**Keeping Medical Records**Print:[](https://mccwdta.edc.org/print/1821)[](https://mccwdta.edc.org/printpdf/1821)[](mccwdta-word-export/1821) Medical Assistant ELA - Keeping Medical Records Industry Sector: [Healthcare](industry-sector/healthcare)Content Area: [Literacy](content-area/literacy)Core Topic: [Written communication](core-topic/written-communication)Expand All | Collapse All

**Common Core State Standards**

*Writing*

* **CCSS.ELA-Literacy.CCRA.W.2** Write informative/explanatory texts to examine and convey complex ideas and information clearly and accurately through the effective selection, organization, and analysis of content.
* **CCSS.ELA-Literacy.CCRA.W.4** Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.
* **CCSS.ELA-Literacy.CCRA.W.5** Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach.

*Language*

* **CCSS.ELA-Literacy.CCRA.L.1** Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.
* **CCSS.ELA-Literacy.CCRA.L.2** Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.
* **CCSS.ELA-Literacy.CCRA.L.6** Acquire and use accurately a range of general academic and domain-specific words and phrases sufficient for reading, writing, speaking, and listening at the college and career readiness level; demonstrate independence in gathering vocabulary knowledge when encountering an unknown term important to comprehension or expression.

**Adult Basic Education Standards**

*Writing*

* **CCR Anchor 2:** Write informative/explanatory texts to examine and convey complex ideas and information clearly and accurately through the effective selection, organization, and analysis of content.
* **CCR Anchor 4:** Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.
* **CCR Anchor 5:** Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach.

*Language*

* **CCR Anchor 1:** Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.
* **CCR Anchor 2:** Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.
* **CCR Anchor 3:** Apply knowledge of language to understand how language functions in different contexts, to make effective choices for meaning or style, and to comprehend more fully when reading or listening.
* **CCR Anchor 6:** Acquire and use accurately a range of general academic and domain-specific words and phrases sufficient for reading, writing, speaking, and listening at the college and career readiness level; demonstrate independence in gathering vocabulary knowledge when encountering a word or phrase important to comprehension or expression.

**Industry Overview**

**Healthcare in America**

From neonatal nurses to radiology technologists, medical coders to medical office assistants, health educators to home care aides, the healthcare industry provides a vast and diverse array of services to individuals at every stage of life. Providing [nearly 17 million jobs](http://www.bls.gov/iag/tgs/iag62.htm%20) and accounting for an estimated [$18 million of the U.S. GDP in 2009](http://www.whitehouse.gov/assets/documents/CEA_Health_Care_Report.pdf%20), healthcare is the nation?s largest industry. In Massachusetts, in particular, healthcare accounts for more than 15% of employment (compared with 12% nationally), accounting for approximately [one in six jobs](http://www.boston.com/business/healthcare/articles/2010/08/29/hiring_slows_in_states_stalwart_health_care_industry/?page=2). With an aging baby boomer population that is living longer, there is greater demand for more and higher quality preventative and long-term healthcare across the United States. [With eight of the 30 fastest growing occupations](http://www.bls.gov/ooh/about/projections-overview.htm%20), healthcare is predicted to be one of the [fastest growing industries](http://www.theatlantic.com/business/archive/2012/02/americas-10-fastest-growing-and-fastest-shrinking-jobs/252712/) both nationwide and in Massachusetts between now and 2020.

**Careers in Healthcare**

The healthcare industry includes a vast array of jobs related to planning, managing, and providing therapeutic services, diagnostic services, health informatics, support services, and biotechnology research and development. This industry includes five career pathways:

* therapeutic services, which includes professionals who work directly with patients to improve their health by providing direct care and treatment for patients (for example, a nurse or a physical therapist assistant);
* diagnostic services, which includes professionals who plan and conduct tests to detect and diagnose diseases and injuries, and use test results to plan treatment (for example, a radiologic technologist or a sonographer, who perform diagnostic imaging examinations, such as X-rays or ultrasounds);
* health informatics, which includes professionals who compile and manage health information and records (for example, a medical records and health information technician, who organizes and manages patient databases; higher-level positions, such as administrators of healthcare facilities or departments, are also included in this pathway);
* support services, which includes professionals who provide assistance to other medical professionals, allowing them to do their jobs in diagnosing and treating patients or supporting therapies (for example, food service workers and nutritionists ensure that patients? meals are healthy and meet dietary guidelines); and
* biotechnology research and development, which include careers that involve bioscience research; while many of these professions require doctoral or medical degrees, some entry-level opportunities in the field require only an associate degree (for example, food and agricultural science technicians).

