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Book Three

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NATIONAL INSTITUTES OF HEALTH
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U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Public Health Service
National Institutes of Health

SEER PROGRAM

SELF-INSTRUCTIONAL MANUAL FOR CANCER REGISTRARS

Book 3 - CANCER REGISTRAR VOCABULARY: THE COMPOSITION OF MEDICAL TERMS

Second Edition

Originally Prepared for the Louisiana Regional Medical Program

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BOOK 3

CANCER REGISTRAR VOCABULARY: THE COMPOSITION OF MEDICAL TERMS

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OBJECTIVES AND CONTENT OF BOOK 3

SECTION A

OBJECTIVES AND CONTENT OF BOOK 3

As a cancer registrar, you eventually will learn the meaning of hundreds, even thousands, of medical terms. For most of these words you will not need to know their exact definition. You will, however, need to be able to recognize diagnostic terms versus treatment terms, terms that refer to anatomical sites, terms that describe types of benign and malignant neoplasms, and terms that refer to patient symptoms.

Sections B, C, and D of this book are concerned with word roots, prefixes and suffixes.

Sections E, F, and G of this book are concerned with terms used in describing symptoms, physical findings, and illnesses of cancer patients.

Section H is an alphabetical listing of common acronyms, abbreviations, and symbols used in medical records.

SECTION B

WORD ROOTS, SUFFIXES, AND PREFIXES

SECTION B

WORD ROOTS, SUFFIXES, AND PREFIXES

You probably already know that most English words are derived from some other language, such as Greek, Latin, French, or German. This is especially true of medical terms which usually are based on Greek or Latin words. For example, the word *arthritis* is based on the Greek word *arthron* (joint) + the Greek ending *itis* (inflammation of). In this course of instruction, you will not be asked to memorize long lists of terms. Instead you will learn the meaning of certain prefixes, suffixes, and roots that as word elements make up the common medical terms related to the diagnosis and treatment of cancer. Your knowledge of these word elements and how they are combined to form common medical terms should make even the most complicated medical terminology decipherable. For example, the word pericarditis can be broken down into its word elements as follows:

peri	+	card	+	itis
(prefix)		(root)		(suffix)

It means:

around	heart	inflammation

Several roots may be combined along with a prefix and/or suffix to form a word. For example, the word bronchogenic can be broken into the following word elements with, for the sake of ease in pronunciation, a vowel (usually "o") linking the word elements:

bronch	+	o	+	gen	+	ic
(root)		(combining vowel)		(root)		(suffix)

It means:

any large air passage of lungs	o	forming, producing, condition of

There are textbooks on medical terminology, and some of these contain quite a detailed discussion of the origin and make-up of medical terms. Also, your medical dictionary probably will contain a section on the fundamentals of medical etymology[1]. At the very least, you should read this section of your dictionary paying special attention to the list of roots, prefixes, and suffixes.

---

[1]etymology--The study of the history and development of a language.

PRETEST ON WORD ROOTS

The following word roots will be discussed in this block of instructions. Can you recognize their correct definitions? Place the letter for the correct definition in the blanks to the left of each word root.

		Word Root		Definition
_____	1.	(an[1])esthesio-	a.	crab, cancer
_____	2.	bi(o)-	b.	white
_____	3.	carcin(o)-	c.	fat
_____	4.	hem(a)-	d.	growth, formation
_____	5.	gno-	e.	to feel, perceive
_____	6.	leuk(o)-	f.	tumor, relationship to tumor
_____	7.	lip(o)-	g.	life
_____	8.	onc(o)-	h.	nose
_____	9.	-plasm	i.	flesh
_____	10.	rhin(o)-	j.	to know
_____	11.	sarc(o)	k.	blood
_____	12.	gastr(o)	l.	stomach
_____	13.	oste(o)-	m.	urine
_____	14.	toxic(o)-	n.	bone
_____	15.	urin-	o.	poison

[1]a or an: A prefix signifying without (lack of) or not.

ANSWERS TO PRETEST

Answer		Word Root	Definitions	Example
e	1.	(an)esthesio-	to feel, perceive	anesthesia
g	2.	bi(o)-	life	biopsy
a	3.	carcin(o)-	crab, cancer	carcinoma[1]
k	4.	hem(a)	blood	hematology
j	5.	gno-	to know	diagnosis
b	6.	leuk(o)-	white	leukocyte
c	7.	lip(o)-	fat	liposarcoma
f	8.	onc(o)-	tumor, relationship to tumor	oncology
d	9.	-plasm	growth, formation	neoplasm
h	10.	rhin(o)-	nose	rhinorrhea
i	11.	sarc(o)-	flesh	sarcoma
l	12.	gastr(o)-	stomach	gastrointestinal
n	13.	oste(o)-	bone	osteosarcoma
o	14.	toxic(o)-	poison	toxicology
m	15.	urin-	urine	urinalysis

[1]Although the root for this word means cancer or crab, in general usage carcinoma means a malignant epithelial tumor.

Medical terms can be divided into three basic word elements: prefixes, roots (or stems), and suffixes. The root or stem of a medical term usually has been derived from a Greek or Latin noun or verb. This root expresses the basic meaning of the term. However, often that meaning will be modified by the addition of a prefix (at the beginning of the word) or the addition of a suffix (at the end of the word). Frequently a root + a suffix will be used as a suffix and added to another root as a word ending. Some examples are -emia, -genic, -penia, and -pathy. However, two suffixes alone cannot be combined to form a word. Three common medical terms, their roots, and their root definitions are listed below.

Medical Term	Root	Root Definition
tonsillitis	tonsilla	tonsil (Latin tonsilla)
thermal	therm	heat
prognosis	gno	to know

Q1

Check the medical terms in the following list whose roots have been underlined. Use your dictionary when you need to so do.

[x]

[ ] urinalysis [ ] pathology

[ ] lipoma [ ] neoplasm

[ ] histology [ ] carcinoma

Answer: Q1

The terms urinalysis, lipoma, pathology, and neoplasm have their roots underlined.

The root of a term may appear anywhere within the term:

1. at the beginning--e.g., urinalysis and lipoma
2. in the middle--e.g., prognosis and anesthesia
3. at the end--e.g., neoplasm and antitoxin.

A prefix consists of one or two syllables placed before a word in order to modify the meaning of the word. Often these syllables are prepositions or adverbs. Prefixes are commonly used to help describe the appearance of, or the location of, an anatomical part. For example, the term adrenal, the name of a ductless gland above the kidney, is composed of the prefix ad, which means near, and a root renal, which means kidney. Combine the prefix and the root and you get a term that means "near the kidney." Listed below are a few of the prefixes used with common medical terms.

Medical term	Prefix	Prefix Definition
hemiplegia	hemi-	half
hypodermic	hypo-	under
intramuscular	intra-	within

Q2

Check the medical terms in the following list whose prefixes are underlined.

[x]

[ ]	antitoxin	[ ]	prognosis
[ ]	bilateral	[ ]	intravenous
[ ]	cytology	[ ]	gingivitis

Answer: Q2

The terms antitoxin, bilateral, prognosis, and intravenous have a prefix underlined. The other two terms are composed of a root followed by a suffix.

The prefix anti- means against, bi- means two (not life as in bi(o)), pro- means before or in front of, and intra- means within. The root word cyt(o) means cells and gingiv(o) means gums.

Q3

A true suffix refers to a syllable or a group of syllables attached to the end of a word root (or stem) to modify the meaning of the word root. By adding a suffix to a word root, one may change the meaning of a word, or merely change its grammatical function, i.e., create a noun or an adjective. Following are a few medical terms which contain commonly used suffixes:

Medical Term	Suffix	Suffix Definition
cuboid	-oid	like, resembling, in the form of
glucose	-ose	composed of carbohydrate
dermatitis	-itis	inflammation of
arthrosis	-osis	condition of
hemolysis	-lysis	breakdown, destruction of
cytology	-ology	study of

Check the medical terms in the following list whose suffixes have been underlined.

[x]

[ ] prognosis	[ ] poliomyelitis	[ ] leukemia
[ ] hypodermic	[ ] dysentery	[ ] cervical

Answer: Q3

The terms prognosis, poliomyelitis, leukemia, and cervical have their suffixes underlined. The root -emia (blood) in the word leukemia is actually composed of a root plus a suffix: ((h)emia = blood) + (ia = condition). Since it will invariably appear in this format (emia), we will not subdivide it into various components in this book.

The prefix is underlined in hypodermic, and the root word is underlined in dysentery.

hypodermic hyp(o) + derm + ic (under the skin)

dysentery dys + enter(o) + y (painful intestine)

The basic forms of medical terms with examples of each, are described below. Of course, any particular medical term may take on an almost infinite variety of combinations of these three basic forms:

1. A term may be composed of a root + a suffix. As examples:

   carcinoma: (carcin(o) = crab) + (oma = tumor)
   sarcoma: (sarc(o) = flesh) + (oma = tumor)
   cerebral: (cerebr = brain) + (al = pertaining to).

2. A word may be composed of a prefix + a root. As examples:

   neoplasm: (neo = new) + (plasm = growth, formation)
   biped: (bi = two) + (ped = foot)
   dysfunction: (dys = bad, difficult, painful) + (function = normal action).

3. Many medical terms are composed of a prefix + a root + a suffix. As examples:

   hypoglycemia: (hypo = under) + (glyc = sugar) + (emia = blood)
   encephalitis: (en = in) + (cephal = head) + (itis = inflammation of)
   pericarditis: (peri = around) + (card = heart) + (itis = inflammation of)

Some medical terms are composed of two roots. As examples:

biostatistics: (bio) = life) + (statistics = numerical facts)
erythroblast: (erythr(o) = red) + (blast = germ cell)
microfilm: (micr(o) = small) + film

The combination of a word root plus a combining vowel as in bio-, erythro-, and micro- is known as the combining form. To indicate a word root and its usual combining vowel, but not in combining form, the vowel appears in parenthesis.

Q4

You already have learned some of the general terms associated with cancer patients and cancer registries. For instance, you have learned that the two basic types of cancer are called carcinoma and sarcoma. An analysis of the word elements of these terms follows:

Medical Term	Word Element	Meaning
carcinoma	carcin	A root meaning cancer, crab
	oma	A suffix meaning tumor
sarcoma	sarc	A root meaning flesh, connective tissue
	oma	A suffix meaning tumor

Terms such as chondroma, lipoma, and cystadenoma refer to _____

Answer: Q4

tumors. The suffix oma means "tumor."

Chondroma, lipoma, and cystadenoma are examples of benign tumors. Chondroma is a bone tumor, lipoma is a fat tumor, and cystoma is a tumor containing cysts of neoplastic origin.

Q5

You have learned also that the suffix ology means the "science of" or the "study of." Thus, psychology is the study of the mind or psyche. Hematology is the study of the blood (hem(a) is a root meaning blood). Therefore, knowing that the root onco means "tumor, relationship to tumor." You should be able to infer that the term "oncology" means:

[x]

[ ] a. The study of malignant growths.

[ ] b. The study of benign tumors.

[ ] c. The study of new growths.

[ ] d. All of the above.

Answer: Q5

d--All of the above. The term oncology is a general term referring to the study of all types of benign and malignant growths or tumors.

Q6

The term neoplasm (neo + plasm) has been used often in this course of instruction. This term is composed of a single prefix and a single root. What is the root? (Select one.)

The meaning of this root is new/growth, formation. (Select one.)

Answer: Q6

You should have selected "plasm" as the root. Plasm means "growth, formation." Neoplasm generally is defined as a new growth.

Q7

Now let us learn a few of the roots and suffixes associated with the symptoms of a patient with cancer. While doing this you will also learn a few root names for parts of the anatomy.

Suppose as the result of a cold, you have a runny nose. Your doctor might call this condition rhinorrhea:

rhin(o) - a root meaning nose

rrhea - a suffix meaning flow, discharge

Which of the following terms would you say is a legitimate word?

[x]

[ ] a. rhinology

[ ] b. itisology

Answer Q7

a--Rhinology refers to the study of the nose. More important, however, you should remember that two suffixes cannot be combined to form a word. Itis and ology are both suffixes.

Q8

To review, match each of the definitions on the right with a root or suffix on the left.

Root/Suffix	Definition
_____ 1. sarc	a. A suffix meaning new
_____ 2. oma	b. A root meaning stomach
_____ 3. onco	c. A suffix meaning tumor
_____ 4. gastr	d. A root meaning flesh
_____ 5. rrhea	e. A root meaning tumor, relationship to tumor
	f. A suffix meaning flow, discharge

Answer: Q8

Answer	Root/Suffix	Root Definition
1--d	sarc	A root meaning flesh
2--c	oma	A suffix meaning tumor
3--e	onco	A root meaning tumor, relationship to tumor
4--b	gastr	A root meaning stomach
5--f	rrhea	A suffix meaning flow, discharge

POST-TEST

1. For each word listed below, is the underlined word element a root or a suffix?

   a. hemat<u>uria</u> _____

   b. osteo<u>genic</u> _____

   c. leukocyt<u>osis</u> _____

   d. cytopath<u>ology</u> _____

   e. mast<u>itis</u> _____

   f. cyto<u>plasm</u> _____

2. a. Which word means like, resembling, or in the form of?

1. pathogenic
2. keratosis
3. lymphoid
4. gastritis _____

b. Which word refers to a condition of?

1. enteritis
2. lymphocytosis
3. spondylolysis
4. leukopenia _____

c. Which word refers to the breakdown of or destruction of something?

1. bronchitis
2. ostealgia
3. hysterolysis
4. oncology _____

d. Which word refers to a carbohydrate?

1. myxorrhea
2. cellulose
3. mastalgia
4. cephaloid _____

e. Which word refers to flow or discharge of something?

1. adenitis
2. gonorrhea
3. metrorrhagia
4. arthralgia _____

3. a. A word referring to feeling, sensation:

1. rhinopharyngeal
2. hemangioma
3. anesthesia
4. enterolysis _____

b. A word referring to white:

1. rhabdosarcoma
2. hemangioma
3. leukocytosis
4. melanoma _____

c. A word referring to flesh:

1. oncogenesis
2. biopsy
3. hematemesis
4. sarcoma _____

d. A word referring to know:

1. pathology
2. diagnosis
3. biopsy
4. adipose _____

e. A word referring to fat:

1. osteosarcoma
2. lipoma
3. oncogenesis
4. mastectomy _____

ANSWERS TO POST-TEST (Pages 27-29)

Question 1.

	Word Element	Type of Element
1a.	ur	a root
1b.	genic	a suffix
1c.	osis	a suffix
1d.	ology	a suffix
1e.	itis	a suffix
1f.	plasm	a root

Question 2.

2a. "3" -- lymphoid. -oid means like, resembling. in the form of

2b. "2" -- lymphocytosis. -osis refers to a condition of

2c. "3" -- hysterolysis. -lysis refers to the breakdown, destruction of something

2d. "2" -- cellulose. -ose refers to a carbohydrate

2e. "2" -- gonorrhea. -rrhea means flow, discharge

Question 3.

3a. "3" -- anesthesia. -esthesio- refers to feeling, sensation

3b. "3" -- leukocytosis. leuk(o)- refers to white

3c. "4" -- sarcoma. sarc(o)- means flesh

3d. "2" -- diagnosis. gno- means to know; dia- means through

3e. "2" -- lipoma. lip- refers to fat

SECTION C

COMMON SYMPTOMATIC SUFFIXES

SECTION C

COMMON SYMPTOMATIC SUFFIXES

There are thousands of major and minor things which can occur to a human body. Each disease and pathological condition is described by a specific medical term. Often similar symptoms and pathological conditions can occur in different parts of the body. It is convenient, therefore, to have word elements which describe certain common conditions. For example, the word element -algia means "pain" or "ache" which can be combined with other word elements referring to parts of the body. Thus, myalgia refers to a pain or ache in a muscle or muscles. The pretest on the next page lists 12 suffixes (or roots + suffixes used as suffixes) which often are components of words used to describe symptomatic conditions. Take this pretest and determine how many of these suffixes you can define.

