Chapter 2

Billing and Coding for Health Services

LEARNING OBJECTIVES

After studying this chapter, you should be able to do the following:

1. Describe the revenue cycle for healthcare firms.
2. Understand the role of coding information in healthcare organizations in claim generation.
3. Define the basic characteristics of charge masters.
4. Define the two major bill types used in healthcare firms.
5. Appreciate the role of claims editing in the bill submission process.

REAL-WORLD SCENARIO

Riley Ilene, the Chief Financial Officer of Campbell Hospital, was concerned by the reduction in revenue during the last 3 months. The revenue reduction was most pronounced in the outpatient arena and represented a 15% reduction from prior-year levels. Loss of this revenue had eroded Campbell's already thin operating margins, and the hospital was now operating with losses.

Riley's first thought was that volume may be down from prior-year levels. She asked her controller, Michael Dean, to report on comparative volumes for last year and this year. Michael's report showed that total numbers of outpatient visits were actually above last year. Furthermore, the increases in volumes appeared relatively uniform across all product line groupings. Riley then directed Michael to review "Revenue and Usage" summaries for the current year and last year. A revenue and usage summary would show the quantity of items billed by charge code and payer. The summaries would also break out the volumes by inpatient and outpatient areas.

After reviewing these data Michael reported back to Riley with some startling news. Volumes for several procedures in the hospital's "charge master" were well below prior-year levels. Specifically, the numbers of drug administration codes that are reported when an injectable or infusible drug is administered were well below prior-year levels. This was surprising because the number of injectable and infusible drugs had actually increased.

Riley Ilene thought she had discovered the problem and reported back to her CEO, Meredith Lynn. Meredith, however, asked Riley whether this could have caused the revenue reduction. Meredith believed that a heavy percentage of the hospital's payment was related to either case payment for inpatients or APC (ambulatory patient classification) groups for outpatients. Meredith believed that these bundled payments would not be impacted by a failure to document the drug administration procedures.

Riley said that this was a good point and she would do some additional research and report back to Meredith. Riley found that Medicare provides separate payment for the drug administration procedure when performed in outpatient visits. The average loss for the undocumented procedure codes appeared to average about $130 per occurrence. Riley also found that many of their commercial payers paid on a discount from billed charge basis. Failure to report these procedures for these payers would result in lost revenue. The only remaining task was to discover why charges for drug administration procedures for outpatient procedures were not being recorded.

LEARNING OBJECTIVE 1

Describe the revenue cycle for healthcare firms.

Healthcare firms are for the most part business-oriented organizations. Their ultimate financial survival depends on a consistent and recurring flow of funds from the services they provide to patients. Without an adequate stream of revenue these firms would be forced to cease operations. In this regard, healthcare firms are similar to most business entities that sell products or services in our economy. Figure 2–1 depicts the stages involved in the revenue cycle for a healthcare firm. The critical stages in the revenue cycle for healthcare firms are the provision and documentation of services to the patient, the generation of charges for those services, the preparation of a bill or **claim**, the submission of the bill or claim to the respective payer, and the collection of payment.

A simple review of the six stages of the revenue cycle in Figure 2–1 hides the significant degree of complexity involved in revenue generation for healthcare providers. No other industry in our nation's economy experiences the same level of billing complexity that most healthcare firms face. Part of this complexity is related to the nature and importance of the services provided. Regulation is also a factor that further complicates documentation and billing for healthcare services. Finally, the existence of different payment methods and rates for multiple payers further complicates the revenue cycle for most healthcare firms. Payment complexity is addressed in Chapter 3.

LEARNING OBJECTIVE 2

Understand the role of coding information in healthcare organizations in claim generation.

GENERATING HEALTHCARE CLAIMS

Figure 2–2 provides more detail to the steps and processes involved in the actual generation of a healthcare bill or claim. The process and steps mirror those in Figure 2–1 except additional detail unique to healthcare firms is included. The process often begins with the collection of information about the patient before the delivery of services in the patient registration function. Information about the patient, including address, date of birth, and insurance data, is collected to facilitate bill preparation after services are provided. Once services have been provided, data from that encounter(s) flow into two areas: medical documentation and charge capture.

Although the primary purpose of the data accumulated in the medical record may be related to clinical

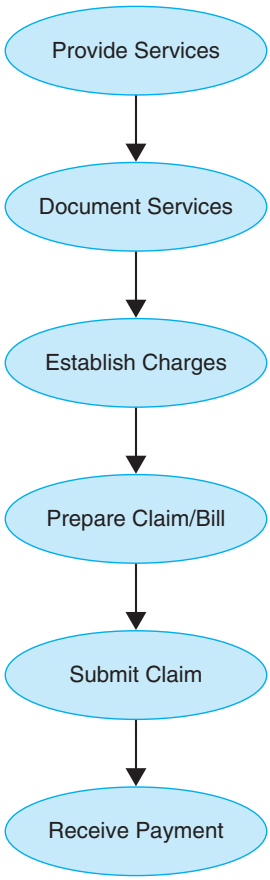

Figure 2–1 Revenue Cycle

decision making, a substantial proportion of the information may also be linked to billing. For example, the assignment of diagnosis and procedure codes within the medical record by physicians plays a key role in diagnosis-related group (DRG) assignment. Many healthcare payers provide payment for inpatient care based on DRG assignment. Data in the medical record are also the primary source for documenting the provision of services. For example, if a patient's bill listed a series of drugs used by the patient but the medical record did not show those drugs as being used, the claim would not be supported. The primary linkage between the claim and the medical record is related to the documentation of specific services provided and their reporting in a series of clinical codes. We explore the categories of coding and their importance to billing shortly.

Data from the provision of services also flow directly to billing through the capture of charges. The posting of charges to a patient's account is usually accomplished through the issuance and collection of "charge slips" in a manual mode or through direct order entry or bar code readers in an automated system. The critical link here is the firm's price list, often referred to as its "charge master" or **charge description master (CDM)**. The CDM is simply a list of all items for which the firm has established specific prices. In a hospital setting it is not unusual to find more than 20,000 items on its charge master.

Information from the medical record and the charge master then flow into the actual claim. For most healthcare firms there are two basic categories of claims: the Uniform Bill 2004 (UB-04) and the Centers for Medicare & Medicaid Services (CMS) 1500. The UB-04 is the claim form used for most hospitals to report claims for both inpatient and outpatient services. The CMS-1500 is used primarily for physician and professional claims. Appendix 2–A provides samples of these two claim forms.