**Mathematics and Communication Skills Needed in Healthcare**

The growing complexity of the healthcare industry, including changing technologies, requires workers to continuously upgrade their skills. In addition to technical skills specific to their job, mathematics and literacy skills are crucial for success in all occupations across the healthcare industry.

*Communication:* First and foremost, no matter the job, good healthcare practitioners are committed to giving patients the best care available and keeping abreast of health research and developments in the field. All workers need to be able to read medical journals and understand medical terminology and vocabulary, as well as read and write literate emails to co-workers/supervisors. Many healthcare jobs also require the ability to read and interpret charts and access and interpret electronic medical records in order to provide quality care.

Many health careers, especially?but not exclusively?those in therapeutic services?involve interacting with patients and their families, in some cases working with people who may be sick, disabled, or dying. Even support staff in a medical office or hospital require effective oral communication skills as well as compassionate interpersonal skills such as the ability to listen and talk to patients to assess needs. Effective communication with colleagues as well as patients is crucial. Healthcare is increasingly a group activity, in which a patient?s recovery depends on how well all members of a healthcare team perform specific function, and how well they communicate and collaborate with one another.

*Mathematics:* From reading charts to interpreting data to measuring and administering correct medicine, basic mathematics skills are essential for providing quality care across most healthcare occupations. Nurses, for example, use mathematics for calculations in all areas of their duties. They use mathematics to calculate dosages, caloric requirements for individual patients, calibrate equipment, and interpret lab results. Charts and patient data are often presented as decimals or percentages, and a nurse must be able to convert between the two, thus requiring competency in understanding and using ratios, proportions and percentages.

Much of modern medicine is based on statistics, and all workers in the industry should have a basic understanding of how statistics are used to influence medical trends. Nurses, for example, need to be aware of the statistics behind prescribing medications and possible side effects or complications. They might use statistics to counsel patients on diagnoses or prognoses, or in gathering patient histories.

**Career Opportunities in Healthcare with Education from Community Colleges**

Massachusetts Community Colleges play a crucial role in preparing students for careers in health sciences across all sectors of the industry?therapeutic services, diagnostic services, informatics, and support services. All 15 community colleges offer pathways to nursing careers, the largest occupation in the healthcare industry. Additionally, Massachusetts Community Colleges offers associate degree and certificate programs that prepare students to enter occupations across all sectors of the industry, for example:

* *Therapeutic services:* registered nurse, practical nurse, nursing assistant, certified nurse?s aide, massage therapist, fitness trainer and instructor, dental hygienist, dental assistant, [pharmacy technician](lexicon/6#Pharmacy_technician), physical therapist assistant, occupation therapy assistant, respiratory assistant, medical assistant
* *Diagnostic services:* radiologic technologist and technician, radiographer, surgical technologist, sonographer, phlebotomist, paramedic, polysomnographic technologist and technician, medical and clinical laboratory technician, magnetic resonance imaging technologist, nuclear medicine technologist, veterinary technologist
* *Informatics:* Medical record and health information technician, medical coder, medical interpreter, medical biller, medical transcriptionist, health educator

**Recent Career Opportunities in Massachusetts**

The following is a sample of healthcare job listings in Massachusetts that require an associate?s degree or certificate:

* Registered Nurse (RN), AmeriCare At Home, Boston, MA
* Medical Technologist, Emerson Hospital, Concord, MA
* Ultrasound Technologist, Brockton, MA
* Licensed Practical Nurse, Hologic, East Watertown, MA

**Employment Outlook for Healthcare**

America?s aging population is now nearing or entering retirement (opening new jobs), and will continue to require more services and the increased use of innovative medical technology for diagnosis and treatment. As a result, healthcare is one of the fastest growing industries both nationwide and in Massachusetts, where growth is [even higher than nationally](http://www.boston.com/business/healthcare/articles/2010/08/29/hiring_slows_in_states_stalwart_health_care_industry/?page=2). For example, in 2010, Baystate Health of Springfield, which employs more than 10,000 across its Western Massachusetts system, said that it would likely need to hire about 15,000 people between 2010 and 2020 to replace retiring workers and meet increased demand.

