

Healthcare Coding, Billing & Reimbursement Overview

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Presentation outline

- Part I: Healthcare coding
 - *Coding overview*
 - *ICD-9-CM and ICD-10-CM codes*
 - *CPT and HCPCS codes*
 - *Revenue codes*
 - *MS-DRGs*
 - *APCs*
- Part II: Billing and claim adjudication
 - *Professional claim form: CMS-1500*
 - *Facility claim form: UB-04*
 - *Typical billing process*
- Part III: Reimbursement
 - *Hospital reimbursement methods*
 - *Physician reimbursement methods*



Part I: Healthcare coding – coding overview

- Part I: Healthcare coding
 - **Coding overview**
 - ICD-9-CM and ICD-10-CM codes
 - CPT and HCPCS codes
 - Revenue codes
 - MS-DRGs
 - APCs
- Part II: Billing and claim adjudication
- Part III: Reimbursement



Healthcare coding overview – major types of codes used in the healthcare industry today

- International Classification of Diseases, 9th Revision, Clinical Modification (ICD-9-CM)
 - ICD-9 diagnosis
 - ICD-9 procedure
- ICD-10-CM
 - ICD-10 diagnosis
 - ICD-10-PCS (Procedure Coding System)
- HCFA Common Procedure Coding System (HCPCS)
 - Level 1 – Current Procedural Terminology, 4th Edition (**CPT-4** or **CPT**)
 - Level II – **HCPCS Level II** or **HCPCS**
- **Revenue codes**
- Medicare Severity Diagnosis Related Groups (**MS-DRGs**)
- Ambulatory Patient Classifications (**APCs**)
- National Drug Codes (**NDCs**)



Healthcare coding overview – claims submission

- Providers submit claims for health services on one of the following two bill types:
 - **CMS-1500 – professional paper claim form** – used by physicians, therapists, and other professionals
 - **UB-04 – institutional paper claim form** – used by facilities including hospitals, surgery centers, skilled nursing facilities, home health agencies, some transportation providers, etc.



Types of codes associated with CMS-1500

□ Diagnosis codes

- must always be at least one (can be more) **ICD-9 diagnosis** code on a CMS-1500
- applies to that particular visit
- each procedure code must have a related ICD-9 diagnosis code
- describes the patient's condition, not what was performed
- generally does not affect reimbursement for professional services, although is useful for physician profiling and for matching level of service to the patient's condition (used as a claim audit tool to match ICD-9 to CPT)

Types of codes associated with CMS-1500 (con't.)

□ Procedure codes

- physicians and most other non-physician healthcare providers use **CPT** codes to reflect services performed
- a CPT code is assigned for each procedure done during that visit
- **Level II HCPCS** codes are also used to reflect supplies, drugs, medical devices, etc. provided during the visit
- CPT and HCPCS Level II codes determine reimbursement
- most payors have developed fee schedules for most CPT and HCPCS Level II codes (with some exceptions which are typically paid based on a percent of charges)



Types of codes associated with CMS-1500 (con't.)

- Which codes are not on a CMS-1500?
 - MS-DRGs (used only for hospital inpatient claims)
 - ICD-9 procedure codes (used only on facility claims)
 - APCs (used only for hospital and other facility outpatient claims)
 - Revenue codes (used only for hospitals and other facility claims)

Sample institutional claim form (UB-04)

Revenue codes

ICD-9-CM Diagnosis codes

ICD-9-CM Procedure codes

CPT or HCPCS codes

The form includes sections for:

- 1. Patient Name and Address
- 2. Birthdate, Sex, Admission Date, and Discharge Date
- 3. Occurrence Dates for various services
- 4. Revenue Codes (41-46) and Amounts (47-48)
- 5. ICD-9-CM Diagnosis Codes (71-73)
- 6. ICD-9-CM Procedure Codes (74-76)
- 7. Insurance Information (81-85)
- 8. Treatment Authorization Codes (83-85)
- 9. Attending Physician Information (79-80)



Types of codes associated with UB-04

□ **ICD-9 Diagnosis codes**

- describes the patient's condition, not what was performed
- assigned at discharge for the entire encounter
- principal ICD-9 diagnosis code always required; this is the condition established after study to be chiefly responsible for the encounter, even though another diagnosis may be more severe
- can include additional diagnosis codes
- admission diagnosis code (reason for admission) required for certain inpatient admissions



Types of codes associated with UB-04 (con't.)

□ **ICD-9 Procedure codes**

- assigned for all major procedures performed while in the hospital (e.g., surgeries, MRI, CT, cardiac cath, other procedures); not all claims have ICD-9 procedure codes (e.g., medical admissions, some outpatient procedures)

□ **Revenue and CPT/HCPCS codes**

- services and supplies provided to the patient are summarized by **revenue code**; for certain revenue codes, an associated **CPT** or **HCPCS Level II** code is also required



Types of codes associated with UB-04 (con't.)

□ **MS-DRG and APC codes**

- MS-DRG codes apply only to inpatient admissions and are derived from ICD-9 codes and patient demographic information
- APC codes apply only to outpatient encounters and are derived from CPT and HCPCS Level II codes

□ Organization of codes on the UB-04

- Top of UB-04: information re: facility, patient, admission and discharge, specific conditions for that encounter
- Middle: charge roll-up, organized by revenue code
- Bottom: ICD-9 diagnosis and ICD-9 procedure codes; practitioner information



Why is Medicare relevant for commercial coding and reimbursement?

- Most health plans follow Medicare coding and billing guidelines
- Many health plans base their reimbursement methods on Medicare's methods
- Some key Medicare terms
 - **HCFA** – the *Health Care Financing Administration*, which is the former name of what is now called the Centers for Medicare and Medicaid Services (**CMS**); this federal agency is under the Secretary of Health and Human Services and administers the Medicare program
 - **Medicare carriers and intermediaries** – private organizations and companies which contract with CMS to administer the Medicare program



Part I: Healthcare coding – ICD-9-CM and ICD-10-CM codes

- Part I: Healthcare coding
 - Coding overview
 - **ICD-9-CM and ICD-10-CM codes**
 - CPT and HCPCS codes
 - Revenue codes
 - MS-DRGs
 - APCs
- Part II: Billing and claim adjudication
- Part III: Reimbursement



ICD-9-CM codes – overview

- The International Classification of Diseases (ICD) is updated and maintained by the World Health Organization (WHO)
- ICD-9-CM developed in 1970s
 - WHO's 9th revision of ICD (ICD-9) had attained wide international recognition by 1970s
 - The U.S. National Center for Health Statistics, part of Centers for Disease Control, modified ICD-9 with clinical information



ICD-9-CM codes – overview (con't.)

- ICD-9-CM developed in 1970s (continued)
 - These clinical modifications provided a way to classify morbidity data for indexing of medical records, medical case reviews, and ambulatory and other medical care programs, as well as for basic health statistics
 - Result was the **International Classification of Diseases, 9th Revision, Clinical Modification (ICD-9-CM)**, commonly referred to as **ICD-9**, which precisely delineates the clinical picture of each patient, providing exact information beyond that needed for statistical groupings and analysis of healthcare trends



Billing forms that use ICD-9

- Professional (CMS-1500)
 - diagnosis codes
 - V-codes
 - E-codes
- Institutional (UB-04)
 - diagnosis codes
 - V-codes
 - E-codes
 - procedure codes



Types of ICD-9 codes

- Volumes 1 (tabular listing) and 2 (index)
 - Diagnosis codes
 - V-codes
 - E-codes
- Volume 3
 - Procedure codes – only for hospitals



ICD-9 diagnosis codes

- ❑ 3 digits followed by a decimal, then followed by no, 1, or 2 digits
- ❑ All claims, whether CMS-1500 or UB-04, must have at least one ICD-9 diagnosis code
- ❑ On UB-04, the first diagnosis code must describe the principal reason for the care provided
- ❑ If additional facts are required to substantiate the care provided, providers should list the ICD-9 codes in the order of their importance



ICD-9 diagnosis codes (con't.)

- Providers should code only the current condition that prompted the patient's visit
 - many times a patient has a long list of chronic complaints that are not the reason for the specific visit
 - providing nonessential information of this nature can cloud the determination of medical necessity and delay payment
- Chronic complaints should be coded only when the patient has received treatment for the condition
- When the diagnostic statement identifies an acute condition, providers should use the code that specifies “acute” whenever it is available



ICD-9 diagnosis codes (con't.)