PRETEST ON SYMPTOMATIC SUFFIXES

The following suffixes will be discussed in the next block of material. How many can you define?

	Suffix		Definition
_____ 1.	-algia	a.	like, resembling, in the form of
_____ 2.	-genic	b.	tumor
_____ 3.	-itis	c.	forming, producing, or productive of
_____ 4.	-lysis	d.	flow, discharge
_____ 5.	-penia	e.	pain, ache
_____ 6.	-oid	f.	destruction, breakdown of
_____ 7.	-ology	g.	lack of, deficiency
_____ 8.	-oma	h.	condition of
_____ 9.	-ose	i.	burst forth, excessive flow
_____ 10.	-osis	j.	study of
_____ 11.	-rrhage	k.	inflammation of
_____ 12.	-rrhea	l.	composed of carbohydrate

ANSWERS TO PRETEST

ANSWER		Suffix	Definition
e	1.	-algia	pain, ache
c	2.	-genic	forming, producing, or productive of
k	3.	-itis	inflammation of
f	4.	-lysis	destruction, breakdown of
g	5.	-penia	lack of, deficiency
a	6.	-oid	like, resembling, in the form of
j	7.	-ology	study of
b	8.	-oma	tumor
l	9.	-ose	composed of carbohydrate
h	10.	-osis	condition of
i	11.	-rrhage	burst forth, excessive flow
d	12.	-rrhea	flow, discharge

Q9

Probably you have heard of the term neuralgia which means to have a pain in a nerve (neuron). The suffix -algia means pain. Also, anyone who listens to TV has seen mouthwash ads which claim to prevent halitosis. In this word the root halitus means an expired breath and the suffix -osis means "condition of."

With this information you should be able to determine that:

1. A nervous condition might be described by the term:

[x]

[ ] a. neurosis

[ ] b. psychosis

[ ] c. neither term

[ ] d. both terms

2. An earache might be described by the term:

[x]

[ ] a. othygroma

[ ] b. otalgia

[ ] c. otitic

[ ] d. othemorrhea

Answer: Q9

1. d--Both terms contain the suffix -osis which means condition of. The root elements neur(o) and psych(o) refer, respectively, to "nerve" and "mind."

2. b--Otalgia is the only term containing the suffix -algia which means painful, ache. Ot(o) is the word root for ear.

Q10

Metr(o) is a root word which refers to the uterus. The term meaning to have a discharge from the uterus is:

[x]

[ ] a. metritis

[ ] b. metrorrhea

[ ] c. metrorrhagia

[ ] d. metralgia

Answer: Q10

b--metrorrhea, which is composed of:

metr(o) - root word meaning uterus
rrhea - a suffix meaning flow, discharge

Q11

Perhaps you have noticed that the suffix -rrhea seems to be similar to the suffix -rrhage which appears in such terms as hemorrhage. Well,

-rrhea means flow, discharge
-rrhagia means to burst forth, excessive flow

Thus, you might describe an abnormal uterine hemorrhage a condition of (select one).

[x]

[ ] a. metrorrhea

[ ] b. metrorrhagia

Answer: Q11

metrorrhagia=a bursting forth of blood from the uterus; uterine bleeding occurring at completely irregular intervals, the period of flow sometimes being prolonged.

You may be more familiar with the term menorrhagia which is composed of the word root for month (men(o)-) and the suffix -rrhagia meaning excessive menstrual flow.

Already you have been introduced to the term pathology (pathos = disease) + (ology = science of, the study of). You have also probably seen the term pathogenic, composed of the root path(o) and the suffix -genic. This suffix appears at the end of many medical terms and means forming, producing or productive of. Thus:

neurogenic means forming in nerves (neuro-)
osteogenic means forming in the bones (osteo-)
pathogenic means disease-producing (patho-)

Q12

Which of the above three words cannot be defined directly from a knowledge of the meaning of roots and suffixes? _____.

Answer: Q12

pathogenic. A literal combination of root and suffix meanings would give the definition of "originating in the disease." You should not be surprised when the combined definitions of the elements of a medical term do not provide an exact definition of the term itself. Very often this will be the case, For example:

anemia, with the prefix an-, meaning without, and the root -emia, meaning blood, is defined as "a deficiency of red blood cells " (not an absence of blood).

Q13

A term meaning "forming in the bronchi" is:

[x]

[ ] a. bronchitis

[ ] b. bronchorrhagia

[ ] c. bronchorrhaphy

[ ] d. bronchogenic

Answer: Q13

d--bronchogenic. This term is composed of the root bronch(o) (any large air passage of lungs) and the suffix -genic (forming). Notice that when two word elements are combined, letters may be added or dropped so as to make the term easier to pronounce, as in this example where a combining vowel of "o" is added to the root "bronch."

In other instances, if the root word ends in a vowel, change that vowel to an "o" or simply add the combining vowel "o."

anesthesia + logy (study of) = anesthesiology

hema (blood) + globin (protein of) = hemoglobin

cardi (heart) + gram (written or recorded) = cardiogram

The vowels a, e, i, u and y may also be used as combining vowels. As examples:

brach(y) (short) + cardi (heart) + a = brachycardia

oste(o) (bone) + arthr (joint) + itis (inflammation of) = osteoarthritis

Q14

There are special books on medical vocabulary which describe the derivation and composition of medical terms. Suppose you knew that the term leukopenia was composed of the root leuko (meaning white) and the suffix -penia which you did not know. Using your dictionary, define the suffix -penia.

Answer: Q14

You can find penia which is defined as a word termination indicating an abnormal reduction in number or a "lack." Thus, by inference, you define -penia as a deficient or decreased state or condition. Leukopenia means deficiency of white blood cells. Similarly the term cytopenia refers to deficiency in the cellular elements of the blood.

Q15

Sometimes you will encounter symptomatic terms such as lipoid and fibroid. According to your dictionary, the suffix -oid means:

[x]

[ ] a. cell

[ ] b. in the form of, like

[ ] c. mouth

[ ] d. circle

Answer: Q15

b--oid means like, resembling, in the form of. Thus, lipoid means fatty or fat-like: (lip = fat) + (-oid = in the form of).

Q16

A term meaning "deficiency of white blood cells" would most likely be:

[x]

[ ] a. leukemia

[ ] b. leukocyte

[ ] c. leukopenia

[ ] d. leukemoid

Answer: Q16

c--leukopenia: (leuk(o)- = white) + (-penia = lack of, deficiency of).

Q17

Let us introduce you to the suffix -lysis which means "dissolution", or "breaking down." Thus, hemolysis: (hemo = blood) + (-lysis = breaking down) means breaking down of red blood cells. Which of the following terms refers to the destruction or disintegration of something?

[x]

[ ] a. myolysis

[ ] b. cytolysis

[ ] c. hepatolysis

[ ] d. all of the above

[ ] e. none of the above

Answer: Q17

d--all of the above. All terms contain the suffix-lysis which means dissolution of, breaking down of. My(o) means muscle, cyt(o) means cells, and hepat(o) means liver.

Q18

Most of the suffixes covered so far can be combined with lip(o), the root meaning fat. Match the terms on the left with the definitions on the right.

Term	Definitions
____ 1. lipoid	a. A tumor made up of fat cells.
____ 2. lipoma	b. Forming, producing, or caused by fat.
____ 3. lipomatosis	c. Fatlike, resembling fat.
____ 4. lipogenic	d. A condition characterized by tumorlike fat accumulations in the tissue.

Answer: Q18

1. c: -oid means like, resembling, in the form of
2. a: -oma means tumor
3. d: -osis means condition of
4. b: -genic means forming, producing, or productive of

Term	Definition
lipoid	Fatlike, resembling fat
lipoma	A tumor made up of fat cells
lipomatosis	A condition characterized by tumor-like fat accumulations in the tissue
lipogenic	Forming, producing, or caused by fat

Q19

You also will find the word element leuk(o) (white) combined with many suffixes. Often the suffix will be added to the combination root leukocyte which means "white blood cell." Match the terms on the left with the definitions on the right.

		Term		Definition
_____	1.	leukocytosis	a.	Profuse leukorrhea
_____	2.	leukocytopenia	b.	A condition characterized by an increase in white blood cells
_____	3.	leukocytolysis	c.	Abnormal reduction in number of white blood cells
_____	4.	leukorrhagia	d.	The destruction of leukocytes

Answer: Q19

1. b: -osis means condition of
2. c: -penia means deficiency of or decrease in
3. d: -lysis means the dissolution of or destruction of
4. a: -rrhagia refers to bursting forth, excessive flow of

Term	Definition
leukocytosis	A condition characterized by an increase in white blood cells
leukocytopenia	Abnormal reduction in number of white blood cells
leukocytolysis	The destruction of leukocytes
leukorrhagia	Profuse leukorrhea

Q20

1 . All of us are familiar with gastrointestinal disorders. Thus, a stomachache might be described by a word ending with the suffix:

[x]

[ ] a. -genic

[ ] b. -osis

[ ] c. -oid

[ ] d. -algia

2. Sometimes this will lead to a condition of "abnormal frequency and liquidity of fecal discharges." This condition is described by a term ending with the suffix:

[x]

[ ] a. -lysis

[ ] b. -rrhage

[ ] c. -rrhea

[ ] d. -penia

Answer: Q20

1. d: -algia, a suffix meaning pain or ache. The medical term for stomachache is gastralgia: (gastr = stomach) + (-algia = pain).

2. c: -rrhea, a suffix meaning flow, discharge. The term diarrhea is used to describe a watery bowel movement. The prefix dia- means through, apart, across or between.

POST-TEST ON WORD ROOTS AND SYMPTOMATIC SUFFIXES

The following Post-test should provide you with a good indication as to whether or not you now know the meaning of each of the word elements covered in Sections B and C. Match the word elements listed on the left with the definitions listed on the right:

Word Elements		Definition	
_____ 1.	-lysis	a.	crab cancer
_____ 2.	-hem(a)	b.	flesh
_____ 3.	-rhin(o)	c.	white
_____ 4.	-onc(o)	d.	tumor
_____ 5.	-itis	e.	to know
_____ 6.	-osis	f.	fat
_____ 7.	-carcin(o)-	g.	like, resembling, in the form of
_____ 8.	-rrhea	h.	composed of carbohydrates
_____ 9.	gno-	i.	growth, formation
_____ 10.	-ose	j.	lack of, deficiency
_____ 11.	-genic	k.	flow, discharge
_____ 12.	-leuk(o)	l.	to feel, perceive
_____ 13.	-oid	m.	burst forth, excessive flow
_____ 14.	-ology	n.	destruction, breakdown of
_____ 15.	-lip(o)	o.	tumor, relationship to tumor
_____ 16.	-rrhage	p.	blood
_____ 17.	(an)esthesio-	q.	inflammation of
_____ 18.	-plasm	r.	life
_____ 19.	-algia	s.	forming, producing, or productive of
_____ 20.	-oma	t.	condition of
_____ 21.	sarc(o)-	u.	nose
_____ 22.	bi(o)-	v.	study of
_____ 23.	-penia	w.	painful, ache

ANSWERS TO PRETEST

ANSWER		Word Element	Definition
n	1.	-lysis	destruction, breakdown of
p	2.	-hem(a)	blood
u	3.	rhin(o)-	nose
o	4.	onc(o)-	tumor, relationship to tumor
q	5.	-itis	inflammation of
t	6.	-osis	condition of
a	7.	carcin(o)-	crab, cancer
k	8.	-rrhea	flow, discharge
e	9.	gno-	to know
h	10.	-ose	composed of carbohydrates
s	11.	-genic	forming, producing, or productive of
c	12.	-leuk(o)	white
g	13.	-oid	like, resembling, in the form of
v	14.	-ology	study of
f	15.	lip(o)	fat
m	16.	-rrhage	burst forth, excessive flow
l	17.	(an)esthesio-	to feel, perceive
i	18.	-plasm	growth, formation
w	19.	-algia	painful, ache
d	20.	-oma	tumor
b	21.	sarc(o)	flesh
r	22.	bi(o)-	life
j	23.	-penia	lack of, deficiency

SECTION D

COMMON DIAGNOSTIC SUFFIXES

SECTION D

COMMON DIAGNOSTIC SUFFIXES

There are numerous suffixes commonly used with diagnostic terms. Terms using these suffixes will be found in the record of a patient's history and physical examination. An understanding of the meaning of these suffixes will help you abstract the medical records. First take the pretext below. A similar test will be given at the end of this block of instruction.

PRETEST ON DIAGNOSTIC SUFFIXES

Match the suffixes listed on the left with the definitions listed on the right.

		Suffixes		Definition
_____	1.	-cele	a.	inflammation of
_____	2.	-emia	b.	stricture, narrowing
_____	3.	-ectasis	c.	hernia, protrusion
_____	4.	-(i)asis	d.	falling
_____	5.	-itis	e.	blood
_____	6.	-plegia	f.	stroke, blow, paralysis
_____	7.	-poiesis	g.	expansion, dilatation
_____	8.	-rrhexis	h.	condition, formation of
_____	9.	-stenosis	i.	rupture
_____	10.	-ptosis	j.	production of

ANSWERS TO PRETEST

ANSWER		Suffixes	Definition
c	1.	-cele	hernia, protrusion
e	2.	-emia	blood
g	3.	-ectasis	expansion, dilatation
h	4.	-(i)asis	condition, formation of
a	5.	-itis	inflammation of
f	6.	-plegia	stroke, blow, paralysis
j	7.	-poiesis	production of
i	8.	-rrhexis	rupture
b	9.	-stenosis	stricture, narrowing
d	10.	-ptosis	falling

Q21

Cyst(o)- is a word root meaning "bladder or sac." Which of the following terms means inflammation of the bladder?

[x]

[ ] a. cystolithiasis

[ ] b. cystitis

[ ] c. cystocele

Answer: Q21

b--cystitis means inflammation of the bladder. The suffix *-itis* means inflammation of.

The term *cystolithiasis* (iasis = formation of + lith = stone) means a condition associated with the formation of bladder stones or calculi. The term *cystocele* (-cele = hernia, protrusion) means a hernial protrusion of the urinary bladder through, for example, the vaginal wall in females.

You will note that the suffix "-(i)asis" and the suffix "-osis" are both forms of the ending "-sis" meaning state or condition of.

Q22

Laryng(o)- is a word root meaning larynx. Select the term below that refers to paralysis of the larynx. Use your dictionary if you have to, or study the answers to the Pretest.

[x]

[ ] a. laryngitis

[ ] b. laryngocele

[ ] c. laryngoplegia

Answer: Q22

c--laryngoplegia, which means paralysis of the larynx. The suffix -plegia means stroke, blow, paralysis.

Q23

The suffix -rrhexia means rupture. A ruptured spleen would be referred to as:

[x]

[ ] a. gastrorrhexis

[ ] b. hepatorrhexis

[ ] c. neither

[ ] d. either

Answer: Q23

c--neither. Splenorrhexis is the term for ruptured spleen.

Gastrorrhexis means rupture of the stomach: (gastr(o) = stomach) + (-rrhexis = rupture).
Hepatorrhexis means rupture of the liver: (hepat(o) = liver) + (-rrhexis = rupture).

Q24

The word root bronch(o)- is derived from the term bronchus which is a branch of the trachea or windpipe. Inflammation of the bronchial tubes would be known as:

[x]

[ ] a. bronchiectasis

[ ] b. bronchostenosis

[ ] c. bronchitis

Answer: Q24

c--bronchitis is the term for inflammation of the bronchial tubes. The suffix -itis means inflammation of.

bronchiectasis (-ectasis = dilatation) is a term meaning dilatation of a bronchus. bronchostenosis (-stenosis = stricture, narrowing) means stricture or abnormal diminution of the caliber of a bronchial tube.