The final step before actual claim submission is claims editing. Although this step may not be performed by all healthcare firms, it is a critical step for many. In this editing process several key areas are reviewed. First, does the claim have enough information to trigger payment by the patient's payer? For example, perhaps the claim is missing the patient's social security number or healthcare plan identification number. Second, does the claim meet logical standards and is it complete? For example, a claim may have a charge for laboratory panel but no charge for a blood draw to collect the sample. Editing is critical to accurate and timely payment by third-party payers.

REGISTRATION

In most cases a patient or their representative provides a basic set of information regarding the patient before the actual delivery of services. In a physician's office this may be done just before medical service performance. For an elective hospital inpatient admission, it may be done a week or more before admission. A number of clinical and financial sets of information are collected at this point. From the

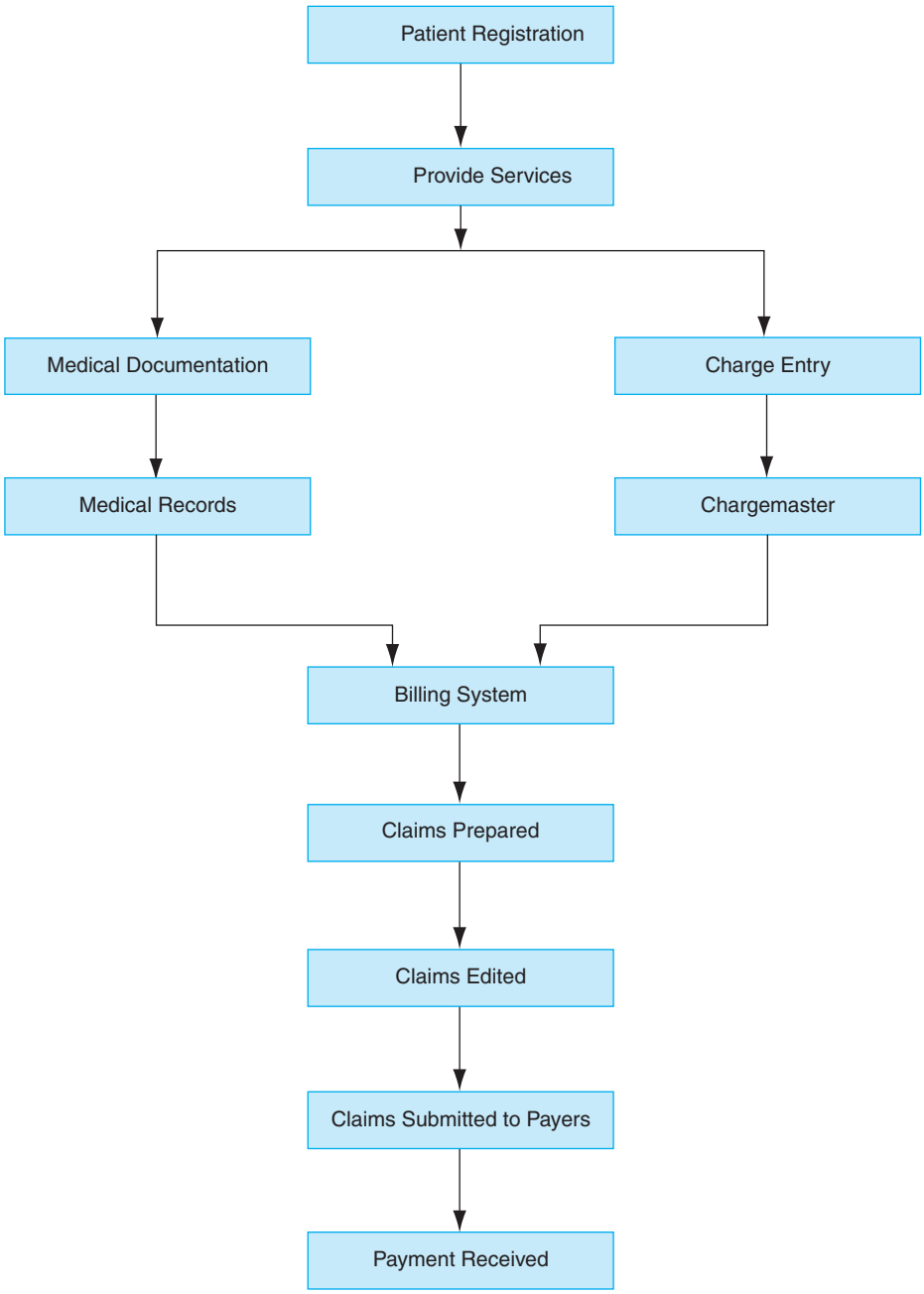

Figure 2–2 Detailed Revenue Cycle

financial perspective, three activities are especially important in the billing and collection process.

Perhaps the most important activity is *insurance verification*. If the patient has indicated they have third-party insurance coverage, it is important to have this coverage verified from the payer. The patient may also have secondary coverage from another health plan. Verification of that coverage is also critical to accurate and timely billing. The critical piece of information to collect from the patient in this regard is their health plan identification number, which may sometimes be their social security number. Queries

to the health plan before service can validate the type of coverage provided by the health plan and the eligibility of the patient for the scheduled service. In today's current environment insurance verification is often done online. Sometimes prior approval for elective services is required by the health plan before a claim can be submitted. This prior verification is often referred to as precertification. Information regarding coverage for large governmental programs such as Medicare and Medicaid is not often needed because the benefit structure is standardized. It is important, however, to verify the existence of current coverage.

The second activity in registration is often related to the computation of **copayment** or **deductible** provisions that may be applicable for the patient. Once insurance coverage has been determined, it is usually possible to calculate the required amount that may still be due from the patient. For example, a Medicare patient without supplemental coverage may report to a hospital for a scheduled computed tomography. It is possible for the registration staff to calculate the amount of copayment due by the patient. The registration staff can then advise the patient regarding the amount of payment due and try to make arrangements for payment at the point of service.

The third activity in this registration process relates to **financial counseling**. Patients who have no coverage may be eligible for some discount through the healthcare firm's charity care policy. Any residual that may still be due can be discussed with the patient, and financing may be arranged before the point of service. It is also possible that an uninsured patient may be eligible for some governmental programs, especially Medicaid. Staff at the healthcare firm can advise the patient regarding eligibility and help them to complete the necessary documents required for coverage.

MEDICAL RECORD AND CODING

Information regarding the services provided to the patient is recorded in the patient's medical record. Critical pieces of information contained in that record are used in the billing process and are communicated to the payers to trigger payment. The Health Insurance Portability and Accountability Act (HIPAA) of 1996 designated two specific coding systems to be used in reporting to both public and private payers:

1. *International Classification of Diseases*, 9th revision, *Clinical Modification* (ICD-9-CM)
2. Healthcare Common Procedure Coding System (HCPCS)

HIPAA requires that two categories of information be reported to payers: diagnosis codes and procedure codes. The **ICD-9-CM** has sets of codes that provide information for both diagnoses and procedures. A 10th revision to ICD is scheduled to be adopted in the United States in 2013.