- Providers should be as specific as possible in specifying diagnosis (i.e., code to the highest level of specificity)
- When the diagnostic statement is general or generic, coders need to investigate further
 - they should go back to the medical record
 - if the information is not available in the record, they should ask questions of the physician or care provider
- Coders should code only what is documented in the medical record or chart



ICD-9 diagnosis codes – major categories

001-139 Infectious and parasitic diseases

140-239 Neoplasms

240-279 Endocrine, nutritional and metabolic diseases, and immunity disorders

280-289 Diseases of the blood and blood-forming organs

290-319 Mental disorders

320-389 Diseases of the nervous system and sense organs

390-459 Diseases of the circulatory system

460-519 Diseases of the respiratory system

520-579 Diseases of the digestive system

580-629 Diseases of the genitourinary system

630-679 Complications of pregnancy, childbirth, and the puerperium

680-709 Diseases of the skin and subcutaneous tissue

710-739 Diseases of the musculoskeletal system and connective tissue

740-759 Congenital anomalies

760-779 Certain diseases originating in the perinatal period

780-799 Symptoms, signs, and ill-defined conditions

800-999 Injury and poisoning

E000-E999 Supplementary classification of external causes of injury and poisoning

V01-V91 Supplementary classification of factors influencing health status and contact with health services

ICD-9 diagnosis codes – example

320-389 Diseases of the nervous system and sense organs

320-326 Inflammatory diseases of the central nervous system

330-337 Hereditary and degenerative diseases of the central nervous system

338-338 Pain

339-339 Other headache syndromes

340-349 Other diseases of the central nervous system

350-359 Diseases of the peripheral nervous system

360-379 Disorders of the eye and adnexa

360 Disorders of the globe

361 Retinal detachments and defects

362 Other retinal disorders

363 Chorioretinal inflammations, scars, and other disorders of choroid

364 Disorders of iris and ciliary body

365 Glaucoma

366 Cataract

367 Disorders of refraction and accommodation

368 Visual disturbances

369 Blindness and low vision

380-389 Diseases of the ear and mastoid process

370 Keratitis

371 Corneal opacity & other disorders of cornea

372 Disorders of conjunctiva

373 Inflammation of eyelids

374 Other disorders of eyelids

375 Disorders of lacrimal system

376 Disorders of the orbit

377 Disorders of optic nerve and visual pathways

378 Strabismus and other disorders of binocular eye movements

379 Other disorders of eye

ICD-9 diagnosis codes – example (con't.)

- 367 Disorders of refraction and accommodation
 - 367.0 Hypermetropia
 - Far-sightedness
 - Hyperopia
 - 367.1 Myopia
 - Near-sightedness
 - 367.2 Astigmatism
 - 367.20 Astigmatism, unspecified
 - 367.21 Regular astigmatism
 - 367.22 Irregular astigmatism
 - 367.3 Anisometropia and aniseikonia
 - 367.31 Anisometropia
 - 367.32 Aniseikonia
 - 367.4 Presbyopia
 - 367.5 Disorders of accommodation
 - 367.51 Paresis of accommodation
 - Cycloplegia
 - 367.52 Total or complete internal ophthalmoplegia
 - 367.53 Spasm of accommodation
 - 367.8 Other disorders of refraction and accommodation
 - 367.81 Transient refractive change
 - 367.89 Other
 - Drug-induced disorders of refraction and accommodation
 - Toxic disorders of refraction and accommodation
 - 367.9 Unspecified disorder of refraction and accommodation

Coders should always code to the 5th digit wherever possible (highest level of specificity)



V-codes

- ❑ V-codes are used for supplementary classification of factors influencing health status and contact with health services
- ❑ V-codes range from V01-V91
- ❑ Can be one or two digits following the decimal
- ❑ Used for circumstances other than a disease or injury classifiable with ICD-9 diagnosis codes
- ❑ V-codes are reported in the ICD-9 diagnosis fields on CMS-1500 and UB-04
- ❑ V-codes are not used in place of procedure codes



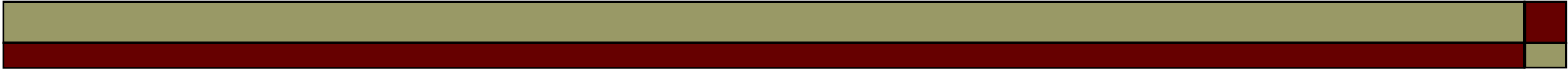
Three main ways that give rise to use of V-codes

- When a person who is not currently sick encounters the health services for some specific purpose
 - to act as a donor of an organ or tissue
 - to receive prophylactic vaccination
 - to discuss a problem which is in itself not a disease or injury
- When a person with a known disease or injury, whether it is current or resolving, encounters the healthcare system for a specific treatment of that disease or injury
 - dialysis for renal disease
 - chemotherapy for malignancy
 - cast changes
- When some circumstance or problem is present which influences the person's health status but is not in itself a current illness or injury
 - a personal history of certain diseases
 - a person with an artificial heart valve in situ



V-codes – categories

- V01-V09 Persons with potential health hazards related to communicable disease
- V10-V19 Persons with potential health hazards related to personal and family history
- V20-V29 Persons encountering health services in circumstances related to reproduction and development
- V30-V39 Liveborn infants according to type of birth
- V40-V49 Persons with a condition influencing their health status
- V50-V59 Persons encountering health services for specific procedures and aftercare
- V60-V69 Persons encountering health services in other circumstances
- V70-V82 Persons without reported diagnosis encountered during examination and investigation of individuals and populations
- V83-V84 Genetics
- V85-V85 Body mass index
- V86-V86 Estrogen receptor status
- V87-V87 Other specified personal exposures and history presenting hazards to health
- V88-V88 Acquired absence of other organs and tissue
- V89-V89 Other suspected conditions not found
- V90-V90 Retained foreign body
- V91-V91 Multiple gestation placenta status



V-codes – example

V30-39 Liveborn infants according to the type of birth

The following fourth-digit subdivisions are for use with categories V30-V39:

- 0 Born in hospital
- 1 Born before admission to hospital
- 2 Born outside hospital and not hospitalized

The following two fifth-digit subdivisions are for use with the fourth digit .0, born in hospital:

- 0 Delivered without mention of cesarean delivery
- 1 Delivered by cesarean delivery

- V30 Single liveborn
- V31 Twin, mate liveborn
- V32 Twin, mate stillborn
- V33 Twin, unspecified
- V34 Other multiple, mates all liveborn
- V35 Other multiple, mates all stillborn
- V36 Other multiple, mates live- and stillborn
- V37 Other multiple, unspecified
- V39 Unspecified



V-codes – example (con't.)

Example: normal newborn girl, born in hospital,
vaginal delivery = V30.00

Example: normal twins, born in hospital by cesarean
delivery = V31.01 for each infant



E-codes

- Used for supplementary classification of external causes of injury and poisoning
- Provided to permit the classification of environmental events, circumstances, and conditions as to the cause of injury, poisoning, and other adverse effects
- When use of an E-code is applicable, it is intended that the E-code is used in addition to a code from one of the main chapters of ICD-9, indicating the nature of the condition
- Reported in the ICD-9 diagnosis fields on CMS-1500 and UB-04
- E-codes not used consistently on injury and poisoning claims, although
 - required on death records for deaths arising from injury
 - primarily used by trauma centers
 - not required by Medicare

E-codes – categories

E000-E000 External cause status

E001-E030 Activity

E800-E807 Railway accidents

E810-E819 Motor vehicle traffic accidents

E820-E825 Motor vehicle nontraffic accidents

E826-E829 Other road vehicle accidents

E830-E838 Water transport accidents

E840-E845 Air and space transport accidents

E846-E849 Vehicle accidents not elsewhere
classifiable

E850-E858 Accidental poisoning by drugs, medicinal
substances, and biologicals

E860-E869 Accidental poisoning by other solid and
liquid substances, gases, and vapors

E870-E876 Misadventures to patients during surgical
and medical care

E878-E879 Surgical and medical procedures as the
cause of abnormal reaction of patient or
later complication, without mention of
misadventure at the time of procedure

E880-E888 Accidental falls

E890-E899 Accidents caused by fire and flames

E900-E909 Accidents due to natural and environmental factors

E910-E915 Accidents caused by submersion, suffocation, and
foreign bodies

E916-E928 Other accidents

E929-E929 Late effects of accidental injury

E930-E949 Drugs, medicinal and biological substances causing
adverse effects in therapeutic use

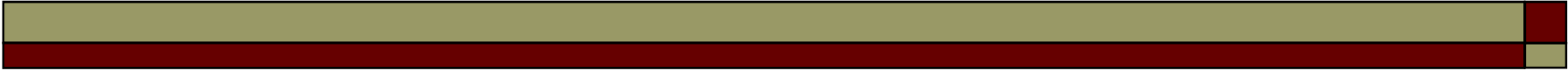
E950-E959 Suicide and self-inflicted injury

E960-E969 Homicide and injury purposely inflicted by other
persons

E970-E978 Legal intervention

E980-E989 Injury undetermined whether accidentally or purposely
inflicted

E990-E999 Injury resulting from operations of war



E-codes – example

E860-869 Accidental poisoning by other solid and liquid substances, gases, and vapors

E860 Accidental poisoning by alcohol, not elsewhere classified

E861 Accidental poisoning by cleansing and polishing agents, disinfectants, paints, and varnishes

E862 Accidental poisoning by petroleum products, other solvents and their vapors, not elsewhere classified

E863 Accidental poisoning by agricultural and horticultural chemical and pharmaceutical preparations other than plant foods and fertilizers

E864 Accidental poisoning by corrosives and caustics, not elsewhere classified

E865 Accidental poisoning from poisonous foodstuffs and poisonous plants

E866 Accidental poisoning by other and unspecified solid and liquid substances

E867 Accidental poisoning by gas distributed by pipeline

E868 Accidental poisoning by other utility gas and other carbon monoxide

E869 Accidental poisoning by other gases and vapors



E-codes – example (con't.)

