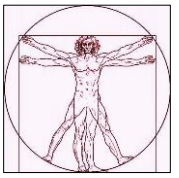
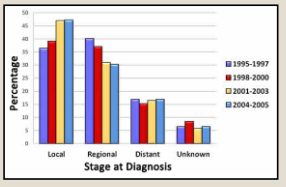
Neoplasms of the Colon and of the Rectum



2015-2016 FCDS EDUCATIONAL WEBCAST SERIES
STEVEN PEACE, BS, CTR
FEBRUARY 18, 2016

2016 Focus
- Anatomy
- SS 2000
- AJCC TNM
- MPH Rules



CDC & Florida DOH Attribution

2

"We acknowledge the Centers for Disease Control and Prevention, for its support of the Florida Cancer Data System, and the printing and distribution of the materials for the 2015-2016 FCDS Webcast Series under cooperative agreement DP003872-03 awarded to the Florida Department of Health. The findings and conclusions in this series are those of the author(s) and do not necessarily represent the official position of the Centers for Disease Control and Prevention".

FCDS would also like to acknowledge the Florida Department of Health for its support of the Florida Cancer Data System, including the development, printing and distribution of materials for the 2015-2016 FCDS Webcast Series under state contract CODJU. The findings and conclusions in this series are those of the author(s) and do not necessarily represent the official position of the Florida Department of Health.

Presentation Outline

3

- Introduction to Neoplasms of the Colon & Rectum
- Anatomy of the Colon and the Rectum
- Diagnostic Workup and Tests
- Critical Colo/Rectal MPH Rules
- 2016 - New Use of "c" and "p" Prefix
- 2016 - New T, N, M Category Codes
- Anatomic Staging (AJCC TNM / SS2000)
- Text Documentation
- Staging Practice
- Questions

http://safetyca.info

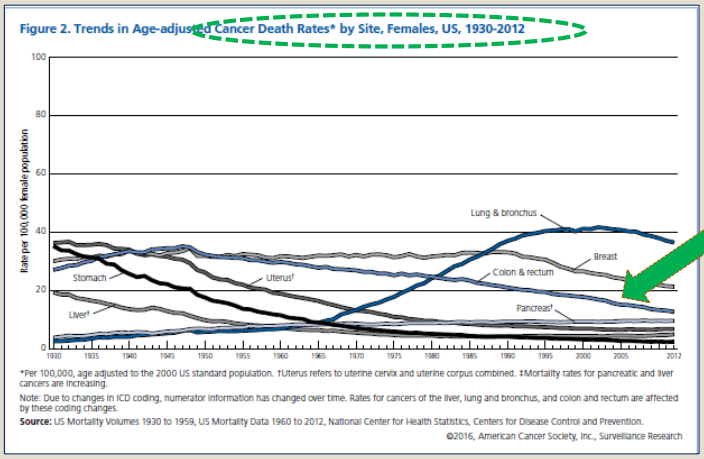
Presentation Outline

4

- What we will <u>not</u> be discussing today – not enuf time.
  - Risk Factors
  - Signs & Symptoms
  - Screening Guidelines
  - Details of Colo/Rectal MPH Rules
  - Every Histologic Type of Colo/Rectal Cancer
  - AJCC TNM General Instructions and Rules
  - Conflicts between MPH Rules and TNM Chapters
  - Site Specific Factors Not Required for Staging
  - Biologic, Molecular, Single or Multi-Gene Testing
  - NCCN or Other Treatment Guidelines