The HCPCS provides information in the procedure area but does not provide information regarding diagnoses. HIPAA therefore requires that ICD-9 codes be used for diagnosis reporting for all healthcare providers, including hospitals and physicians. ICD-9 procedure codes are required for procedure reporting for hospital inpatients, whereas HCPCS codes are used for procedure reporting by hospitals for outpatient services and also by physicians (Table 2–1).

ICD-9 diagnosis codes are composed of three digits that may be followed by a decimal point with two additional digits. For example, all ICD-9 codes that start with 428 refer to the primary diagnosis of heart failure. Additional digits after 428 further specify the patient's exact condition. For example, 428.1 refers to left heart failure. Table 2–2 provides a listing of the top 10 inpatient diagnoses reported by Medicare in Fiscal Year 2008.

Table 2–1 HIPAA-Designated Coding

	Inpatient		*Outpatient*	
Provider	*Diagnosis*	*Procedure*	*Diagnosis*	*Procedure*
Physician	ICD–9–CM	CPT	ICD–9–CM	CPT
Facility	ICD–9–CM	ICD–9–CM	ICD–9–CM	HCPCS (CPT and HCPCS Level II)

Table 2–2 2008 Public Data: Primary Diagnosis Frequency

Dx1	*Definition*	*Frequency*	*% of Total*
486	Pneumonia, Organism Unspecified	430,535	3.7%
414.01	Coronary Atherosclerosis of Native Coronary Artery	365,228	3.2%
428.0	Congestive Heart Failure	338,746	2.9%
491.21	Obstructive Chronic Bronchitis, With Acute Exacerbation	285,152	2.5%
038.9	Unspecified Septicemia	264,325	2.3%
599.0	Urinary Tract Infection, Site Not Specified	240,731	2.1%
584.9	Acute Renal Failure, Unspecified	226,539	2.0%
427.31	Atrial Fibrillation	220,171	1.9%
410.71	Subendocardial Infarction, Initial Episode of Care	213,917	1.9%
715.36	Osteoarthrosis, Localized, Not Specified Whether Primary or Secondary, Involving Lower Leg	191,866	1.7%

Source: Cleverley & Associates, 2010.

ICD-9 procedure codes are used to report hospital inpatient procedures. These codes may be up to four digits in length, with a decimal point following the first two digits. For example, a code with 37 as the first two digits would refer to procedures on the heart and pericardium. A code of 37.23 would refer to a combined right and left heart cardiac catheterization. Table 2–3 shows a listing of the top 10 inpatient ICD-9 procedure codes reported by Medicare in Fiscal Year 2008.

ICD-9 diagnosis and procedure codes are very important in the assignment of a DRG. DRG payment is widely used by many payers, especially Medicare. Coding therefore has a critical link to provider payment. Table 2–4 provides a list of the top 10 DRGs reported by Medicare in Fiscal Year 2008.

HCPCS codes are used for reporting procedures by physicians for both inpatient and outpatient procedures. HCPCS codes are also used by facilities for reporting outpatient procedures; however, they use ICD-9 procedure codes for reporting inpatient procedures. There are two tiers used in HCPCS coding, Level I and Level II. Level I codes are referred to as current procedure terminology (CPT) codes that have been developed and maintained by the American Medical Association. Level I and CPT are used interchangeably to describe these sets of codes. Six main categories of CPT codes are currently used:

- Evaluation & Management (99201 to 99499)
- Anesthesia (01000 to 01999)

Table 2–3 2008 Public Data: Primary Procedure Frequency

Px1	*Definition*	*Frequency*	*% of Total*
9904	Packed Cell Transfusion	333,161	4.8%
00.66	PTCA or Coronary Athererectomy	298,464	4.3%
81.54	Total Knee Replacement	278,443	4.0%
38.93	Venous Cath NEC	265,661	3.8%
39.95	Hemodialysis	230,754	3.3%
45.16	EGD With Closed Biopsy	201,288	2.9%
37.22	Left Heart Cardiac Cath	200,616	2.9%
88.72	Dx Ultrasound-Heart	129,105	1.9%
96.71	Cont Mech Vent < 96 Hrs	125,010	1.8%
81.51	Total Hip Replacement	119,074	1.7%

Source: Cleverley & Associates, 2010.

Table 2–4 2008 Public Data: DRG Frequency

DRG	*Definition*	*Frequency*	*% of Total*
470	Major joint replacement or reattachment of lower extremity w/o MCC	422,105	3.6%
871	Septicemia w/o MV 96+ hours w MCC	275,846	2.4%
392	Esophagitis, gastroenteritis, and miscellaneous digestive disorders w/o MCC	251,442	2.2%
291	Heart failure and shock w MCC	217,600	1.9%
194	Simple pneumonia and pleurisy w CC	217,319	1.9%
292	Heart failure and shock w CC	209,590	1.8%
313	Chest pain	197,140	1.7%
690	Kidney and urinary tract infections w/o MCC	196,011	1.7%
641	Nutritional and miscellaneous metabolic disorders w/o MCC	188,261	1.6%
312	Syncope and collapse	170,386	1.5%

Source: Cleverley & Associates, 2010.

- Surgery (10021 to 69979)
- Radiology (70010 to 79999)
- Pathology and Laboratory (80047 to 89398)
- Medicine (90281 to 99607)

The five-digit CPT code may also contain a "modifier" that is a two-digit numeric or alphanumeric code that may provide additional information essential to process a claim. For example, modifier 91 is used to indicate that a laboratory procedure was repeated. Table 2–5 provides a list of the top 10 hospital outpatient CPT codes reported to Medicare in Fiscal Year 2008.

Level II HCPCS codes were developed by CMS to report services, supplies, or procedures that were not present in the Level I (CPT) codes. There are two groups within the Level II HCPCS codes: permanent and temporary. Permanent codes are five-digit codes that begin with an alpha character. Table 2–6 provides a list of the top 10 Level II permanent HCPCS codes reported to Medicare in Fiscal Year 2008 for hospital outpatients.

Level II temporary HCPCS codes are used to meet a temporary need for a new code. These codes are also five-digit codes that begin with an alpha character. These codes can exist for a long time, but they may be replaced with a permanent code. Table 2–7 provides a list of the top 10 Level II temporary HCPCS codes reported to Medicare in Fiscal Year 2008 for hospital outpatients.