One important factor in the healthcare industry is the financial pressure on hospitals to focus on efficiency and profitability, which results in discharging patients as soon as possible. These financial pressures, along with increased healthcare coverage under federal law, will likely result in a growth in out-patient services in the healthcare industry, such as [rehabilitation](lexicon/6#Rehabilitation) clinics, long-term care facilities, and home care programs. As a result, occupations experiencing the largest growth include home care aides, physical and occupation therapist assistants, dental hygienists, and medical assistants.

Emerging careers in Health/Information Technology (HIT): Estimates based on data from the Bureau of Labor Statistics (BLS), Department of Education, and independent studies indicate a shortfall of approximately 51,000 qualified Health IT (HIT) workers who will be required over the next five years to meet the needs of hospitals and [physicians](lexicon/6#Physicians) as they move to adopting an electronic healthcare system, facilitated by the Health Information Technology for Economic and Clinical Health (HITECH) Act of 2009. The HITECH Act is a key component of healthcare reform. The Act encompasses interoperable electronic health records (EHRs) including computerized systems to order tests and medications, and support systems to aid clinical decision making and the development of a national health information network to permit the secure exchange of electronic health information among providers. The Congressional Budget Office estimates that the incentive mechanisms in the HITECH Act will increase HIT adoption rates from 45 percent to about 70 percent for hospitals and from 65 percent to approximately 90 percent for [physicians](lexicon/6#Physicians). To support job growth in this emerging career field and ensure the adoption of EHRs, new types of workers are needed to facilitate information exchange across healthcare providers and public health authorities, and assist in redesigning workflows within healthcare settings to maximize the quality and efficiency [benefits](lexicon/6#Benefits) of EHRs, while maintaining privacy and security of health information and records. To that end, the Department of Health and Human Services has embarked on an initiative to build the HIT workforce with community colleges as the primary training ground for these new workers: (1) Practice workflow and information management redesign specialists; (2) Clinician/practitioner consultants; (3) Implementation support specialists; (4) Implementation managers; (5) Technical/software support staff; and (6) Trainers. The average hourly earnings for community college program graduates are expected to be in the target range of between $12.46/hour to $20.25/hour.

**Resources:**

**Healthcare Employment Outlook:**

* [Massachusetts Career Information System](http://masscis.intocareers.com/Portal.aspx): Massachusetts-specific information on careers which can be used to look at different industries, occupations within those industries, and the skills and education needed to work in these jobs
* [WorkKeys Occupational Profiles](http://www.act.org/workkeys/analysis/occup.html)
* [Bureau of Labor Statistics](http://www.bls.gov/iag/tgs/iag62.htm)

**Healthcare Career Information:**

* [Top 5 Reasons to Work in the Healthcare Field, About.com](http://healthcareers.about.com/od/whychoosehealthcare/tp/Why-Work-in-Healthcare.htm)
* [Break Into a Healthcare Career, About.com](http://healthcareers.about.com/od/gettingthejob/a/BreakInToMed.htm)
* [Healthcare Initiatives, US Department of Labor](http://www.doleta.gov/BRG/Indprof/Health.cfm)
* [Six Healthcare Careers that are Booming, Yahoo! Education](http://education.yahoo.net/articles/hot_health_careers.htm)
* [Career Clusters in Health Sciences, National Association of State Directors of Career Technical Education Consortium](http://www.careertech.org/career-clusters/resources/clusters/health.html)
* [Explore Health Careers, American Dental Education Association](http://explorehealthcareers.org/en/home)

