

## Module 7– Understanding Medical Terminology

**Suggested Time Frame** – Five to six hours

### **Goal Statement** –

The goal of this module is to accurately use (spell and pronounce) common medical terms and abbreviations in simulated clinical situations in health occupations.

### **Module Description:**

The goal of Module 7 is to provide a basic understanding of medical terminology in common use in the health occupations. The module further identifies appropriate pronunciation of selected terms to assist in learning a *new* language. Module 7 refers to the Model Curriculum for Medical Assistants and also includes new information regarding *dangerous* abbreviations that were previously in common use. A variety of student activities are included to add interest and reinforce learning.

### **Objectives:**

At the completion Module 7, the student will be able to:

1. Describe the function and purpose of medical terminology in health care professions.
2. Correctly spell and define selected key terms.
3. Utilize word roots, prefixes, suffixes and linking or combining vowels to analyze medical terms and phrases.
4. Differentiate meaning of common abbreviations and select abbreviations, acronyms & symbols identified by JCAHO as “dangerous”.
5. Demonstrate the effective use of a medical dictionary

**Resources:**

- *Medical Tech/Medical Terminology*: Sweethaven Publishing Services.  
<http://64.78.42.182/sweethaven/MedTech/MedTerm>
- *Self Assessment Tasks for Medical Terminology*: Medical Terminology  
<http://ec.hku.hk/mt/quizzes.htm>
- RHORC, Saddleback College, Mission Viejo, CA. *Model Curriculum for Medical Assistants – Core*. Chancellor’s Office – California Community Colleges. 1999.
- \_\_\_\_\_, “Don’t Use These Abbreviations”. *American Nursing Student*. Jan/Feb 2004.
- [http://www.jcaho.org/accredited+organizations/patient+safety/04+mmsg/04\\_faqs.htm](http://www.jcaho.org/accredited+organizations/patient+safety/04+mmsg/04_faqs.htm)

Content Outline	Learning Activities
<p><i>Objective 1. Describe the function and purpose of medical terminology in health care professions.</i></p> <p>A Medical terminology is the language shared by all members of the health care professions.</p> <p>B The terms define and describe various anatomical and physiological functions, positions and procedures.</p> <p>C Medical terminology is a new language derived from Greek and Latin</p> <ol style="list-style-type: none"> <li>1 Basic rules of Medical terminology</li> <li>2 Terms are formed by combining root words, prefixes, suffixes and linking or combining vowels.</li> <li>3 Key to learning medical terminology is understanding the root word.</li> </ol>	<p>A Lecture/Discussion</p> <p>B Lecture/Discussion                      Medical Terminology Hunt                      Exercise 7.1                      Answer Key 7.1</p> <p>C Lecture/Discussion</p>

<p><i>Objective 2. Correctly spell and pronounce selected key terms.</i></p> <p>A. Educational and regional differences in pronunciation.</p> <p>B. Correct spelling is essential as some words sound alike phonetically, but have vastly different meanings</p> <ol style="list-style-type: none"> <li>1. Ileum (small intestine)</li> <li>2. Ilium (lateral flaring portion of hip bone)</li> </ol> <p>C. Medical terms are usually pronounced as if they were of English derivation, with each letter pronounced.</p> <p>D. Accents-</p> <ol style="list-style-type: none"> <li>1. Last syllable is seldom accented in medical terminology.</li> <li>2. Most two and three syllable words are accented on the first syllable</li> <li>3. Every vowel or diphthong (blend of two vowel sounds in one syllable) makes a separate syllable.</li> </ol> <p>E. Pronouncing double consonants</p> <ol style="list-style-type: none"> <li>1. In English, vowels are a, e, i, o, u and sometimes y and all the other letters of the alphabet are called consonants</li> <li>2. When double consonants occur at the beginning of a word, the first consonant is not pronounced. <ol style="list-style-type: none"> <li>a. Psuedo – (sue-doh)</li> <li>b. Ptosis – (toe-sis)</li> </ol> </li> <li>3. When double consonants occur within a word, both consonants are usually pronounced. <ol style="list-style-type: none"> <li>a. Prognosis (prog-noh-sis)</li> <li>b. Apnea – (ap-nee-ah)</li> <li>c. Hemoptysis – (he-mop-tih-sis)</li> </ol> </li> </ol>	<p>A Lecture/Discussion</p> <p>Medical Terminology Handout 7.1</p> <p>B Lecture/Discussion</p> <p>C Lecture/Discussion</p> <p>D Lecture/Discussion</p> <p>E Lecture/Discussion</p>
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<p>F. Pronouncing consonant combinations</p> <ol style="list-style-type: none"> <li>1. Ch (chlorine) is often pronounced “K” (<i>Klor-reen</i>)</li> <li>2. Ph (phobia) has the sound of “F” (<i>Foh-bee-ah</i>)</li> <li>3. Rh (rheumatic) has sound of “R” (<i>roo-mat-ic</i>)</li> </ol>	<p>F Lecture/Discussion</p>
<p>G. “C” &amp; “G”.</p> <ol style="list-style-type: none"> <li>1. When occurring before e, i &amp; y,             <ol style="list-style-type: none"> <li>a. “C” is often given the hard sound of “s” eg. cervical – (<i>ser-vih-kal</i>)</li> <li>b. “G” is given the soft sound of “j” eg. geriatrics – (<i>jer-ee-at-ricks</i>)</li> </ol> </li> <li>2. Before other letters “c” and “g” have a harsh sound             <ol style="list-style-type: none"> <li>a. Cardiac (<i>kar-dee-ac</i>)</li> <li>b. Gauze (<i>gaws</i>)</li> </ol> </li> <li>3. When cc is followed by e, I, or y, the first “C” is pronounced as “K” and the second “C” is pronounced as “S”             <ol style="list-style-type: none"> <li>a. Streptococci (<i>strep-toe-kok-sie</i>)</li> <li>b. Occipital (<i>ack-sip-ih-tal</i>)</li> </ol> </li> </ol>	<p>G Lecture/Discussion</p>
<p>H. Pronouncing combining vowels</p> <ol style="list-style-type: none"> <li>1. Combination of <i>ae</i> and <i>oe</i> are pronounced as <i>ee</i></li> <li>2. eg. Fasciae (<i>fash-ee-ee</i>)</li> </ol>	<p>H Lecture/Discussion</p>
<p>I. Adjective endings</p> <ol style="list-style-type: none"> <li>1. Adjectives are descriptive words that specify color, number other qualities such as hard, soft, etc.</li> <li>2. In medical terminology, when seen with a root, they refer to or pertain to the root word.             <ol style="list-style-type: none"> <li>a. <i>ac</i> combined with cardio means pertaining to the heart (cardiac arrest means stopping of the heart)</li> <li>b. <i>al</i> combined with oro means pertaining to the mouth (oral hygiene means cleansing of the mouth)</li> <li>c. <i>ary</i> combined with pulmon means pertaining to the lungs (pulmonary emboli means blood clots in the lungs)</li> </ol> </li> </ol>	<p>I Lecture/Discussion</p>

