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# CLINICAL PROCEDURES

for Medical Assisting

SEVENTH  
EDITION



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RPT, CPhT, MS

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# CLINICAL PROCEDURES FOR MEDICAL ASSISTING

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## CLINICAL PROCEDURES FOR MEDICAL ASSISTING

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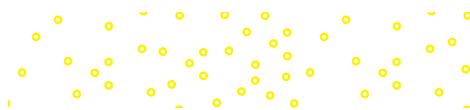
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**Kathryn A. Booth, RN-BSN, RMA (AMT), RPT, EFR, CPhT, MS** is a medical assistant (RMA) who started her career as a nurse (RN). She has a master's degree in education as well as certifications as a pharmacy technician and in phlebotomy and medical assisting. She is a certified emergency first responder and rescue scuba diver. Kathryn is an author, an educator, and a consultant for Total Care Programming, Inc. She has over 35 years of teaching, nursing, and healthcare experience that spans five states. As an educator, Kathy has been awarded the teacher of the year in three states where she taught various health sciences, including medical assisting in both a classroom and an online capacity. Kathy serves on the AMT Examinations, Qualifications, and Standards Committee and the Cardiac Credentialing International CRAT Exam Committee, as well as on the advisory board of two educational institutions. She stays current through volunteer employment and obtaining and maintaining certifications. Her goal is to develop up-to-date, dynamic healthcare educational materials to assist her and other educators and to promote healthcare professions especially medical assisting. Kathy values the medical assisting profession, recognizing that the diverse and dynamic professionals in it are essential to the future of our healthcare system.

**Leesa G. Whicker, BA, CMA (AAMA)** is a Certified Medical Assistant with a BA in art with a concentration in art history. She is an educator with more than 20 years of experience in the classroom. With 35 years of experience in the healthcare field as a medical assistant, a research specialist in molecular pathogenesis and infectious disease, and a medical assisting program director and instructor, she brought a broad background of knowledge and experience to the classroom. As a curriculum expert, she served on several committees, including the Writing Team for the Common Course Library for the North Carolina Community College System and the Curriculum Committee at Central Piedmont Community College. Leesa was among the first instructors to develop online courses at Central Piedmont Community College. She has presented Methods of Active and Collaborative Learning on the national level. She recently retired from Central Piedmont Community College in Charlotte, North Carolina. Though retired from teaching, she continues searching for novel and varied ways to reach the ever-changing learning styles of today's students.

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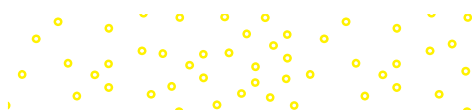
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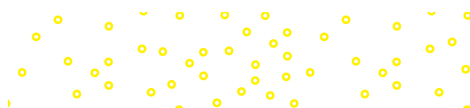
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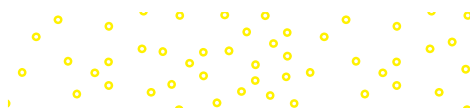
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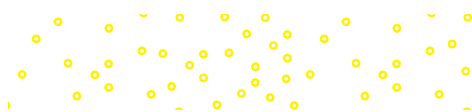
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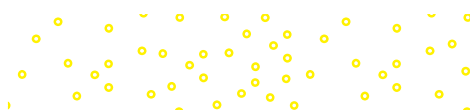
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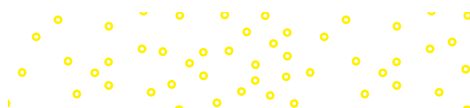
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**Peak Expiratory Flow Rate** 813  
**Interpreting a Prescription** 860  
**Administering Drugs by Mouth** 888  
**Drawing a Drug from an Ampule** 890  
**Reconstituting and Drawing a Drug for Injection** 890  
**Giving an Intradermal Injection** 891  
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## **NEW! Application-Based Activities (ABAs) Including Practice Medical Office (PMO)**

Drawing Up an Injection  
Obtaining a Pulse Oximetry Reading  
Flu Shot Incident  
Dealing with an Angry Parent  
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Clinical: Office Operations 141, 507, 911

Clinical: Privacy and Liability 696, 866, 879, 994  
Clinical: Work Task Proficiencies 648, 675, 934  
SmartVideo: BPH vs Prostate Cancer  
SmartVideo: The Prostate Gland  
SmartVideo: The Mammary Gland  
SmartVideo: Breast Cancer  
SmartVideo: Breast Cancer Treatment  
SmartVideo: Food Absorption  
SmartVideo: Blood Pressure & Hypertension  
SmartVideo: Hypertension Treatments  
SmartVideo: The Liver – Anatomy and Function  
SmartVideo: Liver Failure and Treatment  
SmartVideo: Liver Failure – Acetaminophen Overdose  
SmartVideo: Measuring Auditory Acuity  
SmartVideo: Measuring Blood Glucose Using a Handheld Glucometer  
SmartVideo: Measuring Hematocrit Percentage after Centrifuge  
SmartVideo: Meiosis  
SmartVideo: Mitosis  
SmartVideo: Obtaining Information from a Geriatric Patient  
SmartVideo: Performing Ear Irrigation  
SmartVideo: Performing Vision Screening Tests  
SmartVideo: Preparing a Blood Smear

Find the complete list of of **NEW! Application-Based Activities (ABAs)** with the Instructor Resources on **Connect**.

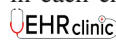
# A Closer Look

Medical assisting is a rock-solid career with a variety of essential tasks. These tasks are always expanding and changing as the healthcare environment changes. Learning these tasks and stacking them together can be a challenge. The seventh edition is updated to help students as well as instructors learn these ever-changing tasks and stay current in the healthcare environment. McGraw-Hill is committed to helping prepare students to succeed in their educational program and career by providing a complete and easy set of solutions for the educators of these programs. The following will give you a snapshot of some of the exciting solutions available with the seventh edition of *Medical Assisting: Clinical Procedures with Anatomy and Physiology* for your Medical Assisting course. Instructors across the country have told us how much preparation it takes to teach medical assisting. To help, we have added more detailed information on how to organize and utilize the many available practice features and activities, as well as a breakdown by Learning Outcomes for corresponding activities entitled the Comprehensive Asset Map, located in the Instructor Resources portion of Connect.

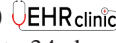

## The Content—a Note from the Authors

The seventh edition of *Medical Assisting: Clinical Procedures with Anatomy and Physiology* has many exciting and noteworthy updates. With insightful feedback from our users and reviewers, our experienced author team set out to create a one-of-a-kind, dynamic, practical, realistic, and comprehensive

set of tools for individuals preparing to become medical assistants as well as the instructors helping them to accomplish this task.

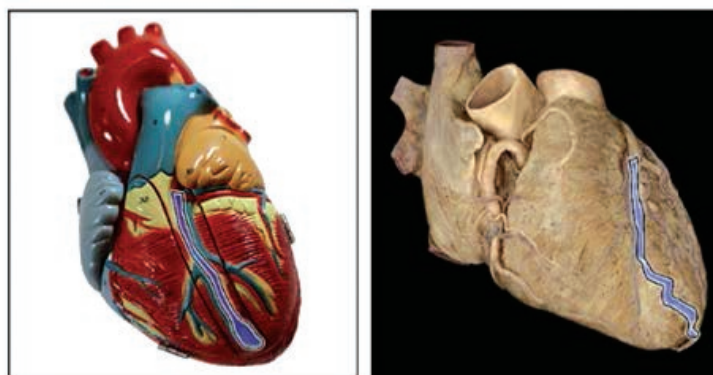
When you begin the book, you will find it is not just about rote memorization of concepts. *Medical Assisting* immerses you in the world of BWV Medical Associates, where you learn as you confront new workplace challenges in each chapter. All elements of the book—from the case studies in each chapter and the Soft Skills Success exercises to the  screenshots and other visuals—immerse the student in a realistic learning environment. Case studies are built around a set of patients who regularly visit BWV Medical Associates, and you will get to know these patients as well as the employees of BWV Medical Associates as you move through the chapters and the accompanying EHR exercises.

Within this framework, we have worked to provide the most up-to-date information about all aspects of the medical assisting profession, with a focus on consistency, authenticity, and accuracy. Along with thousands of minor tweaks and updates, *Medical Assisting*, seventh edition, incorporates the following:

- **New!** Over 100  electronic health record exercises correlated to 34 chapters.
- **New!** A complete set of 23  exercises included with Chapter 12 Electronic Health Records that provides documentation of EHR proficiency and a “big picture” journey for the student.
- Dozens of BWV EHR documentation/progress note examples in both clinical and administrative chapters.

### Coronary Circulation: Anterior View

Click on the name of each structure to reveal its location on the model and cadaver photos.



Right coronary artery

Right marginal artery

Left coronary artery



Anterior Interventricular artery

Great cardiac vein

Circumflex artery

**FIGURE FM-1** The new Practice Atlas.

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- Soft Skills Success exercises located with the Chapter Review that test employability skills and link students to related modules in Practice Medical Office (PMO) and Application-Based Activities (ABAs).
-  Over 30  screenshots throughout the text to showcase basic EHR skills in the context of the BWV Medical Associates.
- Case studies that are enhanced by the inclusion of more detailed clinical information and link to the new Soft Skills Success activities where applicable.
- Coding content focusing on ICD-10-CM, including detailed 1500 claim form instructions utilizing the 5010 updates to make the form compliant with ICD-10 requirements
- **New!** Thirteen math and dosage videos and questions located as assignments in Connect.
- Inclusion of content and terminology related to all of the current medical assisting standards to help ensure student certification success.
- Brand new level heading in all of the anatomy and physiology chapters titled “Diagnostic Exams and Test.”
- **New! Medical Terminology Practice** feature with the anatomy and physiology chapters to bring further understanding of the power of the construction and deconstruction of medical terms, as well as corresponding practice questions in the Chapter Review.
- **New!** Corresponding practice of anatomy and physiology with **Practice Atlas** on Connect.

A more detailed list of chapter changes is covered in the next section.

## Key Chapter-by-Chapter Changes

The following chapter-by-chapter list includes the essential changes and updates made to the book. A full list of changes is available in the transition guide provided in the Instructor Resources on Connect.