**Massachusetts Healthcare Job Listings:**

* [Massachusetts Healthcare Jobs, Jobs.net](http://healthcare.jobs.net/jobs/massachusetts.aspx)
* [Healthcare Jobsite, Beyond.com](http://www.healthcarejobsite.com)

**Workplace Scenario (8th Grade Level)**

You are a clinical medical assistant in an urgent care facility. You help several doctors who work in the clinic. During the day, you talk to and work with many people, such as patients, other staff, and the doctors. You stay very busy. Before patients arrive, you make sure that exam rooms and equipment are clean and sterilized. You find patients? charts and check to make sure [insurance](lexicon/6#Insurance) information is current. Sometimes you are the person who sends new and updated [insurance](lexicon/6#Insurance) data to the correct place. If you are not working with patients, you also help with sending clients? bills and invoices.

It is also your job to write down everything you talk about with the patient. You make a note of the procedures, or a series of steps to treat the patient, in the medical record. This record is the patient?s file that keeps the details of the patient?s care. It is also used to file the patient?s [insurance](lexicon/6#Insurance) and to bill the patient. A pattern of incorrect billing could be seen as dishonesty on the part of the clinic. The medical record is also a legal document. It may be used in court if the patient or her family sues the clinic, the doctor or nurses.  You must be particularly careful in correctly writing all the activities during a patient?s visit. You pay careful attention to grammar and punctuation to be sure the file shows a correct record of the patient?s visit.

Usually, you are the first person who sees a patient after they check in to the clinic. You show patients to their rooms and then ask them questions about their health and the reasons for their visit.  You update the medical histories in the file before the nurse or doctor sees the patient.  Later, you will enter the information into an electronic system if your clinic using an electronic health record (EHR).

You take the patient?s blood pressure and temperature and make sure you know why the patient has come to the clinic. You ask what symptoms the patient has and if there are any concerns the doctor should be aware of.  You write this information in the chart. You know that you must be able to keep all patient information confidential.  You should discuss it only with other medical personnel who are involved in treating the patient. It?s important to be warm and reassuring because the patient is likely to feel worried about his or her medical situation.

 You often give shots as directed by the doctor.  You also draw blood for tests and prepare blood and urine samples for laboratory analysis.  You may even do basic laboratory tests. You often need to assist the doctor with minor procedures such as removal of a skin growth or applying stitches. You also carry out basic laboratory tests. During a day, you may also explain to patients about drugs or special diets, remove stitches, or change dressings, and safely throw away used supplies. You talk with the patient to answer any questions and to give instructions for how to take new medicines.  You may also need to call in [prescriptions](lexicon/6#Prescriptions) to pharmacies.

**Workplace Scenario (High School Level)**

You are a clinical medical assistant in an urgent care facility that employs several [physicians](lexicon/6#Physicians) whom you support. In your job as a medical assistant, you interact with people such as patients, other staff, and the doctors all during the day, and you stay very busy. Before patients arrive, you must make sure that exam rooms and equipment that the doctors and nurses will use are clean and sterilized. You locate patients? charts and check to make sure [insurance](lexicon/6#Insurance) information is current. Sometimes you are responsible for submitting new and updated [insurance](lexicon/6#Insurance) data to the correct place, and if you are not working with patients, you also help with sending clients? bills and invoices.

It is also your job to note every patient interaction and [procedure](lexicon/6#Procedure) in the medical record, which is used for ongoing patient care and for [insurance](lexicon/6#Insurance) and patient billing. [Insurance](lexicon/6#Insurance) and patient billing must be accurate since a pattern of inaccurate billing could be seen as [fraud](lexicon/6#Fraud) on the part of the clinic.  The medical record is also a legal document that may be used in court if any legal action arises from this visit.  You are particularly careful in properly documenting all the activities during a patient?s visit, and in completing these documents, you pay careful attention to grammar and punctuation to be sure the documentation reflects an accurate record of the patient?s visit.

 Usually, you are the first person who sees a patient after they check in to the clinic. It is your job to ask specific questions about the patient?s previous medical history and record the personal information and medical information in the patient?s chart. You show patients to their rooms and then ask them a number of questions to help record and update their medical histories before the nurse or doctor sees them. The information you receive from the patient is entered onto the medical chart. Later, you will enter data into an electronic system if your clinic uses an electronic health record (EHR).

