## Chapter One

# INTRODUCTION TO MEDICAL CODING SYSTEMS, HEALTHCARE DELIVERY & OTHER REVENUE CYCLE FUNCTIONS WITHIN THE HEALTHCARE ARENA

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**What is medical coding?**

Medical coding is the translation of narrative medical record text into numeric data for the purpose of communicating data to insurance companies and to establish clinical outcomes.

There are a variety of locations where medical services are rendered and coding for these services varies depending on the types of services performed. The three key locations where medical coding is used are:

1. Outpatient hospital facility services
2. Inpatient hospital facility services
3. Professional services (physician and non-physician practitioners)

Outpatient and inpatient hospital facility services are considered technical component services. Technical services include, but are not limited to, hospital staff, hospital equipment and hospital supplies. Professional services include the physician and/or practitioner (i.e. physician assistants, nurse practitioners, anesthesiology assistants) services rendered. All professional services will have a corresponding medical record note from the provider to describe services rendered. There are three primary coding systems utilized to report services provided regardless of the site where services are rendered.

***Current Procedural Terminology*** (CPT) codes are utilized to report procedures and services provided to patients or the services that are actually performed on behalf of the patient. CPT codes are used to report visits, anesthesia administration, invasive and non-invasive surgery procedures, and diagnostic procedures. CPT codes are used to report procedures performed in the outpatient hospital facility and inpatient and outpatient professional service areas.

***International Classification of Diseases Version 10*** (ICD-10) codes are utilized to report the reason a patient is treated. ICD-10 consists of three volumes. Volume I is the Alphabetic Index and Volume II is the Tabular Section. Volumes I and II are used to report diagnoses for inpatient and outpatient hospital setting as well as for professional services. Volume III is used to report procedure codes performed in the inpatient hospital facility setting only.

***Healthcare Common Procedural Coding System*** (HCPCS) codes are utilized to report supplies, drugs and temporary codes developed to use in reporting new procedures not yet included in the CPT coding system. HCPCS codes are used in the outpatient hospital facility and professional service areas.
All three coding systems will be discussed in class and students will learn differences in coding rules within the outpatient facility, inpatient facility and professional service locations.

## Changing Face of Healthcare: Affordable Healthcare Act of 2009 (Obamacare)

In 2009, the Affordable Healthcare Act (also known as Obamacare) was passed into law providing mandatory insurance coverage to all Americans, regardless of their ability to pay. While the initial debates as presented by the executive and legislative branches of our government centered on the uninsured population, the law drastically changed the way healthcare will be provided to both the insured (more than 85% of Americans before Obamacare) and uninsured (the 15% of Americans before Obamacare).

There are a number of elements of the law that directly affect how providers (physicians, nurses, technicians, therapists) and hospitals will deliver medical care in the United States. These changes include, but are not limited to, the following:

- ✓ Mandate to implement electronic medical records in all healthcare settings.
- ✓ Mandate that all citizens of US obtain healthcare coverage regardless of ability to pay.
- ✓ Mandate that the ICD-10 coding system be implemented in the US by October 14, 2013.
- ✓ Mandate that all health insurance payers convert to electronic billing transactions to accommodate implementation of ICD-10 coding system (5010) by January 1, 2013.

The financial impact of the mandates instituted by Obamacare on independent and group physician practices, hospitals, independent healthcare centers (SNF, ASC, Therapy, etc), insurance payers and patients cannot be understated.

The coverage of pre-existing conditions, preventative medicine services and the ability of children to remain on parents' insurance plans through the age of twenty-six were all deemed positive changes as a result of Obamacare. It is important to note that while Obamacare committed to cutting the cost of healthcare, the cost of medical care has already begun to rise as a direct effect of the implementation of a government run healthcare system. In reality, Obamacare will become the commercial payer for those seeking insurance coverage that are not yet Medicare eligible, who are not covered by an employer's insurance plan (unemployed and poor), are eligible for Medicaid or are on disability (Medicare).

At the end of FY 2011, actual liabilities of Medicare, Social Security and federal employees' future retirement benefits exceeded 86.8 trillion, or 550% of GDP (Wall Street Journal "Why $16 Trillion Only Hints at the True U.S. Debt" by Chris Cox and Bill Archer).

## Insurance Billing

Billing is the process of reporting coded data to a variety of insurance payers for the purpose of getting reimbursement for services rendered within any practice or healthcare entity that is contracted with the payer and authorized to provide such services for the patient.

There are two forms used in billing to report medical codes to insurance companies for payment.

