

# 0723I: Medical Terminology

## Introduction

You probably think medical terms are long words that only doctors and nurses can understand and pronounce. However, we commonly use terms such as flu, pneumonia, cancer and cardiac disease. With a little bit of practice you can understand the world of medical terminology.

## Why learn medical terminology?

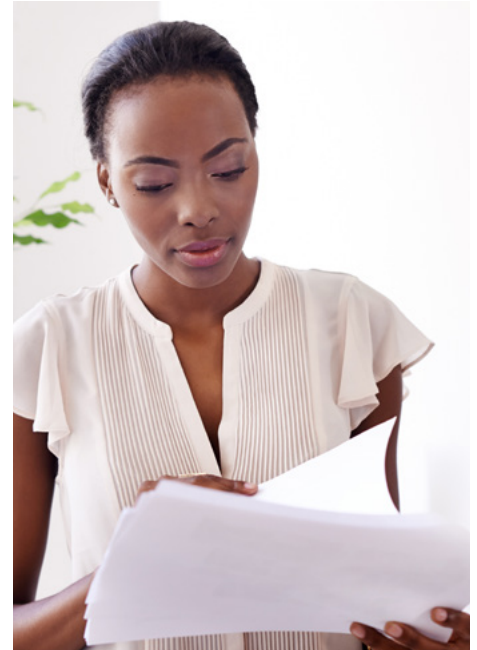
We come across many medical words, terms and symbols during the course of our day-to-day work. Together, they make up what is called medical terminology.

As a member of the health care team you need to know what these words, terms and symbols mean. You will see them written in diagnoses and medication orders. You will also use them as part of your everyday documentation.

Learning medical terminology will help you:

- Understand medical documentation written by health care providers;
- Communicate better with other health care team members;
- Correctly carry out orders and instructions; and
- Improve the quality of your documentation.

When communicating with other health care team members, medical terms are used on a regular basis to convey a lot of information without having to use a lot of words. For example, the acronym COPD stands for “chronic obstructive pulmonary disease.” It is easier to say, “The patient has COPD,” than to say, “The patient has chronic obstructive pulmonary disease.” You are communicating the same information but in a lot less time.



# How to interpret medical terms

Medical terms have three possible word parts. Understanding these three parts can help you read medical documentation more easily.

Any given medical term will contain one or more of these parts. The three parts and their definitions are:

- **Prefix:** The beginning part of the word that changes or further defines the root's meaning;

*Examples:*

anti — against

tachy — fast or rapid

brady — slow

dys — difficult, labored, painful

hypo — below or deficient

hyper — above or excessive

poly — many

mal — bad

semi — half



- **Root:** The part of the word that tells the word's basic meaning.

*Examples:*

bronch — bronchus

pseudo — false or fake

cardi — heart

therm — heat

gastr — stomach

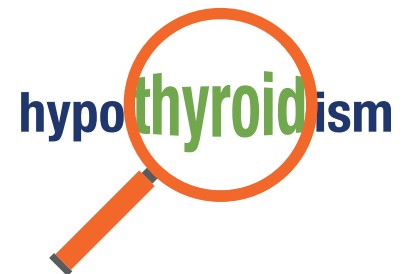
thromb — clot

glycos — sugar

thyroid — thyroid gland

nephr — kidney

urin — urine or urinary tract



- **Suffix:** The part placed at the word's end to change or further define its meaning.

*Examples:*

ectomy — excision or surgical removal

emia — blood condition

ism — state of

itis — inflammation of

ology — study of

ostomy — creating an artificial opening

plegia — paralysis

pnea — breathing

thorax — chest



## Combining word segments to understand meaning

Medical terms are formed by combining word segments.

A **root** can be combined with **prefixes, roots or suffixes**.

- For example, the prefix dys (difficult) can be combined with the root pnea (breathing). This forms the term “dyspnea,” meaning difficulty in breathing.

**Roots** can be combined with **suffixes**.

- The root mast (breast) combined with the suffix ectomy (excision or removal) forms the term “mastectomy.” It means removal of a breast.

**Combining a prefix, root and suffix** is another way to form medical terms.

- “Endocarditis” consists of the prefix endo (inner), the root card (heart) and the suffix itis (inflammation). “Endocarditis” means inflammation of the inner part of the heart.