 You take the patient?s [vitals](lexicon/6#Vitals) such as blood pressure and temperature, and make sure you know why the patient has come to the clinic.  You ask what symptoms she is experiencing, and any concerns the doctor should be aware of. You know that you must be able to keep all patient information confidential and discuss it only with other medical personnel who are involved in treating the patient. As you are working with the patient, it?s important to be warm and reassuring since the patient is likely to feel anxious and worried about his or her medical situation.

You often give [injections](lexicon/6#Injections) as directed by the physician and perform many blood draws. You also prepare specimens such as blood and urine for laboratory analysis, and even do basic laboratory tests. You often need to assist the doctor with minor procedures such as removal of a skin [lesion](lexicon/6#Lesion) or applying [sutures](lexicon/6#Sutures).  You also conduct basic laboratory tests, dispose of [contaminated](lexicon/6#Contaminated) supplies, and sterilize medical instruments. You might have additional responsibilities, such as instructing patients about medications or special diets, preparing patients for x-rays, removing stitches, or changing dressings.

After the doctor is finished seeing the patient, you will talk with the patient to answer any questions about ongoing care and to give instructions for how to take new medications.  You may also need to call in [prescriptions](lexicon/6#Prescriptions) to pharmacies.

**Core instructional context**

*Building Vocabulary and Background Knowledge*
In order for students to raise their reading proficiency, they need repeated exposure to new words.

Encourage students to skim the assigned text and identify unknown words prior to reading and provide descriptions or an explanation of a new term or word for students. One helpful resource to support this is [Innovativocab](http://innovativocab.wikispaces.com/). Students should make notes of unknown words to review and learn by reusing the word in an original sentence and practicing the word orally. They can also provide their own description for the word and attempt to connect the word to a picture or make a personal anecdotal connection to the word.

Another way to help students build vocabulary is to help them build semantic maps, placing the word to be defined in the center and brainstorming ideas about the word. As students identify words that define the main word or mean the same, draw the semantic map to show relationships. The website [Visuwords](http://www.visuwords.com/?word) is an online thesaurus that provides semantic maps for words. Once words are entered, rolling over the words in the semantic map provides the definition. Using this website is one way for students to build knowledge about families of words.

Students can also be encouraged to learn Greek and Latin prefixes, suffixes and common root words. Point out to students that they can unlock the meaning of a significant number of new words by knowing these word forms. One resource students might use is ?[Root Words, Roots and Affixes](http://www.readingrockets.org/article/40406/)? or the list ?[English Language Roots](http://www.prefixsuffix.com/rootchart.php)?. One strategy the instructor can use is to identify roots and affixes of word that may be unknown to students during a vocabulary lesson. For example, the word ?auditor,? contains the root aud- meaning to hear or listen and the suffix -tor meaning ?one who? or ?one who hears or listens.?

Finally, have students keep their own vocabulary journal to record unknown words, especially academic words. [The Academic Word List](http://www.cdl.org/resource-library/pdf/The%20Academic%20Word%20List.pdf) is a resource to help with identifying academic words. Have students record graphics and definitions in their own words as this can help students to better retain words over time.

*Writing*
Lack of writing skills presents significant challenges to students? career and college readiness and the need for improvement is great. In response to a 2006 survey, 72% of employers stated that they considered high school graduates to be deficient in writing and 80.9% deemed high school graduates deficient in written communication skills (Conference Board, 2006).

Writing is typically considered to be a five-step process: pre-writing, drafting, revising, editing and publishing. It?s important to keep in mind that writing is a recursive process in which good writers move back and forth between pre-writing, drafting and revising many times during the course of creating a single document.

For many adult writers, pre-writing may actually be a pre-thinking stage before any writing is started. In this pre-thinking stage various ideas are considered about the topic. If the topic has not been assigned by the instructor, this is the time the writer chooses and narrows the topic. According to [Purdue Online Writing Lab](http://owl.english.purdue.edu/owl/resource/587/01/), the writer then needs to ask questions about the writing project such as:

* Who is the audience?
* Are they interested in the topic? Why or why not?
* What does your audience need to know about this topic?
* What experiences has your audience had that would influence them on this topic?
* What do you hope the audience will gain from your text?