E863 Accidental poisoning by agricultural and horticultural chemical and pharmaceutical preparations other than plant foods and fertilizers

Excludes: plant foods and fertilizers (E866.5)

E863.0 Insecticides of organochlorine compounds

Benzene hexachloride

Chlordane

DDT

Dieldrin

Endrine

Toxaphene

E863.1 Insecticides of organophosphorus compounds

Demeton

Diazinon

Dichlorvos

Malathion

Methol parathion

Parathion

Phenylsulphthion

Phorate

Phosdrin

E863.2 Carbamates

Aldicarb

Carbaryl

Propoxur



E-codes – example (con't.)

- E863.3 Mixtures of insecticides
- E863.4 Other and unspecified insecticides
 - Kerosene insecticides
- E863.5 Herbicides
 - 2,4-Dichlorophenoxyacetic acid [2, 4-D]
 - 2,4,5-Trichlorophenoxyacetic acid [2, 4, 5-T]
 - Chlorates
 - Diquat
 - Mixtures of plant foods and fertilizers with herbicides
 - Paraquat
- E863.6 Fungicides
 - Organic mercurials (used in seed dressing)
 - Pentachlorophenols
- E863.7 Rodenticides
 - Fluoroacetates
 - Squill and derivatives
 - Thallium
 - Warfarin
 - Zinc phosphide
- E863.8 Fumigants
 - Cyanides
 - Methyl bromide
 - Phosphine
- E863.9 Other and unspecified\



ICD-9 procedure codes

- ❑ 2 digits followed by a decimal, then no, 1, or 2 digits
- ❑ Used to document procedures performed during the encounter
- ❑ Ranked in priority of significance
- ❑ Used only on UB-04 claims
- ❑ A claim may or may not have an ICD-9 procedure code



ICD-9 procedure codes – categories

00-00 Procedures and interventions, not elsewhere classified

01-05 Operations on the nervous system

06-07 Operations on the endocrine system

08-16 Operations on the eye

18-20 Operations on the ear

21-29 Operations on the nose, mouth and pharynx

30-34 Operations on the respiratory system

35-39 Operations on the cardiovascular system

40-41 Operations on the hemic and lymphatic system

42-54 Operations on the digestive system

55-59 Operations on the urinary system

60-64 Operations on the male genital organs

65-71 Operations on the female genital organs

72-75 Obstetrical procedures

76-84 Operations on the musculoskeletal system

85-86 Operations on the integumentary system

87-99 Miscellaneous diagnostic and therapeutic procedures



ICD-9 procedure codes – example

08-16 Operations on the Eye

08 Operations on eyelids

09 Operations on lacrimal system

10 Operations on conjunctive

11 Operations on cornea

12 Operations on iris, ciliary body, sclera, and anterior chamber

13 Operations on lens

14 Operations on retina, choroids, vitreous, and posterior chamber

15 Operations on extraocular muscles

16 Operations on orbit and eyeball

ICD-9 procedure codes – example (con't.)

14 Operations on retina, choroids, vitreous, and posterior chamber

- 14.0 Removal of foreign body from posterior segment of eye
 - Excludes: removal of surgically implanted material (14.6)*
 - 14.00 Removal of foreign body from posterior segment of eye, not otherwise specified
 - 14.01 Removal of foreign body from posterior segment of eye with use of magnet
 - 14.02 Removal of foreign body from posterior segment of eye without use of magnet
- 14.1 Diagnostic procedures on retina, choroids, vitreous, and posterior chamber
 - 14.11 Diagnostic aspiration of vitreous
 - 14.19 Other diagnostic procedures on retina, choroids, vitreous, and posterior chamber
- 14.2 Destruction of lesion of retina and choroids
 - Includes: destruction of chorioretinopathy or isolated chorioretinal lesion*
 - Excludes: that for repair of retina (14.31-14.59)*
 - 14.21 Destruction of chorioretinal lesion by diathermy
 - 14.22 Destruction of chorioretinal lesion by cryotherapy
 - 14.23 Destruction of chorioretinal lesion by xenon arc photocoagulation
 - 14.24 Destruction of chorioretinal lesion by laser photocoagulation
 - 14.25 Destruction of chorioretinal lesion by photocoagulation of unspecified type
 - 14.26 Destruction of chorioretinal lesion by radiation therapy
 - 14.27 Destruction of chorioretinal lesion by implantation of radiation source
 - 14.29 Other destruction of chorioretinal lesion
 - Destruction of lesion of retina and choroids NOS

Coders should code to the 4th digit wherever possible (highest level of specificity)

ICD-9 procedure codes – example (con't.)

- 14.3 Repair of retinal tear
 - Includes: repair of retinal defect*
 - Excludes: repair of retinal detachment (14.41-14.59)*
 - 14.31 Repair of retinal tear by diathermy
 - 14.32 Repair of retinal tear by cryotherapy
 - 14.33 Repair of retinal tear by xenon arc photocoagulation
 - 14.34 Repair of retinal tear by laser photocoagulation
 - 14.35 Repair of retinal tear by photocoagulation of unspecified type
 - 14.39 Other repair of retinal tear
- 14.4 Repair of retinal detachment with scleral buckling and implant
 - 14.41 Scleral buckling with implant
 - 14.49 Other scleral buckling
 - Scleral buckling with:
 - Air tamponade
 - Resection of sclera
 - Vitrectomy
- 14.5 Other repair of retinal detachment
 - Includes: that with drainage*
 - 14.51 Repair of retinal detachment with diathermy
 - 14.52 Repair of retinal detachment with cryotherapy
 - 14.53 Repair of retinal detachment with xenon arc photocoagulation
 - 14.54 Repair of retinal detachment with laser photocoagulation
 - 14.55 Repair of retinal detachment with photocoagulation of unspecified type
 - 14.59 Other



ICD-9 procedure codes – example (con't.)

- 14.6 Removal of surgically implanted material from posterior segment of eye
- 14.7 Operations on vitreous
 - 14.71 Removal of vitreous, anterior approach
 - Open sky technique
 - Removal of vitreous, anterior approach (with replacement)
 - 14.72 Other removal of vitreous
 - Aspiration of vitreous by posterior sclerotomy
 - 14.73 Mechanical vitrectomy by anterior approach
 - 14.74 Other mechanical vitrectomy
 - 14.75 Injection of vitreous substitute
 - Excludes: that associated with removal (14.71-14.72)*
 - 14.79 Other operations on vitreous
- 14.9 Other operations on retina, choroids, and posterior chamber



CMS ICD-9 coding guidelines

- Identify each service, procedure, or supply with an ICD-9 diagnosis code to describe the diagnosis, symptom, complaint, condition, or problem
- Identify services or visits for circumstances other than disease or injury, such as follow-up care after chemotherapy, with V codes provided for this purpose
- Code the principal diagnosis first, followed by the secondary, tertiary, and so on
 - code any coexisting conditions that affect the treatment of the patient for that visit or procedure as supplementary information
 - do not code a diagnosis that is no longer applicable



CMS ICD-9 coding guidelines (con't.)

- Code to the highest degree of specificity
 - carry the numerical code to the fourth or fifth digit when necessary
 - there are only approximately 100 valid three-digit diagnosis codes; all other ICD-9 codes require additional digits
- Code a chronic diagnosis as often as it is applicable to the patient's treatment
- When only ancillary services are provided, list the appropriate V code first and the problem second; for example, if a patient is receiving only ancillary therapeutic services, such as physical therapy, use the V code first, followed by the code for the condition



Implications for chargemaster and reimbursement

- ❑ Not used by providers to set charges
- ❑ ICD-9 codes alone are not typically tied to payor fee schedules, although occasionally some payors use ICD-9 procedure codes to negotiate outpatient facility reimbursement
- ❑ ICD-9 codes drive MS-DRGs, which drive inpatient reimbursement for Medicare and many other payors



ICD-10-CM

- WHO has developed 10th revision of ICD
- Has been in use in most other countries since 1990s
- Notable improvements in content and format over ICD-9-CM
 - addition of information relevant to ambulatory and managed care encounters
 - expanded injury codes
 - creation of combination diagnosis/symptom codes to reduce the number of codes needed to fully describe a condition
 - greater specificity in code assignment
 - will allow further expansion than was possible with ICD-9-CM
 - allows providers to better identify certain patients with specific conditions that will benefit from tailored disease management programs, such as asthma, diabetes, and hypertension
 - Allows for better understanding of relationship of cost to specific medical conditions

Transition from ICD-9 to ICD-10

- ICD-10 includes two sets of codes
 - ICD-10-CM – diagnosis codes
 - Volume 1 – tabular listing
 - Volume 2 – index
 - ICD-10-PCS (Procedure Coding System) – procedure codes, only for providers using a UB-04 (primarily hospitals)
- CMS ruled in Jan. 2009 that compliance date for implementation of ICD-10-CM/PCS is Oct. 1, 2013 for all covered entities, including health plans, clearinghouses, and providers
- To accommodate ICD-10, CMS also mandated transition from version 4010 to version 5010 of the electronic health standards for HIPAA transactions; deadline is Jan. 1, 2012
- Experts advise providers to maintain dual ICD-9 and ICD-10 systems and conversion utilities after Oct. 1, 2013, because not all payors may be ready for ICD-10