- |           |  |
|-----------|--|
| Chapter 1 | The medical assistant as a patient navigator, scope of practice procedure, standard of care, and practice test provided by certification organizations. A new procedure titled Locate Your State’s Legal Scope of Practice |
| Chapter 3 | Professional use of personal electronic devices and social media, customer service as professionalism, cultural diversity with co-workers  |
| Chapter 4 | Introduction to Behavioral Health Issues, Substance Abuse, and Gender Identity and Sexuality and more detail about Roadblocks to Effective Communication   |
| Chapter 5 | POLST, Advance Medical Directive, DNR, and DNAR  |
| Chapter 6 | OPIM, transmission-based precautions, and OSHA education and training requirements for ambulatory care   |

- |            |  |
|------------|--|
| Chapter 7  | Computer Vision Syndrome, service dogs and comfort animals, visual relay services  |
| Chapter 9  | Mixing 10% bleach solution; key terms <i>anoscope, examination light, laryngeal mirror, nasal speculum, otoscope, penlight, reflex hammer</i>  |
| Chapter 12 | Meaningful Use, expanded coverage of shared data, general guidelines for using an EHR program, practice management systems, updated EHR content with new  program |
| Chapter 14 | Communicating with deaf, Uber, Lyft, and cell phone use  |
| Chapter 15 | Electronic media use, defined modeling versus return demonstration; sample e-newsletter, patient information form, and physician information figures added   |
| Chapter 21 | New Medical Terminology focus feature and “Diagnostic Exams and Tests” heading under Pathophysiology section   |
| Chapter 22 | Added melanin and modified burn and skin cancer sections, New Medical Terminology focus feature and “Diagnostic Exams and Tests” heading under Pathophysiology section   |
| Chapter 23 | New Medical Terminology focus feature and “Diagnostic Exams and Tests” heading under Pathophysiology section   |
| Chapter 24 | New Medical Terminology focus feature and “Diagnostic Exams and Tests” heading under Pathophysiology section   |
| Chapter 25 | Added <i>interatrial</i> and <i>interventricular</i> as related to the septum and additional information about capillaries; new Medical Terminology focus feature and “Diagnostic Exams and Tests” heading under Pathophysiology section             |
| Chapter 26 | New Medical Terminology focus feature and “Diagnostic Exams and Tests” heading under Pathophysiology section   |
| Chapter 27 | Removed HIV/AIDS section and revised Medical Terminology focus feature and “Diagnostic Exams and Tests” heading under Pathophysiology  |
| Chapter 28 | Added image of paranasal sinuses, new Medical Terminology focus feature and “Diagnostic Exams and Tests” heading under Pathophysiology section   |
| Chapter 29 | New Medical Terminology focus feature and “Diagnostic Exams and Tests” heading under Pathophysiology section   |
| Chapter 30 | New Medical Terminology focus feature and “Diagnostic Exams and Tests” heading under Pathophysiology section   |



- Chapter 31 New Medical Terminology focus feature and “Diagnostic Exams and Tests” heading under Pathophysiology section
- Chapter 32 New Medical Terminology focus feature and “Diagnostic Exams and Tests” heading under Pathophysiology section
- Chapter 33 New Medical Terminology focus feature and “Diagnostic Exams and Tests” heading under Pathophysiology section
- Chapter 34 New Medical Terminology focus feature and “Diagnostic Exams and Tests” heading under Pathophysiology section
- Chapter 35 Updated CDC Reportable Diseases
- Chapter 36 Clarified communication with child, updated tables
- Chapter 37 Updated normal vital signs measurements, added Points on Practice for Body Measurements, moved Pulse Oximeter to this chapter.
- Chapter 38 Added new Caution: Handle with Care feature “Understanding Communication Barriers”
- Chapter 39 New Figure 39-3 of mammogram
- Chapter 40 Expanded the list of tests routinely performed as part of neonatal screening to include cystic fibrosis, biotinidase deficiency, galactosemia, hypothyroidism, and sickle cell disease
- Chapter 41 Added more challenges faced by geriatric patients, updated hypertension per AHA guidelines
- Chapter 42 Added chondrosarcomas to Table 42-1; updated several images; added chemical and nuclear stress tests information
- Chapter 43 Revised types of vision test and included contrast sensitivity and functional acuity tests; added Weber and Rhine hearing tests with images
- Chapter 44 Added section about Point of Care tests
- Chapter 45 Revised content about microscope, CLIA Certificate of Waiver, and calibration and control samples
- Chapter 46 Added CDC’s “Be Antibiotics Aware” information on antibiotic resistance avoidance
- Chapter 47 Revised the text and illustrations for clarity, and replaced some illustrations with photographs; added new photos for bacteria, yeast, and parasites
- Chapter 48 Reorganized information for clarity and added new learning outcome, new information about ESR, and performing blood collection; added requisition form to chapter
- Chapter 49 Moved Pulse Oximeter information to Chapter 37
- Chapter 50 Added information about the problem with eye makeup causing MRI artifacts
- Chapter 51 Updated drug names and addressed look-alike/sound-alike drugs
- Chapter 52 Added media resources to improve understanding
- Chapter 53 New images of calibrated spoons and oral syringes; additional information about needle selection
- Chapter 54 New images of crutch gaits to improve understanding
- Chapter 55 New images of nutrients; added celiac and nonceliac gluten sensitivity, allergy treatments, preventing obesity
- Chapter 57 Updated tourniquet usage, changed triage to prioritization protocols in Caution box: Planning and Implementing a Preparedness Plan for Pandemic Illness
- Chapter 58 Stressed leaving options open in the “Professional Objective” section of the résumé

# A Guided Tour

## Learning Outcomes, Key Terms, and Textbook Organization

Every learning outcome in *Medical Assisting*, seventh edition, is aligned with a level I heading. McGraw-Hill has made it even easier for students and instructors to find, learn, and review critical information. The chapter organization of the seventh edition is organized to promote learning based on what a medical assistant does in practice. The chapters build on one another to ensure student understanding of the many tasks they will be expected to perform. The chapters can be easily grouped together to create larger topics or units for the students to learn. For ease of understanding, content can be organized as follows:

- Unit One, Medical Assisting as a Career—Chapters 1, 3, 4, 5
- Unit Two, Safety and the Environment—Chapters 6, 7, 9
- Unit Three, Communication—Chapters 12, 14, 15
- Unit Four, Administrative Practices—Chapters 15 to 20
- Unit Five, Applied Anatomy and Physiology—Chapters 21 to 34
- Unit Six, Clinical Practices—Chapters 35 to 44
- Unit Seven, Assisting with Diagnostics—Chapters 45 to 50
- Unit Eight, Assisting in Therapeutics—Chapters 51 to 55
- Unit Nine, Medical Assisting Practice—Chapters 56 to 58

Key terms are called out at the beginning of each chapter and are set in bold throughout the text to further promote the mastery of learning outcomes.

LEARNING OUTCOMES	KEY TERMS
<p>After completing Chapter 11, you will be able to:</p> <p><b>11.1</b> Explain the importance of patient medical records.</p> <p><b>11.2</b> Identify the documents that constitute a patient medical record.</p> <p><b>11.3</b> Compare SOMR, POMR, SOAP, and CHEDDAR medical record formats.</p> <p><b>11.4</b> Recall the six Cs of charting, giving an example of each.</p> <p><b>11.5</b> Describe the need for neatness, timeliness, accuracy, and professional tone in patient records.</p> <p><b>11.6</b> Illustrate the correct procedure for correcting and updating a medical record.</p> <p><b>11.7</b> Describe the steps in responding to a written request for release of medical records.</p>	<p>audit</p> <p>CHEDDAR</p> <p>demographic documentation</p> <p>noncompliant</p> <p>objective</p> <p>patient record/chart</p> <p>problem-oriented medical record (POMR)</p> <p>review of systems</p> <p>sign</p> <p>source-oriented medical record (SOMR)</p> <p>subjective</p> <p>Subjective, Objective, Assessment, and Plan (SOAP)</p> <p>symptom</p> <p>transcription</p>

## Content Correlations

*Medical Assisting*, seventh edition, also provides a correlation structure that will enhance its usefulness to both students and instructors. We have been careful to ensure that the text and supplements provide coverage of topics crucial to all of the following:

- CAAHEP (Commission on Accreditation of Allied Health Education Programs) Standards and Guidelines for Medical Assisting Education Programs

- ABHES (Accrediting Bureau of Health Education Schools) Competencies and Curriculum
- AAMA (American Association of Medical Assistants) CMA (Certified Medical Assistant) Occupational Analysis
- AMT (American Medical Technologists) RMA (Registered Medical Assistant) Task List
- AMT (American Medical Technologists) CMAS (Certified Medical Assistant Specialist) Competencies and Examination Specifications
- NHA (National Healthcareer Association) Certified Clinical Medical Assistant (CCMA)
- NHA (National Healthcareer Association) Certified Medical Administrative Assistant (CMAA)
- CMA (AAMA) Certification Examination Content Outline
- NCCT (National Center for Competency Testing) National Certified Medical Assistant (NCMA) Detailed Test Plan
- NAHP (National Association for Health Professionals) Nationally Registered Certified Medical Assistant (NRCMA) content outline
- NAHP (National Association for Health Professionals) Nationally Registered Certified Administrative Health Assistant (NRCCHA) content outline
- CAHIIM (Commission on Accreditation for Health Informatics and Information Management Education)
- SCANS Correlation

Correlations to these are included with the instructor resources located on Connect (see later pages for information about Connect™). In addition, CAAHEP requires that all medical assistants be proficient in the 71 entry-level areas of competence when they begin medical assisting work. ABHES requires proficiency in the competencies and curriculum content at a minimum. The opening pages of each chapter provide a list of the areas of competence that are covered within the chapter.

