®-Level Data Contribute 50 Percent to 90 Percent of Their Final Weight</b>	
00332	CONCUSSION AGE 0-17 W MCC
00381	PRIMARY IRIS PROCEDURES W CC
00402	EXTRAOCUL PROC EXC ORBIT AGE >17 W MCC
00452	NEUROLOGICAL EYE DISORDERS W MCC
00522	CLEFT LIP & PALATE REPAIR W MCC
00582	T&A PROC,EX TONS/ADNCT ONLY 0-17 W MCC
00611	MYRINGOTMY W TUBE INSERT AGE >17 W CC
00612	MYRINGOTMY W TUBE INSERT AGE >17 W MCC
02612	BRST PR NON-MAL,EX BIOP&LOC EXCIS W MCC
02622	BRST BIOP& LOC EXCIS FOR NON-MAL W MCC
03141	URETHRAL PROCEDURES, AGE 0-17 W CC
03170	ADMIT FOR RENAL DIALYSIS W/O CC
03271	KIDNY,URIN TRACT SIGN,SYMP 0-17 W CC
03282	URETHRAL STRICTURE AGE >17 W MCC
03621	ENDOSCOPIC TUBAL INTERRUPTION W CC
04312	CHILDHOOD MENTAL DISORDERS W MCC
04412	HAND PROCEDURES FOR INJURIES W MCC
05052	EXTENS 3RD DEG BURN WO SKIN GRAFT W MCC
05130	PANCREAS TRANSPLANT WO CC
05250	HEART ASSIST SYSTEM IMPLANT WO CC



# *SUMMARY*

Weights for the APS-DRGs<sup>®</sup> provide a powerful tool to assess severity across and within diagnostic groups. Based on a nationally representative all-payer sample of hospital discharges, the charge, length of stay, and mortality benchmarks can be used to measure performance and to estimate costs.

If you have questions about the All-Payer Severity-adjusted DRGs (APS-DRGs<sup>®</sup>), please call Client Services at 1-800-999-3747(DRGS), or contact us via the Internet at *support@hss-info.com*.

# DISTRIBUTION

Weights and trims for the Version 20.0 APS-DRGs<sup>®</sup> are contained in a single ASCII disk file, as documented below.

**Filename:** HIPAAS20WTRIM.DAT  
**Description:** APS-DRGs<sup>®</sup> Weight and Trims  
**Record Size:** 110  
**Record Count:** 1,121

The format of this file is displayed in Table 6.

TABLE 6			
Description of Weight File			
FIELD	POSITIONS	FORMAT	DESCRIPTION
APS	1 – 5	NNNNN	APS-DRGs <sup>®</sup> Number
FILLER	6 – 6	C	
DESCRIPTION	7 – 46	C (40)	APS-DRGs <sup>®</sup> Description
FILLER	47 – 47	C	
LOSWT	48 – 56	NNN.NNNNN	Length of Stay Weight (with explicit decimal)
FILLER	57 – 57	C	
CHGWT	58 – 66	NNN.NNNNN	Charge Weight (with explicit decimal)
FILLER	67 – 67	C	
LLOSTRIM	68 – 71	NNNN	Low Length of Stay Trim
FILLER	72 – 72	C	
HLOSTRIM	73 – 76	NNNN	High Length of Stay Trim
FILLER	77 – 77	C	
LCHGTRIM	78 – 88	N(8).NN	Low Charge Trim
FILLER	89 – 89	C	
HCHGTRIM	90 – 100	N(8).NN	High Charge Trim
FILLER	101 – 101	C	
MORTWT	102 – 110	NNN.NNNNN	Mortality Weight (with explicit decimal)

---

# **APPENDIX A**

## **Product Release Notes**

---

**All Payer Severity-adjusted DRGs (APS-DRGs®)  
Product Release Notes  
HIPAA Release - February 2003 (Version 0302H)**

---

1. **Summary of Changes:** The All Payer Severity-adjusted DRGs (APS-DRGs®) Manual has been updated to conform to the current HIPAA Electronic Transactions and Code Sets requirements. These changes include new field lengths for various fields contained with the APS-DRGs weight file. The HIPAA changes to the EASYGroup™ products have been documented more extensively in Product Bulletin No. 56, *HIPAA Transactions and Code Sets Requirements, "COBOL" EASYGroup™ Update* and No. 57, *HIPAA Transactions and Code Sets Requirements, "C" EASYGroup™ Update*.
2. **Version:** The version number on this *User Installation Guide* is 0302H.