*Note: Some people find it easier to begin with the suffixes when translating medical terms. For example, the suffix “itis” means inflammation, so we know we are talking about an inflammation somewhere.*

## When are medical terms used?

### Medical orders

We see different medical words, terms and symbols in medical orders. These orders can range from how and when a medication is to be given to how often an ordered treatment is to be performed.

It is especially important to understand what these medical words, terms and symbols mean. Not following orders could have adverse results for the people in our care.

### Want to look up the meaning of a medical term?

**Online** — go to [www.nlm.nih.gov/medlineplus/medplustdictionary.html](http://www.nlm.nih.gov/medlineplus/medplustdictionary.html)

**Book** — purchase a new or used medical terminology dictionary such as Dorland’s Illustrated Medical Dictionary or Merriam-Webster’s Medical Dictionary.

MEDICAL CENTER

NAME \_\_\_\_\_ AGE \_\_\_\_\_  
ADDRESS \_\_\_\_\_ DATE \_\_\_\_\_

**R**

*325 mg Acetaminophen  
take 1 tab po QID for  
muscle pain*

LABEL  
REFILL 0 1 2 3 4 5 PRN NR

SIGNATURE \_\_\_\_\_

This is an example of a typical prescription order. Refer to the “Common symbols and abbreviations” starting on page 6 for definitions.

## Documentation

Documentation is one of the most important tasks a caregiver will complete on a regular basis. This is where you show:

- What care and services were given;
- What the person's response to the care and services was;
- Progress or lack of progress;
- Identification of problems;
- Evaluations of goals, teaching, etc.

Documentation is a form of communication when other members of the health care team visit to review a person's progress. Accurate, objective, concise documentation is essential. Using standardized medical words, terms and symbols will help you convey what has been happening in the least number of words.

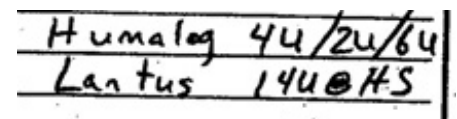
You may sometimes need to be more descriptive than the words, terms and symbols discussed here. Medical terminology should never be used as a substitute for complete documentation. Your documentation should include whatever words, terms or symbols are needed to ensure complete and accurate documentation.

## Using symbols and abbreviations

Using symbols and abbreviations can help document health care information using the least number of words. However, use symbols and abbreviations with caution. Some symbols and abbreviations are associated with frequent serious medication or medical errors and should either not be used or used with extreme caution.

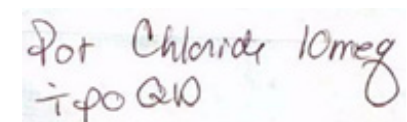
You must know what these symbols and abbreviations mean, since there are still some individuals that use them. For example, the abbreviation for unit is "u." However, due to the significant errors in others reading it as a number you should never use the abbreviation "u." When documenting on the MAR use the term "unit" only. To the right are examples of errors reading abbreviations.

Additionally, you do not have to use an approved symbol or abbreviation if a caregiver could be confused about its meaning. It is OK to spell it out to make sure its meaning is clear.



Humalog 44/24/64  
Lantus 14u @ HS

Example of number written just before an abbreviation that resulted in a significant overdose of insulin. Read the order as 44/24/64 units of insulin **instead of** 4 units/ 2 units/6 units of Humalog



Pot Chloride 10mg  
i po QD

The "QD" was misread as QID. Additionally, the first abbreviation listed "Pot" is intended to mean potassium; however, that is not a correct abbreviation. The abbreviation for potassium chloride is "KCL" or some hospitals use "K" or "K+."

At the end of this document is a table of commonly used symbols and abbreviations used in most health care settings and by health care providers. Symbols and abbreviations with an "x" next to them mean you should either not use them or it is recommended not to use them. However, error on the side of caution and do not use any medications that have either "do not use" or "recommended not to use" on their order.

Never make up your own abbreviations. You must use accepted medical abbreviations and symbols.

## Tall man letters

Using tall man letters is a new practice of writing parts of a drug's name in uppercase letters to help tell sound-alike or look-alike drug names from one another.

For example, hydrOXYzine and hydrALAZINE are similar sounding but are very different medications. HydrALAZINE treats hypertension (high blood pressure) and HydrOXYzine is used for allergies, sedation or anxiety. If you have an order for a drug that is written with tall man Letters, you must transcribe exactly as written on the medication administration record (MAR).