MEDICAL ASSISTING COMPETENCIES	
CAAHEP	ABHES
<p><b>V.P.1</b> Use feedback techniques to obtain patient information including:</p> <p>(a) reflection</p> <p>(b) restatement</p> <p>(c) clarification</p> <p><b>V.P.11</b> Report relevant information concisely and accurately</p> <p><b>VI.C.4</b> Define types of information contained in the patient's medical record</p> <p><b>VI.C.5</b> Identify methods of organizing the patient's medical record based on:</p> <p>(a) problem-oriented medical record (POMR)</p> <p>(b) source-oriented medical record (SOMR)</p> <p><b>VI.C.6</b> Identify equipment and supplies needed for medical records in order to:</p> <p>(a) Create</p> <p>(b) Maintain</p>	<p><b>3. Medical Terminology</b></p> <p>d. Define and use medical abbreviations when appropriate and acceptable</p> <p><b>4. Medical Law and Ethics</b></p> <p>a. Follow documentation guidelines</p> <p>b. Institute federal and state guidelines when:</p> <p>(1) Releasing medical records or information</p> <p><b>5. Human Relations</b></p> <p>h. Display effective interpersonal skills with patients and health care team members</p> <p><b>7. Administrative Procedures</b></p> <p>a. Gather and process documents</p> <p>g. Display professionalism through written and verbal communications</p>

You will also find that each procedure is correlated to the ABHES and CAAHEP competencies within the workbook on

the procedure sheets. These sheets can be easily pulled out of the workbook and placed in the student file to document proficiency.

## Chapter Features

Each chapter opens with material that includes the Case Study, the learning outcomes, a list of key terms, the ABHES and CAAHEP medical assisting competencies covered in the chapter, and an introduction. Since the learning outcomes represent each of the level I headings in the chapter, they serve as the chapter outline. Chapters are organized into topics that move from the general to the specific. Updated color photographs, anatomical and technical drawings, tables, charts, and text features help educate the student about various aspects of medical assisting. The text features include the following:

- **Case Studies** are provided at the beginning of all chapters. They represent situations similar to those that the medical assistant may encounter in daily practice. The case studies include pictures of each of the patients who come to BWB Medical Associates for care (and, where applicable, matching *avatars* in the new **EHRclinic** and ABAs). Students are encouraged to consider the case study as they read each chapter. Case Study Questions in the end-of-chapter review check students' understanding and application of chapter content.

### CASE STUDY

PATIENT INFORMATION	Patient Name	DOB	Allergies
	Mohammad Nassar	05/17/2005	NKA
	Attending	MRN	Other Information
	Elizabeth H. Williams, MD	00-AA-007	

for his rescue inhaler in the last several days. His mother has brought him to the appointment, but Mohammad Nassar has asked that she remain in the reception area during his appointment. She does give you a list of Mohammad's current asthma medications and the previously completed new patient documents.

©David Sacks/Getty Images

*Keep Mohammad Nassar (and his mother) in mind as you study this chapter. There will be questions at the end of the chapter based on the case study. The information in the chapter will help you answer these questions.*

Mohammad Nassar is a teenage male who is new to the practice and comes to the office today for an annual physical examination. He has a known past medical history of asthma, which has been relatively stable until recently. He states when he arrives that he has been experiencing an increasing need

©David Sacks/Getty Images

### CASE STUDY CRITICAL THINKING

Recall Mohammad from the case study at the beginning of the chapter. Now that you have completed the chapter, answer the following questions regarding his case.

- As a new patient, which documents should be completed prior to Mohammad being seen by the physician? What documents should he have brought with him, if available?
- Your office uses a SOAP format for medical records. After Dr. Williams completes her exam, explain where each of the new documents or pieces of information obtained during Mohammad's exam will be filed using the SOAP format.

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- **Procedures** give step-by-step instructions on how to perform specific administrative or clinical tasks that a medical assistant will be required to perform. The procedures are referenced within the content when discussed and found in their entirety at the end of the chapter. In the workbook, the tearable procedure sheets mirror the exact procedures in the book and allow for easy practice and assessment. Critical procedures also can be studied in Clinical or Administrative skills video exercises on Connect, as well as new step-by-step videos of the procedures using the **EHRclinic**.

## PROCEDURE 12-1 Creating a New Patient Record Using EHR Software

**Procedure Goal:** To create a new patient record using EHR software

**OSHA Guidelines:** This procedure does not involve exposure to blood, body fluids, or tissue.

**Materials:** Initial patient forms (patient information, advance directives, physician notes, referrals, and laboratory orders)

### Method:

- From the **EHRclinic** home screen, select "Tools" from the left side of the screen.
- On this Administrative tools screen, under the Information Management window, click on the blue bar labeled "Manage practice data."
- At the next screen, Information Management List, choose "Patient Information." At the top of the Patient Listing, click the "Add New Patient" button.
- The patient's chart number will auto-populate on the

**RATIONALE:** This is a legal record. The information must be entered completely and correctly.

- Any field marked with an "\*" is a required field. For instance, the patient's address is a required field, as is the identification number. The insurance name field must be completed with the insurance company name. This field may also be used if the patient does not have insurance by entering "none" or used temporarily if the patient has insurance that is new to the practice that must be entered into the system. In any case, the insurance name field is required.

**RATIONALE:** A required field is considered essential information by the practice, so the field cannot be skipped.

- Continue entering the information in each field, and use the scroll bar on the right-hand side of the screen to see all of the fields.
- Inspect all information for accuracy. Once you are satisfied that all information is complete and accurate, click the "Add Patient" button to save the patient

- **Points on Practice** feature boxes provide guidelines on keeping the medical office running smoothly and efficiently.
- **Educating the Patient** feature boxes focus on ways to instruct patients about caring for themselves outside the medical office.
- **Caution: Handle with Care** feature boxes cover the precautions to be taken in certain situations or when performing certain tasks.

### CAUTION: HANDLE WITH CARE

#### Maintaining Standards of Cleanliness in the Reception Area

Cleanliness is (and should be) one of a medical office's hallmarks. Not only is cleanliness required in the examination and testing rooms, it is also expected in the patient reception area. A messy patient reception area reflects badly on the practice. Patients may think, "If they don't care about this, what else do they not care about?" Maintaining standards of cleanliness helps ensure that the reception area is presentable and inviting at all times.

As a medical assistant, you may be involved—along with the physician, office manager, and other staff members—in setting the office's cleanliness standards. Standards are general guidelines. In addition to setting standards, you will need to specify the tasks required to meet each standard. You also may want to create a checklist to meet all of these standards. The following list outlines standards you may want to consider. Specific housekeeping tasks for meeting those standards are included in parentheses.

- Keep everything in its place. (Complete a daily visual check for out-of-place items. Return all magazines to racks. Push chairs back into place.)
- Dispose of all trash. (Empty trash cans. Pick up trash on the floor or on furniture.)
- Prevent dust and dirt from accumulating on surfaces. (Wipe or dust furniture, lamps, and artificial plants. Polish doorknobs. Clean mirrors, wall hangings, and pictures.)

- Spot-clean areas that become dirty. (Remove scuffmarks. Clean upholstery stains.)
- Disinfect areas of the reception area if they have been exposed to body fluids. (Immediately clean and disinfect all soiled areas.)
- Handle items with care. (Take precautions when carrying potentially messy or breakable items. Do not carry too much at once.)

After the standards have been established, type and post them in a prominent place for the office staff (but not the patients) to see. The cleaning activities checklist may be posted, but the person responsible for cleaning the office also should keep a copy. It is everyone's duty to keep the office looking clean and presentable.

A schedule of specific daily and weekly cleaning activities also should be posted. Less frequent housekeeping duties, such as laundering drapes, shampooing the carpet, and cleaning windows and blinds, can be noted in a tickler file so that they will be performed on a regular basis. It is always a good idea to have a second staff member responsible for periodically working with the medical assistant on housekeeping responsibilities. That person also may be responsible for handling cleaning duties when the medical assistant is away from the office.

- **Pathophysiology** is featured in each of the chapters on anatomy and physiology. These sections provide students with details of the most common diseases and disorders of each body system and include information on the causes, common signs and symptoms, diagnostic exams and tests, treatment, and, where possible, the prevention of each disease.

## PATHOPHYSIOLOGY

LO 23.11

### Common Diseases and Disorders of the Skeletal System

**Arthritis** is a general term meaning "joint inflammation." Although there are more than 100 types of arthritis, we will discuss the two most common types: osteoarthritis and rheumatoid arthritis.

**OSTEOARTHRITIS**, also known as *degenerative joint disease (DJD)*, is the most common type of joint disorder, affecting nearly everyone to some degree by the age of 70. DJD primarily affects the weight-bearing joints of the hips and knees, and the cartilage between the bones and the bones themselves begin to break down.

**Causes.** Research points to inflammatory processes or metabolic disorders as the etiology of DJD.

**Signs and Symptoms.** These include joint stiffness, aching, and pain, especially with weather changes. There is often fluid around the joint and grating noises with joint movement. The grating noise is usually caused by bone-on-bone contact.

**Diagnostic Exams and Tests.** X-rays of the affected joint are used to determine if osteoarthritis is present. Blood tests are



**FIGURE 23-14** X-ray image of the Birmingham Hip Resurfacing prosthesis of the left hip.  
©iStock Case Programming, Inc.

**Causes.** RA is an autoimmune disease. The body's immune system attacks the synovium (lining) of the joints, triggering inflammation.

**Signs and Symptoms.** In this disease, immune system attacks cause edema (swelling), tenderness, and warmth in and around the joints. Tissue becomes granular and thick, eventually

Each chapter closes with a summary of the Learning Outcomes. The summary is followed by an end-of-chapter review with questions related to the case study, as well as 10 multiple-choice exam-style questions.

SUMMARY OF LEARNING OUTCOMES	
OUTCOME	KEY POINTS
12.1 List four medical mistakes that will be greatly decreased through the use of EHR.	Medical mistakes that will be greatly decreased or eliminated with EHR include lost or misfiled paper records, mishandled or "forgotten" patient messages, inaccurate or unreadable information in a paper medical record, and mislabeled or unreadable laboratory or prescription orders.
12.2 Differentiate among electronic medical records, electronic health records, and personal health records.	The electronic medical record is an electronic record of health-related information for an individual patient that is created, compiled, and managed by providers and staff members located within a single healthcare organization. An electronic health record is created, managed, and gathered in a manner that conforms to nationally recognized interoperability standards, so that members of more than one healthcare organization can utilize it. A personal health record is an electronic version of the comprehensive medical history and record of a patient's lifelong health that is collected and maintained by the individual patient.
12.3 Explain the concept of meaningful use, identifying at least two of its goals.	Meaningful use describes EHR as improving quality, safety, and efficiency, and reducing health disparities. It engages the patient and family as well as improves coordination of care for population and public health. Maintenance of the privacy and security of PHI also is required. The goals include better clinical outcomes, improved population health outcomes, increased transparency and efficiency, empowered individuals, and more robust research data on health systems.