Q25

You learned that the suffix -cele is used to refer to a hernia or protrusion. As an example, a hernial protrusion of a part of the pharynx would be called a pharyngocele. Match the terms on the left with the definitions on the right. Use your dictionary if you need to do so.

Term			Definition	
_____	1.	esophagocele	a.	A protrusion of the rectum, for example, into the vagina in females
_____	2.	gastrocele	b.	A hernial protrusion of the bladder, for example, through the vaginal wall in females
_____	3.	proctocele	c.	A hernia containing a loop of intestine
_____	4.	enterocele	d.	Esophageal hernia
_____	5.	cystocele	e.	Hernia of the stomach

Answer: Q25

ANSWER	Term	Definition
d 1.	esophagocele	Esophageal hernia
e 2.	gastrocele	Hernia of the stomach
a 3.	proctocele	Protrusion of the rectum, for example, into the vagina in females (also known as rectocele)
c 4.	enterocele	A hernia containing a loop of intestine
b 5.	cystocele	A hernial protrusion of the bladder, for example, through the vaginal wall in females

Q26

The suffix -ectasis, meaning expansion or dilatation, is used to indicate the abnormal dilatation or expansion of a structure or an organ of the body--for example:

1. Angiectasis is defined as a dilatation of a blood vessel (angi = blood vessel).

2. Bronchiectasis is defined as a chronic dilatation of the bronchi or bronchioles.

3. Pharyngectasis is defined as a hernial protrusion (dilatation) of a part of the pharynx.

So, the suffix -ectasis means expansion or dilatation. Which of the words listed below has a meaning very similar to the term pharyngectasis?

[x]

[ ] a. pharyngoplegia

[ ] b. pharyngocele

[ ] c. phryngostenosis

Answer: Q26

b--pharyngocele (-cele = hernia, protrusion), a term for a hernial protrusion of a part of the pharynx. Pharyngoplegia (-plegia = paralysis) means paralysis of the muscles of the pharynx. Pharyngostenosis (-stenosis = constriction, narrowing) means a narrowing of the lumen of the pharynx.

Terms like hematuria, hemoptysis, and hemorrhage begin with the word root hem- which means blood. This root also is used as a suffix and when so used, the syllable -ia is added to it to produce -hemia. Thus, the term polycythemia means abnormal increase of red blood cells and hemoglobin in the blood. Sometimes the h is omitted, such as in the word hyperglyc(h)emia which means abnormally high blood sugar.

Q27

Can you think of a condition with the suffix -emia which is characterized by an abnormal reduction in red blood cells?_____

Answer: Q27

anemia: (an = not) + ((h)em = blood) + (ia)

A root word for red is erythr(o). Deficiency of red blood cells is known as erythropenia.

Q28

You should now be able to recognize the meaning of the following suffixes. Match the suffix on the left with the definition on the right.

Suffix	Definition
____ 1. -cele	a. expansion, dilatation
_____ 2. -emia	b. condition, formation of
_____ 3. -itis	c. hernia, protrusion
_____ 4. -plegia	d. stroke, blow, paralysis
_____ 5. -rrhexis	e. inflammation of
	f. blood
	g. falling
	h. constriction, narrowing
	i. rupture

Answer: Q28

ANSWER	Suffix	Definition
c	1. -cele	hernia, protrusion
f	2. -emia	blood
e	3. -itis	inflammation of
d	4. -plegia	stroke, blow, paralysis
i	5. -rrhexis	rupture

You have seen the term bronchiectasis (bronch = bronchial tubes of the lung) + (-estasis = expansion, dilatation). This is a condition characterized by the chronic dilatation of the bronchi. The suffix -ectasis means dilatation; the suffix -stenosis means constriction or narrowing. Therefore, a condition opposite to bronchiectasis would be bronchostenosis--the stricture or abnormal diminution of the caliber (diameter) of the bronchi.

Q29

Select the word which is described in each of the following statements:

a. Emphysema, abnormal swelling or inflation of the lungs, is known also as pneumonectasis/pharyngostenosis. (Circle one.)

b. A tumor located near an artery could expand causing the artery to be constricted. Such a condition would be known as arteriostenosis/arteriectasis. (Circle one.)

Answer: Q29

You should have said:

a. pneumonectasis: -ectasis means dilatation, expansion, inflation. (See under -ectasia in your dictionary.) Pneum(o)- means relationship to lung, air or to breath.

b. arteriostenosis: -stenosis means constriction or narrowing. Arteri(o)- means artery.

You know that two different medical terms can have the same meaning. Two different suffixes can also have the same or similar meanings. An example is the suffix -(i)asis (condition of, formation of, presence of) and the suffix -poiesis (formation of, production of). Some words using these two terms are:

1. lithiasis--formation of stones

2. nephrolithiasis--formation of stones in the kidney

3. hemopoiesis--the formation and development of blood cells

Sometimes, -poiesis will be changed to another form by using -tic instead of -sis, as in the word hematopoietic.

Q30

Match the terms on the left with the definitions on the right.

Term	Definition
_____ 1. broncholithiasis	a. A condition marked by the presence of kidney stones
_____ 2. gastrolithiasis	b. Presence or formation of calculi or other concretions in the stomach
_____ 3. cholelithiasis	c. Condition in which calculi are formed in the bronchi
_____ 4. pneumolithiasis	d. The presence of concretions in the lung
_____ 5. nephrolithiasis	e. Condition associated with the formation of gallstones

Answer: Q30

ANSWER		Term	Definition
c	1.	broncholithiasis	Condition in which calculi are formed in the bronchi
b	2.	gastrolithiasis	Presence or formation of calculi or other concretions in the stomach
e	3.	cholelithiasis	A condition associated with the formation of gallstones
d	4.	pneumolithiasis	The presence of concretions in the lungs
a	5.	nephrolithiasis	Condition marked by the presence of kidney stones

Q31

The suffix -osis means condition of. Another suffix meaning "condition of" is:

[x]

[ ] a. -ectasis

[ ] b. -itis

[ ] c. -(i)asis

[ ] d. -stenosis

Answer: Q31

c--(i)asis

Q32

Some of the things which can happen to the body are listed below in the left column. Based on your knowledge of the meaning of suffixes, match these descriptions with the technical terms on the right.

	Definition	Term
_____	1. A shrinkage of the stomach	a. pneumonectasis
_____	2. A prolapse of the uterus	b. gastrostenosis
_____	3. Protrusion of a part of the pharynx	c. thoracostenosis
_____	4. Dilatation of the bronchus	d. bronchiectasis
_____	5. Emphysema of the lung	e. pharyngocele
_____	6. Abnormal contraction of chest wall	f. metroptosis

Answer: Q32

ANSWER		Definition	Term
b	1.	A shrinkage of the stomach	gastrostenosis
f	2.	A prolapse of the uterus	metroptosis
e	3.	Protrusion of a part of the pharynx	pharyngocele
d	4.	Dilatation of the bronchus	bronchiectasis
a	5.	Emphysema of the lung	pneumonectasis
c	6.	Abnormal contraction of chest wall	thoracostenosis

Q33

To complete this instructional section, assume that a student has just taken the test which appears at the beginning of this block of instruction. The student's answers are presented below. State which answers are correct and which are incorrect.

Your Answer		Suffix	Student's Answer
_____	1.	-cele	hernia, protrusion
_____	2.	-ectasis	rupture
_____	3.	-emia	blood
_____	4.	-(i)asis	condition, formation of
_____	5.	-itis	inflammation of
_____	6.	-plegia	stroke, blow, paralysis
_____	7.	-poiesis	production of
_____	8.	-ptosis	falling
_____	9.	-rrhexis	stricture, narrowing
_____	10.	-stenosis	expansion, dilatation

Answer: Q33

Answer		Suffix	Correct Answer
correct	1.	-cele	hernia, protrusion
incorrect	2.	-ectasis	expansion, dilatation
correct	3.	-emia	blood
correct	4.	-(i)asis	condition, formation of
correct	5.	-itis	inflammation of
correct	6.	-plegia	stroke, blow, paralysis
correct	7.	-poiesis	production of
correct	8.	-ptosis	falling
incorrect	9.	-rrhexis	rupture
incorrect	10.	-stenosis	stricture, narrowing

SECTION E

CANCER REGISTRAR VOCABULARY: COMPLAINTS AND SYMPTOMS

SECTION E

CANCER REGISTRAR VOCABULARY: COMPLAINTS AND SYMPTOMS

A medical record is composed of a number of sections. The first section contains a description of the patient's complaints and symptoms, the medical history of the patient, the findings of a physical examination of the patient, and the impressions of the examining physician regarding the diagnosis of the patient's illness.

You should be cautioned that each medical record will be slightly different. The order in which information is recorded will be slightly different and sometimes certain items of information will not be found in the medical record as more patients are diagnosed and/or treated in the physician's office or in a clinic. It must also be noted that medical practitioners are not noted for their penmanship. Indeed, perhaps one of the most difficult aspects of medical record abstracting is deciphering the physician's handwriting. This will be less of a problem as more hospitals computerize the medical record. The United States military is considering a computerized system called Composite Health Care System (CHCS). Army hospitals in Kentucky and Hawaii began developing the system in 1988 as well as Navy and Air Force facilities. Now the system is being tested in Walter Reed Medical Center, the Army's largest teaching hospital. It will eventually be installed throughout military medical centers--a total of 125 hospitals in the United States.

The first entry in the record is usually a description of the chief complaint (CC) of the patient, i.e., the reason the patient sought medical attention. The description of the present illness (PI) which follows includes a description of the onset of the illness and the symptoms associated with it. In the following pretest you will find many words which are used to describe common symptoms. See how many of them you can match. If you have trouble, use your medical dictionary.

PRETEST ON COMPLAINTS AND SYMPTOMS

This block of instructions will cover 16 medical terms. Some of these terms you may know already. To find out for yourself which ones you know, take the pretest below. It is quite similar to the one you will take at the end of this section.

	Term	Definition
_____ 1.	acromegaly	a. Loss of appetite
_____ 2.	angina pectoris	b. Inability to breathe except in an upright position
_____ 3.	anorexia	c. Sudden loss of strength, as in fainting
_____ 4.	diarrhea	d. Spitting up or coughing up of blood
_____ 5.	dysphagia	e. Abnormal enlargement of extremities
_____ 6.	dyspnea	f. Abnormal frequency of intestinal discharge
_____ 7.	dysuria	g. Difficult breathing
_____ 8.	hematemesis	h. Passage of black, bloody stools
_____ 9.	hematuria	i. Itching
_____ 10.	hemoptysis	j. A disease condition marked by brief paroxysmal attacks of chest pain caused by deficient oxygenation of heart muscles
_____ 11.	hirsutism	k. Abnormal hairiness, especially in women
_____ 12.	melena	l. Painful urination
_____ 13.	nocturia	m. Discharge of blood in the urine
_____ 14.	orthopnea	n. Difficulty in swallowing
_____ 15.	pruritis	o. The vomiting of blood
_____ 16.	syncope	p. Excessive urination at night

ANSWERS TO PRETEST

	Term	Definition
e	1. acromegaly	Abnormal enlargement of extremities
j	2. angina pectoris	A disease condition marked by brief paroxysmal attacks of chest pain caused by deficient oxygenation of heart muscles
a	3. anorexia	Loss of appetite
f	4. diarrhea	An abnormal frequency of intestinal discharge
n	5. dysphagia	Difficulty in swallowing
g	6. dyspnea	Difficulty in breathing
l	7. dysuria	Painful urination
o	8. hematemesis	The vomiting of blood
m	9. hematuria	Discharge of blood in the urine
d	10. hemoptysis	Spitting up or coughing up of blood
k	11. hirsutism	Abnormal hairiness, especially in women
h	12. melena	Passage of black, bloody stools
p	13. nocturia	Excessive urination at night
b	14. orthopnea	Inability to breathe except in an upright position
i	15. pruritus	Itching
c	16. syncope	Sudden loss of strength, as in fainting

Some form of unusual bleeding or discharge is often associated with cancer of the digestive system or respiratory system. Some type of hemorrhaging might occur which appears as blood in the urine (hematuria) or as bloody stools (melena). Also, the patient might be spitting up blood, a condition known as hemoptysis. Four terms describing some type of unusual bleeding are:

hematuria hemat--a stem meaning blood ur--a stem referring to urine ia--a suffix meaning condition of	Definition:	Condition of blood in the urine
hemoptysis hemo--a stem meaning blood ptysis--stem referring to spitting sis--a suffix referring to condition of	Definition:	A condition characterized by the spitting up or coughing up of blood
melena from "melas," a root meaning black	Definition:	The passage of black, tarry stools containing blood. (When blood oxidizes, it becomes black.)
hematemesis hemat--a stem meaning blood emesis--a suffix meaning to vomit	Definition:	The vomiting of blood

Q34

A 52-year-old male has experienced a marked loss of weight during the past month. He denies loss of appetite but on occasion has coughed up blood. He denies a history of ulcers or any previous history of internal hemorrhaging.

What are the two symptoms contained in the above description?

1. _____

2. _____

Answer: Q34

The symptoms are:

1. Weight loss.

2. Coughing up blood (hemoptysis).

One of the early signs of lung cancer or cancer of the pharynx or larynx might be a persistent cough or hoarseness. This may be accompanied by swallowing difficulty.

The term cough and hoarseness are familiar terms but the term dysphagia probably is not. Dysphagia is made up of:

dys--a prefix meaning bad, difficult, painful
phag--a stem meaning to eat
ia--a suffix meaning condition of

The prefix dys is a very important one; memorize it. Dysphagia means difficulty in eating or swallowing.

Q35

A patient's symptoms were as follows: anorexia; loss of weight; pallor. He denied any passing of blood in the urine. He denied evidence of bloody stools or dysphagia. Based on these symptoms, are the following statements TRUE or FALSE? (Circle one.)

T F a. The patient had loss of appetite.

T F b. The patient had difficulty swallowing.

T F c. The patient had hematuria.

Answer: Q35

a. True. "Anorexia means loss of appetite.

b. False. "Denied dysphagia" means patient denied swallowing difficulty.

c. False. "Denied any passing of blood in the urine" means patient denied hematuria.

Q36

What does the prefix "dys" mean? _____

Answer: Q36

The prefix dys means bad, difficult, painful--for example, dysphagia means difficulty or pain in swallowing.

Q37

The prefix dys is used frequently, and you will often have occasion to look in your medical dictionary for the meaning of a term beginning with dys. Approximately 300 such words are listed in your dictionary. Suppose you encountered the terms dyschezia, dysopia, and dystaxia. What does each term mean?

a. dyschezia:_____

b. dysopia:_____

c. dystaxia:_____

Answer: Q37

a. dyschezia--Painful or difficult evacuation of feces

b. dysopia--Defective vision

c. dystaxia--Difficulty in controlling voluntary movement

Often a cancer patient will report he experienced a general weakness or loss of strength, or a feeling of fatigue. The term syncope refers to a sudden loss of strength which often results in fainting or loss of consciousness. If a patient says he has had dizzy spells but has not fainted, this can be recorded as dizzy spells. However, if a sudden loss of strength (possibly with fainting or loss of consciousness) was reported, this is referred to as syncope.

Q38

A 35-year-old male has experienced hoarseness for more than four months. He has found it increasingly difficult and painful to swallow. In the past week, he began having breathing difficulties (dyspnea). About three months ago, he experienced some dizziness, and he fainted during one of these episodes. However, these spells have not occurred for the past two months.

What symptoms might be recorded in the medical record?

Answer: Q38

a. hoarseness

b. difficulty swallowing (dysphagia)

c. breathing difficulties (dyspnea)

d. dizziness, fainting spells (syncope)

There are several conditions considered precursors of cancer of the skin--for example, burn scars, chronic skin ulcers, or inflammatory lesions that do not seem to heal. Such conditions are considered signs or symptoms of possible skin cancer and, therefore, are examined periodically.