Introduction

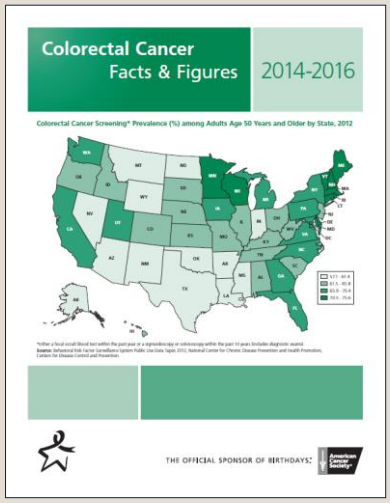
5



American Cancer Society – 2016 Cancer Facts & Figures

Introduction

6



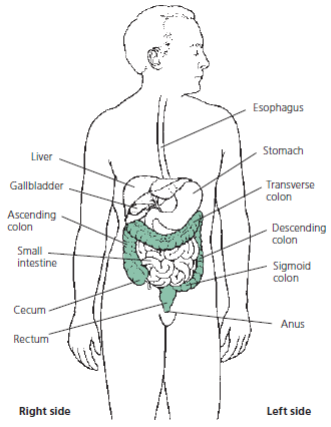
- **1 in every 20 persons will develop colon or rectal cancer in their lifetime.**
- **Colorectal cancer is the #3 cause of cancer deaths in the U.S.**
- **Colorectal cancer often begins as a benign growth; a polyp.**
- **Adenomas are a type of polyp and are benign tumors of the tissue lining the colon or rectum.**
- **Most adenomas are benign.**
- **However, some adenomas have the potential to develop into cancer over the long term.**
- **When removed early, polyps are prevented from developing into malignant cancer.**

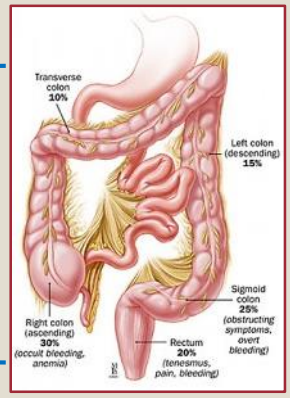
American Cancer Society – Colorectal Cancer Facts & Figures 2014-2016

