

ER/PR/HER2

What are estrogen receptors (ER)?

Estrogen receptors are a group of proteins found inside cells. These protein receptors are activated by the hormone estrogen. The hormone estrogen binds to the receptors inside the cells and may cause the cells to grow.

ER negative cancer cells do not need estrogen to grow, and usually do not stop growing when treated with hormones that block estrogen from binding.

ER positive cancer cells may need estrogen to grow, and may stop growing or die when treated with substances that block the binding and actions of estrogen such as hormones (Tamoxifen) or aromatase inhibitors (Arimidex, Aromasin, or Femara).

What is a progesterone receptor (PR)?

A progesterone receptor is another type of protein receptor found inside cells. This protein receptor is activated by the hormone progesterone. The hormone progesterone binds to the receptor inside the cells and may cause cells to grow.

PR negative cancer cells do not need progesterone to grow, and usually do not stop growing when treated with hormones that block progesterone from binding.

PR positive cancer cells need progesterone to grow and will usually stop growing when treated with hormones that block progesterone from binding such as hormones (Tamoxifen) or aromatase inhibitors (Arimidex, Aromasin, or Femara).

Pre-menopausal women with ER/PR positive cancers are usually treated with Tamoxifen for 5 years, regardless of nodal status or other prognostic factors such as HER2 status.

Post-menopausal women are usually treated with an aromatase inhibitor rather than Tamoxifen, regardless of nodal status or other prognostic factors such as HER2 status.

What is HER2/neu?

HER2/neu is a protein involved in normal cell growth and may be found in some types of cancer cells. These protein receptors may also be referred to as tyrosine kinase receptors or human epidermal growth factor receptors.

HER2 positive cancers have an abundance of the protein HER2/neu on their surface. When too much of this protein is present, cells may grow more quickly and are more likely to spread to other parts of the body. Herceptin is a drug that is used to treat HER2-positive cancers (breast, stomach, other) when there is an overexpression of HER2 on cancer cells surfaces.

HER2 testing guidelines and techniques continue to evolve as do the guidelines for interpretation of results. In 2013 the College of American Pathologists (CAP) working with the American Society of Clinical Oncology (ASCO) published updated guidelines for HER2 Testing. The new guidelines clarified test, retest, interpretation and other factors changing cut-off points for positive/negative results among other clarifications providing a better set of patient safety criteria as well as improved clarification of testing/re-testing criteria and results interpretation.

When and Why are ER/PR/HER2 Test(s) Performed as Part of Creating Individual Breast Cancer Profile?

- Estrogen Receptor (ER)
 - Test routinely performed on invasive primary breast cancers
 - Test may be performed on non-invasive (in-situ) primary breast cancers
 - Result used to determine whether or not Hormonal Therapy or Aromatase Inhibitor Therapy should be considered in 1st course treatment planning
- Progesterone Receptor (PR)
 - Test routinely performed on invasive primary breast cancers

APPENDIX C

- Test may be performed on non-invasive (in-situ) primary breast cancers
- Result used to determine whether or not Hormonal Therapy or Aromatase Inhibitor Therapy should be considered in 1st course treatment planning
- Human Epidermal growth factor Receptor 2 (HER2)
 - Test routinely performed on invasive primary breast cancers
 - Test may be performed on non-invasive (in-situ) primary breast cancers
 - Test may be performed using one or more methods (IHC, FISH, CISH, Other)
 - An equivocal or borderline result from IHC assessment of HER2 may trigger additional testing using FISH or CISH to validate or clarify equivocal result from initial test.
 - Some facilities bypass IHC HER2 Test and perform FISH HER2 Test as part of routine Breast Cancer Profile
 - Result used to determine whether or not Herceptin (trastuzumab) or Tykerb (lapatinib) should be included in 1st course treatment plan

Favorable Prognostic Factors ER/PR/HER2

- ✓ Estrogen Receptor (ER) **positive** is a favorable prognostic factor.
 - Hormonal Therapy should be considered in 1st course treatment planning for premenopausal women
 - Aromatase Inhibitor Therapy should be considered in 1st course treatment planning for post-menopausal women.
- ✓ Progesterone Receptor (PR) **positive** is a favorable prognostic factor.
 - Hormonal Therapy should be considered in 1st course treatment planning.
 - Aromatase Inhibitor Therapy should be considered in 1st course treatment planning for post-menopausal women.
- ✓ **Single Receptor positive** tumors (ER+ only or PR+ only) do exist but are rare with an unfavorable prognosis
 - These tumors are often large in size, are of high grade, are often HER2+, and are often lymph node +
 - Single Receptor positive tumors are usually NOT treated with Hormonal Therapy or Aromatase Inhibitors
- ✓ Human Epidermal growth factor Receptor 2 (HER2) **positive** is a favorable prognostic factor.
 - Herceptin (trastuzumab) or Tykerb (lapatinib) should be included as part of 1st course treatment plan

Unfavorable Prognostic Factors ER, PR, HER2

- Estrogen Receptor (ER) **negative** is an unfavorable prognostic factor.
 - Hormonal Therapy/Aromatase Inhibitor Therapy usually NOT included as part of 1st course treatment plan
- Progesterone Receptor (PR) **negative** is an unfavorable prognostic factor.
 - Hormonal Therapy/Aromatase Inhibitor Therapy usually NOT included as part of 1st course treatment plan
- **Single Receptor negative** tumors (ER- only or PR- only) do exist but are rare with an unfavorable prognosis
 - These tumors are often large in size, are of high grade, are often HER2+, and are often lymph node +
 - Single Receptor negative tumors are usually NOT treated with Hormonal Therapy or Aromatase Inhibitors
- Human Epidermal growth factor Receptor 2 (HER2) **negative** is an unfavorable prognostic factor.
 - Herceptin (trastuzumab) or Tykerb (lapatinib) usually NOT included as part of 1st course treatment plan
- **Triple Negative Breast Cancer** (ER neg/PR neg/HER2 neg) is a **very unfavorable** prognostic combination.

