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AAPC believes it is important in training and testing to reflect as accurate a coding setting as possible to students and examinees. All examples and case studies used in our study guides and exams are actual, redacted office visit and procedure notes donated by AAPC members.

To preserve the real-world quality of these notes for educational purposes, we have not rewritten or edited the notes to the stringent grammatical or stylistic standards found in the text of our products. Some minor changes have been made for clarity or to correct spelling errors originally in the notes, but essentially, they are as one would find them in a coding setting.
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Chapter 1

Introduction to Healthcare Business Processes and Workflow

The complexities of the revenue cycle and compliance regulations in our healthcare system, along with the required human resource knowledge and general business and management skills, make managing a medical practice an exciting and demanding profession. Successful medical practice managers find great fulfillment not only in running successful businesses, but also by providing for the health and wellbeing of their communities. The Certified Physician Practice Manager (CPPM®) credential will help identify the competencies needed to succeed and will verify you as a professional who is committed to success.

This curriculum starts with an overview of healthcare. Subsequent chapters provide education on subject matter to prepare practice managers to be successful in accounting, revenue cycle management, human resources, quality operations, compliance, data management, information technology, and health reform.

Types of Healthcare Providers

Physician and Non-Physician Practitioners

There are two types of physicians: Medical Doctor (MD) and Doctor of Osteopathic Medicine (DO). MDs are allopathic physicians and DOs are osteopathic physicians. Both MDs and DOs may use all accepted methods of treatment, including drugs and surgery. Many DOs place special emphasis on the body’s musculoskeletal system, preventive medicine, and holistic patient care.

Some physicians work in small private offices or clinics, often assisted by a small staff of nurses and administrative personnel. Increasingly, physicians are practicing in groups or healthcare organizations. Physicians in a group practice or healthcare organization often work as part of a team that coordinates care for many patients; they are less independent than the solo practitioners of the past.

Non-physician practitioners (NPPs) such as a physician assistant (PA), nurse practitioner (NP), clinical nurse specialist (CNS), and certified nurse midwife (CNM) are eligible for reimbursement by Medicare and other payers. They may obtain their own provider identifier, which allows them to bill directly for their patients, generally at a percentage less than would be paid to a physician. Alternately, they may bill incident-to the work of a physician with the physician’s patients. Incident-to billing is billed under the physician’s provider identifier.

Incident-to services supervised by non-physician practitioners are typically reimbursed at 85 percent of the Medicare physician fee schedule. The incident-to billing rules provide an exception, allowing 100 percent reimbursement for non-physician services that meet the requirements detailed in the Medicare Benefit Policy Manual, Chapter 15, Section 60 (Services and Supplies Furnished Incident To a Physician’s/NPP’s Professional Service). For incident-to services, the services must be part of a patient’s normal course of treatment, during which a physician personally performed an initial service and remains actively involved during treatment. The NPP must provide services that are an integral part of the physician’s own involvement with his or her patients (eg, follow-up office visits for known diagnoses the physician is monitoring). The supervising provider does not have to be physically present in the patient’s treatment room while these services are provided but must provide direct supervision (be present in the office suite to render assistance if necessary).

PAs are formally trained to provide diagnostic, therapeutic, and preventive healthcare services as delegated by a physician. They take medical histories, examine, and treat patients, order, and interpret laboratory tests and X-rays, and may make diagnoses. They also treat minor injuries by suturing, splinting, and casting. PAs document progress notes, instruct and counsel patients, and orders or carries out therapy. They also may prescribe certain medications.

PAs work under the supervision of a physician but may be the principal care providers in rural or inner-city clinics where a physician is not always present. In such cases, the PA confers with the supervising physician and other medical professionals, as needed, and required by law. PAs may make house calls or go to hospitals and nursing care facilities to check on patients, after which they report back to the physician. The duties of PAs are determined by the supervising physician and by state law.