To kick off the pre-writing process, [lead students in brainstorming, clustering or questioning](http://www.beaconlearningcenter.com/documents/1044_01.pdf) to generate ideas about the topic. This is also the time to gather any additional information required to write about the topic. Mind mapping is a brainstorming technique that helps build connections between ideas. [The Brain](http://www.thebrain.com/) is a website that provides free tools including one for mind mapping.

One way for students to identify the additional information they need is to use a [KWL chart](http://www.eduplace.com/graphicorganizer/pdf/kwl.pdf) to identify what they need to know. Groups of students can work on KWL charts together to guide their research.

In the drafting stage, the writer?s goal is to use the pre-writing outcomes to help build the content. In this stage, the writer can use various strategies to get started, including free writing, listing and outlining both to develop the topic and get started. During the drafting stage, students should concentrate on organizing information logically and developing the topic with enough detail for the audience and purpose. At this stage, it is a good idea for students to work with a partner to discuss the early draft versions and to get another point of view about the organization and sequencing of the content.

 Revision is the process of refining the draft by evaluating it and making changes in order to improve the draft. Revising is a critical stage of the writing process and for most writers it is the most difficult. This stage is a good time for students to work in peer review groups. Peer reviewers need preparation for this role. [The Conducting Peer Reviews](http://writing.wisc.edu/Handbook/PeerReviews.html) section of the Writer?s Handbook website from University of Wisconsin-Madison provides guidance for peer reviewers. For more information on guiding peer reviewers, visit the resource [Using Peer Review to Help Students Improve Their Writing](http://teachingcenter.wustl.edu/node/425) from Washington University at St. Louis.

Editing and proofreading are stages distinct from revision and should be done after the revision process is completed.  During this stage, the writer takes a close look at the piece of writing with an eye to correcting sentence structure or composition, errors in grammar, punctuation and spelling as well as word choice.  During this stage, the focus is on correctness and clarity. Common errors to look for while editing are listed in the [Twelve Common Errors](http://writing.wisc.edu/Handbook/CommonErrors.html) section of the Writer?s Handbook website from University of Wisconsin-Madison.

Some strategies to suggest that students use during the proofreading process are:

* Allow a little time to pass before tackling the proofreading or editing process, a few days, overnight or at least several hours. Doing so allows you to review the work with a fresh eye.
* Take the time to read carefully since rushing leads to overlooking errors.
* Read from the point of view of the audience to be sure the material makes sense.
* Ask a friend or collaborator to read for errors you might have overlooked.
* If the teacher or collaborator points out an error, be sure you understand why it is an error and learn how to avoid the same error in the future.  Writers often make the same errors over and over.  Keep a list of the errors you make frequently and learn to self-correct before or after making these errors.

A helpful resource is Editing and Proofreading Strategies from Writing@CSU (<http://writing.colostate.edu/guides/pdfs/guide45.pdf>).

Publishing takes place when a piece of writing is shared with its intended audience. Ideally students will write for an authentic audience (beyond the instructor) such as for the whole class or others outside class through a class website or other means. A [student wiki](http://www.wikispaces.com/) or [blog](http://blog.com/) or other free online platform is another excellent way for students to share their writing beyond the classroom.

**Contextualized learning activities**

*1. Writing instructions for a patient.* Students will write instructions for a patient based on the teacher?s oral or written instructions. Students will need to translate medical jargon into instructions that a normal patient can clearly understand.