*Objective 3. Utilize word roots, prefixes, suffixes and linking or combining vowels to analyze medical terms and phrases.*

- A Word roots contain the core of the word's meaning.
- 1 A root or stem is a word element that is neither a prefix nor a suffix.
  - 2 The meaning of a root word is clear without the prefix or suffix
  - 3 Examples

Root	Meaning	Example
Cardi	Heart	Cardiology
Hemat-	Blood	Hematemesis
Cyst	Bladder	Cystitis

- B A prefix consists of one or more letters or syllables placed at the beginning of a word.
1. Prefixes modify or change the significance of the root word.
  2. Note: "pre" means before or preceding the root word.
  3. Examples:

prefix	Meaning	Example
Ante-	Before	Antepartum
Endo-	Within	Endocardium
Hyper-	Above	Hypertension

- C A suffix consists of one or more letters or syllables placed at the end of a word
- 1 modifies or amplifies the main idea.
  - 2 Examples:

suffix	Meaning	Example
-itis	Inflammation	Cystitis
-pathy	Disease	Cardiopathy
-megaly	Enlargement	Splenomegaly

- D A combining or linking vowel (usually "o") is used to link a root word with another root or a suffix.
1. The combination makes the word easier to pronounce.
  2. Examples

Root word	Prefix or suffix	Example
Cardi	-pathy	Cardi- <i>o</i> -pathy
Spleen	-megaly	Splen- <i>o</i> -megaly

A Activity/Discussion

"Doc Talk" Game  
Exercise 7.2

B Lecture/Discussion

C Lecture/Discussion

D Lecture/Discussion

<p><i>Objective 4. Differentiate meaning of common abbreviations and identify “dangerous” abbreviations, acronyms &amp; symbols listed by JCAHO in the 2004 National Patient Safety Goals</i></p> <p>A. Abbreviations are used as a time saving device</p> <p>B. Abbreviations may vary from region to region</p> <p>C. Never create your own abbreviations as abbreviations are considered “standard”</p> <ol style="list-style-type: none"><li>1. non-standard abbreviations may cause confusion in medical diagnosis</li><li>2. non-standard or misinterpreted abbreviations may result in incorrect dosages or timing of medications and procedures</li><li>3. non-standard or misinterpreted abbreviations may result in insurance reimbursement problems</li></ol>	<p>A Lecture/Discussion</p> <p>B Lecture/Discussion</p> <p>Abbreviations Handout 7.2</p> <p>C Lecture/Discussion</p> <p>Medical Terminology Worksheet #1 Exercise 7.3 Answer Key 7.3</p> <p>Medical Terminology Worksheet # 2 Exercise 7.4 Answer Key 7.4</p> <p>Dangerous Abbreviations, Acronyms and Symbols Handout 7.3</p>
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