Perhaps you have heard of instances where a wart or a mole became cancerous. The moles to be watched carefully are the dark brown or blue-black moles, slightly raised from the skin. These are particularly dangerous when they are located so that they are irritated by friction from a collar or belt, or when they are on the feet. Moles or warts that are irritated or show a tendency to change in color or size should be examined immediately by a physician.

Q39

A 58-year-old man noticed the development of dry, scaly patches on the back of his hand. On two or three occasions within the past month, he rubbed off portions of this scaly layer and bleeding occurred. Eventually, this condition was diagnosed as basal cell carcinoma. What is the significant symptom?

Answer: Q39

The significant symptom is a scaly patch of skin that bleeds when rubbed.

Several cancerous conditions are associated with the symptoms of indigestion or difficulty in swallowing. Swallowing difficulties and indigestion are common enough so that a variety of medical terms exist for describing these conditions. These terms include:

nausea (an unpleasant sensation often culminating in vomiting)
anorexia (lack of appetite)
dysphagia (difficulty in swallowing)

The term anorexia might be new to you. It can be analyzed as follows:

an--a prefix meaning lack of, without
orexia--Greek root meaning appetite

Q40

A patient's symptoms include a cough and a vague chest pain; some coughing up of blood. He denies any swallowing problems. Are the following statements about this patient TRUE or FALSE?

T F a. The patient is hemorrhaging.

T F b. The patient has dysphagia.

T F c. The patient has hemoptysis.

Answer: Q40

a. False. The patient may be hemorrhaging, but you cannot tell this from the description of the symptoms.

b. False. The patient does not have swallowing difficulty.

c. True. The patient is coughing up blood.

Breathing problems are common for certain types of lung and respiratory system malignancies. The terms which refer to various types of breathing difficulties are:

angina pectoris angi(o)--blood vessel pector--relating to chest See pretest on p. 98 for causal definition.	Definition:	A condition characterized by feelings of suffocation and/or spasms of pain in the chest
dyspnea dys--bad, painful, difficult pne(o)--to breathe a--condition of	Definition:	Difficult breathing, painful breathing
orthopnea ortho--upright, straight pne(o)--to breathe a--condition of	Definition:	Inability to breathe except in an upright position

Q41

Match the conditions on the left with the term on the right which best describes that condition:

A person who:	may have:
_____ 1. gets out of breath easily	a. angina pectoris
_____ 2. finds it difficult to swallow	b. anorexia
_____ 3. can't sleep unless sitting upright	c. dysphagia
_____ 4. has fainting spells	d. dyspnea
	e. dysuria
	f. hematuria
	g. melena
	h. orthopnea
	i. pruritus
	j. syncope

Answer: Q41

1. d--dyspnea
2. c--dysphagia
3. h--orthopnea
4. j--syncope

Changes in bladder and bowel habits often are associated with cancers of the urogenital and gastrointestinal systems of the body. Symptoms related to these changes are recorded as:

diarrhea dia-through rrhea--flow, discharge	Definition:	Excessive frequency and looseness of bowel movements
dysuria dys--difficult, painful uria--referring to a characteristic of urine	Definition:	Difficult or painful urination

There are a number of terms used to describe bladder or urinary symptoms. Dysuria (difficult or painful urination) might be described as urinary irritation. Other terms you might encounter in a record include:

1. urinary frequency--continual need to urinate
2. urinary urgency--constant feeling of the need to urinate
3. urinary obstruction--slow stream that seems to be due to an obstruction
4. nocturia--need to urinate frequently during the night

Q42

A variety of diseases, including bladder or prostatic cancer, may produce urinary symptoms. Such difficulties include:

a. A weak or interrupted flow of urine
b. The need to urinate often
c. Inability to or difficulty in urinating
d. Blood in the urine
e. Painful or burning urination

Which words define these five symptoms? (A term may be used more than once.)

a. _____

b. _____

c. _____

d. _____

e. _____

Answer: Q42

a. Urinary obstruction or hesitancy

b. Urinary frequency

c. Dysuria

d. Hematuria

e. Dysuria

Q43

The term acromegaly refers to an abnormal growth of the extremities. The term is composed of:

acro--a combining form meaning at the extremities
megal(o) or (mega)--a root word meaning enlargement
y--a suffix ending meaning characterized by

Acromegalia is a condition caused by hypersecretion of the pituitary growth hormone after maturity and characterized by enlargement of the extremities of the skeleton--the nose, jaws, fingers, and toes.

What do the following terms mean?

a. Cardiomegaly _____

b. Hepatomegaly _____

c, Splenomegaly _____

Answer: Q43

a. Cardiomegaly--abnormal enlargement of the heart

b. Hepatomegaly--abnormal enlargement of the liver

c. Splenomegaly--abnormal enlargement of the spleen

Terms that refer to conditions brought about by a change in the function of endocrine glands include:

1. hormonal[1] effect--a general phrase to describe any condition that seems to be the result of changes in endocrine gland[2] functions

2. hirsutism--abnormal hairiness, especially in women

The precocious physical development of prepuberal youngsters is sometimes associated with the development of tumors that change the function of the *endocrine glands.* Also, tumors of the endocrine glands can lead to the condition known as hirsutism (abnormal hairiness, especially in women).

Q44

A 20-year-old, obese female has stopped menstruating (amenorrhea) and has gained 30 pounds during the past six months. Her hair distribution has begun to acquire the characteristics of those of a male. How would you describe these symptoms?

a. _____

b. _____

c. _____

---

[1]hormonal--Pertaining to a chemical substance (hormone) produced in one organ and producing a specific regulatory effect in another organ.

[2]endocrine glands--Glands which secrete a hormonal substance into the blood, e.g., adrenal glands, thyroid glands, or pituitary glands.

Answer: Q44

a. amenorrhea
b. 30-pound weight gain
c. hirsutism

Suffixes are added to words to incorporate additional meanings into the word. Some of the suffixes most relevant to the vocabulary of a cancer registrar are listed below. You should read the definition of each term used to illustrate the use of the suffix, but do not memorize them now. You will learn their meanings later in the training program.

1. These suffixes are used to indicate repeat action:

-itate--e.g., irritate:	to stimulate repetitively, to tease
-tate--e.g., agitate:	to move repeatedly, to stir

2. These suffixes are used to indicate the agent which performs the act:

-ist--e.g., anesthetist:	one who administers anesthesia
-ter--e.g., sphincter:	that which constricts

3. These suffixes are used to indicate the surgical procedure done:

-ectomy--e.g., gastrectomy:	excision or removal
-otomy--e.g., duodenotomy:	incision into

This is just a brief introduction to the medical terminology used in diagnostic and operative procedures. You will learn a great deal more about medical terminology in the book on abstracting.

4. There are many suffixes that indicate "the act of" or "the condition resulting from the action." Those you will encounter often are listed and used below.

-ion--e.g., lactation:	secretion of milk by mammary glands
-tus--e.g., diabetes mellitus:	a disease that impairs the ability of the body to use sugar.
-sus--e.g., pulsus:	the result of heating; the pulse
-xus--e.g., plexus:	an interlacing; the result of turning or braiding
-sia--e.g., acro-esthesia:	increased sensitiveness; pain in extremities
-sis--e.g., hemoptysis:	a condition characterized by the splitting up or the coughing up of blood
-tion--e.g., aglutition:	inability to swallow
-ence--e.g., excrescence:	the result of an outgrowth
-itus--e.g., pruritus:	intense itching

The phrase "no general symptoms" sometimes will be described by the term *asymptomatic* (without symptoms). It is possible for a person to be examined for some problem not related to cancer, and the examination will reveal the presence of cancer. Also, cancer might first be diagnosed during a routine physical exam.

POST-TEST ON COMPLAINTS AND SYMPTOMS

Match each of the terms on the left with one of the definitions listed on the right.

	Term	Definition
_____ 1.	acromegaly	a. Difficulty in swallowing
_____ 2.	angina pectoris	b. Discharge of blood in the urine
_____ 3.	anorexia	c. Painful urination
_____ 4.	diarrhea	d. Abnormal hairiness, especially in women
_____ 5.	dysphagia	e. A diseased condition marked by brief paroxysmal attacks of chest pain caused by deficient oxygenation of heart muscles
_____ 6.	dyspnea	
_____ 7.	dysuria	f. Itching
_____ 8.	hematemesis	g. Passage of black, bloody stools
_____ 9.	hematuria	h. Difficulty in breathing
_____ 10.	hemoptysis	i. Abnormal frequency of intestinal discharge
_____ 11.	hirsutism	j. Abnormal enlargement of extremities
_____ 12.	melena	k. Spitting up or coughing up of blood
_____ 13.	nocturia	l. Sudden loss of strength, as in fainting
_____ 14.	orthopnea	m. Inability to breathe except in an upright position
_____ 15.	pruritus	n. Loss of appetite
_____ 16.	syncope	o. The vomiting of blood
		p. Excessive urination at night

ANSWERS TO POST-TEST

	Term	Definition
j	1. acromegaly	Abnormal enlargement of extremities
e	2. angina pectoris	A disease condition marked by brief paroxysmal attacks of chest pain caused by deficient oxygenation of heart muscles
n	3. anorexia	Loss of appetite
i	4. diarrhea	Abnormal frequency of intestinal discharge
a	5. dysphagia	Difficulty in swallowing
h	6. dyspnea	Difficulty in breathing
c	7. dysuria	Painful urination
o	8. hematemesis	The vomiting of blood
b	9. hematuria	Discharge of blood in the urine
k	10. hemoptysis	Spitting up or coughing up of blood
d	11. hirsutism	Abnormal hairiness, especially in women
g	12. melena	Passage of black, bloody stools
p	13. nocturia	Excessive urination at night
m	14. orthopnea	Inability to breathe except in an upright position
f	15. pruritus	Itching
l	16. syncope	Sudden loss of strength, as in fainting

SECTION F

CANCER REGISTRAR VOCABULARY: PHYSICAL FINDINGS

SECTION F

CANCER REGISTRAR VOCABULARY: PHYSICAL FINDINGS

The next portion of the record contains the *previous medical history* (PMH). This subsection contains information about previous illnesses, accidents, medications, and the presence or absence of allergies.

Following the previous medical history (PMH), you usually find the information about the *family history* (FH) and the *social history* (SH) of the patient. The family history describes the history of cancer and other diseases in the patient's family The subsection on social history should contain information about smoking, use of alcohol and drugs, birth control pills, and other possible carcinogens. Sometimes this subsection will include work history, especially if the patient has worked in environments that might be conducive to the development of cancer.

The *review of systems* (ROS) comprises the next section of the record. During this review, the physician systematically questions the patient about his well-being, problems associated with head, ears, eyes, nose, throat (HEENT); heart, chest; gastrointestinal (GI) tract, and genitourinary (GU) system problems; unusual bleeding tendencies (hematopoietic problems).

The next portion of the record contains the *physical examination* (PE) of the patient. It begins with a general description of the patient's condition together with a recording of vital signs.

The physical examination begins with the head, eyes, ears, nose, and throat (HEENT) and moves downward, covering such areas as the neck, chest, heart (cardiac), vascular system, lungs, abdomen, genitals, rectum, extremities, and lymph nodes. A general check is then made of the musculoskeletal and nervous systems.

The medical history and physical examination section of a medical record often end with the physician's impression of the diagnosis.

In the following pretest you will find many words which are used to describe physical findings. See how many of them you can match. If you have trouble, use your medical dictionary.

PRETEST ON PHYSICAL FINDINGS

Following is a pretest for the medical terms that might be found in the physical examination. Match the definitions listed on the right with the medical terms listed on the left.

	Term		Definition
_____ 1.	adenopathy	a.	Disease of lymph nodes
_____ 2.	arterial obstruction	b.	Loss of ability that can be associated with some type of dysfunctioning of brain tissue
_____ 3.	ascites	c.	Enlargement of the spleen
_____ 4.	auscultation	d.	Destruction of the liver cells
_____ 5.	cachexia	e.	Loss of a capability that can be associated with a nerve that begins in the spinal column
_____ 6.	cardiomegaly	f.	General physical wasting and malnutrition
_____ 7.	cranial nerve paralysis	g.	Blockage in the arteries
_____ 8.	dermatitis	h.	Presence of fluid in the pleural space
_____ 9.	edema	i.	Paleness, absence of skin coloration
_____ 10.	hepatolysis	j.	Loss of a capability that can be associated with a malfunction of a cranial nerve
_____ 11.	hepatomegaly	k.	Accumulation of serous fluid in the abdominal cavity
_____ 12.	hypersplenism	l.	Disease of glands
_____ 13.	jaundice	m.	Enlargement of the liver
_____ 14.	lymphadenopathy	n.	Blockage in the veins
_____ 15.	necrosis		
_____ 16.	pallor		
_____ 17.	paralysis of brain origin		

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_____ 18. percussion

_____ 19. phonocardiography

_____ 20. pleural effusion

_____ 21. spinal cord paralysis

_____ 22. splenomegaly

_____ 23. venous obstruction

o. The act of listening to sounds within the body to determine the condition of the heart, lungs, and other organs

p. Abnormal accumulation of the serous fluid in connective tissue or serous cavity

q. Death or decay of cells or tissues in part of the body

r. Abnormal enlargement of the heart

s. Inflammation of the skin

t. Excessive activity of the spleen

u. Tapping or striking on the body to determine, from sounds produced, the condition of internal organs

v. Yellowing pigmentation of the skin, tissues, and body fluids caused by deposition of bile pigments

w. Graphic recording of heart sounds

ANSWERS TO PRETEST

		Term	Definition
l	1.	adenopathy	Disease of glands
g	2.	arterial obstruction	Blockage in the arteries
k	3.	ascites	Accumulation of serous fluid in the abdominal cavity
o	4.	auscultation	The act of listening to sounds within the body to determine the condition of the heart, lungs, and other organs
f	5.	cachexia	General physical wasting and malnutrition
r	6.	cardiomegaly	Abnormal enlargement of the heart
j	7.	cranial nerve paralysis	Loss of capability that can be associated with a malfunction of a cranial nerve
s	8.	dermatitis	Inflammation of the skin
p	9.	edema	Abnormal accumulation of serous fluid in connective tissue or serous cavity
d	10.	hepatolysis	Destruction of liver cells
m	11.	hepatomegaly	Enlargement of the liver
t	12.	hypersplenism	Excessive activity of the spleen
v	13.	jaundice	Yellowish pigmentation of the skin, tissues, and body fluids caused by deposition of bile pigments
a	14.	lymphadenopathy	Disease of the lymph nodes
q	15.	necrosis	Death or decay of cells or tissues in part of the body
i	16.	pallor	Paleness, absence of skin coloration
b	17.	paralysis of brain origin	Loss of ability that can be associated with some type of dysfunctioning of brain tissue
u	18.	percussion	Tapping or striking on the body to determine, from sounds produced, the condition of internal organs

Continued on next page

w	19.	phonocardiography	Graphic recording of heart sounds
h	20.	pleural effusion	Presence of fluid in the pleural space
e	21.	spinal cord paralysis	Loss of a capability which can be associated with a nerve that begins in the spinal column
c	22.	splenomegaly	Enlargement of the spleen
n	23.	venous obstruction	Blockage in the veins

Physical Findings

The terms ascites, edema, and pleural effusion refer to the abnormal accumulation of fluids in some portions of the body. Their specific definitions are as shown below:

ascites: accumulation of serous fluid in the abdominal cavity

edema: abnormal accumulation of serous fluid in connective tissue or a serous cavity

pleural effusion: the presence of fluid in the pleural space

The serous fluid referred to above is a watery, thin, pale yellow fluid that often looks like serum.

The accumulation of fluid in a body cavity can occur for a variety of reasons. When this condition occurs and when one of the parts located within or adjacent to the cavity becomes cancerous, there is a good probability that some of the cancer cells will detach themselves from their primary location and float in the serous or pleural fluid. Eventually they may attach themselves to some other organ or site bathed by that fluid. This is one of the primary means by which cancer is transferred from one organ or site to the other. It also is one of the main reasons why cancer of a site in or adjacent to the thoracic, abdominal, or pelvic cavity is difficult to manage.