Nurse anesthetists (CRNA) provide anesthesia and related care before and after surgical, therapeutic, diagnostic, and obstetrical procedures. They also provide pain management and emergency services, such as airway management.
Sample listing of payer fee schedules

<table>
<thead>
<tr>
<th>CPT Codes</th>
<th>Practice Fee</th>
<th>Medicare</th>
<th>United</th>
<th>Cigna</th>
<th>Humana</th>
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<tbody>
<tr>
<td>99202 - Office or other outpatient visit fo</td>
<td>$150.00</td>
<td>$59.00</td>
<td>$65.00</td>
<td>$70.00</td>
<td>$90.00</td>
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<tr>
<td>99203 - Office or other outpatient visit fo</td>
<td>$225.00</td>
<td>$88.00</td>
<td>$95.00</td>
<td>$97.00</td>
<td>$140.00</td>
</tr>
<tr>
<td>99204 - Office or other outpatient visit fo</td>
<td>$300.00</td>
<td>$115.00</td>
<td>$117.00</td>
<td>$125.00</td>
<td>$170.00</td>
</tr>
<tr>
<td>99212 - Office or other outpatient visit fo</td>
<td>$100.00</td>
<td>$40.00</td>
<td>$45.00</td>
<td>$48.00</td>
<td>$60.00</td>
</tr>
<tr>
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<td>$99.00</td>
<td>$98.00</td>
<td>$120.00</td>
</tr>
<tr>
<td>99354 - Prolonged physician service</td>
<td>$200.00</td>
<td>$115.00</td>
<td>$135.00</td>
<td>$130.00</td>
<td>$180.00</td>
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<td>$280.00</td>
<td>$270.00</td>
<td>$350.00</td>
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Payer fee schedule rates compared to Medicare rates

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<th>CPT Codes</th>
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<th>United</th>
<th>% Medicare</th>
<th>Cigna</th>
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<td>$270.00</td>
<td>108.00%</td>
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<td>140.00%</td>
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Currently there are three forms of health information exchange:

- Directed Exchange: The ability to send and receive secure information electronically between care providers and to support coordinated care.
- Query-based Exchange: The ability to find and/or request information on a patient from other providers. This is typically used for unplanned care.
- Consumer Medicated Exchange: The ability for patients to combine and control the use of their health information among providers.

**Figure 1: A visual representation of Health Information Exchange.**
A primary care provider can directly send electronic care summaries that include medications, problems, and lab results to a specialist when referring their patients. This information helps to inform the visit and prevents the duplication of tests, redundant collection of information from the patient, wasted visits, and medication errors.

Directed exchange is also being used for sending immunization data to public health organizations or to report quality measures to The Centers for Medicare & Medicaid Services (CMS).

**QUERY-BASED EXCHANGE**
Query-based exchange is used by providers to search and discover accessible clinical sources on a patient. This type of exchange is often used when delivering unplanned care. For example:

Emergency room physicians who can utilize query-based exchange to access patient information—such as medications, recent radiology images, and problem lists—might adjust treatment plans to avoid adverse medication reactions or duplicative testing.

If a pregnant patient goes to the hospital, query-based exchange can assist a provider in obtaining her pregnancy care record, allowing them to make safer decisions about the care of the patient and her unborn baby.

**CONSUMER-MEDIATED EXCHANGE**
Consumer-mediated exchange provides patients with access to their health information, allowing them to manage their health-care online in a similar fashion to how they might manage their finances through online banking. When in control of their own health information, patients can actively participate in their care coordination by:

- Providing other providers with their health information
- Identifying and correcting wrong or missing health information
- Identifying and correcting incorrect billing information
- Tracking and monitoring their own health


Health Information Organizations (HIO) that manage HIEs may be public, private, or cooperative. A public HIE usually belongs to a state agency, or may be semi-independent with some form of government backing, such as:

- Arizona Governor’s Office of Economic Recovery (GOER) [http://az.gov/recovery/index.html](http://az.gov/recovery/index.html)
- Colorado Regional Health Information Organization (CORHIO) [www.corhio.org/](http://www.corhio.org/)
- Utah Health Information Network (UHIN) [www.uhin.org/](http://www.uhin.org/)

Private HIEs may be for-profit or non-profit organizations. They are sometimes hospitals or a lab providing the community service to draw physicians while increasing revenues. They may be locally developed systems or based on software provided by a third party. Examples of vendors providing HIE software include:

- Axolotl [www.axolotl.com/](http://www.axolotl.com/)
- RelayHealth [www.relayhealth.com](http://www.relayhealth.com)

A cooperative HIE is a consortium of regional providers and hospitals (who may compete, otherwise) coming together to mutually benefit from the exchange. Example:


Basic components of an HIE include:

- Governance, typically a group of healthcare stakeholders who determine policy for the HIE, such as how PHI will be managed
- An image and data repository
- EMPI
- Security
- A credentialing process determining privileges required for access

Health Information Organizations* may refer to themselves as:

- Health Information Exchange
- Clinical Information Exchange
- Health Information Organization
- Regional Health Information Organization
- Health Information Network

*Note that all HIOs, regardless of what they call themselves, provide HIE.