- ✓ The CMS 1500 is the bill form used to report professional (physician and non-physician) services in the inpatient and outpatient setting.
- ✓ UB-04 is the bill form used to report outpatient and inpatient hospital technical (facility) services.

There are thousands of different types of healthcare plans and policies. Each plan dictates what the insurance will and will not pay for based on the contract with the provider of service. Within each plan, there are a variety of different policies that are written based on the plan chosen by the patient and/or their employer.

The following categories are the most common types of policies available.

- ✓ Medicare
- ✓ Medicaid
- ✓ PPO
- ✓ HMO
- ✓ MCO
- ✓ Workman's Compensation
- ✓ Automobile Accidents

**Managed Care Health Plans**

Managed care is a term used to describe the means by which health insurers help control costs. Managed care policies determine how much health care you use. Almost all health insurance plans have some sort of managed care program to help control health care costs. Examples include the need to obtain authorizations before receiving treatment, preauthorization for hospital admits and surgery and authorization for diagnostic tests to determine whether they are medically necessary for the condition for which the patient is being seen. If approval is not obtained before these visits, the insurance company may not cover the bill and the patient and/or healthcare provider may be responsible for the cost.

**Fee-for-Service Health Plans**

Fee-for-service is defined as payment for services rendered. The fee-for-service healthcare policies pay for services rendered by a provider and/or healthcare entity that is covered by the patient policy. The fee-for-service healthcare policy does not limit the patient to whom or where they must go to seek treatment. The fee-for-service health plan provides the patient with more choices than other healthcare plans. In addition, the patient may go to any healthcare provider and/or hospital anywhere in the country.

While the fee-for-service health plans provide the widest variety of choices, the insurer pays only a percentage of the patient's doctor and hospital bills. The patient is generally responsible for annual deductibles and a monthly fee, also known as a premium.

A deductible is required to be paid by the patient each year before the insurance company begins paying for services rendered. For example, the deductible might be $500 for each person in your family, with a total family deductible of $1,000. In addition, not all expenses incurred for each calendar year count toward your deductible. The health insurance policy contract determines what would be covered as part of the deductible and what would not be covered by the deductible. After the deductible amount is paid, the insurance policy and patient share a split of the cost of care (i.e.: insurer pays 80%, patient pays 20%). The patient's portion is referred to as the "coinsurance" amount.

In order for the insurer to pay for services rendered for a fee-for-service policy, the patient (or provider) will be required to submit a claim to the insurance company. When the provider agrees to take care of filing the claims on behalf of the patient, the provider is "accepting assignment" on behalf of the patient to do so. The health insurer pays the provider the 80% and the provider then forwards a bill to the patient for their portion. The patient is responsible for keeping all receipts for all healthcare services including drugs and other medical costs as the patient is responsible for keeping track of their own medical expenses.

The majority of fee-for-service health plans have a "cap". The cap is the highest limit for which the patient is required to pay for their own medical bills within a calendar year. The cap is reached when the coinsurance and deductible reach a certain amount for what is called "out of pocket expenses". Depending on the policy and the coinsurance, annual deductible and premium amounts, the cap can be set anywhere from $1,000-$5,000. After the cap is met, the health insurance company pays the full amount for the services and/or items your policy contract states it will cover. The patient's monthly premium is not included in the capped amount, so the patient is always responsible for the monthly premium.

There may also be additional services that the policy does not cover at all. These are called "non-covered services" and the patient is responsible for 100% of the cost of these services. Non-covered services may include preventative health, immunizations and other types of services.

Fee-for-service plans provide two types of health coverage to patients: basic coverage and major medical coverage. The basic and major medical coverage may be combined so that a patient has what is called a "comprehensive" plan.

1. **Basic** insurance coverage pays for services rendered in an inpatient setting. Covered services under this plan may include supplies, x-rays and prescriptions. Again, the policy or contract with the hospital determines what and how much is paid by the insurance company. Basic coverage may also pay for the cost of surgery (inpatient or outpatient setting) and for some visits to the patient's physician or non-physician providers.
2. **Major medical** insurance covers services beyond what the basic plan covers, including the cost of chronic illnesses or long-term/high-cost injuries.

Medicare and Medicaid are considered fee-for-service healthcare plans. Medicare covers patients sixty-five and over and Medicaid covers patients who are financially unable to pay for insurance expenses on their own or who are unemployed and do not have access to healthcare insurance through an employer. Medicare payments are based on a pre-

determined amount established annually by the federal government. The "allowable" payment for the cost of care for services rendered is funded 100% by the federal government. Medicaid payments are based on a pre-determined amount established annually by the state Medicaid payers. The "allowable" payment for the cost of care for services rendered is shared 50/50 by the state and by the federal government.