- **Medical Terminology** practice exercises have been added to all the anatomy and physiology chapters.

- **Soft Skills Success** practice scenarios emphasize employability skills and critical thinking in complex situations. These new exercise features are included in most non-A&P chapters and are correlated to Practice Medical Office and Application-Based Activities where applicable.

SOFT SKILLS SUCCESS


A 35-year-old male patient is scheduled for a vasectomy tomorrow. It is within your scope of practice to provide preoperative instruction, and you feel confident in performing this task. When you introduce yourself and explain what you are going to do, the first words out of the patient's mouth are, "How do you know what this is all about? I am the one who is getting things cut!" How would you respond to this patient?

**Practice**

Go to PRACTICE MEDICAL OFFICE and complete the module Admin - Check Out - Interactions.

The book also includes a glossary and three appendices for use as reference tools. The glossary lists all the words presented as key terms in each chapter, along with a pronunciation guide and the definition of each term. The appendices present a list of common medical terminology, including prefixes, root words, and suffixes, as well as medical abbreviations and symbols. A Diseases and Disorders appendix provides a quick reference point for patient conditions that the student may encounter.

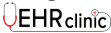
# Digital Materials for *Medical Assisting*

For the seventh edition, we enhanced the integration between the textbook and our digital study materials and expanded our offerings to better cover all aspects of medical assisting. Links between the textbook and the key study resources are highlighted by eye-catching icons divided by resource type. Digital study resources with icons include BodyANIMAT3D,  electronic health record exercises, and both Administrative and Clinical Skills videos. Real-life practice opportunities include Practice Medical Office and Application-Based Activities, with icons at the end of the chapter.

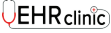




These different types of icons are then used to call out specific activities and exercises by name. For example, above you can see an icon for Connect skills videos (the resource) about Establishing and Conducting Supply Inventory and Receiving Supplies (the exercise name).

## McGraw-Hill Connect® Medical Assisting

A number of our key resources for *Medical Assisting*, 7e—including BodyANIMAT3D activities, skills video exercises, and  electronic health records exercises—are part of our Connect offering for Medical Assisting.

Here is more on what you can expect to find in Connect for *Medical Assisting*, 7e, specifically:

- NEW!  Exercises
  - Over 101 **electronic health record actionable exercises** correlated to over 34 chapters of *Booth Medical Assisting*, 7th edition. These simulated exercises allow students to navigate the  tool while learning the tasks of a Medical Assistant.
- NEW!  **financial practice management exercises** designed to provide students with practical experience with electronic billing, charge capture, payment posting, and more.
- Pre- and Post-Tests
- End-of-Chapter Exercises
- Interactive Exercises
- Administrative and Clinical Skills Video Exercises\*
- BodyANIMAT3D Exercises\*
- ICD-10 Coding Exercises\*
  - Utilizing scenarios developed by the authors, students can practice identifying and inputting the proper ICD-10 codes.




\*in applicable chapters

- Medical Terminology Practice\*
  - A refresher area for the body systems chapters with Word Part exercises on select terms as well as audio terms with associated spelling practice.
- NEW! Math and dosage videos with questions that reinforce basic math needed by Medical Assistant students.
- NEW! **Practice Atlas** exercises for all of the Anatomy and Physiology chapters. The Practice Atlas for Anatomy & Physiology is an interactive tool that pairs images of common anatomical models with stunning cadaver photography, which allows students to practice naming structures on both models and human bodies. Additional multiple choice questions for practice are available as assignments in Connect.
- A completely revised and updated Test Bank (also available through the Instructor Resources).

As part of Connect for *Medical Assisting*, we also offer SmartBook's adaptive reading experience, which is powered by LearnSmart, the most widely used adaptive learning resource.

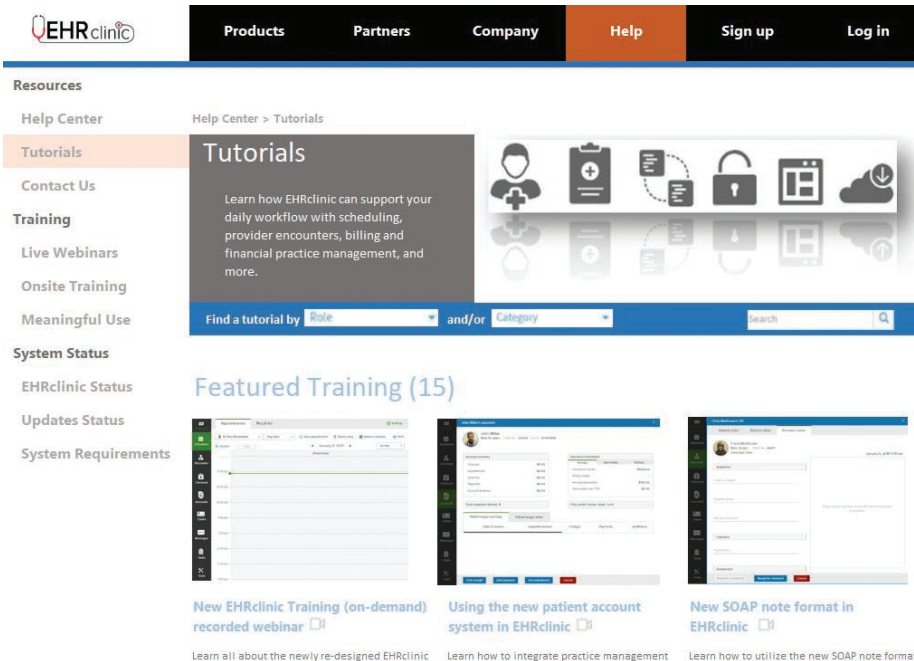
For more information on Connect—the teaching and learning platform used with all McGraw-Hill Education products—and SmartBook, look for the section *Connect, Required=Results*.

## Simulations and Games for Medical Assisting

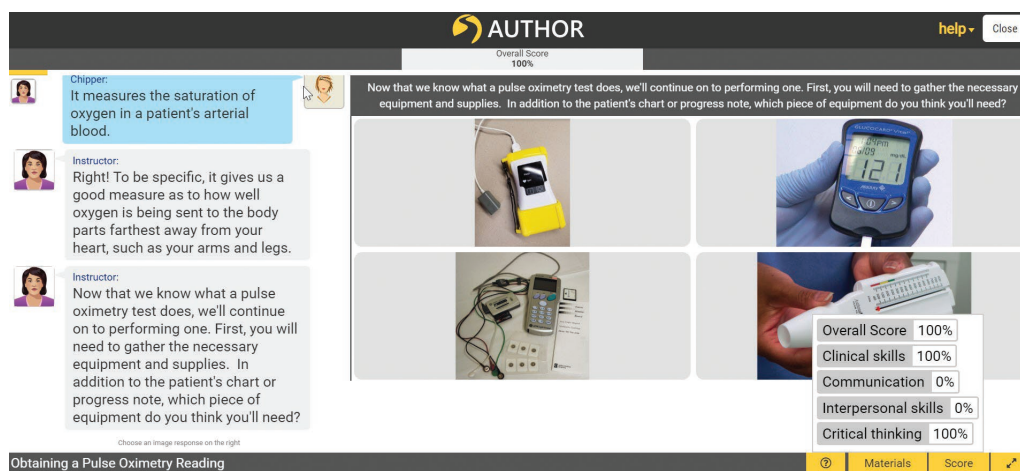
, McGraw-Hill's NEW electronic health record tool, allows for the look and feel of a real electronic health records system fully integrated with CONNECT.  provides over 101 exercises directly correlated to 34 chapters of *Booth Medical Assisting*, 7e, with *Chapter 12 Electronic Health Records* being the most robust. These actionable exercises allow students to navigate the  tool, providing practical experience using electronic health records while they learn the tasks of a medical assistant. These simulated exercises are assignable in Connect and are autograded. Chapter 12 includes 23 exercises that take the student through the paces of electronic health records including administrative functions and financial management. Completion of these exercises in total provides the basis for documenting electronic health record practical experience and gives the student “the big picture.”



In **Practice Medical Office (PMO)**, the student takes on the role of a new medical assistant in a 3D, immersive game focused on teaching the six key skills important to working in a medical office—professionalism, soft skills, office acumen, liability, medical knowledge, and privacy. **Practice Medical Office** features 12 engaging and challenging



**FIGURE FM-2** The new EHRclinic  
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**FIGURE FM-3** A new Application-Based Activity (ABA)  
©McGraw-Hill Education

modules representing the functional areas of a medical practice: administrative check-in interactions, clinical interactions, and administrative check-out interactions. As the players progress through each module, they will be faced with realistic situations and learning events that will test their mastery of critical job readiness skills in a fun, engaging learning experience. The **PMO modules** will be found together with the **Application-Based Activities** described below.

For a demo of **Practice Medical Office**, please go to [http://www.mhpractice.com/products/Practice\\_Medical\\_Office](http://www.mhpractice.com/products/Practice_Medical_Office) and click on “Play the Demo.” An instructor’s manual for PMO, correlated to ABHES and CAAHEP standards by learning event, is available in your Instructor Resources on Connect.

For the **NEW Application-Based Activities**, or **ABAs**, the student is immersed in a brief, microsimulation

experience, with the ability to practice steps in key Procedures *outside* a lab and “virtually” with an instructor. Along with the **Procedure ABAs**, students will be able to practice real-life **Scenario ABAs** that call upon decision making and application of medical assisting knowledge. Depending on the **ABA**, students will be graded on Objectives such as Clinical Skills, Administrative Skills, Interpersonal Skills, Communication, and more, all of which are aligned with ABHES and CAAHEP standards in the instructor materials. Find a full list of the **ABAs**, as well as resources for how to incorporate in your course, in the Instructor Resources on Connect.

On Connect, both the **PMO modules** and the **ABAs** can be found within the “Add Assignment” menu, under “MH Practice Activity” (title at publication).