Mapping the codes

- ❑ AAPC hosts an ICD-10-CM code translator on its website
- ❑ Software vendors are rolling out ICD-10 applications for smartphones and tablet PCs that can look up codes or convert ICD-9 to ICD-10
- ❑ CMS has embarked on a project to convert MS-DRGs to ICD-10 codes
- ❑ CMS also offers tools called General Equivalence Mapping (GEMS) for clinical modification and procedure coding systems

Comparison of ICD-9 and ICD-10 diagnosis coding

| ICD-9-CM diagnosis codes | ICD-10-CM diagnosis codes |
|---|--|
| 3-5 characters in length | 3-7 characters in length |
| Approximately 13,000 codes | Approximately 68,000 available codes |
| First digit may be alpha (E or V) or numeric; digits 2-5 are numeric | First digit is alpha; digits 2 and 3 are numeric; digits 4-7 are alpha or numeric |
| Limited space for adding new codes | Flexible for adding new codes |
| Lacks detail | Very specific |
| Lacks laterality | Allows laterality and bi-laterality |
| Difficult to analyze data due to non-specific codes | Specificity improves coding accuracy and richness of data for analysis |
| Codes are non-specific and do not adequately define diagnoses needed for medical research | Detail improves the accuracy of data used for medical research |
| Does not support interoperability | Supports interoperability and the exchange of health data between the U.S. and other countries |

Comparison of ICD-9 and ICD-10 procedure coding

| ICD-9-CM procedure codes | ICD-10-CM procedure codes |
|---|---|
| 3-4 numbers in length | 7 alpha-numeric characters in length |
| Approximately 3,000 codes | Approximately 72,600 available codes |
| Based on outdated technology | Reflects current usage of medical terminology and devices |
| Limited space for adding new codes | Flexible for adding new codes |
| Lacks detail | Very specific |
| Lacks laterality | Allows laterality |
| Generic terms for body parts | Detailed descriptions for body parts |
| Lacks description of method and approach for procedures | Provides detailed descriptions of method and approach for procedures |
| Limits DRG assignment | Allows expansion of DRG definitions to recognize new technologies and devices |
| Lacks precision to adequately define procedures | Precisely defines procedures with detail regarding body part, approach, any device used, and qualifying information |

How are ICD-9 and ICD-10 different?

| Diagnosis | ICD-9 | ICD-10 |
|--|--------|--|
| Precordial chest pain | 786.51 | R07.2 |
| Asthma, acute exacerbation | 493.92 | J45.21 Mild, intermittent, w/ acute exacerbation |
| | | J45.41 Moderate, persistent, w/ acute exacerbation |
| | | J45.51 Severe, persistent, w/ acute exacerbation |
| Thumb laceration, w/o nail damage, initial encounter | 883.0 | S61.011A Laceration w/o FB, Rt. S61.012A Laceration w/o FB, Lt. |



Part I: Coding – CPT and HCPCS codes

- Part I: Healthcare coding
 - Coding overview
 - ICD-9-CM and ICD-10-CM codes
 - **CPT and HCPCS codes**
 - Revenue codes
 - MS-DRGs
 - APCs
- Part II: Billing and claim adjudication
- Part III: Reimbursement



What are HCPCS codes?

- HCPCS means **H**CFA **C**ommon **P**rocedure **C**oding **S**ystem
- Allows providers and medical suppliers to report professional services, procedures and supplies
- Developed in 1983 to
 - meet the operational needs of the Medicare and Medicaid programs
 - coordinate government programs by uniform application of HCFA's policies
 - allow providers and suppliers to communicate their services in a consistent manner
 - ensure the validity of profiles and fee schedules through standardized coding
 - enhance medical education and research by providing a vehicle for local, regional, and national utilization comparisons
- Most fee schedules, both for charges and for reimbursement, are built using HCPCS codes



Two levels of HCPCS codes

- Level I – CPT-4 (Current Procedural Terminology, 4th Edition)
- Level II – HCPCS/National codes
- (Level III – local codes – retired in 2003)



Level I – CPT-4

- Developed and maintained by the American Medical Association (AMA)
- Five-digit codes with descriptions
- Developed in 1966
- Updated annually by the AMA
- Six major sections:
 - Evaluation and management (E&M) (99201-99499)
 - Anesthesiology (00100-01999)
 - Surgery (10040-69990)
 - Radiology (70010-79999)
 - Pathology and laboratory (80048-89399)
 - Medicine (90281-99199 and 99500-99999)
- Procedures are divided into subsections according to body part, service, or diagnosis



Level II HCPCS codes

- HCFA developed the second level of HCPCS codes because CPT does not contain all the codes needed to report medical services and supplies
- These codes always begin with a single letter (A through V) followed by 4 numeric digits
- Grouped by type of service or supply they represent
 - A codes – transportation services including ambulance (A0000-A0999), medical and surgical supplies (A4000-A8999), administrative, miscellaneous and investigational (A9000-A9999)
 - B codes – enteral and parenteral therapy
 - C codes – Outpatient Prospective Payment System (OPPS) codes – supply items that insurers may pay in addition to normal supply charges; some codes required by Medicare
 - D codes – dental procedures and supplies

Level II HCPCS codes (con't.)

- Grouped by type of service or supply they represent (continued from prior slide)
 - E codes – durable medical equipment (DME)
 - G codes – temporary procedures & professional services; once CPT codes are assigned, the G codes are removed
 - H codes – rehabilitative services
 - J codes – drugs administered other than oral method (J0000-J8999), chemotherapy drugs (J9000-J9999)
 - K codes – temporary codes for DME regional carriers
 - L codes – orthotics procedures and devices (L0000-L4999), prosthetic procedures and devices (L5000-L9999)
 - M codes – medical services
 - P codes – pathology and laboratory services
 - Q codes – temporary procedures, services and supplies – once CPT codes are assigned, the Q codes are removed
 - R codes – diagnostic radiology services
 - S codes – private payor codes
 - V codes – vision services (V0000-V2999), hearing services (V5000-V5999)
- Updated annually by CMS

CPT codes – E&M example

Evaluation and management (E/M)

Office or other outpatient services

New patient

- 99201 Office or other outpatient visit including for the evaluation and management of a new patient, which requires these three key components:
- a problem focused history;
 - a problem focused examination; and
 - straightforward medical decision making.
- 99202 Office or other outpatient visit including for the evaluation and management of a new patient, which requires these three key components:
- an expanded problem focused history;
 - an expanded problem focused examination; and
 - straightforward medical decision making.
- 99203 Office or other outpatient visit including for the evaluation and management of a new patient, which requires these three key components:
- a detailed history;
 - a detailed examination; and
 - medical decision making of low complexity.
- 99204 Office or other outpatient visit including for the evaluation and management of a new patient, which requires these three key components:
- a comprehensive history;
 - a comprehensive examination; and
 - medical decision making of moderate complexity.
- 99205 Office or other outpatient visit including for the evaluation and management of a new patient, which requires these three key components:
- a comprehensive history;
 - A comprehensive examination; and
 - medical decision making of high complexity.



CPT codes – surgical example

Eye and ocular adnexa

 Eyeball

 Removal of eye

 Secondary implant(s) procedures

 Removal of foreign body

 65205 Removal of foreign body, external eye; conjunctival superficial

 65210 conjunctival embedded (includes concretions), subconjunctival,
 or scleral nonperforating

 65220 corneal, without slit lamp

 65222 corneal, with slit lamp

 65235 Removal of foreign body, intraocular; from anterior chamber or lens

 65260 from posterior segment, magnetic extraction, anterior or
 posterior route

 65265 from posterior segment, nonmagnetic extraction



Level II HCPCS codes – example

Dental procedures

Diagnostic

Clinical oral evaluation

Radiographs

- D0210 Intraoral – complete series (including bitewings)
- D0220 Intraoral – periapical – first film
- D0230 Intraoral – periapical – each additional film
- D0240 Intraoral – occlusal film
- D0250 Extraoral – first film
- D0260 Extraoral – each additional film
- D0270 Bitewing – single film
- D0272 Bitewings – two films
- D0274 Bitewings – four films
- D0290 Posterior-anterior or lateral skull and facial bone survey film
- D0310 Sialography
- D0320 Temporomandibular joint arthrogram, including injection
- D0321 Other temporomandibular joint films, by report
- D0322 Tomographic survey
- D0330 Panoramic film
- D0340 Cephalometric film
- Test and laboratory examinations...