Review medical terminology before the activity. Medical terms to review and guide students to define include:

* antibacterial
* surgeon
* fine needle aspiration
* biopsy
* [mass](lexicon/6#Mass)
* thyroid
* allergy
* infiltration local [anesthesia](lexicon/6#Anesthesia)
* pathologist
* recurrence (of disease)
* hypertension
* [malnutrition](lexicon/6#Malnutrition)

Have students take notes while you say or they read the following passage:

*On the day of the surgery, the patient will report to the Riverland Medical Center at 6:30 a.m. for a minor surgical* [*procedure*](lexicon/6#Procedure)*. Before reporting for the surgery, the patient should shower or bathe with an antibacterial soap. The surgeon will complete a fine needle aspiration biopsy of a* [*mass*](lexicon/6#Mass) *in the thyroid gland using infiltration local* [*anesthesia*](lexicon/6#Anesthesia)*. All tissue that is removed will be sent to the pathologist for examination. There are some minor risks to this* [*procedure*](lexicon/6#Procedure) *that include possible bleeding into or around the wound or injury to the adjacent structures. There may also be an unknown allergy to the local anesthetic or recurrence of the disease. If the patient has known or unknown medical conditions including diabetes,* [*malnutrition*](lexicon/6#Malnutrition)*, heart disease, hypertension, or other disorder, or if he fails to follow the doctor?s instructions, there may be unforeseen outcomes.*

 Direct students to rewrite the instructions in language that patients will find easier to understand. Impress upon students the importance of using correct grammar and usage as well as correct punctuation and capitalization.

 Have students share their rewritten paragraphs with a partner or in a small group and notice how much alike or different their paragraphs are.

*2. Proofreading.* Tell students that they have prepared [this sample form](http://mccwdta.etlo.org/sites/mccwdta.edc.org/files/section_files/MCCWDTA_Medical_Assistant_written%20communication_supportingdoc.docx#overlay-context=module/medical-assistant) for the doctor?s office where they work and that their next step is to proofread the document. Have students work individually or in pairs to locate and correct the errors. (Please note: the errors are highlighted in yellow, but the student version should not include the highlighted areas.)

*3. Writing up accurate reports.* Assign students to small groups to research and discuss procedures for cleaning up contamination from spill of blood or other biological contaminants. Have students watch a video and take notes about the clean up process. Have students watch one or more of these videos:

* Biological Spill Cleanup<http://www.youtube.com/watch?v=R1W7eAlYmOY>
* Blood/Body Fluid Large Spill Cleanup<http://www.youtube.com/watch?v=Zhgv7jdETSU>
* Bloodborne Pathogens: Body Fluid Cleanup Procedures<http://www.youtube.com/watch?v=gnOtvAztKoQ>
* Biological Spill & Exposure Cleanup <http://www.youtube.com/watch?v=We7rEUZRdfg>

After students watch one or more videos, have them imagine that they have caused a spill and have them write a report. The report should be a time ordered description of what happened and what they did as a result.

*Building Vocabulary.* Medical terminology is particularly rich in Latin and Greek roots and affixes; thus, a study of these words provides an opportunity to develop students? knowledge of roots and affixes that will be helpful in other contexts. Some words to select for word study include:

* antibacterial
* hypertension
* [malnutrition](lexicon/6#Malnutrition)
* pathologist
* sonogram

Have students complete a chart such as the one below, providing the meanings of roots and affixes for each word below or for other words selected by the instructor:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Word** | **Root & Definition** | **Prefix & Definition** | **Suffix & Definition** | **Word Meaning** |
| hypertension | ten-Definition: pressure | hyper-Definition: over; high; excessive | -sion Definition: act of; noun forming | Excessive or high [blood] pressure |
| sonogram | sono-Definition: sound | sono-Definition: sound | -gramDefinition: writing or written | Writing with sound or a written record of high frequency sound echoes |
| antibacterial |   |   |   |   |
| Pathologist |   |   |   |   |
| [malnutrition](lexicon/6#Malnutrition) |   |   |   |   |

Some helpful resources are:

* [Human Anatomy & Physiology:](http://mccwdta.etlo.org/sites/mccwdta.edc.org/files/section_files/WordPartList.doc#overlay-context=module/medical-assistant) Latin and Greek Word-Part List (prefixes, suffixes, roots)
* [Anatomy Latin and Greek Root Words](http://www.cram.com/flashcards/anatomy-latin-and-greek-root-words-prefixes-and-suffixes-1379580), Prefixes and Suffixes Flash Cards
* [Medical Terminology](http://www.globalrph.com/medterm.htm) - A through Z