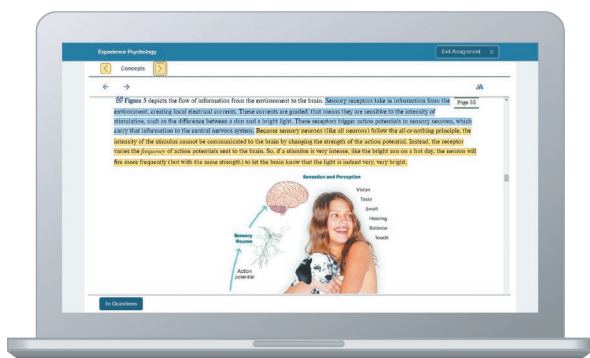
## FOR INSTRUCTORS

### You're in the driver's seat.

Want to build your own course? No problem. Prefer to use our turnkey, prebuilt course? Easy. Want to make changes throughout the semester? Sure. And you'll save time with Connect's auto-grading too.

65%

Less Time  
Grading



Laptop: McGraw-Hill; Woman/dog: George Doyle/Getty Images

### They'll thank you for it.

Adaptive study resources like SmartBook® 2.0 help your students be better prepared in less time. You can transform your class time from dull definitions to dynamic debates. Find out more about the powerful personalized learning experience available in SmartBook 2.0 at [www.mheducation.com/highered/connect/smartbook](http://www.mheducation.com/highered/connect/smartbook)

### Make it simple, make it affordable.



Connect makes it easy with seamless integration using any of the major Learning Management Systems—Blackboard®, Canvas, and D2L, among others—to let you organize your course in one convenient location. Give your students access to digital materials at a discount with our inclusive access program. Ask your McGraw-Hill representative for more information.

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### Solutions for your challenges.



A product isn't a solution. Real solutions are affordable, reliable, and come with training and ongoing support when you need it and how you want it. Our Customer Experience Group can also help you troubleshoot tech problems—although Connect's 99% uptime means you might not need to call them. See for yourself at **status.mheducation.com**

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**SUPPORT** AT  
*every step*

## FOR STUDENTS

### Effective, efficient studying.

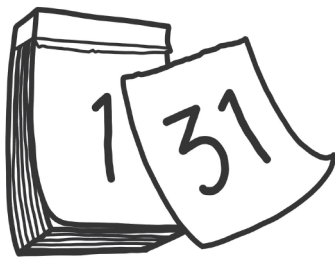
Connect helps you be more productive with your study time and get better grades using tools like SmartBook 2.0, which highlights key concepts and creates a personalized study plan. Connect sets you up for success, so you walk into class with confidence and walk out with better grades.

### Study anytime, anywhere.

Download the free ReadAnywhere app and access your online eBook or SmartBook 2.0 assignments when it's convenient, even if you're offline. And since the app automatically syncs with your eBook and SmartBook 2.0 assignments in Connect, all of your work is available every time you open it. Find out more at [www.mheducation.com/readanywhere](http://www.mheducation.com/readanywhere)

*"I really liked this app—it made it easy to study when you don't have your textbook in front of you."*

- Jordan Cunningham,  
Eastern Washington University



Calendar: owattaphotos/Getty Images

### No surprises.

The Connect Calendar and Reports tools keep you on track with the work you need to get done and your assignment scores. Life gets busy; Connect tools help you keep learning through it all.

### Learning for everyone.

McGraw-Hill works directly with Accessibility Services Departments and faculty to meet the learning needs of all students. Please contact your Accessibility Services office and ask them to email [accessibility@mheducation.com](mailto:accessibility@mheducation.com), or visit [www.mheducation.com/about/accessibility](http://www.mheducation.com/about/accessibility) for more information.

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# Additional Supplementary Materials

## Student Workbook for Use with *Medical Assisting, 7e*—in print and full color (ISBN: 978-1-260-47702-3)

The *Student Workbook* provides an opportunity for the student to review and practice the material and skills presented in the textbook. The workbook is divided into parts and presented by chapter; the first part provides the following:

- Vocabulary review exercises, which test knowledge of key terms in the chapter
- Content review exercises, which test the student's knowledge of key concepts in the chapter
- Critical thinking exercises, which test the student's understanding of key concepts in the chapter
- Application exercises, which include figures and practice forms and test mastery of specific skills
- Case studies, which apply the chapter material to real-life situations or problems

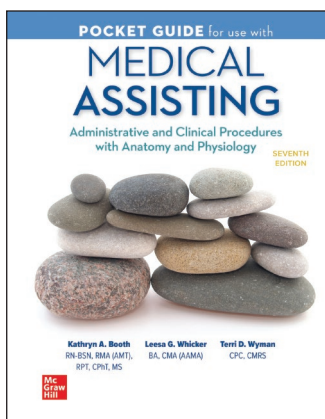
Each section, Clinical and/or Administrative, contains the appropriate procedures, presented in the order in which they are shown in the student textbook. These have been revised for ease of use and include correlations to the ABHES and CAAHEP competencies mastered with the successful completion of each procedure. Accompanying Work Product Documentation (work/doc) provides blank forms for many of the procedures that require a specific type of document to complete the procedure. These documentation forms are used when completing many of the application activities as well as procedure competencies. Over 100 procedures as well as multiple application activities in the workbook include correlated work docs.

## Pocket Guide for Use with *Medical Assisting, 7e* (ISBN: 978-1-260-47700-9)

The *Pocket Guide* is a quick and handy reference to use while working as a medical assistant or during training. It includes critical procedure steps, bulleted lists, and brief information all medical assistants should know. Information is sorted by Administrative, Clinical, Laboratory, and General content.

## Instructor Resources

*Medical Assisting* also comes with the instructor resources



you've come to expect, all of which can be found through the Instructor Resources section in Connect.

- An **Instructor's Manual** that contains everything to organize your course, complete with lecture outlines (with PowerPoint slide references), discussion points, learning activities, and case studies. Also included are the answer keys to the book and workbook.
- **Correlation Guides** map the standards of many accreditation bureaus, including the Accrediting Bureau of Health Education Schools (ABHES) Medical Assisting competencies and curriculum; the Commission on Accreditation of Allied Health Education Programs (CAAHEP) Standards and Guidelines for Medical Assisting Education Programs competencies; American Association of Medical Assistants (AAMA) Occupational Analysis; the Association of Medical Technologists (AMT) Registered Medical Assistant (RMA) Certified Exam Topics; the National Healthcareer Association (NHA) Medical Assisting Duty/Task List; the National Association for Health Professionals (NAHP) Nationally Registered Certified Medical Assistant (NRCMA) and Nationally Registered Certified Administrative Health Assistant (NRCAHA) content outlines; the Commission for Accreditation on Health Informatics and Information Management Education (CAHIIM); and the Secretary's Commission on Achieving Necessary Skills (SCANS) areas of competence, as well as others.
- **PowerPoint Presentations** have been fully updated to include the latest figures and content and to mirror the design of the book. Teaching notes offer suggestions—in addition to those in the Instructor's Manual—to keep your class running smoothly. We also have taken steps to make our PowerPoints more accessible, including adding alt tags for images and tables and ensuring that our slides are organized to be easily read by screen readers.
- A **Comprehensive Asset Map** breaks down all of the resources available through the book and Connect by chapter and by learning outcome to help you identify *what* you want to include in your course and *where* to find it.
- **New! Challenging Topics Asset Map** uses Heat Map data gathered from LearnSmart to determine the most challenging topics and Learning Objectives for students and then gives direction as to what resources and practice activities are available for those Learning Objectives, allowing the instructor to focus lectures or group chats on areas most needed.
- A **Transition Guide** to help users of earlier editions make the leap to this new edition, with thorough details outlined by the authors about changes big and small.

## Test Builder in Connect

Available within Connect, Test Builder is a cloud-based tool that enables instructors to format tests that can be printed or administered within a LMS. Test Builder offers a modern, streamlined interface for easy content configuration that matches course needs, without requiring a download.

Test Builder allows you to:

- access all test bank content from a particular title.
- easily pinpoint the most relevant content through robust filtering options.
- manipulate the order of questions or scramble questions and/or answers.
- pin questions to a specific location within a test.
- determine your preferred treatment of algorithmic questions.
- choose the layout and spacing.
- add instructions and configure default settings.

Test Builder provides a secure interface for better protection of content and allows for just-in-time updates to flow directly into assessments.

## Tegrity: Lectures 24/7

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Check out the Instructor Resources area on Connect for additional resources, including an image library, sample syllabi, printable procedure checklists and work documents, and more!

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# Introduction to Medical Assisting

## CASE STUDY

EMPLOYEE INFORMATION	Employee Name	Position	Credentials
	Sandro Peso	Student	In Training
	Supervisor	Date of Hire	Other Information
	Malik Katahri, CMM	10/11/2019	Assigned to Dr. Paul F. Buckwalter



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long until he graduates and needs to take the test to become credentialed. He is nervous about the exam but really wants to do well to get the best job he can to help support his family.

*Keep Sandro Peso in mind as you study this chapter. There will be questions at the end of the chapter based on the case study. The information in the chapter will help you answer these questions.*

Sandro Peso, a father of four in his mid-thirties, lost his job at a local factory. He is now a medical assistant-in-training and is currently working at BWW Medical Associates. He will be working in the administrative, clinical, and laboratory sections of the office. He wants to decide which area he likes best and where he might like to work when he finishes his training. It will not be

## LEARNING OUTCOMES

After completing Chapter 1, you will be able to:

- 1.1 Recognize the duties and responsibilities of a medical assistant.
- 1.2 Distinguish various organizations related to the medical assisting profession.
- 1.3 Explain the need for and importance of the medical assistant credentials.
- 1.4 Identify the training needed to become a professional medical assistant.
- 1.5 Discuss professional development as it relates to medical assisting education.