Test	Value Range	Negative	Borderline	Positive
ER Proportion Score	0%-100%	<5%	5% - 19%	>=20%
ER Intensity Score	None, weak, intermediate, strong	None, weak	intermediate	Strong
PR Proportion Score	0%-100%	<5%	5% - 19%	>=20%
PR Intensity Score	None, weak, intermediate, strong	None, weak	intermediate	Strong
HER2 by IHC	0, 1+, 2+, 3+	0, 1+	2+	3+
HER2 by FISH	Ratio 1.00-9.79 (note decimal point)	<= 1.8	1.80-2.20	>= 2.00
HER2 by CISH	Ratio 1.00-9.79 (note decimal point)	<= 1.8	1.80-2.20	>= 2.00
HER2 by unknown	No value given	Stated by MD	Stated by MD	Stated by MD
Test Not Mentioned in Medical Record - Code as Not Done (998) or Unknown if Done (999)				

SEER PROGRAM CODING AND STAGING MANUAL 2015**LINK TO SEER MANUAL APPENDIX C: CODING GUIDELINES - SPECIFIED SITES**

<u>Link to All SEER Coding Guidelines</u> <u>http://seer.cancer.gov/manuals/2015/appendixc.html</u>	
<u>Esophagus</u>	<u>C150-C155, C158-C159</u>
<u>Colon</u>	<u>C180-C189</u>
<u>Rectosigmoid Junction</u>	<u>C199</u>
<u>Lung</u>	<u>C340-C349</u>
<u>Bones, Joints, and Articular Cartilage</u>	<u>C400-C419</u>
<u>Peripheral Nerves and Autonomic Nervous System</u>	<u>C470-C479</u>
<u>Connective, Subcutaneous and Other Soft Tissues</u>	<u>C490-C499</u>
<u>Breast</u>	<u>C500-C509</u>
<u>Prostate Gland</u>	<u>C619</u>
<u>Kidney</u>	<u>C649</u>
<u>Renal Pelvis and Ureter</u>	<u>C659, C669</u>
<u>Bladder</u>	<u>C670-C679</u>
<u>Urethra</u>	<u>C680</u>
<u>Brain, CNS, Meninges, Cranial Nerves, Other CNS</u>	<u>C700-C709, C710-C719, C720-C729</u>
<u>Thyroid Gland</u>	<u>C739</u>
<u>Kaposi Sarcoma of All Sites</u>	<u>Histology M9140 – Any Site</u>
<u>Lymphoma</u>	<u>Histology M9590/3 – M9738/3</u>

GLOSSARY OF COMMON TERMS

Abstract - A succinct synopsis of pertinent information gleaned from the patient record. Every abstract should reflect the diagnosis and first course of therapy for each cancer diagnosis in any patient. In general, an abstract represents the first four to twelve months of the patient's cancer experience. Completeness, consistency and attention to detail are very important. Please take care when abstracting each cancer case.

Active Surveillance/Watchful Waiting - No therapy is also a first course of therapy treatment option. If a physician or patient elects to undergo simple observation (as is often the case with prostate cancer) and later receives a TURP or hormonal therapy, the first course of therapy is No Therapy. The abstract should reflect that no therapy was administered for the first course.

Adjuvant - Systemic therapy and/or radiation therapy that is given after other methods have destroyed the clinically detectable cancer cells. This therapy is given to destroy micrometastases (undetectable cancer cells). The intent is to prevent or delay a recurrence.

Analytic Case - Any case of cancer where the reporting facility is involved in the diagnosis and/or evaluation of the diagnosis and/or the evaluation of the extent of cancer spread at the time of diagnosis and/or the administration of all or any part of the first course of therapy.

Cancer Directed Therapy - Any treatment that is given to modify, control, remove or destroy primary or metastatic cancer tissue. The treatment is meant to remove or minimize the size of tumor or delay the spread of disease.

Clinical Stage or Clinical Classification – This is a point in time, not specific types of exams or procedures. The clinical (stage) classification encompasses all information from the diagnostic workup. This is from the moment of diagnosis until just before the first treatment.

Concurrent Therapy - Different types of therapies that are administered at the same time.

Consultation - Services rendered by a facility to confirm a diagnosis or treatment plan. Examples include: Pathology review of slides that have been previously read by another pathology physician or department; Radiation therapy planning without radiation therapy services administered; Specialty testing performed to confirm a diagnosis or extent of disease where the testing is not available elsewhere.

End-Results Registry - A cancer registry that performs all of the necessary functions required by the Commission on Cancer/American College of Surgeons for cancer program accreditation.

Federal Information Processing Standards (FIPS) – Standard codes for U.S. counties taken from the publication "Counties and Equivalent Entities of the United States, Its Possessions, and Associated Areas."

First Course of Therapy or Treatment - All methods of therapy that are included in the original treatment plan, including neo-adjuvant, concurrent, prophylactic, palliative, and adjuvant therapies. Generally, the first course of therapy is completed during the first four months after a patient's diagnosis with cancer. The first course of therapy can extend beyond one year after initial diagnosis.

No therapy is also a first course of therapy treatment option. If a physician or patient elects to undergo simple observation (as is often the case with prostate cancer) and later receives a TURP or hormonal therapy, the first course of therapy is No Therapy. The abstract should reflect that no therapy was administered for the first course.

Historical Case - A case of cancer that is not active or receiving therapy (NED, remission) that must be reported to accompany a case of cancer for the same patient that is active or receiving therapy.

Incidence Registry - A cancer registry that performs minimal cancer reporting as required in order to calculate cancer incidence rates for a defined geographic region and/or meet state reporting requirements.

NED - No Evidence Of Disease

Neo-Adjuvant - Systemic therapy and/or radiation therapy that is given prior to surgical resection to reduce the bulk of a locally advanced primary cancer. Definitive surgery must be performed to complete the loop. Systemic therapy may consist of chemotherapy, immunotherapy, or hormone therapy.

Non-Analytic Case - Any case of cancer where the reporting facility is not involved with the diagnosis and/or the first course of therapy but, the patient is seen at the reporting facility with evidence of active cancer, and/or is actively receiving therapy for cancer, and/or is diagnosed with cancer at the time an autopsy is performed.

Non-Cancer Directed Therapy - Any treatment that is designed to prepare a patient for cancer-directed therapy, prolong a patient's life, alleviate pain or make the patient comfortable. Non-cancer directed therapies are not meant to destroy or control the tumor or delay the spread of disease. These therapies include diagnostic tests and supportive care.