Medicare and Medicaid fall under the guidance of the federal program Center for Medicare and Medicaid Services (CMS).

**HMO: Health Maintenance Organizations**

A health maintenance organization, or HMO, is a health plan that is paid in advance of services rendered to the patient. The HMO patient pays a premium each month and in exchange, the HMO provides health care coverage to the patient and their family. The coverage includes visits to physician and non-physician providers, hospital admissions, care in the emergency room, surgeries, lab tests, x-rays, and various types of therapy.

The HMO coordinator or representative arranges all treatment for the patient. The patient is required to utilize the HMO's own group practice and/or local doctors and other health care professionals under contract with the HMO. The patient has limited choice as to whom and where they receive treatment under an HMO plan because the HMO limits access only to contracted providers under their particular plan. HMO plans may pay for services rendered in the case of an emergency or when they deem the services medically necessary by their own definition as a payer. In all other cases, prior approval and authorization is needed to be seen and treated when the patient has an HMO.

Generally with an HMO policy, the patient is required to pay a co-payment for each office visit ($15 to $50). Other visit types such as emergency room visits may require a co-payment as well. The patient's total cost of care is generally lower in an HMO when compared to a fee-for-service health insurance policy due to the control of the HMO to curb such costs.

HMOs in turn get a fixed fee amount for services rendered under the patient's covered medical care as conveyed in the contract with the provider and/or healthcare entity. To keep costs down, HMOs focus on preventative maintenance of patient care in an effort to ensure that the patient is treated prior to an illness or injury becoming a chronic or long-term issue. HMOs usually cover preventive care services including wellness visits, immunizations, well-baby checkups, mammograms and other diagnostic screening services. The patient should be aware that HMO policies as a whole do not necessarily cover these services and that services such as mental health may be provided and paid for short-term or not at all. It is important to review all available HMO plans to determine which plan covers the individual needs of the insured patient.

Providers and healthcare entities file claims to the appropriate plan on behalf of the insured patient. The patient is only required to show their HMO card at the healthcare facility they are being seen and pay the appropriate co-pay when services are rendered. The claims submission process is the responsibility of the provider.

In all HMOs, the patient is assigned or chooses a contracted provider to manage their care. These providers are the patient's primary care doctor who is responsible for coordinating the

care between the patient and all other specialists they may refer them to for further treatment. The patient cannot see a specialist without first seeing their primary care physician and being referred to the specialist(s) for further treatment. Patients who have an HMO plan may have to wait longer to get an appointment to see one of the contracted providers than traditional fee-for-service patients since the HMO patient is required to see the HMO providers that the contract stipulates.

**POS: Point-of-Service Plans**

HMOs have the option to provide an indemnity-type plan to members known as a point-of-service healthcare plan. The indemnity plan provides security or protection on behalf of the insured against loss or other financial burden by allowing the member themselves to make referrals to providers who may be outside the health plan while still having the services covered. The POS contract determines what services they will pay for if the member or the member's HMO provider decides to refer to providers outside of the HMO plan. When the HMO doctor refers the member outside of the network, the HMO POS plan pays for all or most of the bill. If the member self-refers to a provider outside the network and the service is a covered service of the health plan, the member will be required to pay a coinsurance fee for service(s) rendered.

**PPO: Preferred Provider Organizations**

The Preferred Provider Organization, or "PPO" plan, combines the traditional fee-for-service and the HMO plan models. As with an HMO, members have a limited number of doctors and hospitals that they are contracted to see by the PPO. When the member utilizes the "network" or "preferred" providers, most of the cost of care is covered.

When the member visits a doctor included in the PPO, the provider files all claims to the payer on behalf of the member. A small co-payment is generally paid by the patient for each visit; however, there may be additional coinsurance and deductibles that are required for some of the health care services provided.

As with an HMO, the patient is assigned or chooses a contracted provider to manage their care. These providers are the patient's primary care doctor who is responsible for coordinating the care between the patient and all other specialists they may "refer" them to for further treatment. The patient cannot see a specialist without first seeing their primary care physician and being referred to the specialist(s) for further treatment. Patients who have a PPO plan may have to wait longer to get an appointment to see one of the contracted providers than for traditional fee-for-service patients since the PPO patient is required to see the PPO providers that the contract stipulates.

Most PPOs cover preventive care, well visits, mammograms and other screening diagnostic services and immunizations.