## KEY TERMS

- |  |   |
|--|---|
| accreditation  | continuing education  |
| Accrediting Bureau of Health Education Schools (ABHES)                   | cross-training  |
| American Association of Medical Assistants (AAMA)                        | Health Insurance Portability and Accountability Act (HIPAA) |
| American Medical Technologists (AMT)                                     | licensed practitioner                                       |
| certification  | multiskilled healthcare professional (MSHP)                 |
| Certified Medical Assistant (CMA)  | Occupational Safety and Health Administration (OSHA)        |
| Clinical Laboratory Improvement Amendments of 1988 (CLIA '88)            | patient navigator   |
| Commission on Accreditation of Allied Health Education Programs (CAAHEP) | professional development                                    |
|  | Registered Medical Assistant (RMA)                          |
|  | registration  |
|  | résumé  |
|  | scope of practice   |
|  | standard of care  |

- V.C.12** Define patient navigator
- V.C.13** Describe the role of the medical assistant as a patient navigator
- X.C.1** Differentiate between scope of practice and standards of care for medical assistants
- X.C.5** Discuss licensure and certification as they apply to healthcare providers
- X.P.1** Locate a state's legal scope of practice for medical assistants

### 1. General Orientation

- a. Describe the current employment outlook for the medical assistant
- c. Describe and comprehend medical assistant credentialing requirements, the process to obtain the credential and the importance of credentialing
- d. List the general responsibilities and skills of the medical assistant

### 4. Medical Law and Ethics

- f. Comply with federal, state, and local health laws and regulations as they relate to healthcare settings
  - (1) Define the scope of practice for the medical assistant within the state that the medical assistant is employed
  - (2) Describe what procedures can and cannot be delegated to the medical assistant and by whom within various employment settings

### 10. Career Development

- b. Demonstrate professional behavior
- c. Explain what continuing education is and how it is acquired

## ▶ Introduction

Healthcare is changing at a rapid rate. Advanced technology, implementation of cost-effective medicine, and the aging population are all factors that have caused growth in the healthcare services industry. As the healthcare services industry expands, the US Department of Labor projects that medical assisting will grow 29% between 2012 and 2022, which is much faster than the average for all occupations. The growth in the number of physicians' group practices and other healthcare practices that use support personnel such as medical assistants will in turn continue to drive up demand for medical assistants. The multifunctional medical assistant is the perfect complement to the changing healthcare industry.

Medical assistants have the training to perform a variety of duties, which qualify them to fill many different job openings in the healthcare industry. This chapter provides an introduction to the medical assisting profession. It presents a general description of your future duties, credentials, and needed training. Some basic facts about professional associations, organizations, and development related to medical assisting also are discussed. All of this will help you understand the career of a medical assistant.

## ▶ Responsibilities of the Medical Assistant

LO 1.1

Your specific responsibilities as a medical assistant will depend on the type, location, and size of the facility, as well as its medical specialties. General tasks performed by most

medical assistants include working and communicating with patients throughout the healthcare experience. In fact, medical assistants often perform the role of **patient navigator**. They help patients find their way through the sometimes complex healthcare system, helping them overcome any barriers they may encounter to help ensure that they get the diagnosis and treatment they need in a timely manner.

Medical assistants work in an administrative, clinical, and/or laboratory capacity. As an administrative medical assistant, you may handle the payroll for the office staff (or supervise a payroll service), obtain equipment and supplies, and serve as the link between the physician or other **licensed practitioner** and representatives of pharmaceutical and medical supply companies. As a clinical medical assistant, you will be the physician's or other licensed practitioner's right arm by maintaining an efficient office, assisting the practitioner during examinations, and keeping examination rooms in order. Note that a licensed practitioner in healthcare means an individual other than a physician who is licensed or otherwise authorized by the state to provide healthcare services. Your laboratory duties as a medical assistant may include performing basic laboratory tests and maintaining laboratory equipment. In small practices, you may handle all duties. In larger practices, you may specialize in a particular duty. As you grow in your profession, advanced duties may be required. The lists of duties in Table 1-1 are provided to help you better understand what you will be doing when you practice as a medical assistant.

**TABLE 1-1** Daily Duties of Medical Assistants

Duty Type	Entry-Level Duties	Advanced Duties
<p>General</p>  <p>©monkeybusinessimages/iStockphoto/Getty Images</p>	<ul style="list-style-type: none"> <li>• Recognizing and responding effectively to verbal, nonverbal, and written communications</li> <li>• Explaining treatment procedures to patients</li> <li>• Providing patient education within scope of practice</li> <li>• Facilitating treatment for patients from diverse cultural backgrounds and for patients with hearing or vision impairments, or physical or mental disabilities</li> <li>• Acting as a patient navigator and advocate</li> <li>• Maintaining medical records</li> </ul>	<p>None</p>
<p>Administrative</p>  <p>©JGI/Daniel Grill/Blend Images/Getty Images</p>	<ul style="list-style-type: none"> <li>• Greeting patients</li> <li>• Handling correspondence</li> <li>• Scheduling appointments</li> <li>• Answering telephones</li> <li>• Creating and maintaining patient medical records</li> <li>• Handling billing, bookkeeping, and insurance processing</li> <li>• Performing medical transcription</li> <li>• Arranging for hospital admissions</li> </ul>	<ul style="list-style-type: none"> <li>• Developing and conducting public outreach programs to market the licensed practitioner’s professional services</li> <li>• Negotiating leases of equipment and supply contracts</li> <li>• Negotiating nonrisk and risk managed care contracts</li> <li>• Managing business and professional insurance</li> <li>• Developing and maintaining fee schedules</li> <li>• Participating in practice analysis</li> <li>• Coordinating plans for practice enhancement, expansion, consolidation, and closure</li> <li>• Performing as a <b>HIPAA (Health Insurance Portability and Accountability Act)</b> compliance officer</li> <li>• Providing personnel supervision and employment practices</li> <li>• Providing information systems management</li> </ul>
<p>Clinical</p>  <p>©VGstockstudio/Shutterstock</p>	<ul style="list-style-type: none"> <li>• Assisting the licensed practitioner during examinations</li> <li>• Assisting with asepsis and infection control</li> <li>• Performing diagnostic tests, such as spirometry and ECGs</li> <li>• Giving injections, where allowed</li> <li>• Phlebotomy, including venipuncture and capillary puncture</li> <li>• Disposing of soiled or stained supplies</li> <li>• Performing first aid and cardiopulmonary resuscitation (CPR)</li> <li>• Preparing patients for examinations</li> <li>• Preparing and administering medications as directed by the licensed practitioner, and following state laws for invasive procedures</li> <li>• Recording vital signs and medical histories</li> <li>• Removing sutures or changing dressings on wounds</li> <li>• Sterilizing medical instruments</li> <li>• Instructing patients about medication and special diets, authorizing drug refills as directed by the licensed practitioner, and calling pharmacies to order prescriptions</li> <li>• Assisting with minor surgery</li> <li>• Teaching patients about special procedures before laboratory tests, surgery, X-rays, or ECGs</li> </ul>	<ul style="list-style-type: none"> <li>• Initiating an IV and administering IV medications with appropriate training and as permitted by state law</li> <li>• Reporting diagnostic study results</li> <li>• Assisting patients in the completion of advance directives and living wills</li> <li>• Assisting with clinical trials</li> </ul>
<p>Laboratory</p>  <p>©Adam Gault/AGE Fotostock</p>	<ul style="list-style-type: none"> <li>• Performing Clinical Laboratory Improvement Amendments (CLIA)–waived tests, such as a urine pregnancy test, on the premises</li> <li>• Collecting, preparing, and transmitting laboratory specimens</li> <li>• Teaching patients to collect specific specimens properly</li> <li>• Arranging laboratory services</li> <li>• Meeting safety standards (OSHA guidelines) and fire protection mandates</li> </ul>	<ul style="list-style-type: none"> <li>• Performing as an OSHA compliance officer</li> <li>• Performing moderately complex laboratory testing with appropriate training and certification</li> </ul>



You also may choose to specialize in a specific area of healthcare. For example, podiatric medical assistants make castings of feet, expose and develop X-rays, and assist podiatrists in surgery. Ophthalmic medical assistants help ophthalmologists (doctors who provide eye care) by administering diagnostic tests, measuring and recording vision, testing the functioning of eyes and eye muscles, and performing other duties. A discussion of medical specialties is found in the chapter *Healthcare and the Healthcare Team*. For specific information about medical assistant duties within medical specialty practice, refer to the following chapters: *Assisting in Reproductive and Urinary Specialties*, *Assisting in Pediatrics*, *Assisting in Geriatrics*, *Assisting in Other Medical Specialties*, and *Assisting with Eye and Ear Care*.

## ▶ Medical Assisting Organizations LO 1.2

Many organizations guide the profession of medical assisting. These include professional associations such as the American Association of Medical Assistants (AAMA), the American Medical Technologists (AMT), and National Healthcareer Association (NHA), as well as accrediting and registering organizations. As a future medical assistant, knowledge of these organizations will help you make critical decisions about your career.

Professional associations set high standards for quality and performance in a profession. They define the tasks and functions of an occupation, provide members with the opportunity to communicate and network with one another, as well as offer **continuing education**. Becoming a member of a professional association helps you achieve career goals and furthers the profession of medical assisting. Joining as a student is encouraged, and some associations even offer discounted rates to students for a specified amount of time after graduation.

### American Association of Medical Assistants

The idea for a national association of medical assistants—later to be called the **American Association of Medical Assistants (AAMA)**—was suggested at the 1955 annual state convention of the Kansas Medical Assistants Society. The next year, at an American Medical Association (AMA) meeting, the AAMA was officially created. In 1978, the US Department of Health, Education, and Welfare declared medical assisting as an allied health profession.

**AAMA's Purpose** The AAMA works to raise standards of medical assisting to a more professional level. It is the only professional association devoted exclusively to the medical assisting profession. The AAMA provides the CMA (AAMA) credential.

**AAMA Occupational Analysis** In 1996, the AAMA formed a committee whose goal was to revise and update its standards for the **accreditation** of programs that teach medical assisting. The committee's findings were published in 1997 as the "AAMA Role Delineation Study: Occupational Analysis of the Medical Assistant Profession." In 2009, it was updated and named the "Occupational Analysis of the

CMA (AAMA)". In 2013, the study identified the 12 most frequently performed responsibilities of medical assistants. They are listed here in the order of most performed to least performed.

1. Abide by principles and laws related to confidentiality.
2. Adapt communications to an individual's understanding.
3. Demonstrate respect for individual diversity (culture, ethnicity, gender, race, religion, age, economic status).
4. Employ professional techniques during verbal, nonverbal, and text-based interactions.
5. Comply with risk management and safety procedures.
6. Interact with staff and patients to optimize workflow efficiency.
7. Maintain patient records.
8. Provide care within legal and ethical boundaries.
9. Practice standard precautions.
10. Document patient communication, observations, and clinical treatments.
11. Identify potential consequences of failing to operate within the scope of practice of a medical assistant.
12. Transmit information electronically.