Palliative - Treatment that is given primarily for the purpose of pain control. Palliative therapy is non-curative. Any benefits of the treatment are considered secondary contributions to the patient's quality of life.

Pathologic Stage or Pathologic Classification – This is a point in time, not specific types of procedures. The pathologic (stage) classification encompasses all information from the diagnostic workup, the surgical (operative) evaluation, and the pathologist's review of the resected specimen, from the moment of diagnosis THROUGH the surgical resection.

Prophylactic - Radiation therapy that is administered for the purpose of preventing the development of symptoms in a setting in which clinical evidence indicates that problems are likely to develop if treatment is not administered.

Remission - Cancer that is no longer detectable by any testing or evaluation means. This term is most often used for leukemia cases.

Reportable Case - Any cancer case that meets reporting requirements as outlined in Section I.

Treatment - See Treatment Section

APPENDIX C**2015 NAACCR RECOMMENDED ABBREVIATION LIST
ORDERED BY WORD/TERM(S)**

WORD/TERM(S)	ABBREVIATION/SYMBOL
Abdomen (abdominal)	ABD
Abdominal perineal	AP
Abnormal	ABN
Above	^
Above knee (amputation)	AK(A)
Absent/Absence	ABS
Abstract/Abstracted	ABST
Achilles tendon reflex	ATR
Acid phosphatase	ACID PHOS
Acquired Immune Deficiency Syndrome	AIDS
Activities of daily living	ADL
Acute granulocytic leukemia	AGL
Acute lymphocytic leukemia	ALL
Acute myelogenous leukemia	AML
Acute myocardial infarction	AMI
Acute Respiratory Distress (Disease) Syndrome	ARDS
Acute tubular necrosis	ATN
Acute renal failure	ARF
Adenocarcinoma	ADENOCA
Adenosine triphosphate	ATP
Adjacent	ADJ
Adult-onset Diabetes Mellitus	AODM
Admission/Admit	ADM
Adrenal cortical hormone	ACH
Adrenal cortex	AC
Adrenocorticotrophic hormone	ACTH
Affirmative	AFF
Against medical advice	AMA
AIDS-related condition (complex)	ARC
AIDS-related disease	ARD
Air contrast barium enema	ACBE

APPENDIX C

C-7

WORD/TERM(S)	ABBREVIATION/SYMBOL
Albumin	ALB
Alcohol	ETOH
Alkaline phosphatase	ALK PHOS
Alpha-fetoprotein	AFP
Also known as	AKA
Ambulatory	AMB
Amount	AMT
Amputation	AMP
Amyotrophic lateral sclerosis	ALS
Anal intraepithelial neoplasia, grade III	AIN III
Anaplastic	ANAP
And	&
Angiography/Angiogram	ANGIO
Anterior	ANT
Anteroposterior	AP
Antidiuretic hormone	ADH
Antigen	AG
Aortic stenosis	A-STEN
Appendix	APP
Apparently	APPL'Y
Approximately	APPROX
Arrhythmia	ARRHY
Arterial blood gases	ABG
Arteriosclerotic cardiovascular disease	ASCVD
Arteriosclerotic heart disease	ASHD
Arteriosclerotic Peripheral Vascular Disease	ASPVD
Arteriosclerosis/Arteriosclerotic	AS
Arteriovenous	AV
Arteriovenous malformation	AVM
Artery (ial)	ART
Ascending colon	A-COLON
Aspiration	ASP
Aspirin, Acetylsalicylic acid	ASA
As soon as possible	ASAP
At	@
Atrial fibrillation	A FIB
Atrial flutter	A FLUTTER

APPENDIX C

WORD/TERM(S)	ABBREVIATION/SYMBOL
Atrial stenosis/insufficiency/incompetence	AI
Atrial premature complexes	APC
Auscultation & percussion	A&P
Autonomic nervous system	ANS
Autopsy	AUT
Autoimmune hemolytic anemia	AIHA
Average	AVG
Axilla(ry)	AX
Bacillus Calmette-Guerin	BCG
Barium	BA
Barium enema	BE
Bartholin's, Urethral & Skene's	BUS
Basal cell carcinoma	BCC
Before noon	AM
Below knee (amputation)	BK(A)
Benign prostatic hypertrophy/hyperplasia	BPH
Bilateral	BIL
Bilateral salpingo-oophorectomy	BSO
Bile duct	BD
Biological response modifier	BRM
Biopsy	BX
Bipolar affective disorder	BAD
Black female	B/F
Black male	B/M
Bladder tumor	BT
Blood pressure	BP
Blood urea nitrogen	BUN
Blood volume	BV
Bone marrow	BM
Bone marrow transplant	BMT
Bowel movement	BM
Brother	BRO
Calcium	CA

APPENDIX C

C-9

WORD/TERM(S)	ABBREVIATION/SYMBOL
Capsule (s)	CAP(S)
Carcinoembryonic antigen	CEA
Carcinoma	CA
Carcinoma <i>in situ</i>	CIS
Cardiovascular disease	CVD
CAT/CT scan/Computerized axial tomography	CT
Centimeter	CM
Central nervous system	CNS
Cerebrospinal fluid	CSF
Cerebrovascular accident	CVA
Cervical intraepithelial neoplasia	CIN
Cervical intraepithelial neoplasia, grade III	CIN III
Cervical vertebrae	C1-C7
Cervical spine	C-SPINE
Change	CHG
Chemotherapy	CHEMO
Chest X-ray	CXR
Chronic	CHR
Chronic granulocytic leukemia	CGL
Chronic lymphocytic leukemia	CLL
Chronic myeloid (myelocytic) leukemia	CML
Chronic obstructive lung disease	COLD
Chronic obstructive pulmonary disease	COPD
Chronic renal failure	CRF
Chronic ulcerative colitis	CUC
Cigarettes	CIG
Clear	CLR
Cobalt 60	CO60
Collaborative stage	CS
Colon, Ascending	A-COLON
Colon, Descending	D-COLON
Colon, Sigmoid	SIG COLON
Colon, Transverse	TRANS-COLON
Colony-stimulating factor	C-SF
Complaint (-ning) of	C/O
Complete blood count	CBC
Congenital heart disease	CHD