Implications for chargemaster and reimbursement

- ❑ Most payors set physician fee schedules based on CPT and HCPCS codes
- ❑ CPT and HCPCS codes also used to reimburse most non-physician health professionals (e.g., optometrists, therapists, audiologists)
- ❑ CMS established Relative Value Units (RVUs) for most CPT codes; this is the basis for Medicare payment
- ❑ Most payors have adopted RVUs as their basis for reimbursing physicians
- ❑ Many clinics have adopted RVUs as the basis for setting fees
- ❑ Many clinics use RVUs to compensate physicians within their practice
- ❑ This topic will be covered in depth in reimbursement section



Modifiers

- Modifiers are used to identify circumstances that alter or enhance the description of a service or supply
- There are two levels of modifiers – one for each level of codes
 - Level I (CPT) modifiers
 - Level II (HCPCS/National) modifiers
- Some modifiers have an impact on reimbursement by either reducing or increasing the allowed amount for the code that it is modifying



Level I (CPT) modifiers

- two numeric digits which are added to the five-digit CPT code
- maintained and updated annually by the AMA
- commonly used modifiers
 - -26 Professional component
 - -TC technical component
 - -25 separate, distinct E&M service
 - -52 bilateral procedure



Level II HCPCS modifiers

- two alphabetic digits (AA-VP) which are added to the alpha/numeric HCPCS code
- these are recognized by carriers nationally
- maintained and updated annually by CMS



Part I: Coding – Revenue codes

- Part I: Healthcare coding
 - Coding overview
 - ICD-9-CM and ICD-10-CM codes
 - CPT and HCPCS codes
 - **Revenue codes**
 - MS-DRGs
 - APCs
- Part II: Billing and claim adjudication
- Part III: Reimbursement



Revenue codes

- Features of revenue codes
 - Used on UB-04s
 - Groups similar types of charges into one line
 - Every item in a hospital chargemaster must have one revenue code attached
 - Certain revenue codes require CPT/HCPCS codes
 - If a CPT/HCPCS code is available, it should be used
 - Hospitals should use the highest level of specificity of revenue code
 - Always four digits



Revenue codes – examples

0120 Room & board/semi-private

0121 Med/Surg/Gyn/2 beds

0122 OB/2 beds

0123 Peds/2 beds

0124 Psych/2 beds

0125 Hospice/2 beds

0126 Detox/2 beds

0127 Oncology/2 beds

0128 Rehab/2 beds

0129 Other/2 beds

0400 Other imaging svc/general

0401 Diagnostic mammography

0402 Ultrasound

0403 Screening mammography

0404 PET scan

0409 Other image scan

0610 MRI – general

0611 MRI – brain

0612 MRI – spine

0614 MRI – other

0615 MRA – head and neck

0616 MRA – lower extremities

0618 MRA – other

0619 MRT – other



Hospital chargemaster

- Hospital chargemaster – the hospital’s “catalog” of all services that are provided by that hospital
- Organized by department – the following are included for each item
 - Hospital’s item number (for internal use)
 - Department number (determines which cost center is credited with the revenue for that item)
 - Item description – used for claim detail
 - Price (charge) per unit
 - Cost (sometimes – depends on hospital’s cost accounting system)
 - Revenue code (always)
 - HCPCS codes, if required because of that item’s revenue code

Revenue codes

- The UB-04 “rolls up” the charges into similar revenue and HCPCS codes:
 - *Example:* Patient is admitted as an inpatient to Good Care Hospital for one day (one overnight); receives chest x-ray (one view), lab tests including WBC, potassium test (2 times), urinalysis, oxygen (6 hours) IV therapy (insert line, maintain line, potassium solution, saline 3 times, IV lines and supplies); UB would look like this:

| Rev code | Descrip | CPT / HCPS | Units | Chgs |
|----------|-----------------------|------------|-------|----------------------|
| 0121 | Room & bd – semi prvt | | 1 | 1500.00 |
| 0262 | IV svcs | | 6 | 400.00 |
| 0264 | IV supplies | | 4 | 260.00 |
| 0301 | Lab | | 4 | 284.00 |
| 0324 | X-ray | 71010 | 1 | 70.00 |
| 0410 | Oxygen | | 6 | 760.00 ₆₈ |



Part I: Coding – MS-DRGs

- Part I: Healthcare coding
 - Coding overview
 - ICD-9-CM and ICD-10-CM codes
 - CPT and HCPCS codes
 - Revenue codes
 - **MS-DRGs**
 - APCs
- Part II: Billing and claim adjudication
- Part III: Reimbursement



What are DRGs?

- The Diagnosis Related Group, or DRG, system uses ICD-9-CM diagnosis and procedure codes as well as patient demographic information to classify each inpatient hospital admission into one of 747 clinically cohesive groups that demonstrate similar consumption of hospital resources and length-of-stay patterns
- Has been used by Medicare since 1983 to reimburse hospitals for inpatient admissions
- Certain types of hospitals are excluded from Medicare's DRG reimbursement system; these include psychiatric hospitals or units, rehabilitation hospitals or units, children's hospitals, long-term care hospitals and cancer hospitals
- CMS administers the DRG system and issues all rules and changes
- DRGs are updated each October 1
 - Base rates, wage indices, weights, and other DRG components are adjusted
 - Codes are re-mapped
 - New DRGs are created
 - DRGs are retired



Transition to MS-DRGs

- ❑ Medicare adopted Medicare Severity Diagnosis Related Groups (MS-DRGs) on Oct. 1, 2007
- ❑ MS-DRGs are more specific than DRGs and better take into account the severity of a patient's illness and the related resource usage, thereby more appropriately reimbursing hospitals that care for sicker patients and reducing payments to hospitals providing less complex care
- ❑ There are currently 747 MS-DRGs compared to 538 DRGs in fiscal year 2006 (the year prior to adoption of MS-DRGs)
- ❑ There is no correlation between DRG numbers and MS-DRG numbers



CCs and MCCs

- In the DRG system, many DRGs were split into two related DRGs based on the presence or absence of a CC (complication and comorbidity); in MS-DRGs, many DRGs are split into one, two, or three related MS-DRGs based on whether any one of the secondary diagnoses has been categorized as an MCC, a CC, or no CC
- The CC list has been completely revised for MS-DRGs
 - Under DRGs, a CC was defined as a secondary diagnosis that increased the length of stay by at least 1 day for 75% of cases
 - Under MS-DRGs, CMS identified those diagnoses whose presence as a secondary diagnosis leads to substantially increased hospital use; they then categorized this CC list into three different levels of severity
 - Major complications or comorbidities (MCCs) – reflect the highest level of severity
 - CCs – represent the next level of severity
 - Non-CCs – lowest level of severity; diagnosis codes that do not significantly affect severity of illness and resource use and do not affect DRG assignment



MS-DRGs

- ❑ Current MS-DRG system is version 28, used for fiscal year 2011
- ❑ Many payors have adopted MS-DRGs for reimbursement
- ❑ Successful MS-DRG coding requires physicians and medical staff to provide complete and detailed documentation, and health information management (medical records) staff to fully understand the medical conditions for which they are responsible
- ❑ Key to accurate coding (and therefore to maximizing reimbursement) is assignment of secondary diagnosis codes



Uses for MS-DRGs

- Reimbursement
- Evaluation of quality of care: since all cases in an MS-DRG are clinically similar, analysis of treatment protocols, related conditions or demographic distribution can be done
 - clinical best-practice models can be designed around MS-DRGs
 - benchmarking and outcome analysis can be conducted using the MS-DRG clinical framework
 - quality reviews can be performed to assess coding practices and physician documentation
 - ongoing education of physicians, coders, nurses and utilization review personnel can be guided by the results of MS-DRG analyses
- Evaluation of utilization of services: each MS-DRG represents the average resources needed to treat patients grouped to that MS-DRG relative to the national average of resources used to treat all Medicare patients



MS-DRG assignment

- MS-DRGs are assigned using the following considerations
 - The principal ICD-9 diagnosis code
 - Secondary ICD-9 diagnosis codes
 - The principal ICD-9 procedure code
 - Secondary ICD-9 procedure codes
 - Gender
 - Discharge status
 - Presence or absence of MCCs/CCs
 - Birth weight for neonates
- One MS-DRG is assigned to each inpatient stay



MS-DRG assignment (con't.)