**Professional Support for CMAs (AAMA)** When you become a member of the AAMA, you will have a large support group of active medical assistants. Membership benefits include:

- Professional publications, such as *CMA Today*.
- A large variety of educational opportunities, such as chapter-sponsored seminars and workshops about the latest administrative, clinical, and management topics.
- Group insurance.
- Legal information.
- Local, state, and national activities that include professional networking and multiple continuing education opportunities.
- Legislative monitoring to protect your right to practice as a medical assistant.
- Access to the website at <http://www.aama-ntl.org>.

### American Medical Technologists (AMT)

**American Medical Technologists (AMT)** is a nonprofit certification agency and professional membership association representing over 45,000 individuals in allied healthcare. Established in 1939, AMT began a program to register medical assistants at accredited schools in the early 1970s. The AMT provides allied health professionals with professional certification services and membership programs to enhance their professional and personal growth. Upon certification, individuals automatically become members of AMT and start to receive benefits. You will read more about the benefits of joining a professional organization later in the chapter. The AMT provides many certifications, including the Registered Medical Assistant RMA (AMT) credential and the Certified Medical Assistant Specialist CMAS (AMT) credential.

## Professional Support for RMA (AMT) and CMAS

**(AMT)** The AMT offers many benefits. These include:

- Professional publications.
- Membership in the AMT Institute for Education.
- Group insurance programs—liability, health, and life.
- State chapter activities.
- Legal representation in health legislative matters.
- Annual meetings and educational seminars.
- Student membership.
- Access to the website at <http://www.americanmedtech.org>.

## National Healthcareer Association (NHA)

The National Healthcareer Association (NHA) (<http://www.nhanow.com>) was established in 1989 as an information resource and network for today's active healthcare professionals. NHA provides certification and continuing education services for healthcare professionals and curriculum development for educational institutions. It offers a variety of certification exams, including Clinical Medical Assistant (CCMA), Medical Administrative Assistant (CMAA), Billing and Coding Specialist (CBCS), and Electronic Health Records Specialist (CEHRS).

Some of the NHA's programs and services include:

- Certification development and implementation.
- Continuing education curriculum development and implementation.
- Program development for unions, hospitals, and schools.
- Educational, career advancement, and networking services for members.
- Registry of certified professionals.

Healthcare educators working in their various fields of study develop the National Healthcare Association certification exams. The NHA is a member of the National Organization of Competency Assurance (NOCA).

## Other Medical Assistant Organizations

Other organizations assist potential and current medical assisting professionals. These include the National Center for Competency Testing (NCCT) and the National Association for Health Professionals (NAHP).

The National Center for Competency Testing (NCCT) (<https://www.ncctinc.com>) is an independent agency that certifies the validity of competency and knowledge of the medical profession through examination. Medical assistants and medical office assistants receive the designation of National Certified Medical Assistant (NCMA) and National Certified Medical Office Assistant (NCMOA) after passing the certification examination. The NCCT avoids any allegiance to a specific organization or association.

The National Association for Health Professionals (NAHP) (<http://www.nahpusa.com>) offers multiple credentials for healthcare professionals. The organization, which has been in existence for 30 years, prides itself in making the process of obtaining a credential an accessible, affordable, and

obtainable goal for individuals who wish to show commitment to their chosen profession. Having multiple credentials with one agency makes maintaining continuing education easier for practicing healthcare professionals. The NAHP offers many credentials, including the Nationally Registered Certified Medical Assistant (NRCMA), the Nationally Registered Certified Coding Specialist (NRCCS), and the Nationally Registered Certified Administrative Health Assistant (NRCAHA).

With the growth of the medical assisting field, new organizations have developed to serve professionals. For example, the American Medical Certification Association (AMCA), founded in 2010, provides certification for clinical and/or administrative medical assistants. The American Registry of Medical Assistants (ARMA) is also one of many national certifying organizations that certify/register medical assistants. Prospective medical assistants should be knowledgeable about the agency they will use to obtain their medical assistant credential.

## ▶ Medical Assistant Credentials

LO 1.3

**Certification** is confirmation by an organization that an individual is qualified to perform a job to professional standards. **Registration**, on the other hand, does not guarantee an individual's competence. Instead, registration is the granting of a title or license by a board that gives permission to practice in a chosen profession. Once credentialed, you earn the right to wear a pin that is obtained through the credentialing organization (Figure 1-1).

Medical assistant credentials such as certification and registration are not always required to practice as a medical assistant. However, employers today are aggressively recruiting medical assistants who are credentialed in their field. As discussed in the Medical Assisting Organizations, many credentials are available for medical assisting by various organizations. Small physician practices are being consolidated or merged into larger providers of healthcare, such as hospitals, to decrease operating expenses. Human resource directors of



**FIGURE 1-1** Wearing one of these pins indicates you have obtained a credential in medical assisting. Medical assistants registered by the American Medical Technologists must pass the RMA exam to be certified and can wear the pin on the left. Members of the American Association of Medical Assistants who pass the CMA exam wear the pin on the right.

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these larger organizations place great importance on professional credentials for their employees. Hiring credentialed medical assistants may lessen the likelihood of a legal challenge. Common administrative and clinical certifications are provided in Table 1-2.

## State and Federal Regulations

Certain provisions of the **Occupational Safety and Health Administration (OSHA)** and the **Clinical Laboratory Improvement Amendments of 1988 (CLIA '88)** are making mandatory credentialing for medical assistants a logical step in the hiring process. OSHA and CLIA '88 regulate health-care but presently do not require that medical assistants be credentialed. However, various components of these statutes can be met by demonstrating that medical assistants are certified. For example, some physician offices perform moderately complex laboratory testing onsite. The medical assistant can perform moderately complex tests if she or he has the appropriate training and skills.

## AAMA Credential

The **Certified Medical Assistant (CMA)** credential is awarded by the Certifying Board of the AAMA. The AAMA's certification examination evaluates mastery of medical assisting competencies based on the Occupational Analysis of the CMA (AAMA), which is available at <http://www.aama-natl.org/resources/library/OA.pdf>. The National Board of Medical Examiners (NBME) also provides technical assistance in developing the tests.

CMAs (AAMA) must recertify the credential every 5 years. To be recertified as a CMA (AAMA), 60 contact hours must be accumulated during the 5-year period: 10 in the administrative area, 10 in the clinical area, and 10 in the general area, with 30 additional hours in any of the three categories. In addition, 30 of these contact hours must be from an approved AAMA program. The AAMA also requires you to hold a current CPR card.

The recertification mandate requires you to learn about new medical developments through education courses or participation in an examination. Hundreds of continuing education courses are sponsored by local, state, and national AAMA

groups. The AAMA also offers self-study courses through its continuing education department.

Only students who have completed medical assisting programs accredited by CAAHEP and ABHES are eligible to take the certification examination. The AAMA offers the Candidate's Guide to the Certification Examination to help applicants prepare for the examination. This guide explains the test format and test-taking strategies. It also includes a sample examination with answers and information about study references. Some schools also have incorporated test preparation reviews into their programs.

The CMA (AAMA) examination is a computerized test that may be taken any time at a designated testing site in your area. You may search the Internet for an application and test review materials. Once you have successfully passed the CMA (AAMA) examination, you have earned the right to add that credential to your name, such as Miguel A. Perez, CMA (AAMA).

## AMT Credentials

The American Medical Technologists (AMT) organization credentials medical assistants as **Registered Medical Assistants (RMA)** or **Certified Medical Assistant Specialists (CMAS)**. Although this section focuses on the RMA credential, you can find more about the CMAS credential on the AMT website at <https://www.americanmedtech.org/>.

Requirements for the RMA (AMT) credential include:

- Graduation from a medical assistant program that is accredited by ABHES or CAAHEP or is accredited by a regional accrediting commission, by a national accrediting organization approved by the US Department of Education, or by a formal medical services training program of the US Armed Forces.
- Alternatively, employment in the medical assisting profession for a minimum of 5 years, no more than 2 years of which may have been as an instructor in the postsecondary medical assistant program.
- Passing the AMT examination for RMA (AMT) certification.

RMAs (AMT) must accumulate 30 contact hours for continuing education units (CEUs) every 3 years if they were

**TABLE 1-2** Medical Assisting Credentials

Type of Certification	Certification Title	Certifying Organization
Administrative and Clinical	Certified Medical Assistant (CMA)	AAMA
Administrative and Clinical	Registered Medical Assistant (RMA) AMT	AMT
Administrative and Clinical	National Certified Medical Assistant (NCMA)	NCCT
Administrative and Clinical	Nationally Registered Certified Medical Assistant (NRCMA)	NAHP
Clinical	Certified Clinical Medical Assistant (CCMA)	NHA
Administrative	Medical Administrative Assistant (CMAA)	NHA
Administrative	Certified Medical Assistant Specialist (CMAS)	AMT
Administrative	National Certified Medical Office Assistant (NCMOA)	NCCT
Administrative	Nationally Registered Certified Administrative Health Assistant (NRCAHA)	NAHP

certified after 2006. RMAs (AMT) who were certified before this date are expected to keep abreast of all the changes and practices in their field through educational programs, workshops, or seminars. However, there are no specific continuing education requirements. Once a medical assistant has passed the AMT exam, she has earned the right to add RMA (AMT) to her name: Kaylyn R. Haddix, RMA (AMT).

## Credentialing Examinations

Credentialing examinations are rigorous. Participation in an accredited program will help you learn what you need to know. Each certification examination is based on a specific content outline created by the certifying organization. Most organizations provide their content outline as well as practice examinations for potential medical assistants to prepare. You should research the Internet to gain additional information regarding any of these certifications. See Procedure 1-1, Obtaining Certification/Registration Information Through the Internet.

## ▶ Training Programs

LO 1.4

With continuous changes in healthcare today, the role of the medical assistant has become dynamic and wide-ranging. These changes have expanded the expectations for medical assistants. The knowledge base of the modern medical assistant includes:

- Administrative and clinical skills.
- Patient insurance product knowledge (specific to the workers' geographic locations).
- Compliance with healthcare-regulating organizations.
- Exceptional customer service.
- Practice management.
- Current patient treatments and education.