APPENDIX C

WORD/TERM(S)	ABBREVIATION/SYMBOL
Congestive heart failure	CHF
Consistent with	C/W
Continue/continuous	CONT
Contralateral	CONTRA
Coronary artery bypass graft	CABG
Coronary artery disease	CAD
Coronary care unit	CCU
Cubic centimeter	CC
Cystoscopy	CYSTO
Cytology	CYTO
Cystic fibrosis	CF
Date of birth	DOB
Date of death	DOD
Dead on arrival	DOA
Decrease(d)	DECR
Deep tendon reflex	DTR
Deep vein thrombosis	DVT
Deoxyribonucleic acid	DNA
Descending colon	D-COLON
Dermatology	DERM
Diabetes mellitus	DM
Diagnosis	DX
Diameter	DIAM
Diethylstilbestrol	DES
Differentiated/differential	DIFF
Digital rectal examination	DRE
Dilatation and curettage	D&C
Discharge	DISCH
Discontinue(d)	DC
Disease	DZ
Disseminated intravascular coagulopathy	DIC
Ductal carcinoma <i>in situ</i>	DCIS
Dyspnea on exertion	DOE

APPENDIX C

C-11

WORD/TERM(S)	ABBREVIATION/SYMBOL
Ears, nose, and throat	ENT
Electrocardiogram	ECG/EKG
Electroencephalogram	EEG
Electromyogram	EMG
Emergency room	ER
Endoscopic retrograde cholangiopancreatography	ERCP
End stage renal disease	ESRD
Enlarged	ENLGD
Equal(s)	=
Esophagogastro-duodenoscopy	EGD
Estrogen receptor (assay)	ER, ERA
Evaluation	EVAL
Every	Q
Every day	QD
Examination	EXAM
Excision/excised	EXC(D)
Expired	EXP
Exploratory	EXPL
Exploratory laparotomy	EXPL LAP
Extend/extension	EXT
Fever of unknown origin	FUO
Fine needle aspiration	FNA
Fine needle aspiration biopsy	FNAB
Floor of mouth	FOM
Fluid	FL
Fluoroscopy	FLURO
Follow-up	FU
For example	E.G.
Fracture	FX
Frequent/Frequency	FREQ
Frozen section	FS
Full thickness skin graft	FTSG
Gallbladder	GB
Gastroesophageal	GE
Gastroesophageal reflux disease	GERD

APPENDIX C

WORD/TERM(S)	ABBREVIATION/SYMBOL
Gastrointestinal	GI
General/Generalized	GEN
Genitourinary	GU
Grade	GR
Greater/Greater than	>
Gynecology	GYN
Hematocrit	HCT
Hemoglobin	HGB
Hepatitis A (virus)	HAV
Hepatitis B (virus)	HBV
Hepatitis C (virus)	HCV
Hepatitis D (virus)	HDV
Hepatosplenomegaly	HSM
History	HX
History and physical	H&P
History of	H/O
Hormone	HORM
Hospital	HOSP
Hour/Hours	HR(S)
Human chorionic gonadotropin	HCG
Human Immunodeficiency Virus	HIV
Human Papilloma Virus	HPV
Human T-Lymphotropic Virus, (Type III)	HTLV
Hypertension	HTN
Hypertensive cardiovascular disease	HCVD
Hypertensive vascular disease	HVD
Hysterectomy	HYST
Idiopathic hypertrophic subaortic stenosis	IHSS
Idiopathic thrombocytopenia	ITP
Immunoglobulin	IG
Immunohistochemical	IHC
Impression	IMP
Incision & drainage	I&D

APPENDIX C

C-13

WORD/TERM(S)	ABBREVIATION/SYMBOL
Includes/Including	INCL
Increase(d)	INCR
Inferior	INF
Inferior vena cava	IVC
Infiltrating	INFILT
Inflammatory bowel disease	IBD
Inpatient	IP
Insulin-dependent diabetes mellitus	IDDM
Intensive care unit	ICU
Intercostal margin	ICM
Intercostal space	ICS
Intermittent positive pressure breathing	IPPB
Internal	INT
Interstitial lung disease	ILD
Intramuscular	IM
Intrathecal	IT
Intravenous	IV
Intravenous cholangiogram	IVCA
Intravenous pyelogram	IVP
Invade(s)/invading/invasion	INV
Involve(s)/involvement/involving	INVL
Ipsilateral	IPSI
Irregular	IRREG
Jugular venous distention	JVD
Juvenile rheumatic arthritis	JRA
Kaposi sarcoma	KS
Kidneys, ureters, bladder	KUB
Kilogram	KG
Kilovolt	KV
Laboratory	LAB
Lactic dehydrogenase	LDH
Laparotomy	LAP
Large	LRG
Last menstrual period	LMP

APPENDIX C

WORD/TERM(S)	ABBREVIATION/SYMBOL
Lateral	LAT
Left	LT
Left bundle branch block	LBBB
Left costal margin	LCM
Left lower extremity	LLE
Left lower lobe	LLL
Left lower quadrant	LLQ
Left salpingo-oophorectomy	LSO
Left upper extremity	LUE
Left upper lobe	LUL
Left upper quadrant	LUQ
Left upper outer quadrant	LUOQ
Less/Less than	<
Licensed practical nurse	LPN
Linear accelerator	LINAC
Liver/spleen scan	LS SCAN
Lower extremity	LE
Lower inner quadrant	LIQ
Lower outer quadrant	LOQ
Lumbar vertebra	L1-L5
Lumbar spine	L-SPINE
Lumbosacral	LS
Lymphadenopathy-associated virus	LAV
Lymph node(s)	LN(S)
Lymph node dissection	LND
Lupus erythematosus	LUP ERYTH
Lymph/vascular invasion	LVI
Macrophage colony-stimulating factor	M-CSF
Magnetic resonance imaging	MRI
Magnetic resonance cholangiopancreatography	MRCP
Main stem bronchus	MSB
Malignant	MALIG
Mandible/mandibular	MAND
Maximum	MAX