Table 2–5 2008 Public Data: CPT Frequency

CPT	*Definition*	*Frequency*	*% of Total*
36415	Drawing blood	35,458,489	8.0%
85025	Automated hemogram	21,717,488	4.9%
80053	Comprehensive metabolic panel	15,692,752	3.6%
97110	Therapeutic exercises	15,422,938	3.5%
85610	Prothrombin time	15,334,616	3.5%
80048	Metabolic panel total Calcium	11,164,798	2.5%
80061	Lipid panel	9,324,755	2.1%
93005	Electrocardiogram, tracing	7,542,177	1.7%
84443	Assay thyroid-stimulating hormone	6,807,786	1.5%
71020	Chest x-ray	5,295,099	1.2%

Source: Cleverley & Associates, 2010.

Table 2–6 2008 Public Data: Level II (Permanent) Frequency

Level II (Permanent)	*Definition*	*Frequency*	*% of Total*
J0878	Daptomycin injection	21,888,295	9.9%
J0881	Darbepoetin alfa, injection, non-ESRD, 1 mcg	12,766,223	5.8%
J1756	Iron sucrose injection	11,503,369	5.2%
J9263	Oxaliplatin injection, 0.5 mg	8,718,047	3.9%
J2405	Ondansetron HCl injection, 1 mg	8,008,488	3.6%
A0425	Ground mileage	7,929,252	3.6%
A9579	Gadolinium-based MR contrast NOS, 1 ml	7,389,759	3.3%
J2250	Injection midazolam hydrochloride	7,370,339	3.3%
J0583	Bivalirudin	6,486,356	2.9%
J0885	Epoetin alfa, non-ESRD, injection, 1,000 units	6,391,367	2.9%

Source: Cleverley & Associates, 2010.

HCPCS/CPT codes have a significant effect on provider payment for both facilities and physicians. CPT codes are often linked to fee schedules for many physicians by a large number of payers, which makes coding by medical groups especially critical. CPT and Level II HCPCS codes are also used by Medicare to define payment for many hospital outpatient services in the ambulatory patient classification (APC) system.

LEARNING OBJECTIVE 3

Define the basic characteristics of charge masters.

CHARGE ENTRY AND CHARGE MASTER

Performing actual medical services is the lifeblood of a healthcare firm's revenue cycle. Without the provision of services there is no revenue, but it is imperative that charges for those services are captured. A service that is performed but not billed does not produce revenue. The three greatest concerns in billing are:

- Capture of charges for services performed
- Incorrect billing
- Billing late charges

Charge capture is usually accomplished in one of two ways. For a number of providers actual paper documents or charge slips are used to identify services performed.

Table 2–7 2008 Public Data: Level II (Temporary) Frequency

Level II (Temporary)	*Definition*	*Frequency*	*% of Total*
Q9967	LOCM 300–399 mg/ml iodine, 1 ml	45,516,823	54.2%
G0378	Hospital observation per	16,595,696	19.7%
Q9966	LOCM 200–299 mg/ml iodine, 1 ml	4,208,007	5.0%
Q9965	LOCM 100–199 mg/ml iodine, 1 ml	2,692,423	3.2%
G0202	Screening mammography	1,902,534	2.3%
Q9963	HOCM 350–399 mg/ml iodine, 1 ml	1,803,358	2.1%
Q9958	HOCM <=149 mg/ml iodine, 1 ml	1,166,681	1.4%
G0283	Electrical stimulation other than wound	1,145,531	1.4%
G0103	PSA screening	1,018,693	1.2%
G0008	Administer influenza virus vaccine	776,491	0.9%

Source: Cleverley & Associates, 2010.

These charge slips are then posted to a patient's account in a batch-processing mode by data processing or the business office. Alternatively, an order entry system could be used that may involve direct entry of charges to the patient's account through a computer terminal. Scanning of bar codes may also be used.

Sometimes healthcare firms may use a "**charge explosion**" system to better organize charge entry for selective services. For example, a specific type of surgery may routinely require a standardized set of supplies. Rather than entering all these supplies, one code may be used that then explodes into the list of supply codes used for that surgery.

The key link between charge capture and the billing process is the "**charge code**" that is reflected in the order entry system or the charge slips and also represented on the firm's charge master (also known as CDM). There is a unique charge code for each service procedure, supply item, or drug in the CDM. For hospitals, some charge masters can have up to 100,000 items. Every charge master usually has the following six common elements:

- Charge code
- Item description
- Department number
- Charge/price
- Revenue code
- CPT/HCPCS code

Table 2–8 provides a sample of selected codes in a hospital's charge master. The first column in the charge master is the charge code or item code for the specific service or product to be billed. The second column provides a short description of the specific item code. For example, item code 33023001 is "Daily Care Fourth North." The third column is the *department number* and may reference a specific department within the firm that might also relate to their accounting system or general ledger. The fourth column is the *current price* or standard price for the service or product. In some cases there may be multiple prices for a given code. For example, a hospital might price a laboratory procedure at one rate for inpatient care and at another for outpatient care. These differences may reflect differences in cost or competitive price pressure. Competition for outpatient laboratory procedures may be intense, and the hospital may believe that it must discount its price if it wants to maintain its market share for outpatient laboratory services.

The fifth column is the revenue code. *Revenue codes* are a required field in any hospital claim that is submitted on a UB-04. The current categories used have been mandated by CMS, and the current list is presented in Table 2–9. The last column included in many charge masters is the field for the HCPCS code. In our sample charge master not all entries have an HCPCS code. For example, the first two entries that relate to room and board charges do not have an HCPCS code. Also notice that surgery and anesthesia do not have an HCPCS code. Most hospitals bill for a great majority of their surgeries on a time/level basis. Someone from Health Information Management assigns a CPT code or an ICD-9 procedure code to the procedure at a later point in time before billing. Where an HCPCS code is present in the charge master, less time is required in coding claims at the back end, but care needs to be taken that appropriate charge codes are used at charge entry.

Direct coding of HCPCS codes into the charge master is referred to as **static coding** or "hard coding." When codes are left off the charge master and entered later by Health Information Management personnel, the process is referred to as **dynamic coding** or "soft coding." Many ancillary procedures such as laboratory or radiology procedures can be coded statically; that is, HCPCS codes can be placed in the charge master. In contrast, many surgery codes are dynamically coded and Health Information Management staff will assign the appropriate HCPCS code after the procedure.

LEARNING OBJECTIVE 4

Define the two major bill types used in healthcare firms.