If the spelling for the drug on the prescription drug label does not match the medical order do not assume it is a misspelling. It might be a sound-alike/look-alike medication. Call the prescriber immediately to clarify the order.

## Naked decimals and trailing zeroes

If a prescription or medical order for a drug has a dosage with a decimal point, there must be a zero in front of the decimal. If a zero is not there, it is called a "naked decimal."

For example, a dose is 0.5 mg. If the actual order or prescription only lists .5 mg, you must get immediate clarification. If an order only lists .5 mg, the individual administering the medication may give 5 mg which is 10 times the amount intended and would result in an overdose.

Overdose of any drug can cause serious damage to major organs such as liver and kidneys and could lead to death.

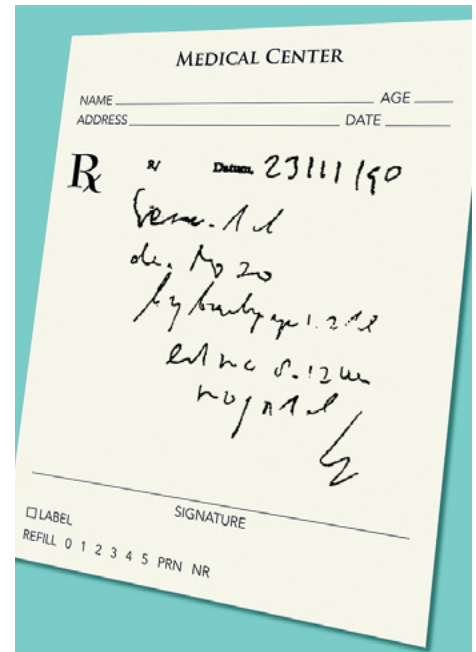
# Avoiding errors

Poor handwriting is the number one cause of confusion and mistakes, including medication errors. Print the information. Do not use cursive handwriting on the medication administration record (MAR), treatment administration record (TAR) or resident records.

Abbreviations shown in lower case letters should never be capitalized. For example, “ml” should not be written as “ML,” which could have a different scientific meaning.

When a name of a drug ends in the letter “l,” make sure there is plenty of space between the name of the drug and the number. If too close together the “l” may be mistaken for a larger number, especially when handwritten. For example, “tegretol 300 mg” could be mistaken for “1300 mg.” Instead, give plenty of space between the last letter and the number “tegretol 300 mg.”

Numerical dose and unit of measure can also appear to be a larger dose than intended. Keep plenty of space between the number and the unit of measure. For example, 10mg when handwritten can be mistaken as two zeroes, which could result in 10 times the intended amount. It should have clear space between the zero and unit of measure; for example, 10 mg.



Can you read this? If not you must get clarification. When documenting Make sure your handwriting is legible.

# Common symbols and abbreviations\*

Symbol or abbreviation	Never use/ don't use**	Meaning	Use instead
@	**	At	“At”
>	**	More than	“More than”
<	**	Less than	“Less than”
/	**	Slash mark	Never use with numbers
&	**	And	“And”
+	**	Plus or and	“Plus” or “and”
°	**	Hour (used next to an hour — 2°)	“hr” or “hour”
ā		Before	-
ac		Before meals	
ad lib		As desired	
AMT		Amount	
APAP	**	Acetaminophen	Use complete drug name

Symbol or abbreviation	Never use/ don't use**	Meaning	Use instead
ASA		Aspirin	
ASAP		As soon as possible	
BG		Blood glucose	
BID		Twice (two times) a day	
BP		Blood pressure	
BS		Bowel sounds	
ċ		With	
cc	**	Cubic centimeters	"ml"
C/O or c/o		Complaint of	
CBG		Capillary blood glucose	
CHF		Congestive heart failure	
COPD		Chronic obstructive pulmonary disease	
CP		Chest pain/cerebral palsy	
CVA		Cerebrovascular accident (stroke)	
D/C	**	Discontinue	"Discontinue" or "discharge"
DOB		Date of birth	
ER		Emergency or emergency room	
F		Female	
Fx		Fracture	
GI		Gastrointestinal	
H/A		Headache	
hs	**	At bedtime (hour of sleep)	"Bedtime"
Hx		History	
HTN		Hypertension	
IU	**	International unit	"Units"
lb		Pound	
L		Left	
IM		Intramuscular	
IV		Intravenous	
M		Male	
mcg		Microgram(s) – Don't not use periods after each letter	
mg		Milligram – <b>Do not use periods after each letter</b>	
ml		Milliliter – <b>Do not use periods after each letter</b>	
MI		Myocardial infarction (heart attack)	