- Health information management coders review the patient's chart upon discharge and assign the ICD-9 codes which determine MS-DRG
- Grouper software calculates the MS-DRG based on the above considerations; grouper software is usually updated annually
- Sometimes there are discrepancies between a hospital's resultant MS-DRG and the MS-DRG calculated by a payor due to the use of different grouper versions



MS-DRG organization

- There are 25 major diagnostic categories (MDCs), which are each organized into two sections:
 - Surgical – this section classifies all surgical conditions based upon operating room procedures
 - Medical – this section classifies all diagnostic conditions based upon diagnosis codes
- MDCs are mutually exclusive and in general are organized by major body system and/or associated with a particular medical specialty



Components of MS-DRGs

- ❑ MDC, MS-DRG number
- ❑ Medical or surgical
- ❑ Relative weight (RW)
- ❑ Geometric mean length of stay (GMLOS) – national average length of stay with outliers excluded
- ❑ Arithmetic mean length of stay (AMLLOS) – national average length of stay including outliers



MDCs

- 01 Diseases and disorders of the nervous system
- 02 Diseases and disorders of the eye
- 03 Diseases and disorders of the ear, nose, mouth and throat
- 04 Diseases and disorders of the respiratory system
- 05 Diseases and disorders of the circulatory system
- 06 Diseases and disorders of the digestive system
- 07 Diseases and disorders of the hepatobiliary system and pancreas
- 08 Diseases and disorders of the musculoskeletal system and connective tissue
- 09 Diseases and disorders of the skin, subcutaneous tissue and breast
- 10 Endocrine, nutritional and metabolic diseases and disorders
- 11 Diseases and disorders of the kidney and urinary tract
- 12 Diseases and disorders of the male reproductive system
- 13 Diseases and disorders of the female reproductive system
- 14 Pregnancy, childbirth and the puerperium
- 15 Newborns and other neonates with conditions originating in the perinatal period
- 16 Diseases and disorders of the blood, blood forming organs and immunological disorders
- 17 Myeloproliferative diseases and disorders, poorly differentiated neoplasm
- 18 Infectious and parasitic diseases, systemic or unspecified sites
- 19 Mental diseases and disorders
- 20 Alcohol/drug use and alcohol/drug induced organic mental disorders
- 21 Injuries, poisonings and toxic effects of drugs
- 22 Burns
- 23 Factors influencing health status and other contacts with health services
- 24 Multiple significant trauma
- 25 Human immunodeficiency virus infections

MS-DRG – example

MDC 02 Diseases and disorders of the eye

Surgical MS-DRGs

MS- DRG 113

Orbital procedures w/ CC/MCC

Relative weight: 1.8311

Geometric Mean LOS: 3.9

Arithmetic Mean LOS: 5.6

Operating room procedures:

| | | | | |
|-------|-------|-------|-------|-------|
| 14.21 | 14.22 | 14.26 | 14.27 | 14.29 |
| 14.31 | 14.32 | 14.39 | 14.41 | 14.49 |
| 14.51 | 14.52 | 14.53 | 14.54 | 14.55 |
| 14.59 | 14.9 | | | |

MS-DRG 114

Orbital procedures w/o CC/MCC

MS-DRG 115

Extraocular procedures except orbit

MS-DRG 116

Intraocular procedures w/ CC/MCC

MS-DRG 117

Intraocular procedures w/o CC/MCC

MS-DRG – example (con't.)

MDC 02 Diseases and disorders of the eye

Medical MS-DRGs

MS-DRG 121

Acute major eye infections w/ CC/MCC

Relative weight: 0.9104

Geometric Mean LOS: 4.1

Arithmetic Mean LOS: 5.1

Principal diagnosis

| | | | |
|--------|--------|--------|--------|
| 360.00 | 360.01 | 360.02 | 360.04 |
| 360.13 | 360.19 | 370.00 | 370.03 |
| 370.04 | 370.05 | 370.06 | 370.55 |
| 375.01 | 375.31 | 375.32 | 376.01 |
| 376.02 | 376.03 | 376.04 | |

MS-DRG 122

Acute major eye infections w/o CC/MCC

MS-DRG 123

Neurological eye disorders

MS-DRG 124

Other disorders of the eye w/ MCC

MS-DRG 125

Other disorders of the eye w/o MCC



Sample MS-DRG weights

| | |
|--|--------|
| MS-DRG 232 – Coronary bypass with PTCA w/o MCC | 5.8183 |
| MS-DRG 662 – Minor bladder procedures w/ MCC | 3.0158 |
| MS-DRG 663 – Minor bladder procedures w/ CC | 1.4718 |
| MS-DRG 664 – Minor bladder procedures w/o CC/MCC | 1.1074 |
| MS-DRG 765 – Cesarean section w/o CC/MCC | 0.7995 |
| MS-DRG 775 – Vaginal delivery w/o complicating dx | 0.5256 |
| MS-DRG 795 – Normal newborn | 0.1649 |
| MS-DRG 007 – Liver transplant | 9.3350 |
| MS-DRG 468 – Revision of hip or knee replacement w/o CC/MCC | 2.5728 |



MS-DRGs as benchmarking

- Hospital casemix index is calculated as: total weights / number of admissions
- MS-DRGs can be used for
 - Comparing average charges across hospitals – regardless of size
 - Reimbursement across payors – regardless of payment method
 - Resource utilization and cost across hospitals
 - Identifying types of services provided by a hospital



Part I: Coding – APCs

- Part I: Healthcare coding
 - Coding overview
 - ICD-9-CM and ICD-10 codes
 - CPT and HCPCS codes
 - Revenue codes
 - MS-DRGs
 - **APCs**
- Part II: Billing and claim adjudication
- Part III: Reimbursement



What are APCs?

- The Ambulatory Payment Classification, or APC, system uses CPT and HCPCS codes to classify outpatient hospital admissions clinically cohesive groups that demonstrate similar consumption of hospital resources
- Has been used by Medicare since 2000 to reimburse hospitals for certain outpatient services
- Certain types of hospitals are excluded from Medicare's APC reimbursement system; these include Maryland hospitals (for certain services), critical access hospitals, hospitals located outside of the 50 US states, and Indian Health Service hospitals
- CMS administers the APC system and issues all rules and changes
- APCs are updated each year
 - Base rates, wage indices, weights, and other APC components are adjusted
 - Codes are re-mapped
 - New APCs are created
 - APCs are retired



Facility services that are included in APCs

- ❑ Surgery
- ❑ Radiology
- ❑ Clinic services (provided within the hospital)
- ❑ Emergency services
- ❑ Cancer chemotherapy administration and drugs
- ❑ Supplies
- ❑ Surgical pathology
- ❑ Diagnostic services & tests
- ❑ Partial hospitalization
- ❑ Inpatient hospital services when Part A benefits are exhausted



Facility services that are excluded from APCs

- ❑ Laboratory (paid under Clinical Diagnostic Laboratory Fee Schedule)
- ❑ Ambulance (fee schedule)
- ❑ Physical, speech, occupational therapy (fee schedule)
- ❑ End stage renal disease (ESRD) dialysis, drugs, supplies, and tests (paid under the ESRD composite rate or composite and fee schedule)
- ❑ Screening and diagnostic mammography (fee schedule)
- ❑ Inpatient services (paid by DRGs)
- ❑ Annual wellness exam
- ❑ Physician and other professional practitioner services (fee schedule)



Services that are included (packaged) in each APC

- ❑ Operating room
- ❑ Recovery room
- ❑ Medical & surgical supplies
- ❑ Pharmaceuticals (some exceptions)
- ❑ Casts and splints
- ❑ Observation
- ❑ Intraocular lenses
- ❑ Donor tissue(except corneal, bone, and organs)
- ❑ Incidental services such as venipuncture
- ❑ Registration, taking vital signs, starting an IV, etc.
- ❑ Revenue code(s) identify these packaged items during claim processing



Features of APCs

- ❑ Approximately 700 procedural APCs and 350 drug APCs
- ❑ Like DRGs, each APC reflects procedures that are comparable both clinically and in resource use
- ❑ Reimbursement by Medicare is at lesser of billed charges or the APC fee schedule amount, adjusted for geographic differences
- ❑ Procedure-based APC groups are assigned a relative weight
- ❑ Relative weight is based on median cost (operating and capital) for the grouped services
- ❑ Weights are converted to payment rates using conversion factors
- ❑ Assignment of APC code is driven by CPT and HCPCS codes
- ❑ Patient can have multiple APCs on one claim, although multiple surgeries are paid the full APC amount for the highest APC, and all others are paid at 50% of the APC rate
- ❑ Status indicators tell why there is no payment for a HCPCS code; for example, the code may be paid under a lab fee schedule, or the code may be considered to be bundled as part of a procedure and therefore not payable separately

APCs – example

0130 – Level I Laparoscopy

RW 38.7195

Payment rate (national) \$2,643.26

Includes these CPTs:

| | |
|-------|---|
| 38129 | Laparoscopic procedures, spleen |
| 38589 | Laparoscopic procedures, lymphatic system |
| 43289 | Laparoscopic procedures, esophagus |
| 43648 | Lap revise/remove eltrd antrum |
| 43659 | Laparoscopic procedures, stomach |
| 44213 | Lap, mobil splenic fl add-on |
| 44238 | Laparoscopic procedures, intestine |
| 44979 | Laparoscopic procedures, appendectomy |
| 45499 | Laparoscopic procedures, rectum |
| 47379 | Laparoscopic procedures, liver |
| 47560 | Laparoscopy with cholangiogram |
| 47561 | Laparoscopy with cholangiogram and biopsy |
| 47579 | Laparoscopic procedures, biliary |
| 49320 | Laparoscopy, diagnostic biopsy separate procedure |
| 49321 | Laparoscopy, biopsy |
| 49322 | Laparoscopy, aspiration |
| 49323 | Laparoscopic drainage of lymphocele |



APCs – example (con't.)