Q45

Abnormal accumulations of fluid may occur in any one of the cavities of the body. These cavities contain the organs of the body. You should be able to answer the true-or-false questions below.

(Circle correct answer.)

T F a. The condition of ascites could allow a primary cancer of the stomach to metastasize to the liver.

T F b. The unusual accumulation of fluid around the muscles of the arm is an example of ascites.

T F c. Pleural effusion in the right pleural cavity will, in all probability, lead to brain metastasis.

Answer: Q45

a. TRUE--Ascites refers to the accumulation of fluid in the abdominal cavity. The liver is located in the abdominal cavity. It is quite possible, therefore, that cancerous cells originating in the stomach can break through the stomach wall, enter the fluid in the abdominal cavity, and eventually attach themselves to some other organ housed within the abdominal cavity.

b. FALSE--This would be an example of edema, the abnormal accumulation of fluid in connective tissues.

c. FALSE--The pleural cavity and the cranial cavity are not connected. Therefore, there is no way for fluid that originated in the pleural cavity to enter the cranial cavity.

Brain metastasis is possible, but not by this route.

Q46

In a previous block of instruction, you learned the meaning of the term acromegaly, and you were informed that the suffix megaly was an important one. What is the definition of this suffix?

_____

Answer: Q46

The suffix -megaly means enlargement. The term acromegaly is defined as an abnormal enlargement of the extremities.

There are various reasons why organs of the body may become enlarged, and many of these reasons are not related to malignant neoplasms. Nonetheless, when present they will be reported as part of the physical findings. Examples are hepatomegaly and splenomegaly which are often mentioned in cancer patient records.

Q47

Assuming that a patient has the condition known as ascites, could the fluid involved in this condition be associated with the organ referred to in the term hepatomegaly?

YES. NO. (Circle one.)

Answer: Q47

Yes. Ascites is the accumulation of fluid in the abdominal cavity. Hepatomegaly refers to enlargement of the liver; and, the liver is contained within the abdominal cavity.

For many medical terms the main body of the word indicates the organ or part of the body that is modified by a prefix or a suffix, or both. The combining forms for the words cardiomegaly, hepatomegaly, and splenomegaly are respectively:

cardio (heart)

hepato (liver)

spleno (spleen)

Each of these words is modified by a suffix which is made up of the combining form (mega = large) + a suffix ending (-ly) meaning characterized by.

Q48

Match the three terms listed on the left with the three definitions on the right:

	Term		Definition
_____	1. hypersplenism	a.	Destruction of liver cells
_____	2. phonocardiography	b.	Graphic recording of heart sounds
_____	3. hepatolysis	c.	Excessive activity of the spleen

Answer: Q48

1. c--hypersplenism: Hyper- is a prefix meaning excessive, above, overactive.

2. b--phonocardiography: This is a good example of how any number of elements can be combined to form new words.

phon:	root word
o:	combining vowel
cardi:	root word
o:	combining vowel
graph:	root word
y:	suffix ending

3. a--hepatolysis: You already have learned that the suffix -lysis means breakdown or destruction of.

An important part of any physical examination includes a thorough visual examination of the patient. During this time, the physician will note whether or not the patient is overweight (obese). In addition, the condition of the skin will be noted. Three terms referring to skin conditions are as follows:

dermatitis--inflammation of the skin

jaundice--yellowish pigmentation of the skin, tissues, and body fluids caused by the deposition of bile pigments

pallor--paleness; absence of skin coloration

A 65-year-old white male was admitted with suspected cancer of the larynx. At the time of admission, he was in good health except for a sore throat. With respect to the physical examination findings, his medical record contained the following information:

Skin:	Clear		
HEENT:	See diagram	(Meaning:	Record contained a diagram of the head, eyes, ears, nose, and throat)
Neck:	Without nodes	(Meaning:	No palpable lymph nodes)
Chest:	Clear to P and A	(Meaning:	Percussion and auscultation revealed no abnormal conditions)
Heart:	NSR without (M), thrill	(Meaning:	Normal sinus rhythm (NSR) without murmur (M) or vibratory sensation (thrill))
ABD:	Without palp. organs or masses	(Meaning:	By palpation, no enlarged organs, no masses in the abdomen)

Q49

Using the above information, answer the following questions by circling YES or NO.

a. Is there evidence of pallor?

Yes No

b. The entry "chest: Clear to P and A"

1) rules out pleural effusion.

Yes No

2) rules out ascites.

Yes No

c. The physical examination contains information that tells you splenomegaly was not present.

Yes No

Answer: Q49

a. No.

b-1. Yes. The entry "Chest: Clear to P and A" means that the chest was clear to percussion and to auscultation.

b-2. No. Ascites occurs in the abdominal cavity, not in the chest or pleural cavity.

c. Yes. The entry "ABD: Without palp. organs or masses" means that the condition of the organs within the abdominal cavity was examined by palpating[1] the patient, and no enlarged organs were found. The spleen is located in the abdominal cavity. Therefore, the record entry tells you that splenomegaly was not present.

---

[1]palpate--To examine by the hand; to feel.

In a previous block of instruction, you learned that the term *anorexia* meant loss or lack of appetite. As you might imagine, if this condition existed for too long, a condition of malnutrition could occur and a general physical wasting of the body might begin. The term cachexia[1] refers to this condition.

The physical examination includes also a determination of whether or not there are any blockages or obstructions noticeable in the circulatory system. (The mechanics of the circulatory system will be discussed in detail in a later manual.) The circulation of the blood involves both arteries and veins throughout the body. Obstructions in the circulatory system may be referred to as arterial obstructions[2] or venous obstructions[3]. Signs of an obstruction of the venous portion of the circulatory system include: dilated or distended veins and/or swelling of the extremities.

An obstruction in the arterial portion of the circulatory system prevents blood from getting to those tissues and cells served by the blocked artery. Thus, the cells and tissues die from lack of oxygen and food. This brings about a condition known as necrosis[4]. You may encounter the term necrosis quite often. Burns or severe injuries also can bring about necrosis. This is a derivation of the word "necropsy."

Q50

a. You previously learned the definition of the term hematuria. What is the relationship between this term and the condition known as venous obstruction?

[x]

[ ] 1. They are essentially the same condition.

[ ] 2. They are esentially opposite conditions.

[ ] 3. They are neither the same nor opposite.

b. A patient was found to have a digestive system disorder resulting in the body's not being able to obtain nutritional value from ordinary food. If this condition existed for too long a time, it could lead to a condition known as _____.

---

[1]cachexia--General physical wasting and malnutrition.

[2]arterial obstruction--Blockage or obstruction in the arteries.

[3]venous obstruction--Blockage or obstruction in the veins.

[4]necrosis--Death or decay of cells or tissues in a part of the body.

Answer: Q50

a. 3--neither the same nor opposite. Hematuria refers to blood in the urine. Venous obstruction refers to a blockage in a vein.

b. Cachexia--general physical wasting and malnutrition

As part of a physical examination, the examining physician notes the ability of the patient to move his or her limbs, the ability to feel, and the ability to speak, remember, see, and hear in a normal fashion. The absence or malfunction of these abilities can be associated with nervous or neurological disorders. Loss of the ability to move parts of the body or to receive sensations will be noted. In many of these instances the record will state that there seems to be some type of paralysis associated with the cranial nerves, the spinal nerves, or some condition of the brain tissues. Terms used to describe these conditions are as follows:

cranial nerve paralysis-- Loss of a physical capability associated with a malfunction of a cranial nerve

paralysis of brain origin-- Loss of a physical ability associated with some type of dysfunctioning of brain tissue

spinal cord paralysis-- Loss of a function associated with a nerve in the spinal column.

You will not be expected to judge when a particular type of paralysis or loss of normal function is associated with a particular nerve or portion of the brain. In some instances, the record will contain enough specific information to tell you that a loss of function is associated with a particular nerve. In other instances, the medical record will say only that a particular type of paralysis exists or that the patient's ability to speak, feel, or remember is impaired.

As cancer progresses, it is not unusual for the lymph nodes around the primary site to become affected. Also, certain types of cancer--Hodgkin's disease, lymphocytic leukemia, and lymphosarcoma--are closely associated with the lymphatic system, especially enlargement of the lymph nodes in the neck and groin and enlargement of the lymphoid tissue of the spleen.

The term lymphadenopathy is used to describe a disease of the lymph nodes:

lymphadenopathy Definition: Disease of the lymph nodes

lymphaden(o)--combining form of prefix meaning lymph gland
pathy--a suffix meaning a disease (path + y:)

Q51

There are many names for lymphomas. You do not have to memorize these names, but you should know how to locate them in your dictionary. Which of the following terms may also be used to describe lymphomas?

[ ] a. Hodgkin's disease

[ ] b. Lymphosarcoma

[ ] c. Reticulum cell sarcoma

[ ] d. All of the above

Answer: Q51

d. All of the above.

All terms are names for different varieties of lymphomas. This is one of the constant problems faced by a cancer registrar. Many medical terms may be used to describe the same or similar conditions. You cannot learn to recognize all these words, so you must learn to be an expert at using a medical dictionary.

POST-TEST ON PHYSICAL FINDINGS

Match the definitions listed on the right with the medical terms listed on the left.

	Term		Definition
_____ 1.	edema	a.	Inflammation of the skin
_____ 2.	cranial nerve paralysis	b.	Abnormal enlargement of the heart
_____ 3.	dermatitis	c.	Abnormal accumulation of serous fluid in connective tissue or serous cavity
_____ 4.	necrosis	d.	Disease of the lymph nodes
_____ 5.	phonocardiography	e.	Blockage in the veins
_____ 6.	hepatolysis	f.	Yellowish pigmentation of the skin, tissues, and body fluids caused by deposition of bile pigments
_____ 7.	percussion	g.	Enlargement of the liver
_____ 8.	adenopathy	h.	Graphic recording of heart sounds
_____ 9.	lymphadenopathy	i.	The act of listening to sounds within the body to determine the condition of the heart, lungs, and other organs
_____10.	arterial obstruction	j.	Destruction of liver cells
_____11.	splenomegaly	k.	Death or decay of cells or tissues in part of the body
_____12.	ascites	l.	Tapping or striking on the body to determine, from sounds produced, the condition of internal organs
_____13.	pallor	m.	Loss of ability that can be associated with some type of dysfunctioning of brain tissue
_____14.	venous obstruction	n.	Presence of fluid in the pleural space
_____15.	cachexia	o.	Blockage in arteries
_____16.	pleural effusion	p.	Disease of the glands
_____17.	auscultation		
_____18.	spinal cord paralysis		

Continued on next page

_____19. hypersplenism	q. Loss of a capability that can be associated with a nerve which begins in the spinal column
_____20. paralysis of brain origin	r. Enlargement of the spleen
_____21. cardiomegaly	s. General physical wasting and malnutrition
_____22. hepatomegaly	t. Accumulation of serous fluid in the abdominal cavity
_____23. jaundice	u. Loss of a capability that can be associated with a malfunction of a cranial nerve
	v. Excessive activity of the spleen
	w. Paleness, absence of skin coloration

ANSWERS TO POST-TEST

		Term	Definition
c	1.	edema	Abnormal accumulation of serous fluid in connective tissue or serous cavity
u	2.	cranial nerve paralysis	Loss of a capability that can be associated with a malfunction of a cranial nerve
a	3.	dermatitis	Inflammation of the skin
k	4.	necrosis	Death or decay of cells or tissues in part of the body
h	5.	phonocardiography	Graphic recording of heart sounds
j	6.	hepatolysis	Destruction of liver cells
l	7.	percussion	Tapping or striking on the body to determine, from sounds produced, the condition of internal organs
p	8.	adenopathy	Disease of the glands
d	9.	lymphadenopathy	Disease of the lymph nodes
o	10.	arterial obstruction	Blockage in arteries
r	11.	splenomegaly	Enlargement of the spleen
t	12.	ascites	Accumulation of serous fluid in the abdominal cavity
w	13.	pallor	Paleness, absence of skin coloration
e	14.	venous obstruction	Blockage in the veins
s	15.	cachexia	General physical wasting and malnutrition
n	16.	pleural effusion	Presence of fluid in the pleural space
i	17.	auscultation	The act of listening to sounds within the body to determine the condition of the heart, lungs, and other organs
q	18.	spinal cord paralysis	Loss of a capability that can be associated with a nerve which begins in the spinal column

Continued on next page

v	19.	hypersplenism	Excessive activity of the spleen
m	20.	paralysis of brain origin	Loss of ability that can be associated with some type of dysfunctioning of brain tissue
b	21.	cardiomegaly	Abnormal enlargement of the heart
g	22.	hepatomegaly	Enlargement of the liver
f	23.	jaundice	Yellowish pigmentation of the skin, tissues, and body fluids caused by deposition of bile pigments

SECTION G

CANCER REGISTRAR VOCABULARY: ILLNESSES

SECTION G

CANCER REGISTRAR VOCABULARY: ILLNESSES

In this next block of instruction you will learn the definitions of the terms used to describe illnesses. There are, of course, literally hundred of names that could be listed in this section. Those names listed are for illnesses that seem to occur with some frequency in persons who have developed cancer.

Information about present and very recent illnesses should be contained in the medical history section of the medical record--in particular, the section on present illness. The physical examination (PE) section may contain additional information.

To begin this section, please take the pretest on the next page. This test will identify for you those terms you already understand and those terms which will merit your special attention.

PRE-TEST ON PHYSICAL FINDINGS

Match the definitions listed on the right with the medical terms listed on the left.

Term	Definition
_____ 1. allergy	a. Venereal disease characterized by inflammation of the genital mucous membrane
_____ 2. bronchiectasis	b. Pelvic inflammatory disease
_____ 3. bronchitis	c. Exaggerated or withdrawn behavior
_____ 4. cirrhosis	d. Inflammation of the bronchial tubes
_____ 5. C.V.A.	e. High blood pressure
_____ 6. diabetes mellitus	f. A metabolic disorder
_____ 7. emphysema	g. A broken bone
_____ 8. gonorrhea	h. Costovertebral angle or cerebral vascular accident (or stroke)
_____ 9. hypertension	i. Malfunctioning of the nervous system
_____ 10. infection at tumor site	j. Coagulation necrosis in muscular tissue of the heart
_____ 11. mental illness	k. Chronic dilatation of the bronchi
_____ 12. myasthenia gravis	l. A state of hypersensitivity
_____ 13. myocardial infarct	m. A liver disease
_____ 14. nephritis	n. Any type of invasion of tissue by microorganisms at or around the tumor site
_____ 15. neuritis	o. A chronic shortness of breath
_____ 16. neurologic disorder	p. Inflammation of the lungs
_____ 17. P.I.D.	q. Inflammation of a nerve
_____ 18. pneumonia	r. A venereal disease which can affect all tissues of the body
_____ 19. syphilis	s. A syndrome of fatigue and exhaustion of the muscular system
_____ 20. traumatic fracture	t. Inflammation of the kidney

ANSWERS TO PRE-TEST

		Term	Definition
l	1.	allergy	A state of hypersensitivity
k	2.	bronchiectasis	Chronic dilatation of the bronchi
d	3.	bronchitis	Inflammation of the bronchial tubes
m	4.	cirrhosis	A liver disease
h	5.	C.V.A.	Costovertebral angle or cerebral vascular accident (or stroke)
f	6.	diabetes mellitus	A metabolic disorder
o	7.	emphysema	Chronic shortness of breath
a	8.	gonorrhea	Venereal disease characterized by inflammation of the genital mucous membrane
e	9.	hypertension	High blood pressure
n	10.	Infection at tumor site	Any type of invasion of tissues by microorganisms at or around tumor site
c	11.	mental illness	Exaggerated or withdrawn behavior
s	12.	myasthenia gravis	A syndrome of fatigue and exhaustion of the muscular system
j	13.	myocardial infarct	Coagulation necrosis in muscular tissue of the heart
t	14.	nephritis	Inflammation of the kidney
q	15.	neuritis	Inflammation of a nerve
i	16.	neurologic disorder	Malfunctioning of the nervous system
b	17.	P.I.D.	Pelvic inflammatory disease
p	18.	pneumonia	Inflammation of the lungs
r	19.	syphilis	Venereal disease which can affect all tissues of the body
g	20.	traumatic fracture	A broken bone

Following are names for six illnesses associated with the respiratory system:

Term	Definition
allergy	A state of hypersensitivity to certain things, such as pollen, food, animals, etc., usually characterized by difficult respiration, skin rashes, etc.
bronchiectasis	A chronic dilatation of the bronchi marked by fetid breath and paroxysmal coughing with the expectoration of mucopurulent matter
emphysema	A swelling or inflation of the lung(s) due to the presence of trapped air. Condition makes for chronic shortness of breath
pneumonia	Inflammation of the lungs
tuberculosis	A highly variable communicable disease caused by tubercle bacilli and characterized by toxic symptoms or allergic manifestations which in man primarily affect the lungs
atelectasis	Collapse of the adult lung, or, the incomplete expansion of the lungs at birth

Q52

1. You have already studied the suffix -ectasis. The meaning of this suffix is:

[x]

[ ] a. dilatation of

[ ] b. contraction of

[ ] c. neither

2. List two sources within a medical record where information about present or recent illnesses might be found.

a. _____

b. _____

Answer: Q52

1. a--dilatation of

2. The medical history and physical examination sections of the medical record should contain information about present illnesses. Other possible sources of information are patient referral letters, the discharge summary, and the operative report.