APPENDIX C

C-15

WORD/TERM(S)	ABBREVIATION/SYMBOL
Medical center	MC
Medication	MED
Metastatic/Metastasis	METS
Methicillin Resistant Staphylococcus Aureus	MRSA
Microgram	MCG
Microscopic	MICRO
Middle lobe	ML
Millicurie (hours)	MC(H)
Milligram (hours)	MG(H)
Milliliter	ML
Millimeter	MM
Million electron volts	MEV
Minimum	MIN
Minus	-
Minute	MIN
Mitral valve prolapse	MVP
Mixed combined immunodeficiency	MCID
Mixed connective tissue disease	MCTD
Moderate (ly)	MOD
Moderately differentiated	MD, MOD DIFF
Modified radical mastectomy	MRM
More/More than	>
Multifocal arterial tachycardia	MAT
Multifocal premature ventricular contraction	MPVC
Multiple	MULT
Multiple sclerosis	MS
Multiple myeloma	MM
Myasthenia gravis	MG
Myocardial infarction	MI
Neck vein distention	NVD
Negative	NEG
Negative	-
Neoplasm	NEOPL
Neurology	NEURO
No evidence of disease	NED
No significant findings	NSF

APPENDIX C

WORD/TERM(S)	ABBREVIATION/SYMBOL
Non-Hodgkins lymphoma	NHL
Normal	NL
Non small cell carcinoma	NSCCA
Not applicable	NA
Not otherwise specified	NOS
Not recorded	NR
Number	#
Nursing home	NH
Obstetrics	OB
Obstructed (-ing, -ion)	OBST
Operating room	OR
Operative report	OP RPT
Organic brain syndrome	OBS
Orthopedics	ORTHO
Otology	OTO
Ounce	OZ
Outpatient	OP
Packs per day	PPD
Palpated (-able)	PALP
Papanicolaou smear	PAP
Papillary	PAP
Past/personal (medical) history	PMH
Pathology	PATH
Patient	PT
Pediatrics	PEDS
Pelvic inflammatory disease	PID
Peptic ulcer disease	PUD
Percutaneous	PERC
Percutaneous transhepatic cholecystogram	PTC
Peripheral vascular disease	PVD
Prescription	RX
Primary medical physician	PMP
Phosphorus 32	P32

APPENDIX C

C-17

WORD/TERM(S)	ABBREVIATION/SYMBOL
Physical examination	PE
Physiotherapy/Physical therapy	PT
Platelets	PLT
Plus	+
Poorly differentiated	PD, POOR DIFF
Positive	POS
Positive	+
Positron emission tomography	PET
Possible	POSS
Posterior	POST
Postoperative (-ly)	POST OP
Pound(s)	LB(S)
Pound(s)	#
Premature atrial contraction	PAC
Preoperative (-ly)	PRE OP
Previous	PREV
Prior to admission	PTA
Probable (-ly)	PROB
Proctoscopy	PROCTO
Progesterone receptor (assay)	PR, PRA
Prostatic intraepithelial neoplasia, grade III	PIN III
Prostatic specific antigen	PSA
Pulmonary	PULM
Quadrant	QUAD
Radiation absorbed dose	RAD
Radiation therapy	RT
Radioimmunoassay	RIA
Received	REC'D
Red blood cells (count)	RBC
Regarding	RE
Regional medical center	RMC
Regular	REG
Regular sinus rhythm	RSR
Resection (ed)	RESEC
Review of outside films	ROF

APPENDIX C

WORD/TERM(S)	ABBREVIATION/SYMBOL
Review of outside slides	ROS
Rheumatoid arthritis	RA
Rheumatic heart disease	RHD
Right	RT
Right bundle branch block	RBBB
Right costal margin	RCM
Right inner quadrant	RIQ
Right lower extremity	RLE
Right lower lobe	RLL
Right lower quadrant	RLQ
Right middle lobe	RML
Right outer quadrant	ROQ
Right salpingo-oophorectomy	RSO
Right upper extremity	RUE
Right upper lobe	RUL
Right upper quadrant	RUQ
Rule out	R/O
Sacral spine	S-SPINE
Sacral vertebra	S1-S5
Salpingo-oophorectomy	SO
Satisfactory	SATIS
Serum glutamic oxaloacetic transaminase	SGOT
Serum glutamic pyruvic transaminase	SGPT
Severe combined immunodeficiency syndrome	SCID
Short(ness) of breath	SOB
Sick sinus syndrome	SSS
Sigmoid colon	SIG COLON
Small	SM
Small bowel	SB
Specimen	SPEC
Spine, Cervical	C-SPINE
Spine, Lumbar	L-SPINE
Spine, Sacral	S-SPINE
Spine, Thoracic	T-SPINE

APPENDIX C

C-19

WORD/TERM(S)	ABBREVIATION/SYMBOL
Split thickness skin graft	STSG
Squamous	SQ
Squamous cell carcinoma	SCC
Status post	S/P
Subcutaneous	SUBCU
Summary stage	SS
Superior vena cava	SVC
Surgery/Surgical	SURG
Suspicious/suspected	SUSP
Symptoms	SX
Syndrome of inappropriate ADH	SIADH
Systemic lupus erythematosus	SLE
Thoracic spine	T-SPINE
Thrombocytopenia purpura	TTP
Times	X
Total abdominal hysterectomy	TAH
Total abdominal hysterectomy- bilateral salpingo-oophorectomy	TAH-BSO
Total vaginal hysterectomy	TVH
Transient ischemic attack	TIA
Transitional cell carcinoma	TCC
Transurethral resection	TUR
Transurethral resection bladder	TURB
Transurethral resection prostate	TURP
Transverse colon	TRANS-COLON
Treatment	TX
True vocal cord	TVC
Tuberculosis	TB
Twice a day (daily)	BID
Ultrasound	US
Undifferentiated	UNDIFF
Unknown	UNK
Upper extremity	UE
Upper gastrointestinal (series)	UGI
Upper inner quadrant	UIQ
Upper outer quadrant	UOQ
Upper respiratory infection	URI

APPENDIX C

WORD/TERM(S)	ABBREVIATION/SYMBOL
Urinary tract infection	UTI
Vagina/Vaginal	VAG
Vaginal hysterectomy	VAG HYST
Vaginal intraepithelial neoplasia (grade III)	VAIN III
Vulvar intraepithelial neoplasia (grade III)	VIN III
Well differentiated	WD, WELL DIFF
White blood cells (count)	WBC
White female	W/F
White male	W/M
With	W/
Within normal limits	WNL
Without	W/O
Wolff-Parkinson-White syndrome	WPW
Work-up	W/U
Xray	XR
Year	YR