0130 – Level I Laparoscopy

Includes these CPTs (list continued from previous slide):

| | |
|-------|---|
| 49324 | Laparoscopic insertion of permanent IP catheter |
| 49325 | Laparoscopic revision of permanent IP catheter |
| 49326 | Laparoscopy w/ mentopexy add-on |
| 49329 | Laparoscopic procedure, abdomen/per/oment |
| 49659 | Laparoscopic hernia repair |
| 50541 | Laparoscopic procedures, ablate renal cyst |
| 50544 | Laparoscopy, pyeloplasty |
| 50549 | Laparoscopic procedures, renal |
| 50949 | Laparoscopic procedures, ureter |
| 51999 | Laparoscopic procedures, bladder |
| 54699 | Laparoscopy procedures, testis |
| 55599 | Laparoscopy procedures, spermatic cord |
| 57425 | Laparoscopy, surgical, colpopexy |
| 58545 | Laparoscopic myomectomy |
| 58578 | Laparoscopic procedures, uterus |
| 58679 | Laparoscopic procedures, oviduct-ovary |
| 59898 | Laparoscopic procedures, OB care/ delivery |
| 60659 | Laparoscopy procedures, endocrine |



APCs – example (con't.)

0131 – Level II Laparoscopy

RW 48.0382

Payment rate (national) \$3,279.42

0132 – Level III Laparoscopy

RW 71.1086

Payment rate (national) \$4,854.37



Part II: Billing and claim adjudication – CMS-1500

- Part I: Coding
- Part II: Billing and claim adjudication
 - **Professional claim form: CMS-1500 (HCFA-1500)**
 - Facility claim form: **UB-04**
 - Typical billing process
- Part III: Reimbursement



Professional claim form: CMS-1500

- ❑ CMS-1500 (HCFA-1500) insurance claim form is used for reporting physician (professional services) and supplier information
- ❑ Information spaces on the claim are referred to as an “item”
- ❑ Most payors require CMS-1500 information to be submitted electronically; this is the HIPAA 837P (professional) data set
- ❑ For details on CMS-1500 items, go to www.cms.gov/manuals/downloads/clm104c26.pdf



Part II: Billing and claims adjudication – UB-04

- Part I: Coding
- Part II: Billing and claim adjudication
 - Professional claim form: **CMS-1500** (HCFA-1500)
 - **Facility claim form: UB-04**
 - Typical billing process
- Part III: Reimbursement



Facility claim form: UB-04

- The Uniform Bill 2004 (UB-04) is also known as the HCFA-1450 and replaced the UB-92 in 2005
- The UB-04 is used for both inpatient and outpatient facility services
- The National Uniform Billing Committee (NUBC) establishes and maintains a complete list of the allowable data elements and codes used on the UB-04 claim
- The UB-04 contains 81 form locators (FLs)
 - A FL is a data field
 - Some FLs must be completed, some are used only when applicable to specific claims, and others are reserved for future use
- The UB-04 has 22 service lines on a single form
- The UB-04, when submitted electronically, can accept 450 service lines



Billing and reimbursement

- ❑ Certain data fields / FLs can affect claim and payment processing
- ❑ Most payors require providers to submit UB-04 data electronically; this is the HIPAA 837I (institutional) data set
- ❑ Download a sample UB-04 and the CMS UB-04 manual (includes descriptions of each FL and full list of revenue codes) at cms.gov/transmittals/downloads/R1104CP.pdf



Part II: Billing and claims adjudication – Typical billing process

- Part I: Coding
- Part II: Billing and claim adjudication
 - Professional claim form: **CMS-1500** (HCFA-1500)
 - Facility claim form: **UB-04**
 - **Typical billing process**
- Part III: Reimbursement



Creation of a physician claim – typical path

1. Physician examines patient
2. Physician dictates chart and marks the services performed electronically or on a paper charge ticket; often will also select the diagnosis based on a list of common diagnoses
3. Billing staff enter procedure and diagnoses codes (if paper) into billing system
4. Chart may be reviewed for accuracy – not common



Creation of a physician claim – typical path (con't.)

5. Billing staff create batch file for submission to payor, either directly or through clearinghouse (with few exceptions, Minnesota payors do not accept paper claims; all claims must be submitted electronically) – this is the HIPAA 837 data set
6. Most claims go through 2 or 3 claim edits before payor accepts claim, ensuring completeness and accuracy
 - a. Billing software claim edits
 - b. Clearinghouse edits
 - c. Payor edits



Creation of a physician claim – typical path (con't.)

7. Payor notifies physician that claim has been accepted for adjudication, or is rejected with reason code
8. Payor adjudicates claim, using member benefit information, physician participation status, contracted rate, etc.; payor also applies coding edits
9. Payor remits payment (check or electronic funds transfer) to physician and sends RA (electronic [HIPAA 835 data set] or paper) to physician, also sends Explanation of Benefits (EOB) to member
10. Biller posts payment and bills patient for member responsibility (unless already collected)



Creation of a hospital claim – typical path

1. Patient receives services in hospital
2. Charges are accumulated through interfaces with main hospital information system
 - Lab tests, radiology services, other ancillary services: lab system, radiology system passes information to main billing system which pulls associated codes and charge information for each test or procedure
 - Room charges – automatic if patient is in bed at midnight (or less)
 - Operating room charges – may be manually entered or may be automatic based on OR scheduling system



Creation of a hospital claim – typical path (con't.)

3. Typical minimum of 4 days after discharge for all charges to get entered by each hospital department prior to bill being released
4. Claim is generated and sent to payor or to clearinghouse
5. Claim edits, adjudication, posting occur similar to physician claim process



Part III: Reimbursement – Hospital reimbursement models

- Section I: Coding
- Section II: Billing and claim adjudication
- Section III: Reimbursement
 - Hospital reimbursement methods
 - Physician reimbursement methods



Common hospital inpatient payment models – typical models

- DRG weight of one
 - Used by Medicare
 - Payment is per admission, casemix adjusted by DRG
 - Hospital and payor agree on a base rate (“weight of 1.00” amount or “conversion factor”), which is multiplied by each admission’s DRG weight to determine reimbursement
 - Charges don’t matter, other than for outlier threshold determination
 - Length of stay doesn’t matter, other than for outlier threshold determination
- Per stay
 - Can be organized into categories such as OB, medical, surgical
 - Less common than it used to be in 1990s and early 2000s
 - Charges and length of stay don’t matter, other than for outlier threshold determination
 - Typically there is no “lesser of” language, so the hospital is paid the per stay rate regardless of charges



Common hospital inpatient payment models – typical models (con't.)

- Per diem
 - Can be organized into categories such as OB, medical, surgical
 - Common reimbursement method for HMOs and some PPOs
 - Length of stay matters, but charges don't
- Percent of charges (percent discount)
 - Common for national PPOs and rural hospitals



Inpatient: Per diem

- What is negotiated
 - Categories and definitions; varies from hospital to hospital and plan to plan, but typical categories and definitions include
 - Medical (defined as DRG type or bed type revenue code)
 - Surgical (defined as DRG type or presence of surgical revenue code or bed type revenue code)
 - OB (DRG – can be split into vaginal and C-section)
 - Normal newborn (DRG or revenue code; often paid at \$0 if OB rate is intended to cover both mom and baby)
 - ICU / CCU (defined as bed type revenue code)
 - Pediatrics (defined as bed type revenue code)
 - Rehab per diem (DRG or revenue code)
 - NICU per diems – levels II, III, IV (revenue code)
 - Mental health per diems (DRG or revenue code – can be split into psych, chemical dependency)
 - Rates for each category



Inpatient: Per diem (con't.)

- What is negotiated (continued)
 - Outlier provision
 - typically, payment is percent discount on the entire admission once a charge or length of stay threshold is met
 - Per diem payment method no longer applies
 - Carve outs; separate, additional payment for high-cost drugs and devices (typically percent discount on the carve out items)
 - Implants and devices
 - High-cost drugs



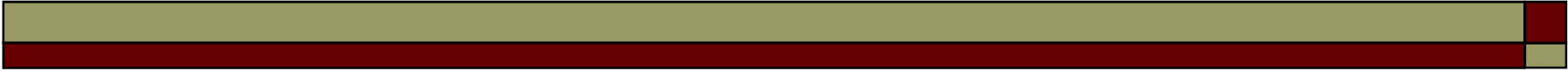
Common hospital payment models – outpatient

- Historically, most outpatient services were paid at a percent of charges
- Many rural hospitals are still paid at >90% of charges by HMOs and PPOs for outpatient services
- Outpatient is much more difficult to set up on per visit rates due to the large variability in types of services, although plans are beginning to use APCs to establish fixed outpatient rates



Common hospital payment models – outpatient (con't.)

- Typical categories include
 - ER (rev code, APC)
 - CT (rev code, HCPCS, ICD-9 procedure code or APC)
 - MRI (rev code, HCPCS, ICD-9 procedure code, APC)
 - Outpatient surgery (CPT, old Medicare ASC grouper, APC)
 - Therapies (rev code, APC)
 - Default % of charges for all else



Part III: Reimbursement – Physician reimbursement models

- Section I: Coding
- Section II: Billing and claim adjudication
- Section III: Reimbursement
 - Hospital reimbursement models
 - **Physician reimbursement models**



Physician reimbursement models

- Fee schedule
 - Most payor fee schedules are based on CPT and HCPCS Level II codes
 - Most payors use Resource-Based Relative Value System (RBRVS) to help them develop their fee schedules
 - Fee schedules are typically “fee maximums;” for each code subject to the fee schedule, the payor reimburses the provider the lesser of provider’s billed charges or the fee maximum listed in the fee schedule
 - Number of fee schedules in use varies by plan; some plans have a single fee schedule, others have hundreds of fee schedules
- Percent of charges
 - Typically used for CPTs and HCPCS codes that have no relative value
 - Sometimes payors will agree to reimburse “must-have” clinics on a percent of charge basis; not common



Physician reimbursement models (con't.)