BILLING AND CLAIMS PREPARATION

For most healthcare providers medical claims fall into one of two types: CMS-1500 and CMS-1450 (UB-04). The CMS-1500 form is used by noninstitutional providers and suppliers to submit claims to Medicare and many other payers. The HCFA-1450 or UB-04 is used by institutional providers to submit claims to Medicare and most other payers. Sample copies of both a CMS-1500 and a UB-04 are shown in Appendix 2–A.

Table 2–8 Partial Chargemaster File

Item Code	*Item Description*	*Dept Num*	*Standard Price ($)*	*Revenue Code*	*HCPCS*
3023001	DAILY CARE FOURTH NORTH	13030	665.50	111	
3120000	DAILY CARE ICU	13120	1,172.50	200	
4156159	MINERAL OIL 30ML	13190	11.50	250	
4400206	SINGLE TOWEL	14430	2.25	270	
4440302	HEP C ANTIBODIES-0288	14440	53.50	300	86803
4470220	HAND XRAY-0183	14470	102.50	320	73130
4472538	C/T PELVIS W & W/O ENHANCEMENT	14302	1,069.75	350	72194
4416000	LASIK SURGERY—PER EYE	13190	2,105.25	360	66999
4416013	O.R. MINOR CHARGE—0.5 HOUR	13190	556.75	360	
4416014	O.R. MINOR CHARGE—1 HOUR	13190	770.75	360	
4416015	O.R. MINOR CHARGE—1.5 HOURS	13190	983.00	360	
4416016	O.R. MINOR CHARGE—2 HOURS	13190	1,197.25	360	
4416017	O.R. MINOR CHARGE—2.5 HOURS	13190	1,409.25	360	
4416018	O.R. MINOR CHARGE—3 HOURS	13190	1,622.25	360	
4520013	ANESTHESIA MINOR—0.5 HOUR	14520	110.25	370	
4520014	ANESTHESIA MINOR—1 HOUR	14520	151.25	370	
4520015	ANESTHESIA MINOR—1.5 HOURS	14520	192.75	370	
4520016	ANESTHESIA MINOR—2 HOURS	14520	233.00	370	
4520017	ANESTHESIA MINOR—2.5 HOURS	14520	274.75	370	
4520018	ANESTHESIA MINOR—3 HOURS	14520	317.00	370	
3167020	BLOOD TRANSFUSION	13160	303.25	391	36430
4532057	MASSAGE, 8 MINS	14532	21.00	420	97124
3050717	EVALUATION—OT	13050	130.00	430	97003
3160001	EMERG DEPT OBSERVATION 0–3HRS	13160	241.25	450	99218
3160002	EMERG DEPT OBSERVATION 3–6HRS	13160	406.00	450	99218
3160003	EMERG DEPT OBSERVATION 6–12HRS	13160	492.00	450	99219
3160004	EMERG DEPT OBSERV. OVER 12 HRS	13160	592.75	450	99220
4465350	OUTPAT VISIT LEVEL 1 (NEW)	14465	78.50	510	99201
4465351	OUTPAT VISIT LEVEL 2 (NEW)	14465	92.25	510	99202
4465352	OUTPAT VISIT LEVEL 3 (NEW)	14465	112.50	510	99203
4465353	OUTPAT VISIT LEVEL 4 (NEW)	14465	159.75	510	99204
4465354	OUTPAT VISIT LEVEL 5 (NEW)	14465	$209.00	510	99205

Most claims in today's environment are submitted in an electronic format. Usually, claims are submitted directly to the payer or indirectly to a "clearinghouse" where the claims are grouped and then sent to the appropriate payer. The HIPAA administrative simplification provisions direct the Secretary of Health and Human Services to adopt standards for administrative transactions, code sets, and identifiers as well as standards for protecting the security and privacy of health data. After October 16, 2003, all providers who were not small providers (institutional organizations with fewer than 25 full-time employees or physicians with fewer than 10 full-time employees) had to send all claims electronically in the HIPAA format.

The electronic format required under HIPAA is 837I for the UB-04 and 837P for the CMS-1500. These formats specify both the nature of data exchange and the required data fields. There have been a few additional data elements included in the 837I and 837P protocols that were not in the current CMS-1500 and UB-04 claim forms.

Two primary payment grouping algorithms are DRGs and APCs, both of which are used by Medicare for hospital payment and also many commercial payers. Both

Table 2–9 Revenue Code Categories

	Accommodation Revenue Codes
010X	All-Inclusive Rate
011X	R&B–Private (Medical or General)
012X	R&B–Semiprivate (2 Beds) (Medical or General)
013X	Semiprivate (3 and 4 Beds)
014X	Private (Deluxe)
015X	R&B–Ward (Medical or General)
016X	Other R&B
017X	Nursery
018X	LOA
019X	Subacute Care
020X	Intensive Care
021X	Coronary Care
	Ancillary Services Revenue Codes
022X	Special Charges
023X	Incremental Nursing Care Rate
024X	All-Inclusive Ancillary
025X	Pharmacy (See also 063X, an extension of 025X)
026X	IV Therapy
027X	Medical/Surgical Supplies and Devices (See also 062X, an extension of 027X)
028X	Oncology
029X	DME (Other than Renal)
030X	Laboratory
031X	Laboratory Pathological
032X	Radiology–Diagnostic
033X	Radiology–Therapeutic and/or Chemotherapy Administration
034X	Nuclear Medicine
035X	Computed Tomographic TCPScans
036X	Operating Room Services
037X	Anesthesia
038X	Blood
039X	Blood and Blood Component Administration, Processing and Storage
040X	Other Imaging Services
041X	Respiratory Services
042X	Physical Therapy
043X	Occupational Therapy
044X	Speech-Language Pathology
045X	Emergency Room
046X	Pulmonary Function
047X	Audiology
048X	Cardiology
049X	Ambulatory Surgical Care
050X	Outpatient Services
051X	Clinic
052X	Freestanding Clinic
053X	Osteopathic Services
054X	Ambulance
055X	Skilled Nursing
056X	Medical Social Services