In a PPO, the member may also use doctors who are not part of the plan and still receive some health insurance coverage. If the member chooses this option, they will be responsible for paying a higher amount of the bill and be required to fill out and submit claim forms on their own to the payer. Members choosing this option are not required to have to change doctors in order to join a PPO.

It is important to note that provider documentation dictates how services are coded; whereas insurance contracts and agreements with providers and healthcare entities dictate how services are billed and how or if they will be paid by a particular payer and what amount if a patient is responsible for paying out of pocket.

## Medicare Access & CHIP Reauthorization Act of 2015 (MACRA)

MACRA makes three important changes to how Medicare pays those who give care to Medicare beneficiaries. These changes create a Quality Payment Program (QPP), ends the Sustainable Growth Rate (SGR) formula for determining Medicare payments for health care providers' services and seeks to replace the current fee-for-service payment model for professional services in an effort to:

- ✓ Create a new framework for rewarding health care providers for giving better care not just more care.
- ✓ Combine CMS existing quality reporting programs into one new system.

Collectively these proposed changes are referred to as the **Quality Payment Program** (QPP). The program is created to replace a patchwork system of Medicare reporting programs with a flexible system that allows a choice of two paths that are designed to link quality to payments: **The Merit-Based Incentive Payment System (MIPS)** and **Advanced Alternative Payment Models**.

## MACRA Quality Payment Program

The MACRA QPP is designed to help CMS to move more quickly toward the goal of paying for value and better care in lieu of fee-for-service payments. The Quality Payment Program has two potential paths:

1. Merit-Based Incentive Payment System (MIPS)
2. Alternative Payment Models (APMs)

MIPS and APMs will go into effect over a timeline from 2015 through 2021 and beyond.

## Merit-Based Incentive Payment System (MIPS)

MIPS is a new program that combines parts of the **Physician Quality Reporting System** (PQRS), the **Value Modifier** (VM or Value-based Payment Modifier), and the **Medicare Electronic Health Record** (EHR) incentive program into one single program.

Payments for eligible professionals (EPs) of the MIPS program will be measured on:

- ✓ Quality
- ✓ Resource use
- ✓ Clinical practice improvement
- ✓ Meaningful use of certified EHR technology

## Alternative Payment Models (APMs)

APMs provide a means to pay health care providers for the care they give Medicare beneficiaries. Under the APM model, CMS will pay some participating health care providers a lump-sum incentive payment from 2019-2024. The APM is developed to provide:

- ✓ Increased transparency of physician-focused payment models.
- ✓ Offer some participating health care providers higher annual payments (beginning in 2026).

## Other Revenue Cycle Functions

Medical coding and medical billing are two completely different functions and are split into separate departments that are included in what is called the "revenue cycle".

Coding is a function that is part of the Health Information Management (HIMS) Department. The HIMS Department also includes transcription and medical records documentation storage functions.

Billing is a function that is part of the Finance Department. The Finance Department also includes accounts payable (AP), accounts receivable (AR) and finance (contracts, charges, etc) functions within the healthcare system.

## Technology in Healthcare

Healthcare technology has advanced tremendously in the past ten to fifteen years. The new Affordable Care Act of 2009 discussed earlier has only enhanced the push to upgrade technology specifically as it relates to the mandate for HIPAA entities to implement electronic health records within all hospital and physician practices. It is important to understand how technology affects revenue cycle processes within these environments.

The term electronic can be deceiving, especially when we speak of it within the healthcare environment. The term means different things to different departments within the healthcare system.

The term electronic tends to imply that various processes are "automated" and therefore require less human intervention to generate successful transactions. While technology definitely provides assistance to streamline and make processes more efficient in some areas, human intervention is still required.

The following IT systems directly affect all areas of the revenue cycle.

**Registration Systems** – Registration systems are utilized to check in and check out patients that are seen face-to-face in the outpatient physician practice and hospital settings (i.e.: ER, ASC) or admitted to the inpatient setting. These systems include but are not limited to appointment management, insurance verification, and admission and discharge (ADT) systems.

**Clinical Systems** – Clinical systems include software that is utilized by clinical staff to deliver healthcare services to patients. Some examples include radiology packages, laboratory packages, surgery packages, and a number of other systems used by clinicians.

**Electronic Health Records (EMR/EHR)** – Electronic medical records or electronic health records are utilized by clinicians to document the services they provide to patients.

