Component I: Core

Module B: Terminology, Anatomy and Physiology

Topic 1: Medical Terminology

Statement of Purpose
To prepare the learner with basic knowledge to correctly use the language of medicine.

Student Learning Outcomes
Upon completion of this topic, the learner will be able to:

1. Spell and define key terms.
2. Develop an action plan for learning medical terminology.
3. Utilize word roots, prefixes and suffixes to analyze unfamiliar medical terms and phrases.
4. Distinguish the meaning of common abbreviations and acronyms.
5. Demonstrate effective use of a medical dictionary both hard copy and online.

Terminology

1. Abbreviation
2. Acronym
3. Combining form
4. Combining vowel
5. The Joint Commission
6. Cross reference
7. Decode
8. Dictionary
9. Diphthong
10. Eponym
11. Online dictionary
12. Phonetic
13. Plurals
14. Prefix
15. Pronounce
16. Suffix
17. Syllable
18. Vowel
19. Word Root

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9. http://www.nlm.nih.gov/medlineplus/mplusdictionary.html

Content Outline/Theory Objectives	Suggested Learning Activities
Objective 1 **Spell and define key terms.** A. Review the terms listed in the terminology section. B. Spell the listed terms accurately. C. Pronounce the terms correctly. D. Use the terms in their proper context.	A. Games: word searches, crossword puzzles, Family Feud, Jeopardy, bingo, spelling bee, hangman and concentration. B. Administer vocabulary pre-test and post-test. C. Discuss learning gaps and plan for applying vocabulary. D. Use textbook and medical dictionary to look up words.

Objective 2
 Develop an action plan for learning medical terminology.
 A. Vocabulary that describes, in a scientific manner, the human body and associated components, conditions, processes and procedures.
 B. Basic rules
    1. Word root is a term derived from Greek or Latin.
    2. Rules of language apply.
    3. When a term is developed, there is a logical process applied.
    4. The word root is developed to include a vowel sound (usually an "O") following the term to add an accommodating action for when applying the suffix.
    5. The outcome results in a new term with a word root with a vowel attached. Now called a combining form.
    6. Terms are formulated by combining suffixes or prefixes to word roots.
    7. Understanding word roots prefixes and suffixes is the key to learning medical terminology.
 C. Prefix
    1. Added in front of the term to modify the word root.
 D. Suffix
    1. Added to the end of the term to modify the word root.
 E. Decoding medical terminology
    1. Break down the word by evaluating the meaning of the suffix first, the prefix second and then the word root.
    2. When more than one word root is used in the formation of a medical term, the individual word roots are joined together by using the combining vowel and using the letter "o" to indicate the joining together of various word roots.
    3. A word root plus a combining vowel is a combining from.
	A. Lecture/Discussion
	 B. Assigned Readings
	 C. Use posters/videos/computer assisted learning/workbook activities.
	 D. Play word games such as "hangman."
	 E. Provide students with a list of medical terms. Have them identify the word root, prefix and suffix.
	 F. Attempt to analyze word by defining the word root, suffix and then prefix.
	 G. Do this individually and then as an entire group.

F. Pronunciation
 1. Educational differences.
 2. Regional differences.
 3. Phonetic (words that sound similar)
  a. Ileum
  b. Ilium
G. Spelling
 1. Sounds similar but spelled differently (examples)
  a. Spy-
  b. Cy-
  c. Sy-
  d. Si-
 2. The last syllable is seldom accented in medical terminology.
 3. Most two-syllable and three-syllable words are accented on the first syllable.
 4. Every vowel or diphthong (a blend of two vowel sounds in one syllable) makes a separate syllable.
 5. Medical terms, even those taken directly from Latin or Greek, are usually pronounced as though they were English, with each letter being pronounced.
 6. Word endings determine plural form
  a. Ending in "a" drop the "a" then add "e"
  b. Ending in "ax" drop the "ax" then add "aces"
  c. Ending in "ex" or "ix" drop the "ex" or "ix" then add "ices"
  d. Ending in "ma" –drop the "ma" then add "mata"
  e. Ending in "is" drop the "is" then add "es"
  f. Ending in "on" drop the "on" then add "a"
  g. Ending in "us" drop the "us" then add "i"
  h. Ending in "um" drop the "um" then add "a"
  i. Ending in "y"- drop the "y" then add "ies"	

Objective 3
Utilize word roots, prefixes and suffixes to analyze unfamiliar medical terms and phrases.
A. Word roots (WR) or stems
 1. A word root or stem is a word element that is neither a prefix nor a suffix.
 2. It is that part of the word that relates to the principal idea of the word.
 3. Its meaning is clear without a prefix or suffix.
 4. The root of a word can stand alone and have meaning.
 5. Some examples are
  a. Aden (WR)- Gland- Aden/itis (WR-Suffix)
  b. Cardi (WR)- Heart-Cardi/ology (WR-Suffix)
B. Prefix
 1. A prefix consists of one or more letters or syllables placed at the beginning of a word to modify its
	A. Lecture/Discussion
	B. Assigned Readings
	C. Use posters/videos/computer assisted learning/workbook activities.

significance.
2. In the word "prefix" the portion "pre-"(meaning before) is itself a prefix.
3. Some examples are
   a. Ante- (before) - Ante/flexion.
   b. Endo- (within) - Endo/scopy.
C. Suffix
1. A suffix consists of one or more letters or syllables placed at the end of a word to modify or amplify the main idea.
2. Examples include
   a. Itis (Inflammation)-Gastr/itis
   b. -pathy (Disease)-Myo/pathy
      1) A combining vowel (usually o) links the root to another root or a suffix
      2) The combining form evolves from adding a common vowel to a root
      3) Without that step, some terms would be difficult or impossible to pronounce
         • Example: my = muscle
         • o = combining vowel
         • -pathy = disease
         • Myo = combining form creates word: my/o/pathy

Objective 4
Distinguish the meaning of common abbreviations and acronyms.
  A. Used as time saving device.
  B. May vary from region to region.
  C. Never create ones' own terms or abbreviations
    1. Incorrect abbreviation can result in problems in insurance.
    2. Can cause confusion in interpreting diagnosis.
    3. When in doubt always spell out a word instead.
  D. Acronym
    1. Created from the first letter of the each of the words in a particular phrase. Some examples include:
      a. LASER - Light Amplification by the Stimulated Emission of Radiation.
      b. MA - Medical Assistant.
  E. The Joint Commission's "Do Not Use" List
    1. Abbreviations, Acronyms and Symbols
      a. Medical errors have been identified as the fourth most common cause of patient deaths in the United States.
      b. To help reduce the numbers of errors related to incorrect use of terminology, the Joint Commission recently issued a list of abbreviations, acronyms and symbols that should no longer be used.
      c. This action supports one of the Joint Commission's national patient safety goals which is to improve the effectiveness of communications among caregivers.
	A. Lecture/Discussion
	B. Assigned Readings
	C. Use posters/videos/computer assisted learning/ workbook activities.
	D. Review http://www.jointcommission.org/assets/1/18/Do_Not_Use_List.pdf

Objective 5
Demonstrate effective use of a medical dictionary (both hard copy and online).
  A. Reference for medical terminology.
  B. Cross references information.
  C. Identifies root word, prefix and suffix.
  D. Alphabetized.
  E. Pronunciation guidelines.
  F. Plurals.
  G. Abbreviations.
  H. Acronyms.
  I. Eponyms.
	A. Lecture/Discussion
	B. Assigned Readings
	C. Use posters/videos/computer assisted learning/ workbook activities.
	D. Review http://www.nlm.nih.gov/medlineplus/mplusdictionary.html