Table 2–9 *continued*

Ancillary Services Revenue Codes	
057X	Home Health—Home Health Aide
058X	Home Health—Other Visits
059X	Home Health—Units of Service
060X	Oxygen (Home Health)
061X	Magnetic Resonance Technology (MRT)
062X	Medical/Surgical Supplies (Extension of 027X)
063X	Pharmacy—Extension of 025X
064X	Home IV Therapy Services
065X	Hospice Service
066X	Respite Care
067X	Outpatient Special Residence Charges
068X	Trauma Response
069X	Not Assigned
070X	Cast Room
071X	Recovery Room
072X	Labor Room/Delivery
073X	EKG/ECG (Electrocardiogram)
074X	EEG (Electroencephalogram)
075X	Gastrointestinal Services
076X	Treatment or Observation Room
077X	Preventive Care Services
078X	Telemedicine
079X	Extra-Corporeal Shock Wave Therapy
080X	Inpatient Renal Dialysis
081X	Acquisition of Body Components
082X	Hemodialysis—Outpatient or Home
083X	Peritoneal Dialysis—Outpatient or Horne
084X	CAPD—Outpatient or Home
085X	CCPD—Outpatient or Home
086X	Reserved for Dialysis (National Assignment)
087X	Reserved for Dialysis (State Assignment)
088X	Miscellaneous Dialysis
089X	Reserved for National Assignment
090X	Behavioral Health Treatments/Services (See also 091X, an extension of 090X)
091X	Behavioral Health Treatments/Services—Extension of 090X
092X	Other Diagnostic Services
093X	Medical Rehabilitation Day Program
094X	Other Therapeutic Services
095X	Other Therapeutic Services—Extension of 094X
096X	Professional Fees (See also 097X and 098X)
097X	Professional Fees (Extension of 096X)
098X	Professional Fees (Extension of 096X and 097X)
099X	Patient Convenience Items
100X	Behavioral Health Accommodations
101X–209X	Reserved for National Assignment
210X	Alternative Therapy Services
211X–300X	Reserved for National Assignment
310X	Adult Care
311X–999X	Reserved for National Assignment

DRGs and APCs are assigned based on data in the UB-04. A DRG is often assigned depending on values found in the UB-04 for ICD-9 procedure codes and ICD-9 diagnosis codes. Surgical procedures require an ICD-9 procedure code and may also require an ICD-9 diagnosis code. A medical DRG requires one or more ICD-9 diagnosis codes. Note that in the UB-04 form in Appendix 2–A there are spaces allowed for a principal diagnosis code and up to eight additional diagnosis codes. There is also a field for the principal procedure, and up to five additional procedures may be coded. Many diagnosis and procedure codes may group to more than one DRG. A complete review of the DRG title is necessary to understand the correct DRG assignment. To illustrate this concept, let's examine the following related DRGs:

- DRG 689 Kidney and Urinary Tract Infections with Major Complications or Comorbidities (MCC)
- DRG 690 Kidney and Urinary Tract Infections without Major Complications or Comorbidities (MCC)

Both of the above DRGs have a common set of diagnosis codes from which one must be present to assign a patient to one of these DRGs. ICD-9 diagnosis code 599.0 (Infection, Urinary Tract, Site Not Specified) is one of a list of diagnosis codes that would qualify. If the patient did not present with any complications or comorbidities, he or she would be grouped to MS-DRG 690, which carries a lower weight and payment. Examples of common complications or comorbidities would be specific types of congestive heart failure, certain diabetes conditions, and specific anemia cases. If the patient did present with a complication or comorbidity approved by Medicare, then the patient would receive the higher weighted MS-DRG assignment (MS-DRG 689), which would provide greater reimbursement for the hospital. A list of MS-DRG weights can be found in Appendix 3–A.

Medicare payment for hospital outpatient services shifted to APC payment in 2000. Each APC is related to one or more HCPCS/CPT codes. The assignment of HCPCS/CPT codes is presented in the UB-04 claim form in field locator (FL) #44 HCPCS/Rates. For many inpatient claims there may be no HCPCS/CPT codes presented. The sample claim in Appendix 2–A is for an inpatient claim, and no HCPCS codes are presented. Items are aggregated at the revenue code level. For example, all laboratory procedures are grouped under Revenue Code 300. Outpatient claims, however, show detailed procedures, and HCPCS/CPT codes will be present. For example, APC 0005 (Level II Needle Biopsy/Aspiration Except Bone Marrow) may be assigned if one of the following CPT codes is present: 19102, 20206, 38505, and 42400. The key point to remember is that for an APC to be assigned, an HCPCS code must be present. Multiple HCPCS codes may map to one APC code, but any given HCPCS code maps to one and only one APC.

LEARNING OBJECTIVE 5

Appreciate the role of claims editing in the bill submission process.

CLAIMS EDITING

Both providers and payers use claims editing software to detect possible errors in claim submission. From the provider's perspective they are interested in two major objectives. First, they want to ensure they receive the maximum payment for the medical services delivered to their patients. Second, providers want to shorten the amount of time from claim submission to actual payment. Payers have a similar set of incentives except they are reversed. Payers do not want to make payment in an amount that is greater than the amount of their obligation. Payers also would like to delay payment as long as possible without violating state payment laws or contract discount terms.

Most large providers use some type of automated software for editing claims that are to be submitted to payers. These software packages check for a large number of possible errors. First, the software determines whether the requisite information for submitting a "clean claim" is present in the claim, such as the correct spelling of the patient's name and the presence of the social security or healthcare plan identification, diagnosis and procedure codes, and the date of service as well as many other possible conditions. The second set of conditions that are often tested deal with the internal validity of the claim. Is the procedure consistent with the gender of the patient? Was there an injection procedure included in the claim but no injectable drug listed? Many of these edit checks may be internally developed, but a large

number of them may also be related to uniform claim edits developed by Medicare.

CMS developed the National Correct Coding Initiative to promote national correct coding methodologies and to control improper coding that leads to inappropriate payment of Part B health insurance claims. The coding policies developed are based on coding conventions defined in the American Medical Association's CPT codes, national and local policies and edits, coding guidelines developed by national societies, analysis of standard medical and surgical practice, and review of correct coding practice.

The National Correct Coding Initiative edits identify pairs of services that normally should not be billed by the same physician for the same patient on the same day. The National Correct Coding Initiative includes two types of edits:

- Comprehensive/component edits identify code pairs that should not be billed together because one service inherently includes the other.
- Mutually exclusive edits identify code pairs that, for clinical reasons, are unlikely to be performed on the same patient on the same day. For example, a mutually exclusive edit might identify two different types of testing that yield equivalent results.

CMS has designated a series of specific edit checks that are used in determining hospital outpatient claim status. These edit checks are referred to as outpatient code edits (OCE) and at the time of this writing included 83 specific edit checks.

The OCE uses claim-level and line item–level information in the editing process. The claim-level information includes such data elements as "from" and "through" dates, ICD-9-CM diagnosis codes, type of bill, age, gender, and so on. The line-level information includes such data elements as HCPCS code with up to two modifiers, revenue code, and service units.

Each OCE results in one of six different dispositions. The dispositions help to ensure that all fiscal intermediaries are following similar procedures. There are four claim-level dispositions:

- Rejection: Claim must be corrected and resubmitted.
- Denial: Claim cannot be resubmitted but can be appealed.
- Return to provider: Problems must be corrected and claim resubmitted.
- Suspension: Claim requires further information before it can be processed.