Q53

A medical record noted the presence of a severe asthmatic attack one week prior to admission. Would this most likely be due to allergy, bronchiectasis, emphysema, or another condition (specify)?

_____

(fill in)

Answer: Q53

Asthma is an allergy, a state of hypersensitivity to certain things such as pollen, food, animals, and so forth.

On many charts the common or technical name will be used to describe the illness, and you will have no difficulty recognizing it; on the medical records the description of the illness will be similar to that of the dictionary definition. For these medical records you should have little difficulty. There will be still other medical records where the description is not complete enough to say with assurance that the description is that of a particular illness.

Q54

Recently the patient began to suffer pain and swelling in both knees with loss of mobility. Blood analysis revealed an excess of uric acid in the blood. Select the item which describes this condition.

[x]

[ ] a. Infarction at tumor site

[ ] b. Neuritis

[ ] c. Pelvic infection

[ ] d. None of these

Answer: Q54

d--None of these

Neither infection nor inflammation (neuritis) is accompanied by an excess of uric acid and swelling of both knees. These may be symptoms of gout.

Q55

Recently a male patient began to spit up blood. Also, he has experienced shortness of breath and, in general, has been having difficulty breathing. A physical examination of the lungs revealed obstruction in the passage of air. The patient's breath was fetid (bad smelling, stinking), and he admitted to severe coughing spells in recent days.

This paragraph describes:

[x]

[ ] a. bronchiectasis

[ ] b. emphysema

[ ] c. pneumonia

[ ] d. other

[ ] e. none of these

Answer: Q55

a--bronchiectasis. The description of fetid breath and severe coughing spells fits the definition of bronchiectasis. A patient with emphysema will experience a chronic shortness of breath since he is unable to take a "deep" breath. However, his breath need not be fetid, and he may not experience coughing spells.

When a cancer patient has other concurrent illnesses, these usually will be mentioned in the medical record. Read the following paragraph that describes a patient with lung cancer.

Q56

This is the first admission for this 55-year-old white male. He appears in general good health. For the past two weeks he has experienced dysphagia and occasional hemoptysis. Four days ago he had a severe asthmatic attack relieved only after receiving adrenalin. X-rays show a carcinoma of the bronchus.

What other illnesses does the patient have?

Answer: Q56

Allergy. Asthma is an allergy--a state of hypersensitivity (like hay fever) to certain things, such as pollen, food, animals, etc.

Q57

Now let's see if you can recognize the meaning of the five terms we have covered so far.

	Term		Definition
_____ 1.	bronchiectasis	a.	Inflammation of the lungs
_____ 2.	emphysema	b.	Chronic dilatation of the bronchi with fetid breath and coughing spells
_____ 3.	pneumonia	c.	State of hypersensitivity to certain things
_____ 4.	tuberculosis	d.	Swelling or inflation of the lung(s) due to presence of trapped air; chronic shortness of breath
_____ 5.	allergy	e.	Communicable disease caused by tubercle bacilli primarily affecting the lungs

Answer: Q57

	Term	Definition
_b_	1. bronchiectasis	Chronic dilatation of the bronchi, with fetid breath and coughing spells
_d_	2. emphysema	Swelling or inflation of the lung(s) due to presence of trapped air; chronic shortness of breath
_a_	3. pneumonia	Inflammation of the lungs
_e_	4. tuberculosis	Communicable disease caused by tubercle bacilli primarily affecting the lungs
_c_	5. allergy	State of hypersensitivity to certain things

The next three terms to be covered are hypertension, myocardial infarct, and peripheral vascular disease. These, of course, are all associated with illnesses of the heart and circulatory system. These three terms with their definitions are as follows:

Term	Definition
hypertension	Another name for high blood pressure
myocardial infarct	The formation of an infarct (an area of coagulation necrosis in a tissue) in the myocardium, as a result of interruption of the blood supply to the area
peripheral vascular disease,	Any disease of the vessels which carry blood or lymph to or from the peripheral regions of the body

You should experience no difficulty determining whether or not a patient had one or more of the above conditions. Hypertension and myocardial infarct undoubtedly will be mentioned quite prominently in some portion of the history section. So, assume that a patient has a chief complaint relating to a bone malignancy. Assume also that the patient had a history of hypertension.

Q58

Where would this condition of hypertension be mentioned in the record?

[x]

[ ] a. Chief complaint section

[ ] b. Previous medical history

[ ] c. Review of systems

[ ] d. Physical examination

Answer: Q58

Alternatives b, c, and d are correct. For most patients who have hypertension, mention of this is made in the previous medical history section, the review of systems section, and/or the physical examination section.

Q59

A 63-year-old male was diagnosed as having carcinoma of the esophagus with metastatic lesions in the lung. The condition had progressed to a point where an x-ray examination showed a chronic dilatation of the bronchi of the lung. In addition, the medical history reported that the patient had suffered a coronary thrombosis within the past month.

How might the above information be described?

Answer: Q59

Bronchiectasis, which means a chronic dilatation of the bronchi. Myocardial infarct or coronary thrombosis is defined as the formation of a clot in a coronary artery, obstructing the flow of blood and causing infarction of the myocardium.

Q60

Malignant neoplasms can originate in nervous tissue or they can invade nervous tissue by direct extension of the tumor. The result can be a variety of conditions and illnesses directly or indirectly related to the nervous system. The names and definitions for three such conditions follow:

Term	Definition
neuritis	Inflammation of a nerve. The condition is attended by pain and tenderness over the nerves by anesthesia and paresthesia, paralysis, wasting, and disappearance of the reflexes.
neurologic disorder	A disease or malfunctioning of the nervous system which might lead to conditions such as abnormal coordination, gait, memory deficit, etc.
myasthenia gravis	A syndrome of fatigue and exhaustion of the muscular system marked by progressive paralysis of muscles without sensory disturbance or atrophy; occurs especially in muscles of the face, lips, tongue, throat, and neck.

What symptoms or physical findings would you find for myasthenia gravis?

Answer: Q60

Symptoms: Weakness or fatigue, fainting spells; weakness, fatigue of muscles; motor weakness

Physical findings: Partial paralysis of muscles of face and neck

Several other conditions and diseases occur with some frequency in cancer patients. The terms and definitions are listed below:

Term	Definition
burns in primary site area	Certain types of skin cancer seem to be related to burns. Therefore, it is important to note whether or not the patient was burned in the area around the primary site of a skin cancer.
cystic mastitis (chronic cystic mastitis)	This is a disease of the breast characterized by cyst formation which gives a nodular feel to the organ.
leukoplakia, leukoplasia	It is a disease marked by the development upon a mucous membrane (most commonly of the cheeks, gums, or tongue) of white, thickening patches which sometimes show a tendency to fissure. It is common in smokers and sometimes becomes malignant.
polyposis of GI tract polyposis gastrica polyposis intestinalis	The presence of multiple polyps in the GI tract The presence of multiple polyps on the gastric mucosa A condition in which polyps occur in the intestine and rectum
pernicious anemia	This condition is characterized by the reduced ability to absorb vitamin B12 from the gastrointestinal tract due to a failure of gastric mucosal secretion of intrinsic factor; often associated with gastric cancer.
ulcerative colitis	Chronic ulceration in the colon
villous adenomas of the colon	Colon tumors that seem to be associated with the protrusion of small blood vessels on the mucosa of the large intestine and rectum, giving a velvet-like surface (Look up villous in your dictionary.)

POST-TEST ON PHYSICAL FINDINGS

Choose the definition on the right which matches the term listed on the left.

		Term		Definition
___	1.	allergy	a.	Venereal disease characterized by inflammation of the genital mucous membrane
___	2.	bronchiectasis	b.	Pelvic inflammatory disease
___	3.	bronchitis	c.	Exaggerated or withdrawn behavior
___	4.	cirrhosis	d.	Inflammation of the bronchial tubes
___	5.	C.V.A.	e.	High blood pressure
___	6.	diabetes mellitus	f.	A metabolic disorder
___	7.	emphysema	g.	A broken bone
___	8.	gonorrhea	h.	Costovertebral angle or cerebral vascular accident (or stroke)
___	9.	hypertension	i.	Malfunctioning of the nervous system
___	10.	infection at tumor site	j.	Coagulation necrosis in muscular tissue of the heart
___	11.	mental illness	k.	Chronic dilatation of the bronchi
___	12.	myasthenia gravis	l.	A state of hypersensitivity
___	13.	myocardial infarct	m.	A liver disease
___	14.	nephritis	n.	Tissue invasion by microorganisms
___	15.	neuritis	o.	A chronic shortness of breath
___	16.	neurologic disorder	p.	Inflammation of the lungs
___	17.	P.I.D.	q.	Inflammation of a nerve
___	18.	pneumonia	r.	A venereal disease which can affect all tissues of the body
___	19.	syphilis	s.	Muscular fatigue and exhaustion
___	20.	traumatic fracture	t.	Inflammation of the kidney

ANSWERS TO POST-TEST

		Term	Definition
_l_	1.	allergy	A state of hypersensitivity to certain things, such as, pollen, food, and animals, usually characterized by difficult respiration, skin rashes, etc.
_k_	2.	bronchiectasis	A chronic dilatation of the bronchi marked by fetid breath and paroxysmal coughing, with the expectoration of mucopurulent matter
_d_	3.	bronchitis	Inflammation of the bronchial tubes
_m_	4.	cirrhosis	A disease of the liver
_h_	5.	C.V.A.	Costovertebral angle or cerebral vascular accident
_f_	6.	diabetes mellitus	A metabolic disorder in which the ability to use carbohydrates is lost, and an increased amount of sugar in the blood and urine occurs
_o_	7.	emphysema	A swelling or inflation of the lungs due to the presence of trapped air. Condition makes for chronic shortness of breath.
_a_	8.	gonorrhea	A contagious venereal inflammation of the genital mucous membrane, transmitted chiefly by intercourse
_e_	9.	hypertension	High blood pressure
_n_	10.	infection at tumor site	Any type of invasion of tissues at or around the tumor site by microorganisms
_c_	11.	mental illness	Any type of overly exaggerated or withdrawn type of behavior, atypical of the patient and classified as neurotic or psychotic
_s_	12.	myasthenia gravis	A syndrome of fatigue and exhaustion of the muscular system marked by progressive paralysis of muscles without sensory disturbance or atrophy; occurs especially in muscles of the face, lips, tongue, throat and neck

Continued on next page

_j_	13.	myocardial infarct	The formation of an infarct (an area of coagulation necrosis in a tissue) in the myocardium, as a result of interruption of the blood supply to the area, as in coronary thrombosis
_t_	14.	nephritis	Inflammation of the kidney
_q_	15.	neuritis	Inflammation of a nerve. The condition is attended by pain and tenderness over the nerves, by anesthesia and paresthesia, paralysis, wasting, and disappearance of the reflexes.
_i_	16.	neurologic disorder	A disease of malfunctioning of the nervous system which might lead to any of these symptoms: abnormal coordination, abnormal gait, memory deficit, etc.
_b_	17.	P.I.D.	Pelvic inflammatory disease
_p_	18.	pneumonia	Inflammation of the lungs
_r_	19.	syphilis	A contagious venereal disease leading to many structural cutaneous lesions. It can extend to the skin, mucosa, and to nearly all the tissues of the body, even to the bones and periosteum.
_g_	20.	traumatic fracture	A broken bone

SECTION H

ABBREVIATIONS, SYMBOLS, AND ACRONYMS USED IN MEDICAL RECORDS

SECTION H

ABBREVIATIONS, SYMBOLS, AND ACRONYMS USED IN MEDICAL RECORDS

Medical records can be very difficult to read and comprehend. Often the handwriting is almost illegible, and the widespread use of symbols and abbreviations has reached a point where a handy reference is a necessity. Several such references are listed in the selected bibliography.

You will find that reading a medical record becomes easier as you learn the meaning of the technical terms associated with cancer. Many words that are not clearly written will make sense to you because you will be able to recognize the meaning of the common symbols and abbreviations used in a medical record. These symbols and abbreviations are a useful speedwriting technique for the cancer registrar as well as for the medical staff. However, when there is any possibility of confusion, words should be written out.

The style of abbreviation for a term may vary slightly in different texts. For example, periods may or may not be used between letters; capital or small letters may be used. Remember, you often will have to read the content to understand the meaning of the abbreviation. Variation in use of periods and capitalizations is frequent and widespread (as A.M., AM, a.m., am). Do not use nonstandard abbreviations in abstracts. The current trend is to write abbreviations in capital letters without periods excerpt where understanding or common usage dictates otherwise.

CAUTION: The examples listed do not include all the possible meanings for each acronym, abbreviation or symbol, and the abbreviations may not be those used in your hospital. You will have to determine your local usage.