**Computer Assisted Coding (CAC)** – Computer assisted coding technology has been around since the mid-90's; however, with the implementation of the new ICD-10 coding system mandated by Obamacare to be implemented in all healthcare settings by October 1, 2014, CAC systems have become much more popular especially for hospital settings. CAC technology converts physician documentation narratives into numeric codes using natural language processing technology with the goal of providing a more efficient process for coding professionals. While the technology is popular within hospital environments, the high price tag for such technology has minimized its use within the physician practice settings.

**Practice Management Systems** – Practice management systems include software that is used for coding and claims submission processes. Examples include encoders (electronic coding tools for coders), claims scrubbers, electronic data interchanges (EDI) and claims clearinghouses.

**Financial Systems** – There are a number of financial systems that are utilized in healthcare. These financial software tools are used to develop and maintain various payer contracts, develop and maintain charges for services rendered and monitor other costs associated with the healthcare system. Financial systems in physician practices may be included in one package with other PM tools (scheduling, coding, claims scrubber, EDI and accounts receivable) or be independent software tools that work with other vendors. Hospital finance packages are generally independent of all other PM systems.

**Decision Support System (DSS)** – Decision support tools are utilized to provide an assessment of the overall health of a hospital through data collection and mining techniques allowing the system to support and enhance decision making processes for individual areas of a specific entity within the hospital or the overall hospital system. The DSS system collects data from various resources to assist personnel with developing business models and decision making processes.

Generally, decision support tools are utilized by upper-level and corporate management to guide them in understanding their business better including current and future revenue trends, physician work output within the facility, quality of care, and material management of various departments.

**Business Intelligence (BI)/Data Mining/Analytics Tools** – Software that provides users with the ability to mine large amounts of data from various disparate sources to bring the data into one report view. While BI and data analytics tools are not completely new to healthcare, the Affordable Care Act (Obamacare) has reintroduced this technology to the healthcare environment on a much larger scale than ever before. These tools are used in a variety of areas of a health system to track key performance indicators (KPI) for each department, compliance, auditing and decision support services.

**National Medical Professional and Outpatient Coding Certifications**

*American Academy of Professional Coders (AAPC)*
The AAPC is the nation's largest training and credentialing organization for the business side of healthcare. Our certified members in medical coding, medical billing, medical auditing, compliance, and practice management represent the highest level of expertise in the industry. The AAPC currently has over 155,000 members.

All AAPC exams are proctored 3-4 times per year by an AAPC local chapter. The exams are 5 hours and 40 minutes. The test consists of 150 multiple choice questions and a passing grade of 70% is required. To maintain certification, coders must obtain thirty-two CEU credits (sixteen per year) reported every other year.

- Certified Professional Coder (CPC)
- Certified Professional Coder Apprentice (CPC-A)
- Certified Professional Coder Hospital (CPC-H)

The AAPC also has various other certifications for healthcare auditors, compliance officers, inpatient coding and specialty specific coding.

*American Health Information Management Association (AHIMA)*
The American Health Information Management Association (AHIMA) is the premier association of health information management (HIM) professionals worldwide. Serving fifty-two affiliated component state associations and more than 101,000 health information professionals, it is recognized as the leading source of "HIM knowledge," a respected authority for rigorous professional education and training.

All AHIMA exams are proctored in key large cities throughout the year. In order to pass, the examinee must obtain a *scaled score* for the CCS-P examination of 300 out of 400. To maintain certification, the coder is required to obtain twenty CEUs each year, including two mandatory annual coding self-reviews.

- Certified Coding Specialist-Physician (CCS-P)

*The Medical Management Institute (MMI)*
The Medical Management Institute (MMI) is the educational leader in medical billing, coding, auditing, management and ICD-10 training. MMI has more than twenty-five years of experience in the Revenue Cycle Arena and an alumni base of nearly 250,000 alumni. MMI's certifications prepare you to become certified as a physician office-based medical coder, medical biller, medical manager, or medical auditor. Graduates of approved training programs go on to attain their RMC, RMB, RMM & RMA credentials.

All MMI certifications are administered online. The coder has twenty-four hours to take the test once they start. The test consists of 150 multiple choice questions and a grade of 76% is required to pass the test. Once certified, members must maintain twelve CEU credits annually and are required to take a fifty question test each year that covers the CPT, ICD-10 and HCPCS changes for the calendar year that the test is being administered.

MMI certifications include:

- Registered Medical Coder (RMC)
- Registered Medical Auditor (RMA)
- Registered Medical Biller (RMB)

- Registered Medical Manager (RMM)

At the completion of this class, students will be provided a review class focused on how to take the national certification exam that they choose to take. This is an important component of the class to ensure that the student not only learns how to be a coder but also understands how to take the national certification exam.

## REVENUE CYCLE FUNCTIONS