There are two line item–level dispositions:

- Rejection: Claim is processed but line item is rejected and can be resubmitted later.
- Denial: Claim is processed but line item is rejected and cannot be resubmitted.

This area of coding edits is very complex but extremely important to the provider's ultimate payment. Sometimes the code edits do not appear to be consistent. For example, OCE edit #43 specifies that when a blood transfusion procedure code is present in the claim but there was no related blood product present, the claim is returned to the provider. There is no related OCE to detect the reverse situation, however. A blood product may be present but no transfusion procedure included. In this situation Medicare pays for the blood product, but the provider loses payment for the transfusion procedure. This is an example of an edit that is most likely added to many hospital claims editor programs.

SUMMARY

Accurate billing and coding are essential to a healthcare firm's financial survival. This is a very complex area that requires the input of billing and coding professionals. In many healthcare firms, the billing and coding functions may report to the chief financial officer because of their integral relation to revenue generation. Failure to capture all charges associated with a patient encounter can result in significant lost revenue. Some estimates of lost charges run as high as 5% of total charges. Given the relatively low margins for most healthcare firms, this could be a catastrophic loss.

Most claims are submitted electronically to payers and must now be consistent with HIPAA provisions that govern electronic data interchange submissions. Healthcare claims are unique in many respects, but coding is an area of special importance. In most other business settings, a bill simply lists the items purchased or services rendered. In healthcare firms the charge codes describing the services or products must be related to standard procedure codes and supplemented with diagnosis codes to document the legitimacy of the services. These codes can and do have a major role in not only the amount of payment received, but also the timeliness of that payment. Claims editing software is widely used by healthcare providers to ensure the accuracy of their claims before submission.

ASSIGNMENTS

1. A hospital submitting an outpatient claim would use a UB-04 claim form. What source of coding information is used to report diagnosis codes? What source of coding information is used to report procedures?

2. Elective procedures often require prior approval from the patient's insurance company. What is this approval process often called?

3. From what types of coding information must the following codes be derived:

   - 453.41 Venous Embolism and Thrombosis of Deep Vessels of Proximal Lower Extremity
   - 84.55 Insertion of Bone Void Filler
   - 69090 Ear Piercing
   - G0283 Electrical Stimulation

4. Including an HCPCS/CPT code directly in the charge master is called what?

5. Many DRGs are in pairs that differ by the term with complications or comorbidities (cc) or without cc. The DRG that has the cc is usually paid at a higher rate. What can cause a DRG without cc to be changed to a DRG with cc?

6. A payer may delay or deny payment because of inaccurate or missing information in a submitted claim. Many contracts require payment with a specified period of time (e.g., 30 days) from submission of a "clean claim." How can providers of healthcare services avoid submitting claims that may be rejected?

7. The Medicare intermediary has returned a claim to a hospital because of OCE violation #1: invalid diagnosis code. This would imply that the procedure performed is not supported by the diagnosis code. What action can the provider take to get this claim paid?

SOLUTIONS AND ANSWERS

1. ICD-9 diagnosis codes are used to report diagnosis information on a UB-04 for both hospital inpatient and outpatient claims. HCPCS codes are used to report procedure codes for hospital outpatient claims.

2. Precertification.

3. 453.41(ICD-9 Diagnosis Code), 84.55 (ICD-9 Procedure Code), 69090 (Level I HCPCS/CPT Code), G0238(Level II HCPCS Code).

4. Static coding.

5. Although a number of factors may lead to the designation of "with cc," the presence of additional diagnosis codes such as anemia or diabetes can often change the coding to a "with cc" designation. This illustrates the importance of good physician documentation in the medical record and accurate transcription from the medical record to the claim form.

6. Insurance of clean claim submission often starts at registration. Accurate collection of patient and related insurance information is critical in the claims submission process. Claims editing software can also check for issues that may result in claims denial before submission.

7. Because this is an OCE violation where the claim is returned to the provider, the provider can correct the diagnosis code and resubmit for payment. Ideally, a good claims editing system would have caught this problem before submission.

Appendix 2–A

Sample UB–04 Form and Sample CMS–1500 Form

SAMPLE UB–04 FORM

1 ABC Medical Center
PO Box 1713
Columbus, OH 43210
614-722-9614

2

3a PAT. CNTL # 13504295
b. MED. REC. # 404390000003
4 TYPE OF BILL 111
5 FED. TAX NO. 311054871
6 STATEMENT COVERS PERIOD FROM 080010 THROUGH 081410
7

8 PATIENT NAME a Brutus Buckeye
9 PATIENT ADDRESS a 00 Buckeye Lane, Columbus, OH 43210

10 BIRTHDATE	11 SEX	12 ADMISSION DATE	13 HR	14 TYPE	15 SRC	16 DHR	17 STAT	18–28 CONDITION CODES	29 ACDT STATE	30
01301960	M	080906	06	8	1	14	01			

31–34 OCCURRENCE CODE / DATE; 35–36 OCCURRENCE SPAN CODE / FROM / THROUGH; 37

38 Brutus Buckeye
00 Buckeye Lane
Columbus, OH 43210

39 VALUE CODES: a CODE 01 AMOUNT 444 00
40 VALUE CODES CODE AMOUNT
41 VALUE CODES CODE AMOUNT

42 REV. CD.	43 DESCRIPTION	44 HCPCS / RATE / HIPPS CODE	45 SERV. DATE	46 SERV. UNITS	47 TOTAL CHARGES	48 NON-COVERED CHARGES	49
110	Room board, pvt	447 00		5	2,235.00	15.00	
250	Pharmacy			61	674.87		
253	Drugs, take home			65	88.75	88.75	
259	Other Pharmacy			27	151.38		
270	Medsur supplies			40	1,603.82		
278	Supply Implants			5	2,969.55		
300	Laboratory			3	228.50		
310	Path Lab			6	589.00		
360	OR services			29	7,662.00		
370	Anesthesia			3	1,108.05		
410	Respiratory Services			1	8.65		
710	Recovery Room			2	391.00		
999	Pt convenience			1	7.20	7.20	
001	PAGE 1 OF 1	CREATION DATE	081910	TOTALS	17,697.77	110.96	

50 PAYER NAME	51 HEALTH PLAN ID	52 REL. INFO	53 ASG. BEN.	54 PRIOR PAYMENTS	55 EST. AMOUNT DUE	56 NPI
Central Benefits	230147	Y	Y			