Table of Contents
Manuals

Abbreviation Index

Abbreviation	Term(s)
A	Allergy
A	Annum
A	Anode
A	Anterior
A	Aortic
A	Artery
A	Axial
AB	Abort (miscarry)
AB	About
AB	Antibody
AB	Asthmatic bronchitis
ABD, ABDOM	Abdomen
ABN	Abnormal
ABP	Arterial blood pressure
ABST	Abstract
AC	Adrenal cortex
AC	Air contrast
AC	Anterior chamber
ACH	Adrenal cortical hormone
ACID PHOS	Acid phosphatase
ACID P'TASE	Acid phosphatase
ACTH	Adrenocorticotrophic hormone
ADENOCA	Adenocarcinoma
ADH	Antidiuretic hormone (vasopressin)
ADJ	Adjacent
ADM	Admission
ADM	Admit
AFF	Afferent
AFF	Affirmative
AFP	Alpha-fetoprotein
AG	Atrial gallop
AG	Antigen
AG	Argentum (silver, chemical symbol for)
AGL	Acute granulocytic leukemia
A/G RATIO	Albumin-globulin ratio
$AGNO_3$	Silver nitrate
AIDS	Acquired immunodeficiency syndrome
AK(A)	Above knee (amputation)
AKA	Also known as
ALB	Albumin
ALK PHOS	Alkaline phosphatase
ALL	Acute lymphocytic leukemia
AMA	Against medical advice
AMB	Ambulatory
AML	Acute myelogenous leukemia
AMP	Amputation
ANAP	Anaplastic
ANAT	Anatomy
ANES(TH)	Anesthesia, anesthetic
ANT	Anterior
ANTE	Before
A&P	Auscultation & percussion
AP	Abdominal perineal
AP	Anteroposterior
AP	Anterior pituitary
AP&LAT	Anteroposterior and lateral
APP	Appendix
APPROX	Approximately
ARC	Aids related complex
ARD(S)	Acute respiratory disease (syndrome)
ART	Artery(ial)
AS	Aortic stenosis
AS	Arteriosclerosis
ASCVD	Arteriosclerotic cardiovascular disease
ASHD	Arteriosclerotic heart disease
ASP	Aspiration
ASR	Aldosterone secretion rate
ASS	Anterior superior spine (of ilium)
A STEN	Aortic stenosis
ATP	Adenosine triphosphate
ATR	Achilles tendon reflex
ATR	Atrophy
AU	Angstrom unit
AU	Aurum (gold, chemical symbol for)
AUT	Autopsy
AV	Aortic valve
AV	Arteriovenous
AV	Atrioventricular
AV	Average
A & W	Alive and well
AX	Axilla(ry)
AX	Axis(ial)
B	Bacillus
B	Black
B	Blue
B	Born
B	Brother
BA	Bachelor of Arts
BA	Barium (chemical symbol for)
BA	Bronchial asthma
BAS	Basal
BASOS	Basophil(s) (granular leukocyte)
BBB	Blood-brain barrier
BBB	Bundle-branch block
BBT	Basal body temperature
BC	Birth control
BC	Bone conduction
BC	Buccocervical
BCC	Basal cell carcinoma
B-CELLS	Special lymphocytes formed in bone marrow (derived from bursa of Fabricius)
BCG	Bacillus Calmette-Guerin
BD	Bile duct
BE	Barium enema
B/F	Black female
BIL	Bilateral
BK(A)	Below knee (amputation)
BM	Bone marrow
BM	Bowel movement
B/M	Black male
BMR	Basal metabolism rate

BP	Blood pressure
BPH	Benign prostatic hypertrophy/hyperplasia
BRM	Biological response modifier
BSC	Bone scan
BSO	Bilateral salpingo-oophorectomy
BT	Brain tumor
BUN	Blood urea nitrogen
BUS	Bartholin's, uethral & Skene's glands
BX	Biopsy
C	Centigrade
Ca	Ca--Journal of the American Cancer Society
C1-C7	Cervical vertebrae
CA	Calcium
CA	Carcinoma
CAT	See CT SN
CBC	Complete blood count
CBD	Common bile duct
CC	Chief complaint
CC	Cubic centimeter
CCU	Coronary care unit
CEA	Carcinoembryonic antigen
CGL	Chronic granulocytic leukemia
CHF	Congestive heart failure
CHR	Chronic
CIG	Cigarettes
CIN	Cervical intraepithelial neoplasia
CIS	Carcinoma-in situ
CLL	Chronic lymphocytic leukemia
CM	Centimeter
CM	Costal margin
CML	Chronic myeloid/myelocytic leukemia
CMV	Cytomegalovirus
CNS	Central nervous system
C/O	Complaining of
CO_2	Carbon dioxide
Co60	Cobalt 60
COR	Heart
CS	Cesium
CSF	Cerebrospinal fluid
CSF	Colony-stimulating factor
C-SPINE	Cervical spine
CTR	Certified Tumor Registrar
CT SC	Computerized (axial) tomography scan
CVA	Cerebrovascular accident
CVA	Costovertebral angle
C/W	Consistent with
CX	Cervix
CXR	Chest x-ray
CYSTO	Cystoscopy
CYTO	Cytology
D_1, D_2, ETC	First dorsal vertebra, second, etc.
D&C	Dilatation and curettage
DC	Discharge
DC	Discontinued
DERM	Dermatology
DD	Discharge diagnosis
DIAM	Diameter
DIFF	Differentiated, differential
DIS, DISCH	Disease; Discharge
DNA	Deoxyribonucleic acid
DO	Doctor of Osteopathy
DOA	Dead on arrival
DOB	Date of birth
DOD	Date of death
DOE	Dyspnea on exertion
DR	(Medical) doctor
DS	Discharge
DTR	Deep tendon reflex
DX	Diagnosis
ECF	Extended care facility
ECG, EKG	Electrocardiogram
EEG	Electroencephalogram
EENT	Eyes, ears, nose & throat
EGD	Esophagogastroduodenoscopy
EMG	Electromyogram
ENL	Enlarged
ENT	Ears, nose & throat
EPA	Erect (standing), posterior, anterior
ER	Emergency room
ER(A)	Estrogen receptor (assay)
ERCP	Endoscopic retrograde cholangiopancreatography
EST	Electroshock therapy
EUA	Exam under anesthesia
EXAM	Examination
EXC	Excision
EXP LAP	Exploratory laparotomy
EXT	Extend, extension
EXT	External; Extremity
F	Fahrenheit
FB	Fingerbreadth
FBS	Fasting blood sugar
F(M)H	Family (medical) history
FLURO	Fluoroscopy
FOM	Floor of mouth
FP	Flat plate
FU	Follow up
FUO	Fever unknown origin
FX	Fracture
FX	Frozen section
GA	Gastric analysis
GB	Gallbladder
GE	Gastroenterostomy
GE	Gastroesophageal
GEN	Generalized
GI	Gastrointestinal
GM	Gram
GP	General practitioner
GR	Grade, grain(s)
GU	Genitourinary
GYN	Gynecology
HB	Hemoglobin
HCG	Human chorionic gonadotropin
HCT	Hematocrit
HCVD	Hypertensive cardiovascular disease
HD	Heart disease

HEENT	Head, eyes, ears, nose & throat
HGB	Hemoglobin
HIV	Human immunodeficiency virus
HN_2	Nitrogen mustard
H_2O	Water
H/O	History of
HORM	Hormone
HOSP	Hospital
H&P	History and physical
HPF	High power field
HPI	History of present illness
HPV	Human papilloma virus
HR(S)	Hour(s)
HTLV-III	Human T-lymphotrophic virus type III
HVD	Hypertensive vascular disease
HX	History
HYST	Hysterectomy
I	Iodine
ICD-O-1	International Classification of Diseases for Oncology, 1st Ed., 1976
ICD-O-2	International Classification of Diseases for Oncology, 2nd Ed., 1992
ICM	Intercostal margin
ICS	Intercostal space
ICU	Intensive care unit
IG	Immunoglobulin
IM	Intramuscular
IMA	Internal mammary artery
IMP	Impression
INCL	Includes, including
INF	Inferior
INF	Infraction
INF	Infusion
INFILT	Infiltrating
INJ	Injection
INT MED	Internal medicine
IP	Inpatient
IPPB	Intermittent positive pressure breathing
IT	Intrathecal
IV	Intravenous
IVC	Inferior vena cava
IVP	Intravenous pyelogram
JVD	Jugular venous distention
K	Potassium
KG	Kilogram
KJ	Knee jerk
KK	Knee kick
KUB	Kidneys, ureters, bladder
KV	Kilovolt
L	Left
L	Liter
L	Lower
L1-L5	Lumbar vertebrae
LAP	Laparotomy
LAT	Lateral
LAV	Lymphadenopathy-associated virus
LCM	Left costal margin
LDH	Lactic dehydrogenase
LE	Lower extremity; Lupus erythematosus
LFT	Liver function test
LG	Large
LIF	Left iliac fossa
LINAC	Linear accelerator
LIQ	Lower inner quadrant (breast)
LKS(B)	Liver, kidney, spleen, (bladder)
LLE	Left lower extremity
LLL	Left lower lobe (lung)
LLQ	Left lower quadrant (abdomen)
LMD	Local medical doctor
LMP	Last menstrual period
LN(S)	Lymph node(s)
LOP	Lower outer quadrant (breast)
LP	Lumbar puncture
LPF	Low power field
LPN	Licensed practical nurse
LS	Lumbosacral
LSK, LKS	Liver, spleen, kidneys
LSO	Left salpingo-oophorectomy
L-SPINE	Lumbar spine
LT	Left
LUE	Left upper extremity
LUL	Left upper lobe (lung)
LUQ	Left upper quadrant (abdomen)
L&W	Living and well
M	Monocytes, meter
MAL	Malignant
MALIG	Malignant
MAND	Mandible
MAST	Mastectomy
M-CSF	Macrophage Colony-Stimulating Factor
MC	Millicurie
MCH	Mean corpuscular hemoglobin
MCHC	Mean corpuscular hemoglobin count
MCL	Mid clavicular line
MCV	Mean corpuscular volume
MD	Medical Doctor
MD	Moderately differentiated
MET, METS	Metastatic, metastases
MEV	Million electron volts
MH	Marital history
MH	Mental health
MG	Milligram
MICRO	Microscopic
ML	Middle lobe
ML	Milliliter
MM	Millimeter
MOD	Moderate
MOD DIFF	Moderately differentiated
MRI	Magnetic resonance imaging
MRM	Modified radical mastectomy
MS	Mitral stenosis
MS	Multiple sclerosis
MSL	Mid sternal line
MX	Microscopic
MX	Maxilla(ry), maximum
NA	Not applicable
NBS	Normal bowel sounds
NEC	Not elsewhere classified

NED	No evidence of disease
NEG or -	Negative
NERD	No evidence of recurrent disease
NEURO	Neurology
NL	Normal
NOS	Not otherwise specified
NR	Not recorded
NR	Not reportable
NSF	No significant findings
NTP	Normal temperature and pressure
N&V	Nausea and vomiting
NVD	Neck vein distention
OB	Obstetrics
OBST	Obstructed (ing, ion)
OD	Right eye (oculus dexter
OH	Occupational history
OP	Operation
OP	Outpatient
OPD	Outpatient clinic; department
OPHTH	Ophthalmology
OR	Operating room
ORTH	Orthopedics
OS	Bone
OS	Left eye (oculus sinister)
OS	Mouth
OS	Opening
OSTEO	Osteomyelitis
OT	Occupational therapy
OTO	Otology
OU	Each eye (oculus uterque)
OV	Office visit
OZ	Ounce
P	Pulse
P&A	Percussion and auscultation
PA	Posteroanterior
PA	Pulmonary artery
PALP	Palpable, palpated, palpation
PAP	Papanicolaou smear
PAP	Papillary
PAR	Post anesthesia room
PARA	Number of pregnancies resulting in viable infants
PATH	Pathology
PCV	Packed cell volume
PD	Poorly differentiated
PDR	Physicians' Desk Reference
PE	Physical examination
PED	Pediatrics
PEG	Pneumoencephalography
PERC	Percutaneous
PET	Positron emission tomography
PH	Past or personal history
PI	Present illness
PID	Pelvic inflammatory disease
PLT	Platelets
PM	Post mortem (after death)
PMD	Personal (primary) medical doctor
PMH	Past medical history
PND	Postnasal drip
PO, POSTOP	Postoperative(ly)
POD	Postoperative day
POOR DIFF	Poorly differentiated
POS or +	Positive
POSS	Possible
POST	Posterior
POST	Postmortem examination
POSTOP	Postoperative(ly)
PPD	Purified protein derivative (Tuberculin skin test)
PPD	Packs per day
PR(A)	Progesterone receptor (assay)
PREOP	Preoperative(ly)
PROB	Probable(ly)
PT	Patient
PT	Physiotherapy
PTA	Prior to admission
PUO	Pyrexia of undetermined origin
PULM	Pulmonary
Q	Quadrant
R	Roentgen
R	Respiration
R	Right
RA	Radium
RAD	Radiation
RAD	Radiation Absorbed Dose
RAD	Radical
RAIU	Radioactive iodine (I 131) uptake
RBC	Red blood cells
RCM	Right Costal Margin
RCS	Reticulum cell sarcoma
REG	Radioencephalogram
RES	Reticuloendothelial system
RESEC	Resection
RESPIR	Respiratory
RH	Rhesus (monkey) factor in blood
RIA	Radioimmunoassay
RIF	Right iliac fossa
RIQ	Right inner quadrant (abdomen)
RLE	Right lower extremity
RLL	Right lower lobe (lung)
RLQ	Right lower quadrant
RML	Right middle lobe (lung)
RN	Registered nurse
RNA	Ribonucleic acid
RO, R/O	Rule out
ROF	Review of outside films
ROM	Range of motion
ROS	Review of outside slides
ROS	Review of systems
ROQ	Right outer quadrant (abdomen)
RSO	Right salpingo-oophorectomy
R-S cells	Reed-Sternberg cells
RT	Radiation therapy
RT	Right
RUE	Right upper extremity
RUL	Right upper lobe
RUQ	Right upper quadrant
R-V	Rectovaginal
RX	Treatment
S1-S5	Sacral vertebra

SARC	Sarcoma
SB	Small bowel
SBE	Subacute bacterial endocarditis
SCC	Squamous cell carcinoma
SGOT	Serum glutamic oxaloacetic transaminase
SGPT	Serum glutamic pyruvic transaminase
SH	Social history
SH	Serum hepatitis
SM	Small
SMA	Sequential multiple analysis (Biochem profile)
SML	Small
SML BWL	Small bowel
SNF	Skilled nursing facility
SO	Salpingo-oophorectomy
SOB	Shortness of breath
SOL	Solution
S/P	Status post
SPEC	Specimen
SP GR	Specific gravity
S-Q, SQ	Subcutaneous
SQ, SQUAM	Squamous
SQ CELL CA	Squamous cell carcinoma
SR	Sedimentation rate
S-SPINE	Sacral spine
STAPH	Staphylococcus
STAT	Immediately (statim)
STREP	Streptococcus
STSG	Split thickness skin graft
SUB-Q, SUBQ	Subcutaneous
SURG	Surgery, surgical
SVC	Superior vena cava
SX	Symptoms
T	Temperature
T	Thoracic
TA	Toxin-antitoxin
T1-T12	Thoracic vertebra
T&A	Tonsillectomy and adenoidectomy
TAH	Total abdominal hysterectomy
TAH-BSO	Total abdominal hysterectomy-bilateral salpingo-oophorectomy
TB, TBC	Tuberculosis
TCC	Transitional cell carcinoma
TD	Tumor dose
TNM	Tumor, Nodes, Metastasis
TP	Total protein
TPR	Temperature, pulse and respiration
TS	Tumor size
TSH	Thyroid stimulating hormone
T-SPINE	Thoracic spine
TUR	Transurethral resection
TURB	Transurethral resection - Bladder
TURP	Transurethral resection - Prostate
TVH	Total vaginal hysterectomy
TX	Treatment
U	Unit
UCHD	Usual childhood diseases
UE	Upper extremity
UGI	Upper gastrointestinal
UIQ	Upper inner quadrant (breast)
UMB	Navel (umbilicus)
UNDIFF	Undifferentiated
UOQ	Upper outer quadrant (abdomen)
UR	Urine
URI	Upper respiratory infection
UROL	Urology
VAG	Vagina, Vaginal
VAG HYST	Vaginal hysterectomy
VAIN	Vaginal intraepithelial neoplasia
VASC	Vascular
VD	Venereal disease
VIN	Vulvar intraepithelial neoplasia
VS	Vital signs
W/	With
WBC	White blood cells
W/D	Well developed
WD, WELL DIFF	Well differentiated
W/F	White female
W/M	White male
WNL	Within normal limits
W/O	Without
WT	Weight
W/U	Work-up
XR	X-ray
Y/O	Year old
YR	Year