Symbol or abbreviation	Never use/ don't use**	Meaning	Use instead
MS	**	Multiple sclerosis or morphine sulfate	List full name of disease or use complete drug name
MSO4	**	Morphine sulfate	Use complete drug name
NC		Nasal cannula	
NKDA		No known allergies	
NPO		Nothing by mouth	
N/V		Nausea/vomiting	
N/V/D		Nausea/vomiting/diarrhea	
O2		Oxygen	
OT		Occupational therapy	
OTC		Over-the-counter	
oz		Ounce	
̄p		After	
pc		After meals	
per		By or through	
PO or po		By mouth or orally	
PRN		As necessary or needed	
PT		Physical therapy	
q6pm	**	Every evening at 6 PM but sometimes mistaken for every 6 hours (any hour that might be listed)	“Daily at 6 PM” or “6 PM daily”
q1d	**	Daily but mistaken for four times a day	“Daily”
QD or qd	**	Each day or daily	“Daily”
QH or qh		Every hour	
qhs	**	At bedtime	“Nightly” or “bedtime”
QID or qid		Four times a day	
QOD	**	Every other day	“Every other day”
R		Right	
Rx		Prescription medicine	
̄s		Without	
SL		Sublingual	
SOB		Shortness of breath	
SQ or sq	**	Subcutaneous	“Subcut” or “subcutaneous”
ss	**	Sliding scale or ½	Spell out “sliding scale”; one half or ½
Sx		Symptom	
TB		Tuberculosis	



Symbol or abbreviation	Never use/ don't use**	Meaning	Use instead
TID or tid		Three times a day	
U	**	Unit	“Unit”
UA		Urinalysis	
URI		Upper respiratory infection	
UTI		Urinary tract infection	
V/S		Vital signs	
wt		Weight	
tab		Tablet	

\* This is not an all-inclusive list of medical symbols and abbreviations.

\*\* These abbreviations are associated with significant medication errors. If they are used, be sure to clarify the order. For complete information on symbols and abbreviations that cause confusion, go to [www.ismp.org/Tools/errorproneabbreviations.pdf](http://www.ismp.org/Tools/errorproneabbreviations.pdf).

## Summary

At first glance learning medical terminology may seem difficult. Learning more about prefixes, roots and suffixes will help you more easily learn medical terminology. Medical terminology is used in many aspects of providing care. Better understanding medical terminology will make it easier to read medical or health care documents.

Medical terminology is a useful tool to communicate with other members of the health care team. It is not a substitute for good communication. As a caregiver, it is your responsibility to always clarify any orders or documentation you do not understand.

# Training credit

*Note: Completing this self-study course does not meet the Six Rights training requirement specified the Adult Foster Home OAR: 411-050-0625.*

You will need to take and pass a test to receive training credit (a certificate) for this course. You can find out how to order the test here:

<http://www.oregon.gov/DHS/SENIORS-DISABILITIES/PROVIDERS-PARTNERS/Pages/afh-training.aspx>.

## Sources for this module's information

### Safe medication administration

[www.oregon.gov/DHS/PROVIDERS-PARTNERS/LICENSING/Pages/safe-med-administration.aspx](http://www.oregon.gov/DHS/PROVIDERS-PARTNERS/LICENSING/Pages/safe-med-administration.aspx)

### U.S. Food and Drug Administration

Medication errors [www.fda.gov/Drugs/ResourcesForYou/HealthProfessionals/ucm319753.htm](http://www.fda.gov/Drugs/ResourcesForYou/HealthProfessionals/ucm319753.htm)

### Institute for Safe Medication Practices

List of error-prone abbreviations, symbols and dose designations

[www.ismp.org/Tools/errorproneabbreviations.pdf](http://www.ismp.org/Tools/errorproneabbreviations.pdf)

Look-alike drug names with recommended tall man letters

[www.ismp.org/Tools/tallmanletters.pdf](http://www.ismp.org/Tools/tallmanletters.pdf)

### Online Medical Dictionary

[www.nlm.nih.gov/medlineplus/mplusdictionary.html](http://www.nlm.nih.gov/medlineplus/mplusdictionary.html)

*Course Development: Deborah Cateora B.S.N., R.N.*



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