Anatomy

7

Figure 1. Anatomy of the Colon and Rectum



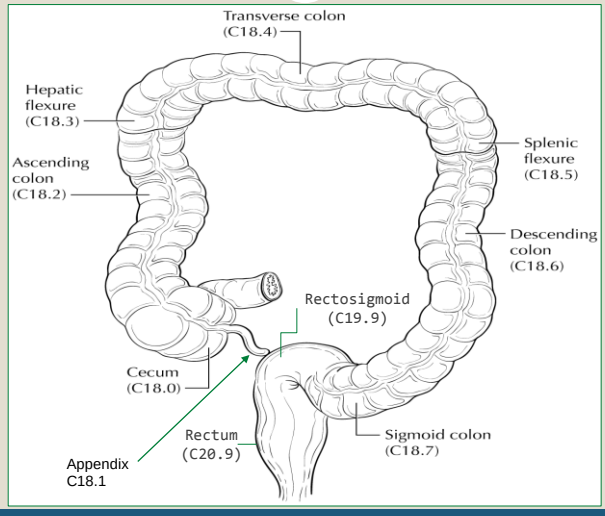


ACS Colorectal Cancer Facts & Figures 2014-2016 and http://fcrc-archives.org

Colon and Rectum

8

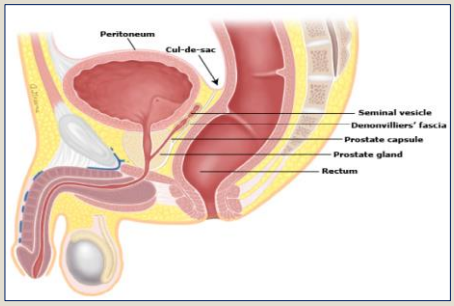
RIGHT COLON



LEFT COLON

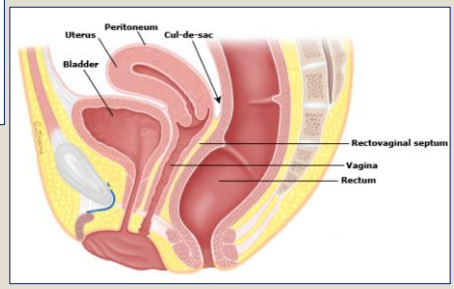
Rectosigmoid and Rectum

9



Male Anatomy

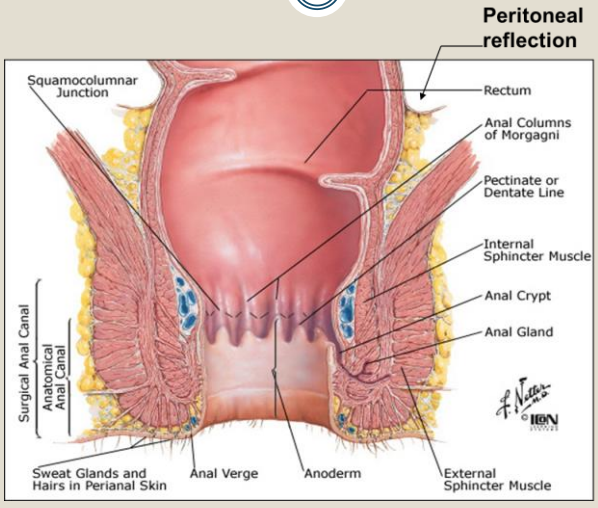
Female Anatomy



http://www.uptodate.com

Rectum – Anorectum – Anus

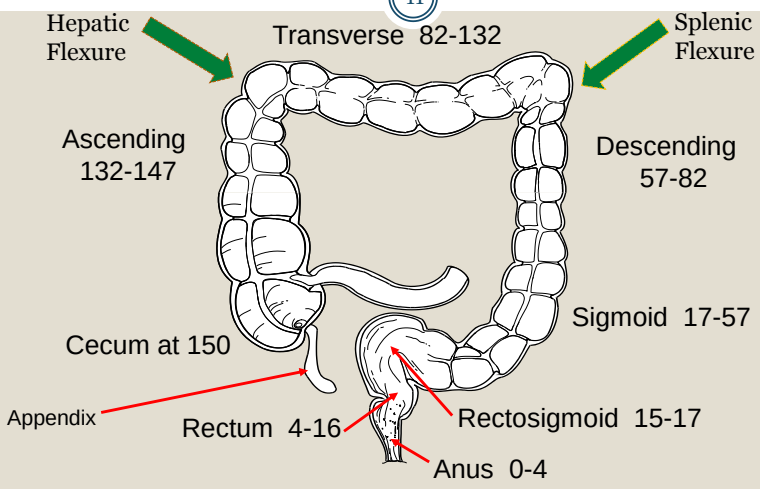
10



http://www.analcancerinfo.ucsf.edu

Colonoscopy Measurements

11

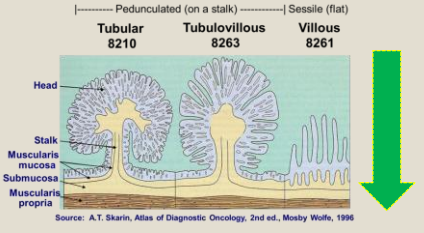


Distance from Anal Verge (approximations only)
Adapted from AJCC Cancer Staging Manual

Polyps and Colon Cancer

12

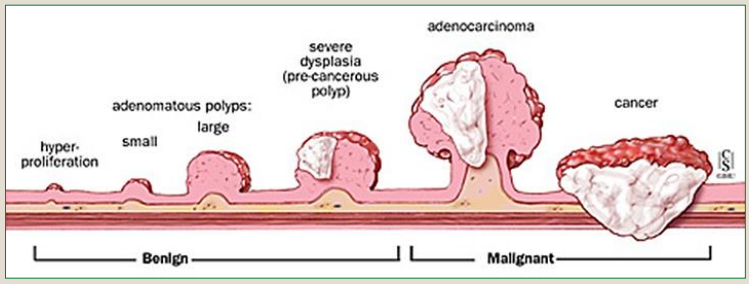
- 95-98% of colon cancers - adenocarcinoma
  - Most originate in polyps or adenomas
  - But, only 10% of adenomas develop into cancers
- Types of adenoma
  - Tubular
  - Villous
  - Tubulo-villous
- Process takes up to 10 years



- De Novo Cancers – mucinous, signet ring
  - >10% of all colon ca are mucinous (>50% mucin production)
  - <1% of all colon ca are signet ring cell (>50% signet rings)