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Admit	ADM
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Bone	OS
Bone conduction	BC
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Carbon dioxide	CO2
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Costovertebral angle	CVA
Cubic centimeter	CC
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Cytomegalovirus	CMV
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Discharge	DC, DS
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Electroencephalogram	EEG
Electromyogram	EMG
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Gastroesophageal	GE
Gastrointestinal	GI
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Hypertensive vascular disease	HVDD
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Immediately (statim)	STAT
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Impression	IMP
Includes, including	INCL
Inferior	INF
Inferior vena cava	IVC
Infiltrating	INFILT
Infraction	INF
Infusion	INF
Injection	INJ
Inpatient	IP
Intensive care unit	ICU
Intercostal margin	ICM
Intercostal space	ICS
Intermittent positive pressure breathing	IPPB
Internal mammary artery	IMA
Internal medicine	INT MED
International Classification of Diseases for Oncology, 1st Ed., 1976	ICD-O-1
International Classification of Diseases for Oncology, 2nd Ed., 1992	ICD-O-2
Intramuscular	IM
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Kilovolt	KV
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Knee jerk	KJ
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Left upper quadrant (abdomen)	LUQ
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Mandible	MAND
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Mastectomy	MAST
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Microscopic	MICRO
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Mid sternal line	MSL
Middle lobe	ML
Millicurie	MC
Milligram	MG
Milliliter	ML
Millimeter	MM
Million electron volts	MEV
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Moderately differentiated	MOD DIFF
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Navel (umbilicus)	UMB
Neck vein distention	NVD
Negative	NEG or -
Neurology	NEURO
Nitrogen mustard	HN_2
No evidence of disease	NED
No evidence of recurrent disease	NERD
No significant findings	NSF
Normal	NL
Normal bowel sounds	NBS
Normal breath sounds	NBS
Normal temperature and pressure	NTP
Not applicable	NA
Not elsewhere classified	NEC
Not otherwise specified	NOS
Not reportable	NR
Not recorded	NR
Number of pregnancies resulting in viable infants	PARA
Obstetrics	OB
Obstructed (ing, ion)	OBST
Occupational history	OH

Occupational therapy	OT
Office visit	OV
Opening	OS
Operating room	OR
Operation	OP
Ophthalmology	OPHTH
Orthopedics	ORTH
Osteomyelitis	OSTEO
Otology	OTO
Ounce	OZ
Outpatient	OP
Outpatient clinic	OPD
Outpatient department	OPD
Packed cell volume	PCV
Packs per day	PPD
Palpable, palpated, palpation	PALP
Papanicolaou smear	PAP
Papillary	PAP
Past medical history	PMH
Past or personal history	PH
Pathology	PATH
Patient	PT
Pediatrics	PED
Pelvic inflammatory disease	PID
Percussion and auscultation	P&A
Percutaneous	PERC
Personal (primary) medical doctor	PMD
Physical examination	PE
Physicians' Desk Reference	PDR
Physiotherapy	PT
Platelets	PLT
Pneumoencephalography	PEG
Poorly differentiated	PD
Positive	POS or +
Positron emission tomography	PET
Possible	POSS
Post anesthesia room	PAR
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Posterior	POST
Posteroanterior	PA
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Postnasal drip	PND
Postoperative day	POD
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Potassium	K
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Present illness	PI
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Radiation	RAD
Radiation absorbed dose	RAD
Radiation therapy	RT
Radical	RAD
Radioactive iodine (I 131) uptake	RAIU
Radioencephalogram	REG
Radioimmunoassay	RIA
Radium	RA
Range of motion	ROM
Rectovaginal	R-V
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Reed-Sternberg cells	R-S CELLS
Registered nurse	RN
Resection	RESEC
Respiration	R
Respiratory	RESPIR
Reticuloendothelial system	RES
Reticulum cell sarcoma	RCS
Review of systems	ROS
Review of outside slides	ROS
Review of outside films	ROF
Rhesus (monkey) factor in blood	RH
Ribonucleic acid	RNA
Right	RT
Right costal margin	RCM
Right eye (oculus dexter)	OD
Right iliac fossa	RIF
Right inner quadrant (abdomen)	RIQ
Right lower extremity	RLE
Right lower lobe (lung)	RLL
Right lower quadrant	RLQ
Right middle lobe (lung)	RML
Right outer quadrant (abdomen)	ROQ
Right salpingo-oophorectomy	RSO
Right upper extremity	RUE
Right upper lobe	RUL
Roentgen	R
Rule out	RO, R/O
Sacral spine	S-Spine
Sacral vertebrae	S1-S5
Salpingo-oophorectomy	SO
Sarcoma	SARC
Sedimentation rate	SR
Sequential multiple analysis (Biochem profile)	SMA
Serum glutamic oxaloacetic transaminase	SGOT
Serum glutamic pyruvic transaminase	SGPT
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Silver nitrate	$AGNO_3$
Skilled nursing facility	SNF
Small	SM, SML
Small bowel	SML BWL
Small bowel	SB
Social history	SH
Solution	SOL
Special lymphocytes formed in bone marrow (derived from bursa of Fabricius)	B-CELLS
Specific gravity	SP GR
Specimen	SPEC
Split thickness skin graft	STSG
Squamous	SQ, SQUAM
Squamous cell carcinoma	SCC
Squamous cell carcinoma	SQ CELL CA

Staphylococcus	STAPH	Within normal limits	WNL
Status post	S/P	Without	W/O
Streptococcus	STREP	Work-up	W/U
Subacute bacterial endocarditis	SBE		
Subcutaneous	S-Q, SQ	X-ray	XR
Subcutaneous	SUB-Q, SUBQ		
Superior vena cava	SVC	Year	YR
Surgery, surgical	SURG	Year old	Y/O
Symptoms	SX		
Temperature	T		
Temperature, pulse and respiration	TPR		
Thoracic	T		
Thoracic spine	T-SPINE		
Thoracic vertebra	T1-T12		
Thyroid stimulating hormone	TSH		
Tonsillectomy and adenoidectomy	T&A		
Total protein	TP		
Total abdominal hysterectomy	TAH		
Total abdominal hysterectomy-bilateral salpingo-oophorectomy	TAH-BSO		
Total vaginal hysterectomy	TVH		
Toxin-antitoxin	TA		
Transitional cell carcinoma	TCC		
Transurethral resection	TUR		
Transurethral resection - Bladder	TURB		
Transurethral resection - Prostate	TURP		
Treatment	RX, TX		
Tuberculosis	TB, TBC		
Tumor size	TS		
Tumor dose	TD		
Tumor, Nodes, Metastasis	TNM		
Undifferentiated	UNDIFF		
Unit	U		
Upper extremity	UE		
Upper gastrointestinal	UGI		
Upper inner quadrant (breast)	UIQ		
Upper outer quadrant (abdomen)	UOQ		
Upper respiratory infection	URI		
Urine	UR		
Urology	UROL		
Usual childhood diseases	UCHD		
Vagina, Vaginal	VAG		
Vaginal hysterectomy	VAG HYST		
Vaginal intraepithelial neoplasia	VAIN		
Vascular	VASC		
Venereal disease	VD		
Vital signs	VS		
Vulvar intraepithelial neoplasia	VIN		
Water	H_2O		
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Well developed	W/D		
Well differentiated	WD, WELL DIFF		
White blood cells	WBC		
White female	W/F		
White male	W/M		
With	W/		

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Symbol	Term(s)
1°	Primary
2°	Secondary
@	At
/	Comparison (e.g. 6/12 LN for six of 12 lymph nodes)
=	Equals
#	Number (if before a numeral), pounds (if after a numeral)
X	Times
♀	Female
♂	Male
↑	Increased
↓	Decreased
-	Negative
+	Positive
μCi	Microcurie
μ	Microgram
<	Less than
>	Greater than
≤	Less than or equal to
≥	Greater than or equal to
C̄	With
S̄	Without

ACRONYMS FOR ORGANIZATIONS CONCERNED WITH CANCER

Acronym	Organization
	FEDERAL GOVERNMENT
NCI	National Cancer Institute: One of the National Institutes of Health in the U. S. Department of Health and Human Services. it was established as a center for cancer research. The NCI has also assumed a leading role in Acquired Immunodeficiency Syndrome (AIDS) research since the disease was first recognized in 1981.
SEER	Surveillance, Epidemiology, and End Results: SEER collects incidence and follow-up data in nine areas in the United States for the purpose of identifying and monitoring trends in cancer incidence and survival.
	NATIONAL ORGANIZATIONS
AACR	American Association of Cancer Research: An organization of comprehensive hospitals and cancer centers with an interest in community activities. Members are concerned about the how and why of cancer program development, the impact of prospective payment, capitation, and competition, and the establishment and maintenance of high standards of quality patient care.
ACCC	Association of Community Cancer Centers: An organization of comprehensive hospitals and cancer centers with an interest in community activities. Members are concerned about the how and why of cancer program development, the impact of prospective payment, capitation, and competition, and the establishment and maintenance of high standards of quality patient care.
ACOA	American College of Oncology Administrators: A professional healthcare organization for oncology administrators, managers, and consultants of cancer programs and services. It is a chapter of the American Academy of Medical Administrators (AAMA).
ACOS	American College of Surgeons: A professional medical association to improve the quality of care for surgical patients by elevating the standards of surgical education and practice.
ACS	American Cancer Society: A private cancer research organization, which supports, through grants, investigator-initiated projects in established medical and other scientific institutions across the country.
AHIMA	American Health Information Management Association: A group of credentialed (RRA, ART) professionals who collect and analyze a wide range of health information.

AJCC	American Joint Committee on Cancer: Organized in 1959 for the purpose of clinical staging, the AJCC decided to use the TNM system of the UICC to develop its own system of clinical and pathologic staging. Cooperation between 1982-87 has resulted in uniform and identical definitions and stage groupings of cancer for all sites between UICC and AJCC.
AMA	American Medical Association: A professional organization of practicing physicians. It also provides coordination and direction for allied health education to establish and maintain appropriate standards of patient care through its accreditation of allied medical education programs.
ASCO	American Society of Clinical Oncology: A society of oncologists, primarily medical, for the dissemination and exchange of cancer information.
ASSO	American Society of Surgical Oncology: A society of surgical oncologists for dissemination and exchange of cancer information.
CCOP	Community Clinical Oncology Program; A cooperative agreement supported program which provides support to community-based oncologists to participate in clinical trials sponsored by the clinical cooperative groups and/or cancer centers.
COC	Commission on Cancer of the American College of Surgeons: Representing 28 national professional organizations, the Commission seeks multidisciplinary co-operation in cancer management. It establishes standards for approval of cancer programs, stimulates cancer programs in institutions and communities, develops nationwide patient care evaluation studies of specific organ sites and types of malignancy as well as symposia and postgraduate courses on cancer for physicians.
JCAHCO	Joint Commission on Accreditation of Health Care Organizations: (Formerly JCAH (hospital). Provides standards for accreditation of health care organizations and conducts surveys to determine an organization's degree of compliance as well as provides acceptable ways to bring the organization into compliance.
NCRA	National Cancer Registrars Association: A professional non-profit organization to promote the level of knowledge and performance of cancer registrars through educational standards and continuing education as well as to improve and standardize the compiling of cancer registry information.
NAACCR	North American Association of Central Cancer Registries: A professional society whose members are from population-based registries, for the most part, interested in the development and application of cancer registration and morbidity survey techniques to studies of defined population groups and to the conduct of cancer control programs.

WORLDWIDE ORGANIZATIONS

IACR — International Association of Cancer Registries: A voluntary non-governmental organization established in 1970 to represent the scientific and professional interests of cancer registries interested in the development and application of cancer registration and morbidity survey techniques to studies of well-defined populations.

IARC — International Agency for Research on Cancer: Established in 1965 within the framework of the World Health Organization (WHO), IARC is dedicated to research on cancer, particularly epidemiology of cancer and study of potential carcinogens in the human environment.

UICC — International Union Against Cancer (Union Internationale Contre le Cancer): An organization established to monitor cancer throughout the world. It disseminates current knowledge of cancer, its prevention, early detection, diagnosis, treatment, rehabilitation, and continuing care as well as knowledge in basic and clinical cancer research. It was first in the development of the TNM Clinical Staging Classification in the early 1950's, one of its many accomplishments.

WHO — World Health Organization: A United Nations organization established to monitor world health. It divides the world into seven regions with a headquarters in each region.

PUBLICATIONS AND ON-LINE DATA BASES

ACTUR — The Automated Central Tumor Registry System: A Department of Defense automated central tumor registry system established by the Defense Enrollment Eligibility Reporting System (DEERS) for Army, Navy, and Air Force hospitals.

ICD-O — The International Classification of Diseases for Oncology: The ICD-O, First Edition (1976), (published by WHO) permits coding of all neoplasms by topography, histology (morphology), and behavior. It also provides a separate grading and differentiation code. The ICD-O, Second Edition (1990), went into general use in the United States in 1992.

MEDLINE — An on-line version of Index Medicus published by the National Library of Medicine (NLM). It contains information (abstracts) about the documents, but not the documents themselves.

MEDLARS — The MEDLARS system (NLM) is a basic guide to searching the various biomedical databases. It contains more than 20 separate databases, such as, MEDLINE to search for articles in recent journals, CANCERLIT to search for cancer literature, and CHEMLINE to search for chemical compounds.

GRATEFUL MED — A system for simplifying the process of searching for and retrieving biomedical information on the MEDLARS system.

PDQ — The Physicians Data Query: An on-line data base which makes state-of-the-art treatment information, directory information, and protocol information available to the medical community. This data base is maintained by the International Cancer Research Data Base Branch, International Cancer Information Center, NIC.

The Automated Cause Coding System

TRACER

Target recognition of automatically coded entity references--an automated coding program used at the Office of Population, Censuses and Surveys for coding death certificates

MICAR

Mortality medical indexing, classification, and retrieval--a computer program that takes diagnoses and translates words into code numbers of ICD-9 (CM)

ACME

Automated classification of medical entities--the computer program used by the National Center for Health Statistics (NCHS) to select the underlying cause of death after the individual diagnoses have been coded

TRANSAX

Translate the Axis of Classification of the manually assigned codes into a form amenable to person-based analyses of multiple causes of death. This resolves multiple anomalies when coding death certificates in the United States.

ACRONYMS FOR STUDY GROUPS

The following study groups are funded privately and by the Clinical Trials Cooperative Group Program of the National Cancer Institute for the purpose of providing the opportunity for cancer research by extramural investigators. The Cooperative Groups have been instrumental in the development of new standards of cancer patient management and in the development of sophisticated clinical investigation techniques:

BCCA	British Columbia Cancer Agency
BTCG	Brain Tumor Cooperative Group
BTSG	Brain Tumor Study Group
CALGA	Cancer and Leukemia Group A
CALGB	Cancer and Leukemia Group B
CCSG	Children's Cancer Study Group
CDEP	Central Clinical Drug Evaluation Program
COG	Central Oncology Group
ECOG	Eastern Cooperative Oncology Group
GITSG	Gastrointestinal Study Group
GOG	Gynecologic Oncology Group
HNCP	Head and Neck Contracts Program
HTSG	Hepatic Tumor Study Group
IAML	Acute Myelocytic Leukemia Intergroup
INTERG	Intergroup (Other)
IRS	Intergroup Rhabdomyosarcoma Study
LCSG	Lung Cancer Study Group
MAOP	Mid-Atlantic Oncology Program
MARCOG	Mid-Atlantic Regional Co-Op Oncology Group
NABMTG	North American Bone Marrow Treatment Group
NBCG	National Bladder Cancer Group
NCCTG	North Central Cancer Treatment Group
NCOG	Northern California Oncology Group
NORCA	Nutrition Oncology Research Cooperative Association
NPCTG	National Prostatic Cancer Treatment Group
NSABP	National Surgery Adjuvant Project for Breast and Bowel Cancers
POA	Piedmont Oncology Association
POG	Pediatric Oncology Group
PVACCG	Pacific VA Cancer Chemotherapy Group
PVSG	Polycythemia Vera Study Group
RTOG	Radiation Therapy Oncology Group
SECSG	Southeastern Cancer Study Group
SWOG	Southwest Oncology Group
TPN	Total Parenteral Nutrition Group
UORG	Uro-Oncology Research Group
VALG	V.A. Lung Group
VASOG	V.A. Surgical Oncology Group
VBCG	V.A. Chemotherapy Group
WCCG	Western Cancer Chemotherapy Group
WCG	Weski Cancer Group
WTSG	Wilms' Tumor Study Group

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