□ Capitation

- Not widely used anymore
- Capitation = monthly payment to a group of providers for each member assigned to that group of providers
- Covers a defined set of services; no additional reimbursement to clinic if they provide services that are covered under capitation
- Typically used only for HMOs (not PPOS), since the insurer is bearing risk
- Not typically used by self-funded plan sponsors
- Need to have members designate a primary care clinic or care system for capitation to work
- Referrals are typically tightly managed in a capitated model



Resource-Based Relative Value System

- ❑ Medicare RBRVS was developed through the 1980s and implementation began in 1992 as a 5-year phase-in from UCR (lower of usual, customary, or reasonable charges)
- ❑ Result of the phase-in is that reimbursement for cognitive and E/M services was increased, but procedural reimbursement was decreased
- ❑ This meant an increase in reimbursement to primary care physicians and a decrease in reimbursement to specialists
- ❑ Now there is one fee schedule for all physician services based on CPT code – the same reimbursement applies regardless of the physician’s specialty – only difference is geographic adjustments



Components of RBRVS

- Physician work
 - Time, mental effort, skill of physician
 - 55% of the total physician cost
- Practice expense
 - Staff costs, rent, utilities, supplies, etc.
 - 42% of the total physician cost
- Professional liability insurance (PLI) expense
 - Malpractice insurance
 - 3% of the total physician cost



Physician work – comprised of:

- Time required to perform the service
- Technical skill and physical effort
- Mental effort and judgment
- Psychological stress associated with the physician's concern about iatrogenic risk to the patient
- Total physician work = “intraservice work” and “preservice and postservice work”
 - Intraservice work
 - For office visits = the patient encounter time
 - For hospital visits = time spent on the patient's floor
 - For surgical procedures = the period from the initial incision to the closure of the incision



Physician work – comprised of (con't.):

- Total physician work = “intraservice work” and “preservice and postservice work”(continued from previous slide)
 - Preservice and postservice work
 - Work prior to and following provision of a service
 - Surgical preparation time
 - Writing or reviewing records
 - Discussion with other physicians
 - For surgical procedures, the total work period is the same as the global surgical period, including recovery room time, normal postoperative hospital care, and office visits after discharge, as well as preoperative and intraoperative work
- Each year the AMA/Specialty RVS Update Committee (RUC) submits recommendations to CMS for physician work relative values based on CPT coding changes to be included in the Medicare payment schedule
- Each year CMS has relied heavily on these recommendations when establishing interim values for new and revised CPT codes



Practice expense

- Comprised of practice overhead: expenses such as rent, utilities, staff, supplies, billing system costs, etc.
- Procedures which can be performed in a physician's office as well as in a hospital have two practice expense relative values:
 - Facility practice expense relative values – includes
 - Physician offices
 - Freestanding imaging centers
 - Independent pathology labs
 - Non-facility practice expense relative values – includes
 - Hospitals
 - Ambulatory surgery centers
 - Skilled nursing facilities
 - Partial hospitals
 - All other non-facility sites

Practice expense (con't.)

- Procedures which can be performed in a physician's office as well as in a hospital have two practice expense relative values (continued):
 - Non-facility practice expense weights are lower than facility practice expense weights because there will be a separate claim from the facility;
 - Total claims per service for "facility" procedures = 1
 - Total claims per service for "non-facility" procedures = 2
 - Sample practice expense weight for facility and non-facility

| | Non-facility | Facility |
|--------------------------------------|--------------|----------|
| □ Incision of breast lesion (19020) | 8.85 | 4.30 |
| □ Repair superficial wounds (12001) | 1.51 | 0.37 |
| □ Drainage of tonsil abscess (42700) | 3.84 | 2.27 |



Professional liability insurance (PLI) component

- Includes cost of professional liability insurance (malpractice insurance)
- Based on the risk factors associated with each CPT code
- Independent of the physician's specialty



Total RVU

- Total RVU = sum of work, practice expense, and
PLI



Example RVU weights

| | |
|---|-------|
| □ 99201, new patient E/M, level 1 | 1.25 |
| □ 99202, new patient E/M, level 2 | 2.16 |
| □ 99203, new patient E/M, level 3 | 3.13 |
| □ 99204, new patient E/M, level 4 | 4.80 |
| □ 99205, new patient E/M, level 5 | 5.95 |
| | |
| □ 99211, established patient E/M, level 1 | 0.56 |
| □ 99212, established patient E/M, level 2 | 1.24 |
| □ 99213, established patient E/M, level 3 | 2.09 |
| □ 99214, established patient E/M, level 4 | 3.08 |
| □ 99215, established patient E/M, level 5 | 4.14 |
| | |
| □ 12002, repair superficial wound(s) | 3.04 |
| □ 21340, treatment of nose fracture | 23.07 |
| □ 33513, CABG, vein-4 | 76.44 |
| □ 71010, chest x-ray | 0.66 |
| □ 71010-26, chest x-ray prof component | 0.26 |
| □ 71010-TC, chest x-ray technical component | 0.40 |



Geographic Practice Cost Indices (GPCIs)

- GPCIs are used to account for regional differences in physician costs – are used to adjust Medicare payment upward for high-cost regions and downward for low-cost regions
- GPCIs updated every 3 years (at a minimum)
- Includes these factors:
 - Cost of living
 - Proxy data sources are used to measure physician income
 - Measures geographic differences in the earnings of all college-educated workers based on census data
 - Practice expense
 - Reflects differences in physicians' office rents and employee wages
 - Designed to measure geographic variation in the unit costs per square foot (e.g., rent) and cost per hour (e.g., staff salary) that the physician faces
 - Reflects only the differences in practice expense costs across geographic areas relative to the national average
 - Malpractice insurance (MP)
 - Based on rolling 3-year averages of each state's malpractice costs

Geographic Practice Cost Indices (GPCIs)

- Composite GPCI (also called a geographic adjustment factor, or GAF), is arrived at by weighting each GPCI by the share of Medicare payments accounted for by the work, practice expense, and MP components
- Example: CPT 12001, repair superficial wound
 - Work RVU = 0.84
 - Practice expense RVU (non-facility) = 1.83
 - MP RVU = 0.14
 - MN Work GPCI = 0.995
 - MN PE GPCI = 0.994
 - MN MP GPCI = 0.262
 - Total RVU for MN is $(0.84 \times 0.995) + (1.83 \times 0.994) + (0.14 \times 0.262) = 2.6915$
 - MN Medicare allowed = $2.6915 \times \$33.9764 = \91.45
- Variation in GPCIs – much less variation in physicians' costs of practice than under historic Medicare prevailing charge
- Most Medicare payments under fully transitioned RBRVS are within 10% of the national average, rather than the twofold and threefold differences in payment common under UCR
- For many areas where physicians' payments were only 60% to 70% of the national average under UCR, payments increased to 80% to 90% of the national average under the payment schedule
- In areas where Medicare's payments under UCR were twice the national average, payments declined to only 15% to 20% above the national average



Conversion factors

- Medicare conversion factor (CF) is the same for all physicians across the US
- 2011 CF for Medicare is \$33.9764
 - Historical CFs:

| | |
|--------|-----------|
| □ 2010 | \$36.0846 |
| □ 2009 | \$36.0666 |
| □ 2008 | \$38.0870 |
| □ 2007 | \$37.8975 |
| □ 2006 | \$37.8975 |
| □ 2005 | \$37.8975 |
| □ 2004 | \$37.3374 |
| □ 2003 | \$36.7856 |



RBRVS

- ❑ Conversion factor is updated each year by CMS
- ❑ Most payors have adopted RBRVS as their method of reimbursing physicians
- ❑ Some use GPCIs, others do not
- ❑ Typical HMO conversion factor is \$45-\$55 – varies by product and by region
- ❑ Typical PPO conversion factor is \$45-\$60+ - varies by product and region
- ❑ Some payors will override RBRVS for certain codes, such as allergy injections, E/M visits, etc. – typically to increase payment for primary care services



RBRVS to set fees

- Many physician practices use RBRVS for setting fees
- Typical primary care CF is \$60-\$80
- Typical specialty CF is \$80-\$95++



RBRVS to compensate physicians

- Many clinics use RBRVS to compensate physicians within their practice
- Is not dependent on payor mix and thereby does not economically penalize a physician who sees a higher share of government-paying patients
- Usually only the physician work portion of the RVU is used
- A conversion factor may be established for compensation
- Bonuses can also be prorated based on each physician's work RVUs compared with the clinic's total work RVUs



Services for which no RVU is established

- HCFA has not set RVUs for most HCPCS Level II codes, most lab codes, and many codes that are “unspecified” or “other”
- Vendors have used HCFA’s method to set RVUs and have set weights for every CPT and HCPCS Level II code
- Vendor datasets are excellent resource for lab, supplies, etc



Conclusion

Thank you!

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Rich offers one and two-day training sessions; call for details.