**NAACCR RECOMMENDED ABBREVIATION LIST
ORDERED BY ABBREVIATION/SYMBOL**

ABBREVIATION/SYMBOL	WORD/TERM(S)
^	above
@	at
&	and
<	less, less than
=	equals
>	greater than, more, more than
-	negative, minus
#	number, pound(s)
+	plus, positive
X	times
A-COLON	Ascending colon
A FIB	Atrial fibrillation
A FLUTTER	Atrial flutter
A-STEN	Aortic stenosis
A&P	Auscultation & percussion
ABD	Abdomen (abdominal)
ABG	Arterial blood gases
ABN	Abnormal
ABS	Absent/Absence
ABST	Abstract/Abstracted
AC	Adrenal cortex
ACBE	Air contrast barium enema
ACH	Adrenal cortical hormone
ACID PHOS	Acid phosphatase
ACTH	Adrenocorticotrophic hormone
ADENOCA	Adenocarcinoma
ADH	Antidiuretic hormone
ADJ	Adjacent
ADL	Activities of daily living
ADM	Admission/Admit
AFF	Affirmative
AFP	Alpha-fetoprotein
AG	Antigen

APPENDIX C

ABBREVIATION/SYMBOL	WORD/TERM(S)
AGL	Acute granulocytic leukemia
AI	Atrial stenosis/insufficiency/incompetence
AIDS	Acquired Immune Deficiency Syndrome
AIHA	Autoimmune hemolytic anemia
AIN III	Anal intraepithelial neoplasia, grade III
AK(A)	Above knee (amputation)
AKA	Also known as
ALB	Albumin
ALK PHOS	Alkaline phosphatase
ALL	Acute lymphocytic leukemia
ALS	Amyotrophic lateral sclerosis
AM	Before noon
AMA	Against medical advice
AMB	Ambulatory
AMI	Acute myocardial infarction
AML	Acute myelogenous leukemia
AMP	Amputation
AMT	Amount
ANAP	Anaplastic
ANGIO	Angiography/Angiogram
ANS	Autonomic nervous system
ANT	Anterior
AODM	Adult-onset Diabetes Mellitus
AP	Abdominal perineal
AP	Anteroposterior
APC	Atrial premature complexes
APP	Appendix
APPL'Y	Apparently
APPROX	Approximately
ARC	AIDS-related condition (complex)
ARD	AIDS-related disease
ARDS	Acute Respiratory Distress (Disease) Syndrome
ARF	Acute renal failure
ARRHY	Arrhythmia
ART	Artery (ial)

APPENDIX C

C-23

ABBREVIATION/SYMBOL	WORD/TERM(S)
AS	Arteriosclerosis/Arteriosclerotic
ASA	Aspirin, Acetylsalicylic acid
ASAP	As soon as possible
ASCVD	Arteriosclerotic cardiovascular disease
ASHD	Arteriosclerotic heart disease
ASP	Aspiration
ASPVD	Arteriosclerotic Peripheral Vascular Disease
ATN	Acute tubular necrosis
ATP	Adenosine triphosphate
ATR	Achilles tendon reflex
AUT	Autopsy
AV	Arteriovenous
AVG	Average
AVM	Arteriovenous malformation
AX	Axilla(ry)
B/F	Black female
B/M	Black male
BA	Barium
BAD	Bipolar affective disorder
BCC	Basal cell carcinoma
BCG	Bacillus Calmette-Guerin
BD	Bile duct
BE	Barium enema
BID	Twice a day (daily)
BIL	Bilateral
BK(A)	Below knee (amputation)
BM	Bone marrow
BM	Bowel movement
BMT	Bone marrow transplant
BP	Blood pressure
BPH	Benign prostatic hypertrophy/hyperplasia
BRM	Biological response modifier
BRO	Brother
BSO	Bilateral salpingo-oophorectomy
BT	Bladder tumor
BUN	Blood urea nitrogen

APPENDIX C

ABBREVIATION/SYMBOL	WORD/TERM(S)
BUS	Bartholin's, Urethral & Skene's
BV	Blood volume
BX	Biopsy
C/O	Complaint (-ning) of
C/W	Consistent with
C1-C7	Cervical vertebrae
CA	Calcium
CA	Carcinoma
CABG	Coronary artery bypass graft
CAD	Coronary artery disease
CAP(S)	Capsule (s)
CBC	Complete blood count
CC	Cubic centimeter
CCU	Coronary care unit
CEA	Carcinoembryonic antigen
CF	Cystic fibrosis
CGL	Chronic granulocytic leukemia
CHD	Congenital heart disease
CHEMO	Chemotherapy
CHF	Congestive heart failure
CHG	Change
CHR	Chronic
CIG	Cigarettes
CIN	Cervical intraepithelial neoplasia
CIN III	Cervical intraepithelial neoplasia, grade III
CIS	Carcinoma <i>in situ</i>
CLL	Chronic lymphocytic leukemia
CLR	Clear
CM	Centimeter
CML	Chronic myeloid (myelocytic) leukemia
CNS	Central nervous system
CO60	Cobalt 60
COLD	Chronic obstructive lung disease
CONT	Continue/continuous

APPENDIX C

C-25

ABBREVIATION/SYMBOL	WORD/TERM(S)
CONTRA	Contralateral
COPD	Chronic obstructive pulmonary disease
CRF	Chronic renal failure
CS	Collaborative stage
CSF	Cerebrospinal fluid
C-SF	Colony stimulating factor
C-SPINE	Cervical spine
CT	CAT/CT scan/Computerized axial tomography
CUC	Chronic ulcerative colitis
CVA	Cerebrovascular accident
CVD	Cardiovascular disease
CXR	Chest X-ray
CYSTO	Cystoscopy
CYTO	Cytology
D-COLON	Descending colon
D&C	Dilatation and curettage
DC	Discontinue(d)
DCIS	Ductal carcinomain <i>situ</i>
DECR	Decrease(d)
DERM	Dermatology
DES	Diethylstilbestrol
DIAM	Diameter
DIC	Disseminated intravascular coagulopathy
DIFF	Differentiated/differential
DISCH	Discharge
DM	Diabetes mellitus
DNA	Deoxyribonucleic acid
DOA	Dead on arrival
DOB	Date of birth
DOD	Date of death
DOE	Dyspnea on exertion
DRE	Digital rectal examination
DTR	Deep tendon reflex
DVT	Deep vein thrombosis
DX	Diagnosis
DZ	Disease