The medical assisting profession requires a commitment to self-directed, lifelong learning. Healthcare is changing rapidly because of new technology, new healthcare delivery systems, and new approaches to facilitating cost-efficient, high-quality healthcare. A medical assistant who can adapt to change and is continually learning will be in high demand.

Formal programs in medical assisting are offered in a variety of educational settings, including vocational-technical high schools, postsecondary vocational schools, community and junior colleges, and 4-year colleges and universities. Vocational school programs usually last 9 months to 1 year and award a certificate or diploma. Community and junior college programs are usually 2-year associate's degree programs. Training can be obtained through traditional classroom as well as online settings.

An accredited medical assisting program is competency based; this means that standards are set by an accrediting body for skill and proficiency in administrative and clinical tasks. It is the educational institution's duty to ensure that medical assisting students learn all medical assisting competencies and that evidence is clearly documented for each student. Periodic evaluations are performed by the accrediting agencies to ensure the effectiveness of the program.

## Program Accreditation

Accreditation is the process by which programs are officially authorized. The US Department of Education recognizes two national entities that accredit medical assisting educational programs:

- **Commission on Accreditation of Allied Health Education Programs (CAAHEP).** CAAHEP works directly with the Medical Assisting Educational Review Board (MAERB) of Medical Assistants Endowments to ensure that all accredited schools provide a competency-based education. CAAHEP accredits medical assisting programs in both public and private postsecondary institutions throughout the United States that prepare individuals for entry into the medical assisting profession.
- **Accrediting Bureau of Health Education Schools (ABHES).** ABHES accredits private postsecondary institutions and programs that prepare individuals for entry into the medical assisting profession.

Accredited programs must cover the following topics:

- Anatomy and physiology
- Medical terminology
- Medical law and ethics
- Psychology
- Oral and written communications
- Laboratory procedures
- Clinical and administrative procedures

High school students may prepare for these courses by studying mathematics, health, biology, office skills, book-keeping, and information technology. You may obtain current information about accreditation standards for medical assisting programs from the AAMA.

Medical assisting programs also must include a practicum (externship) or work experience. This applied training is for a specified length of time in an ambulatory care setting, such as a physician's office, hospital, or other healthcare facility. Additionally, the AAMA lists its minimum standards for accredited programs. This list of standards ensures that all personnel—administrators and faculty alike—are qualified to perform their jobs. These standards also ensure that financial and physical resources are available at accredited programs.

Graduation from an accredited program helps your career in three ways. First, it shows that you have completed a program that meets nationally accepted standards. Second, it provides recognition of your education by professional peers. Third, it makes you eligible for registration or certification. Students who graduate from an CAAHEP- or ABHES-accredited medical assisting program are eligible to take the CMA (AAMA) or RMA (AMT) immediately.

## Work Experience

Your practicum (externship) or work experience is mandatory in accredited schools. The length of your experience will vary, depending on your particular program, so familiarize yourself with the program requirements as soon as possible.

Because this is a required part of the program, no matter how good your grades are in class, if the work experience is not completed, you will not graduate from the program.

Your practicum (externship) or work experience is an extension of your classroom learning experience. You will apply skills learned in the classroom in an actual medical office or other healthcare facility. You also earn the right to include this applied training experience on your résumé under job experience, as long as you title it as “Medical Assistant Practicum, Externship, or Work Experience.” The *Preparing for the World of Work* chapter will further explain your practical work experience.

## ▶ Professional Development LO 1.5

**Professional development** refers to skills and knowledge attained for both personal development and career advancement. During your training, you should strive to improve your knowledge and skills. This will help you transition into your first job with ease. You also can gain valuable knowledge and skills through volunteering prior to or in addition to work experience obtained as a student.

Once you have entered the world of work as a medical assistant, you will want to continue to develop in your profession. You can do this through additional training, **cross-training**, and other forms of continuing education.

### Volunteer Programs

Volunteering is a rewarding experience. Before you even begin a medical assisting program, you can gain experience in a healthcare profession through volunteer work. As a volunteer, you will get hands-on training and learn what it is like to assist patients who are ill, disabled, or frightened.

You may volunteer as an aide in a hospital, clinic, nursing home, or doctor’s office, or as a typist or filing clerk in a medical office or medical record room. Some visiting nurse associations and hospices (homelike medical settings that provide medical care and emotional support to terminally ill patients and their families) also offer volunteer opportunities. These experiences may help you decide if you want to pursue a career as a medical assistant.

The American Red Cross also offers volunteer opportunities for student medical assistants. The Red Cross needs volunteers for its disaster relief programs locally, statewide, nationally, and abroad. As part of a disaster relief team at the site of a hurricane, tornado, storm, flood, earthquake, or fire, volunteers learn first-aid and emergency triage skills. Red Cross volunteers gain valuable work experience that may help them obtain a job.

Because volunteers are not paid, it is usually easy to find work opportunities. Just because you are not paid for volunteer work, however, does not mean the experience is not useful for meeting your career goals.

Include information about any volunteer work on your **résumé**—a document that summarizes your employment and educational history. Be sure to note specific duties, responsibilities, and skills you developed during the volunteer experience. Refer to the *Preparing for the World of Work* chapter for examples of résumés.

### Multiskilled Healthcare Professionals

Many hospitals and healthcare practices are embracing the idea of a **multiskilled healthcare professional (MSHP)**. An MSHP is a cross-trained team member who is able to handle many different duties.

**Reducing Healthcare Costs** By hiring multiskilled healthcare professionals, healthcare organizations can reduce personnel costs. MSHPs can perform the functions of two or more people, so they are cost-effective employees and are in high demand.

**Expanding Your Career Opportunities** Career opportunities are vast if you are self-motivated and willing to learn new skills. Following are some examples of positions for medical assistants with additional experience and certifications:

- Medical office manager
- Medical biller and coder
- Medical assisting instructor (with a specified amount of experience and education)
- ECG technician
- Sterilization technician
- Patient care technician

If you are multiskilled, you will have an advantage when job hunting. Employers are eager to hire multiskilled medical assistants and may even create positions for them.

You can gain multiskill training by showing initiative and a willingness to learn every aspect of the medical facility in which you are working. When you begin working in a medical facility, establish goals regarding your career path and discuss them with your immediate supervisor. Indicate to your supervisor that you would like cross-training in every aspect of the medical facility. Begin in the department in which you are currently working and branch out to other departments once you master the skills needed for your current position. This will demonstrate a commitment to your profession and a strong work ethic. Cross-training is a valuable marketing tool to include on your résumé.

### Scope of Practice

Professional development includes knowing your **scope of practice** and working within it. Medical assistants are not “licensed” healthcare professionals, and most often work under a licensed healthcare provider, such as a nurse practitioner or physician. Licensed healthcare professionals may delegate certain duties to a medical assistant, providing he or she has had the appropriate training through an accredited medical assisting program or through on-the-job training provided by the medical facility or physician.

Questions often arise regarding the kinds of duties a medical assistant can perform. There is no universal answer to these questions. There is no single national definition of a medical assistant’s scope of practice, so the medical assistant must research the state in which he or she works to learn about the scope of practice. You can find this information online by entering “medical assistant scope of practice” and the name

of your state in any major search engine. See Procedure 1-2, Locating Your State’s Legal Scope of Practice. In general, a medical assistant may not perform procedures for which he or she was not educated or trained. Examples of procedures medical assistants may not perform include administering intravenous medications (without advanced training), diagnosing patients or informing patients of a diagnosis, and giving any advice to a patient unless permitted by a facility’s standard policies and procedures. The AAMA and AMT are good resources to assist you in your research. The AAMA Occupational Analysis is also a helpful reference source that identifies the procedures that medical assistants are educated to perform.

Do not confuse the terms *scope of practice* and *standard of care*. A medical assistant’s scope of practice is the set of

procedures that can be performed and the actions that can be taken under the terms of his or her professional license and training. **Standard of care** is a legal term that refers to the care that would ordinarily be provided by an average, prudent healthcare provider in a given situation.

## Networking

Networking is building alliances—socially and professionally. It starts long before your job search. By attending professional association meetings, conferences, or other functions, medical assistants generate opportunities for employment and personal and professional growth. Networking, through continuing education conferences throughout your career, keeps the doors open to employment advancement.

## PROCEDURE 1-1 Obtaining Certification/Registration Information Through the Internet

WORK // DOC

**Procedure Goal:** To obtain information from the Internet regarding professional credentialing

**OSHA Guidelines:** This procedure does not involve exposure to blood, body fluids, or tissue.

**Materials:** Computer with Internet access and printer

### Method:

1. Open your Internet browser and use a search engine to search for the credential you would like to pursue—for example, Certified Medical Assistant or Registered Medical Assistant. If you are unsure of the credential you would like to pursue, you may just want to search for “Medical Assisting Credentials.”
2. Select the site for the credential you are pursuing. Avoid sponsored links. These links are paid for and typically will not take you to the site of a credentialing organization.

For example to navigate to the home page:

- For the CMA (AAMA) credential, enter the site <http://www.aama-ntl.org>.



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- For the RMA (AMT) or CMAS (AMT) credential, enter the site <http://www.americanmedtech.org>.



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3. Determine the steps you must take to obtain the selected credential. You will need to navigate to the information about the requirements for eligibility, certification standards, and the examination outline.
4. Print or write down the qualifications you must obtain.  
**RATIONALE:** *Maintaining a record of needed qualifications will be a reference as you pursue your chosen credential.*
5. Once you have met the qualifications, you will need to apply for the examination or certification. Download the application and the application instructions for the RMA (AMT) or the CMAS (AMT) or the candidate application and handbook for the CMA (AAMA).
6. To view or print these instructions, you may need to download Adobe Reader. You can click on a link to download Adobe Reader after you click on the “Apply Online” link for AMT or “Apply for the Exam” for AAMA.
7. Before or after you apply for the examination, you will need to prepare for the examination. Select the link “Study for the Exam” on the AAMA site or the “Prepare for Exam” link under the “Get Certified” drop-down menu on the AMT site.
8. Prepare for the exam by reviewing the content outline, obtaining additional study resources, or taking a practice exam online.
9. Print or save downloaded information in a file folder on your desktop labeled “Credentials” or another name you can recognize. To print, click the printer icon found at the bottom of the web page or click the printer icon in your browser.