Polyps and Colon Cancer

13



http://hopkinscoloncancercenter.org

Polyps and Colon Cancer

14

HYPERPLASTIC POLYP – NO CA

SMALL REACTIVE POLYP

NOT PRE-CANCEROUS

http://www.pathology.pitt.edu/lectures/gi/colon-a/14.htm

Polyps and Colon Cancer

15

TUBULAR ADENOMA

OFTEN BENIGN

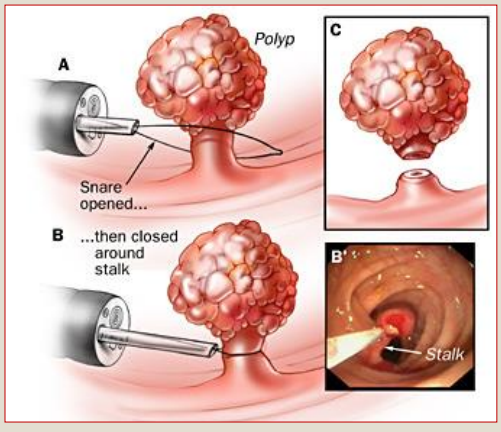
>10% MAY CONTAIN a NON-INVASIVE or INVASIVE CANCER

POLYP REMOVAL WILL PREVENT COLON CANCER

http://www.pathology.pitt.edu/lectures/gi/colon-a/16.htm

Polyps and Colon Cancer

16



http://hopkinscoloncancercenter.org

Polyps and Colon Cancer

17

SESSILE VILLOUS and TUBULO-VILLOUS ADENOMA

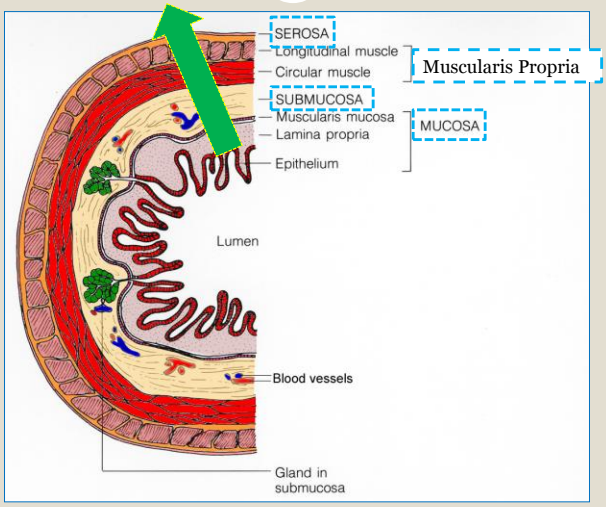
MORE OFTEN CONTAIN INVASIVE CANCER

POLYP REMOVAL MAY NOT REMOVE ALL CANCER

http://www.pathology.pitt.edu/lectures/gi/colon-a/17.htm

Layers of Colon Wall

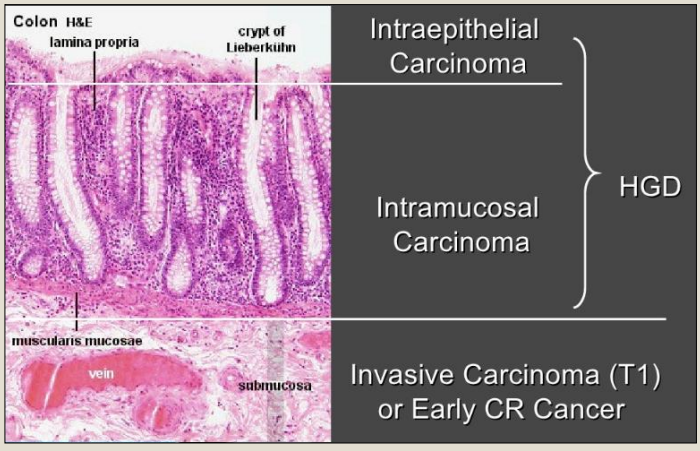
18



http://www.mannisjournals.com.au/images

Intramucosal Colon Cancer

19



Source: http://www.slideshare.net/giaffa/petruzziello

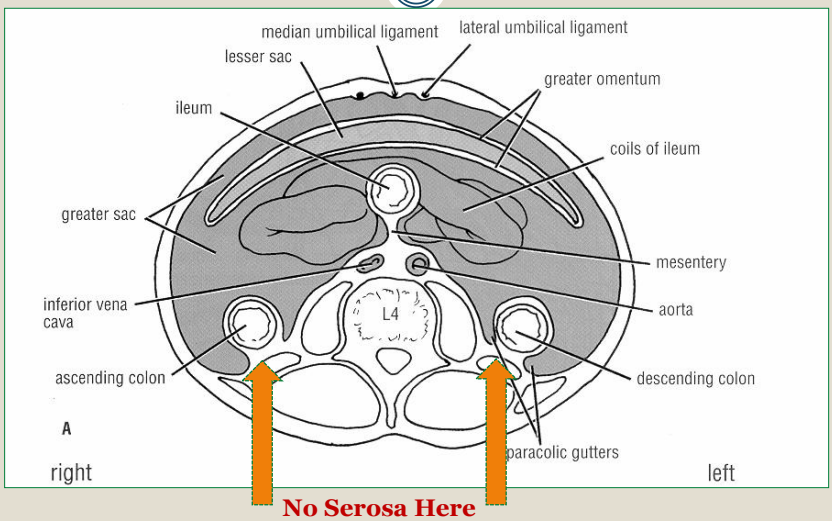
"Non-Peritonealized" Surface

20

- The serosa acts as barrier for tumors that begin on inside surface of the colon and invade down into the mucosa and through the wall of the colon (the serosa).
- Some colon surfaces have no serosa at the exterior surface (around the hollow organ)
- When there is no serosa – you lose a natural barrier that helps contain the colon cancer
- Non-Peritonealized Surfaces in Colon-Rectum:
  - Rectum – no serosa in rectum below peritoneal reflection
  - Descending Colon – no serosa covering posterior surfaces
  - Ascending Colon – no serosa covering posterior surfaces

"Non-Peritonealized" Surface

21



Clinical Anatomy for Medical Students, 5th Edition, Richard S. Snell. Little, Brown and Company, 1995.

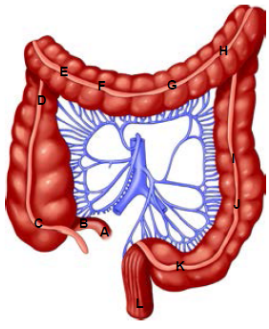
Surgical Resection

22

DEFINITIONS OF COMMON COLORECTAL RESECTIONS

The extent of colorectal resection depends on the location of the tumor, any underlying condition (eg, inflammatory bowel disease, hereditary syndrome), and the vascular supply to the colorectum.

Definitions of common colorectal resections are as follows:[1]



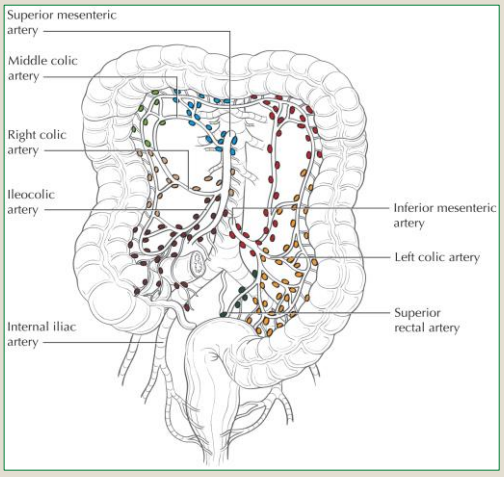
A through C	Ileocecectomy
A through D	Ascending colectomy
A through F	Right hemicolectomy
A through G	Extended right hemicolectomy
E through H	Transverse colectomy
G through I	Left hemicolectomy
F through I	Extended left hemicolectomy
J through K	Sigmoid colectomy
A through J	Subtotal colectomy
A through K	Total colectomy
K through L	Low anterior resection with sphincter preservation
K through L	Abdominoperineal resection without sphincter preservation

[1] Adapted and reprinted with permission from Bullard KM and Rothenberger DA. (2005). Colon, Rectum, and Anus. In Brunicardi C (Ed.) Schwartz's Principles of Surgery, 8th Edition, page 1069. McGraw Hill: New York, NY.