APPENDIX C

ABBREVIATION/SYMBOL	WORD/TERM(S)
E.G.	For example
ECG/EKG	Electrocardiogram
EEG	Electroencephalogram
EGD	Esophagogastro-duodenoscopy
EMG	Electromyogram
ENLGD	Enlarged
ENT	Ears, nose, and throat
ER	Emergency room
ER, ERA	Estrogen receptor (assay)
ERCP	Endoscopic retrograde cholangiopancreatography
ESRD	End stage renal disease
ETOH	Alcohol
EVAL	Evaluation
EXAM	Examination
EXC(D)	Excision/excised
EXP	Expired
EXPL	Exploratory
EXPL LAP	Exploratory laparotomy
EXT	Extend/extension
FL	Fluid
FLURO	Fluoroscopy
FNA	Fine needle aspiration
FNAB	Fine needle aspiration biopsy
FOM	Floor of mouth
FREQ	Frequent/Frequency
FS	Frozen section
FTSG	Full thickness skin graft
FU	Follow-up
FUO	Fever of unknown origin
FX	Fracture
GB	Gallbladder
GE	Gastroesophageal

APPENDIX C

C-27

ABBREVIATION/SYMBOL	WORD/TERM(S)
GEN	General/Generalized
GERD	Gastroesophageal reflux disease
GI	Gastrointestinal
GR	Grade
GU	Genitourinary
GYN	Gynecology
H&P	History and physical
H/O	History of
HAV	Hepatitis A (virus)
HBV	Hepatitis B (virus)
HCG	Human chorionic gonadotropin
HCT	Hematocrit
HCV	Hepatitis C (virus)
HCVD	Hypertensive cardiovascular disease
HDV	Hepatitis D (virus)
HGB	Hemoglobin
HIV	Human Immunodeficiency Virus
HORM	Hormone
HOSP	Hospital
HPV	Human Papilloma Virus
HR(S)	Hour/Hours
HSM	Hepatosplenomegaly
HTLV	Human T-Lymphotropic Virus, (Type III)
HTN	Hypertension
HVD	Hypertensive vascular disease
HX	History
HYST	Hysterectomy
I&D	Incision & drainage
IBD	Inflammatory bowel disease
ICM	Intercostal margin
ICS	Intercostal space
ICU	Intensive care unit
IDDM	Insulin-dependent diabetes mellitus
IG	Immunoglobulin
IHC	Immunohistochemical

APPENDIX C

ABBREVIATION/SYMBOL	WORD/TERM(S)
IHSS	Idiopathic hypertrophic subaortic stenosis
ILD	Interstitial lung disease
IM	Intramuscular
IMP	Impression
INCL	Includes/Including
INCR	Increase(d)
INF	Inferior
INFILT	Infiltrating
INT	Internal
INV	Invade(s)/invading/invasion
INVL	Involve(s)/involvement/involving
IP	Inpatient
IPPB	Intermittent positive pressure breathing
IPSI	Ipsilateral
IRREG	Irregular
IT	Intrathecal
ITP	Idiopathic thrombocytopenia
IV	Intravenous
IVC	Inferior vena cava
IVCA	Intravenous cholangiogram
IVP	Intravenous pyelogram
JRA	Juvenile rheumatic arthritis
JVD	Jugular venous distention
KG	Kilogram
KS	Kaposi sarcoma
KUB	Kidneys, ureters, bladder
KV	Kilovolt
L-SPINE	Lumbar spine
L1-L5	Lumbar vertebra
LAB	laboratory
LAP	Laparotomy
LAT	Lateral

APPENDIX C

ABBREVIATION/SYMBOL	WORD/TERM(S)
LAV	Lymphadenopathy-associated virus
LB	Pound
LBBB	Left bundle branch block
LCM	Left costal margin
LDH	Lactic dehydrogenase
LE	Lower extremity
LINAC	Linear accelerator
LIQ	Lower inner quadrant
LLE	Left lower extremity
LLL	Left lower lobe
LLQ	Left lower quadrant
LMP	Last menstrual period
LN(S)	Lymph node(s)
LND	Lymph node dissection
LOQ	Lower outer quadrant
LPN	Licensed practical nurse
LRG	Large
LS	Lumbosacral
LS SCAN	Liver/spleen scan
LSO	Left salpingo-oophorectomy
LT	Left
LUE	Left upper extremity
LUL	Left upper lobe
LUOQ	Left upper outer quadrant
LUP ERYTH	Lupus erythematosus
LUQ	Left upper quadrant
LVI	Lymph/vascular invasion
M-CSF	Macrophage colony-stimulating factor
MALIG	Malignant
MAND	Mandible/mandibular
MAT	Multifocal arterial tachycardia
MAX	Maximum
MC	Medical center
MC(H)	Millicurie (hours)
MCG	Microgram
MCID	Mixed combined immunodeficiency

APPENDIX C

ABBREVIATION/SYMBOL	WORD/TERM(S)
MCTD	Mixed connective tissue disease
MD	Moderately differentiated
MED	Medication
METS	Metastatic/Metastasis
MEV	Million electron volts
MG	Myasthenia gravis
MG(H)	Milligram (hours)
MI	Myocardial infarction
MICRO	Microscopic
MIN	Minimum
MIN	Minute
ML	Middle lobe
ML	Milliliter
MM	Millimeter
MM	Multiple myeloma
MOD	Moderate (ly)
MOD DIFF	Moderately differentiated
MPVC	Multifocal premature ventricular contraction
MRCPC	Magnetic resonance cholangiopancreatography
MRI	Magnetic resonance imaging
MRM	Modified radical mastectomy
MRSA	Methicillin Resistant Staphylococcus Aureus
MS	Multiple sclerosis
MSB	Main stem bronchus
MULT	Multiple
MVP	Mitral valve prolapse
NA	Not applicable
NED	No evidence of disease
NEG	Negative
NEOPL	Neoplasm
NEURO	Neurology
NH	Nursing home
NHL	Non-Hodgkins lymphoma
NL	Normal