*5. Conducting a Patient Interview.* Clinical Medical Assistants often conduct the interview for patients who are visiting the doctor?s office. Divide students into pairs to role play an interview with a patient during a visit to the doctor. Each student in the pair should role play both the patient and the medical assistant. To begin the lesson, [brainstorm](lexicon/6#Brainstorm) with students the kinds of questions that are often asked during a medical interview, such as questions about medical history, current medications and reasons for the visit. Or use or adapt one of these forms:

* [Adult Health History for New Patients](http://www.pamf.org/forms/143952_Adult_Med_Hx.pdf), Palo Alto Medical Foundation
* [Sample Family Medical History Form](http://www.ama-assn.org/resources/doc/genetics/adult_history.pdf)
* Nova Southeastern University Health Care Center [Patient History Form](http://www.nova.edu/healthcare/forms/patient_medical_history.pdf)

After brainstorming a list of questions (or using one of the forms above), group students in pairs to practice their role play activity making sure that each student has the opportunity to role play the patient and the medical assistant. After practicing, student pairs will present their role play activity to the class who will take notes on a copy of the form used by the pairs. Remind students that medical histories must be accurate since they become a legal patient file.

**Contextualized test items**

Write a paragraph describing the types of duties and responsibilities of a medical assistant. (Answer: Draw from the scenario.)

Proofread the following paragraph and make corrections as required (Errors are highlighted for the instructor.):

* The Ambulatory Surgery Center requires that a family member or friend accompany you to the surgery center, and Remain with you throughout you?re [procedure](lexicon/6#Procedure). The person who accompany you should be responsible for driving you home. If you comes on a transportation bus, you must have a family or friend accompany you on the bus and rides home with you after your [procedure](lexicon/6#Procedure). If you do not have anyone with you; your [procedure](lexicon/6#Procedure) has been cancelled for that day and rescheduled. Thank you for your cooperation in this matter.

Match roots, prefixes and suffixes with their meanings (Matches are shown. Instructor should scramble one of the lists before using with students. Examples are provided for instructors.)

|  |  |  |
| --- | --- | --- |
| anti- | 1. against, resisting | (example: antibacterial) |
| auto- | 2. self  |  (example: autoimmune) |
| ?cide  | 3. kill | (example: spermacide)  |
|  derm-  | 4. skin | (example: dermatology) |
| gastri- | 5. stomach |  (example: gastroenteritis) |
| ?itis | 6. inflammation | (example: dermatitis) |
| ?logy | 7. study of | (example: cardiology) |
| cardi- | 8. heart  | (example: cardiology)  |

**Contextualized project**

*Write a document to share with patients.* Tell students that one of the patients at the clinic is suffering from a high level of stress at work.  The doctor has asked the medical assistant to share some information with the patient about the unhealthy aspects of stress and what he or she can do to control stress. This information at the [American Heart Association](http://www.heart.org/HEARTORG/GettingHealthy/StressManagement/Stress-Management_UCM_001082_SubHomePage.jsp) site will be a useful starting place for research.  Students should also check other medical sites such as [WebMD](http://www.webmd.com/balance/guide/blissing-out-10-relaxation-techniques-reduce-stress-spot) or [National Institute for Health](http://www.nlm.nih.gov/medlineplus/stress.html).  Using information on these sites, students, either individually or in small groups, will prepare a short document or brochure on how to manage stress.  Alternately, students can create a PowerPoint slideshow to present to the class.

**Additional or extension activities, multimedia, readings and/or resources**

Choose a drug from this list at the FDA and read the information related to it:<http://www.fda.gov/drugs/drugsafety/ucm085729.htm>.  Write a summary of the side effects of the drug you?ve selected.

Investigate one of these [Top 20 Procedures and Tests](http://www.medicinenet.com/procedures_and_tests/article.htm).  Using the information from the site, design a brochure that could be given to a patient about the [procedure](lexicon/6#Procedure).  Take notes on the material, plan the brochure and proofread the final draft carefully so that it is correct.