NCCN Guidelines – Colorectal Cancer Screening

Lymphatics of Colon / Rectum

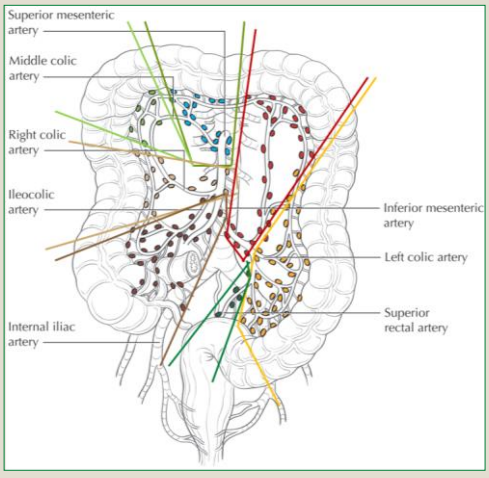
23



AJCC Image - The regional lymph nodes of the colon and rectum are colored by anatomic location.

Lymphatics of Colon / Rectum

24



Modified AJCC Image - The regional lymph nodes of the colon and rectum are colored by anatomic location.

"Tumor Deposits"

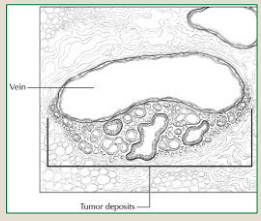
25

- Definition
  - Separate tumor nodules or tumor deposits of malignant cells in perirectal or pericolic fat with no evidence of lymph node tissue
- Found in primary lymphatic drainage area
- Other names
  - Peri-tumoral deposits, satellite nodules, discontinuous extramural extension, or malignant tumor foci
- N1c = Specific TNM "N" Code for tumor nodule or deposit(s) in the subserosa, mesentery, or non-peritonealized pericolic or perirectal tissues without regional nodal metastasis.

"Tumor Deposits"

26

- Mesenteric
- Pericolonic
- Perirectal
- Subserosa
- All Regional Lymph Nodes Negative
- Deposits + LNs

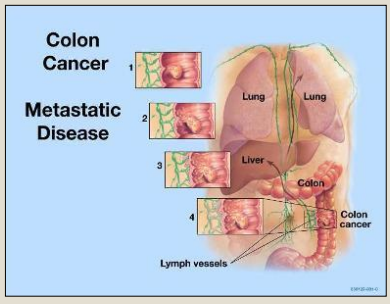


- N1c = Tumor deposit(s) in the subserosa, mesentery, or nonperitonealized pericolic or perirectal tissues without regional nodal metastasis.

Metastatic Sites

27

- Lung
- Liver
- Lymph Nodes
- Seeding in peritoneum
- Seeding of small intestine
- Seeding of other segments of colon



www.colorectal-surgeon.com

Critical MPH Rules

- 2017 MPH Rules Update
- New MPH Database
- Text Only Rules
- Stay Tuned

Multiple Primary Rules

29

Unknown Number

- M1. Unknown whether single or multiple tumors = single

One Tumor

- M2. Single tumor = single

Multiple Tumors

- M3. Adenoca in adenomatous polyposis coli in one or multiple segments = single

Source: AFritz and Associates, LLC

Multiple Primary Rules

30

Multiple Tumors, continued

- M4. Different topography = multiple
- M5. Diagnosis dates > 1 year apart = multiple
- M6. Invasive after in situ > 60 days = multiple
- M7. Frank adenocarcinoma and malignant tumor in a polyp = single
- M8. Non-specific and specific histology = single
- M9. Multiple polyps (all malignant) = single
- M10. Histology different = multiple
- M11. All other scenarios = single

Source: AFritz and Associates, LLC

New Histologic Terms and Code

31

- Glandular intraepithelial neoplasia, high grade
- Glandular intraepithelial neoplasia, grade III
- Flat intraepithelial neoplasia, high grade