APPENDIX C

C-31

ABBREVIATION/SYMBOL	WORD/TERM(S)
NOS	Not otherwise specified
NR	Not recorded
NSCCA	Non small cell carcinoma
NSF	No significant findings
NVD	Neck vein distention
OB	Obstetrics
OBS	Organic brain syndrome
OBST	Obstructed (-ing, -ion)
OP	Outpatient
OP RPT	Operative report
OR	Operating room
ORTHO	Orthopedics
OTO	Otology
OZ	Ounce
P32	Phosphorus 32
PAC	Premature atrial contraction
PALP	Palpated (-able)
PAP	Papanicolaou smear
PAP	Papillary
PATH	Pathology
PD	Poorly differentiated
PE	Physical examination
PEDS	Pediatrics
PERC	Percutaneous
PET	Positron emission tomography
PID	Pelvic inflammatory disease
PIN III	Prostatic intraepithelial neoplasia, grade III
PLT	Platelets
PMH	Past/personal (medical) history
PMP	Primary medical physician
POOR DIFF	Poorly differentiated
POS	Positive
POSS	Possible
POST	Posterior
POST OP	Postoperative (-ly)

APPENDIX C

ABBREVIATION/SYMBOL	WORD/TERM(S)
PPD	Packs per day
PR, PRA	Progesterone receptor (assay)
PRE OP	Preoperative (-ly)
PREV	Previous
PROB	Probable (-ly)
PROCTO	Proctoscopy
PSA	Prostatic specific antigen
PT	Patient
PT	Physiotherapy/Physical therapy
PTA	Prior to admission
PTC	Percutaneous transhepatic cholecystogram
PUD	Peptic ulcer disease
PULM	Pulmonary
PVD	Peripheral vascular disease
Q	Every
QD	Every day
QUAD	Quadrant
R/O	Rule out
RA	Rheumatoid arthritis
RAD	Radiation absorbed dose
RBBB	Right bundle branch block
RBC	Red blood cells (count)
RCM	Right costal margin
RE	Regarding
REC'D	Received
REG	Regular
RESEC	Resection (ed)
RHD	Rheumatic heart disease
RIA	Radioimmunoassay
RIQ	Right inner quadrant
RLE	Right lower extremity
RLL	Right lower lobe
RLQ	Right lower quadrant

APPENDIX C

C-33

ABBREVIATION/SYMBOL	WORD/TERM(S)
RMC	Regional medical center
RML	Right middle lobe
ROF	Review of outside films
ROQ	Right outer quadrant
ROS	Review of outside slides
RSO	Right salpingo-oophorectomy
RSR	Regular sinus rhythm
RT	Radiation therapy
RT	Right
RUE	Right upper extremity
RUL	Right upper lobe
RUQ	Right upper quadrant
RX	Prescription
S/P	Status post
S1-S5	Sacral vertebra
S-SPINE	Sacral spine
SATIS	Satisfactory
SB	Small bowel
SCC	Squamous cell carcinoma
SCID	Severe combined immunodeficiency syndrome
SGOT	Serum glutamic oxaloacetic transaminase
SGPT	Serum glutamic pyruvic transaminase
SIADH	Syndrome of inappropriate ADH
SIG COLON	Sigmoid colon
SLE	Systemic lupus erythematosus
SM	Small
SO	Salpingo-oophorectomy
SOB	Short(ness) of breath
SPEC	Specimen
SQ	Squamous
SS	Summary stage
SSS	Sick sinus syndrome
STSG	Split thickness skin graft
SUBCU	Subcutaneous
SURG	Surgery/Surgical
SUSP	Suspicious/suspected

APPENDIX C

ABBREVIATION/SYMBOL	WORD/TERM(S)
SVC	Superior vena cava
SX	Symptoms
T-SPINE	Thoracic spine
TAH	Total abdominal hysterectomy
TAH-BSO	Total abdominal hysterectomy- bilateral salpingo-oophorectomy
TB	Tuberculosis
TCC	Transitional cell carcinoma
TIA	Transient ischemic attack
TRANS-COLON	Transverse colon
TTP	Thromboticthrombocytopenia purpura
TUR	Transurethral resection
TURB	Transurethral resection bladder
TURP	Transurethral resection prostate
TVC	True vocal cord
TVH	Total vaginal hysterectomy
TX	Treatment
UE	Upper extremity
UGI	Upper gastrointestinal (series)
UIQ	Upper inner quadrant
UNDIFF	Undifferentiated
UNK	Unknown
UOQ	Upper outer quadrant
URI	Upper respiratory infection
US	Ultrasound
UTI	Urinary tract infection
VAG	Vagina/Vaginal
VAG HYST	Vaginal hysterectomy
VAIN III	Vaginal intraepithelial neoplasia (grade III)
VIN III	Vulvar intraepithelial neoplasia (grade III)
W/	With
W/F	White female

APPENDIX C

C-35

ABBREVIATION/SYMBOL	WORD/TERM(S)
W/M	White male
W/O	Without
W/U	Work-up
WBC	White blood cells (count)
WD	Well differentiated
WELL DIFF	Well differentiated
WNL	Within normal limits
WPW	Wolff-Parkinson-White syndrome
XR	Xray
YR	Year

APPENDIX C**2015 NAACCR RECOMMENDED ABBREVIATION LIST
CONTEXT-SENSITIVE ABBREVIATIONS**

ABBREVIATION/SYMBOL	WORD/TERM(S)
AP	Anteroposterior
AP	Abdominal perineal
BM	Bone marrow
BM	Bowel movement
CA	Calcium
CA	Carcinoma
MIN	Minimum
MIN	Minute
ML	Milliliter
ML	Middle lobe
MM	Millimeter
MM	Multiple myeloma
PAP	Papillary
PAP	Papanicolaou smear
PT	Patient
PT	Physiotherapy/Physical therapy
RT	Right
RT	Radiation therapy