57 OTHER PRV ID

58 INSURED'S NAME	59 P.REL	60 INSURED'S UNIQUE ID	61 GROUP NAME	62 INSURANCE GROUP NO.
Brutus Buckeye	08	000 00 0000		

63 TREATMENT AUTHORIZATION CODES
64 DOCUMENT CONTROL NUMBER
65 EMPLOYER NAME

66 DX 52469 5180 52461 72210
68

69 ADMIT DX 52469
70 PATIENT REASON DX
71 PPS CODE
72 ECI
73

74 PRINCIPAL PROCEDURE CODE	DATE	a. OTHER PROCEDURE CODE	DATE	b. OTHER PROCEDURE CODE	DATE
765	081410	247	081410		

c. OTHER PROCEDURE CODE DATE
d. OTHER PROCEDURE CODE DATE
e. OTHER PROCEDURE CODE DATE
75

76 ATTENDING NPI TZ AC 198x QUAL
LAST FIRST
77 OPERATING NPI QUAL
LAST FIRST
78 OTHER NPI QUAL
LAST FIRST
79 OTHER NPI QUAL
LAST FIRST

80 REMARKS
81CC a b c d

UB-04 CMS-1450
© 2005 NUBC
OMB APPROVAL PENDING
NUBC National Uniform Billing Committee LIC9213257
THE CERTIFICATIONS ON THE REVERSE APPLY TO THIS BILL AND ARE MADE A PART HEREOF.

Source: Center for Medicare and Medicaid Services.

SAMPLE CMS–1500 FORM

HEALTH INSURANCE CLAIM FORM

1. MEDICARE ☐ (Medicare #)	MEDICAID ☐ (Medicaid #)	CHAMPUS ☐ (Sponsor SSN)	CHAMPVA ☐ (VA File #)	GROUP HLTH PLAN ☐ (SSN or ID)	FECA BLK LUNG ☐ (SSN)	OTHER ☐ (ID)	1a. INSURED'S I.D. NUMBER (FOR PROGRAM IN ITEM 1)
2. PATIENT'S NAME (Last, First, MI)		3. PATIENT'S DATE OF BIRTH MM DD YY SEX M ☐ F ☐					4. INSURED'S NAME (Last, First, MI)
5. PATIENT'S ADDRESS (No., Street)		6. PATIENT RELATIONSHIP TO INSURED Self ☐ Spouse ☐ Child ☐ Other ☐					7. INSURED'S ADDRESS (No., Street)
CITY	STATE	8. PATIENT STATUS Single ☐ Married ☐ Other ☐					CITY / STATE
ZIP CODE / TELEPHONE (Incl Area Code)		Employed ☐ Full-Time Student ☐ Part-Time Student ☐					ZIP CODE / TELEPHONE (Incl. Area Code)
9. OTHER INSURED'S NAME (Last, First, MI)		10. IS PATIENT'S CONDITION RELATED TO:					11. INSURED'S POLICY GROUP OR FECA NUMBER
a. OTHER INSURED'S POLICY OR GROUP NUMBER		a. EMPLOYMENT? (Current or Previous) YES ☐ NO ☐					a. INSURED'S DATE OF BIRTH MM DD YY SEX M ☐ F ☐
b. OTHER INSURED'S DATE OF BIRTH MM DD YY SEX M ☐ F ☐		b. AUTO ACCIDENT? YES ☐ NO ☐ PLACE (State)					b. EMPLOYER'S NAME OR SCHOOL NAME
c. EMPLOYER'S NAME OR SCHOOL NAME		c. OTHER ACCIDENT? YES ☐ NO ☐					c. INSURANCE PLAN NAME OR PROGRAM NAME
d. INSURANCE PLAN NAME OR PROGRAM NAME		10d. RESERVED FOR LOCAL USE					d. IS THERE ANOTHER HEALTH BENEFIT PLAN? YES ☐ NO ☐ If yes, return to and complete item 9a–d
READ BACK OF FORM BEFRE COMPLETING & SIGNING THIS FORM. 12. PATIENT'S OR AUTHORIZED PERSON'S SIGNATURE I authorize the release of any medical or other information necessary to process this claim. I also request payment of government benefits either to myself or to the party who accepts assignment below. SIGNED _____ DATE _____							13. INSURED'S OR AUTHORIZED PERSON'S SIGNATURE I authorize payment of medical benefits to the undersigned physician or Supplier for services described below. SIGNED _____
14. DATE OF CURRENT: MM DD YY ILLNESS (First symptom) OR INJURY (Accident) OR PREGNANCY (LMP)		15. IF PATIENT HAS HAD SAME OR SIMILAR ILLNESS, GIVE FIRST DATE MM DD YY					16. DATES PATIENT UNABLE TO WORK IN CURRENT OCCUPATION MM DD YY MM DD YY FROM TO
17. NAME OF REFERRING PHYSICIAN		17a. ID NUMBER OF REFERRING PHYSICIAN					18. HOSPITALIZATION DATES RELATED TO CURRENT SERVICES MM DD YY MM DD YY FROM TO
19. RESERVED FOR LOCAL USE							20. OUTSIDE LAB? ☐ YES ☐ NO $ CHARGES
21. DIAGNOSIS OR NATURE OF ILLNESS OR INJURY (RELATE ITEMS 1,2,3 OR 4 TO ITEM 24E BY LINE) 1. 3. 2. 4.							22. MEDICAID RESUBMISSION CODE ORIGINAL REF. NO. 23. PRIOR AUTHORIZATION NUMBER

24. A DATE(S) OF SERVICE From MM DD YY	To MM DD YY	B Place of Service	C Type of Service	D PROCEDURES, SERVICES, OR SUPPLIES (Explain Unusual Circumstances) CPT/HCPCS	MODIFIER	E DIAGNOSIS CODE	F $ CHARGES	G DAYS OR UNITS	H EPSDT Family Plan	I EMG	J COB	K RESVD FOR LOCAL USE

25. FEDERAL TAX ID NUMBER SSN EIN ☐ ☐	26. PATIENT'S ACCOUNT NO.	27. ACCEPT ASSIGNMENT? (For govt. claims, see back) ☐ YES ☐ NO	28. TOTAL CHARGE $	29. AMOUNT PAID $	30. BALANCE DUE $

31. SIGNATURE OF PHYSICIAN OR SUPPLIER INCLUDING DEGREES OR CREDENTIALS (I certify that the statements on the reverse apply to this bill and are made a part thereof.) SIGNED _____ DATE _____	32. NAME AND ADDRESS OF FACILITY WHERE SERVICES WERE RENDERED (If other than home or office)	33. PHYSICIAN'S, SUPPLIER'S BILLING NAME, ADDRESS, ZIP CODE & PHONE # PIN # GRP #

FORM HCFA-1500

Source: Center for Medicare and Medicaid Services.