- 8148/2 – Use Code for GI Tract in 2017

- All low grade intraepithelial neoplasia = /0
- All grade I or grade II intraepithelial neoplasia = /0

Mucinous and Signet Ring Cell

32

- Mucinous adenocarcinoma (8480)
  Code when
  - Final diagnosis is mucinous OR
  - Documentation says > 50% mucinous
    - May use microscopic section of path report
- Signet ring cell carcinoma (8490)
  Code when
  - Final diagnosis is signet ring cell OR
  - Documentation says > 50% signet ring cell
    - May use microscopic section of path report
  - "…with signet ring cells" ≠ signet ring cell CA

Colorectal NETs and GISTs

33

- NETs and GISTs are specific types of stroma/connective tissue tumors that effect the endocrine and neuroendocrine system.
- The endocrine system works alongside of the nervous system to form the control systems of the body. The nervous system provides a very fast and narrowly targeted system to turn on specific glands and muscles throughout the body. The endocrine system, on the other hand, is much slower acting, but has very widespread, long lasting, and powerful effects. Hormones are distributed by glands through the bloodstream to the entire body, affecting any cell with a receptor for a particular hormone. Most hormones affect cells in several organs or throughout the entire body, leading to many diverse and powerful responses.
- Because they effect the endocrine/neuroendocrine system – both NETs and GISTs impact or disrupt the body's hormone functions

Colorectal NETs and GISTs

34

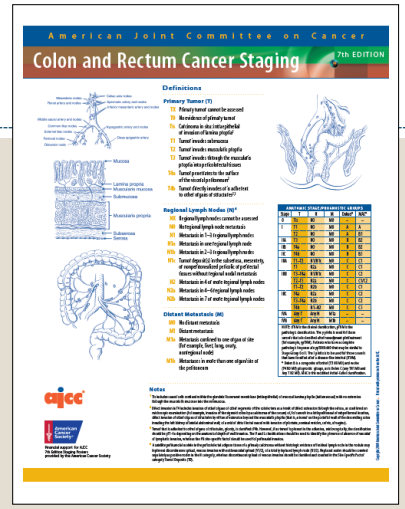
- NETs in the GI Tract develop in neuroendocrine cells of the connective tissues in and around the GI Tract and may grow inward or outward.
  - Neuroendocrine Carcinoma Low Grade/High Grade
  - Carcinoid Tumor – 2015 ALL are reportable/malignant
- NETs in the GI Tract stimulate hormone-producing endocrine cells resulting in the overproduction of vasoactive peptide hormones and causing symptoms of - "carcinoid syndrome" – skin flushing, fatty diarrhea, bronchospasms, and "dumping" syndrome.

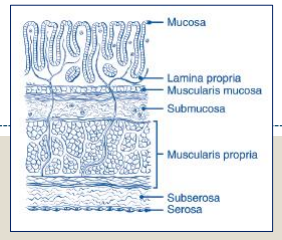
Colorectal NETs and GISTs

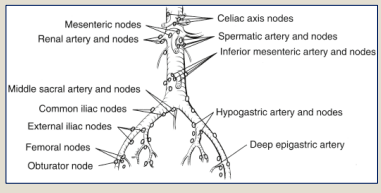
35

- GISTs make up only about 1% of all GI Tract neoplasms
- GISTs in the GI Tract develop in the stroma or muscle layer of the walls of the GI Tract from the esophagus down to the rectum and grow outward.
- Location, Size, and Mitotic Index are Key Indicators
- GIST do not cause symptoms in early stages. Symptoms can include nausea, vomiting, weight loss, pain, and bleeding. Early tumors are usually incidental findings.
- GIST do not effect hormone function, production or release.
- GIST do effect regulation of peristalsis – pushing materials down the digestive tract.
- When no primary is stated, the site is GI Tract, NOS.

Colon and Rectal Cancer Staging



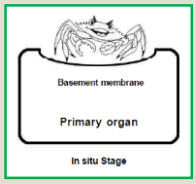




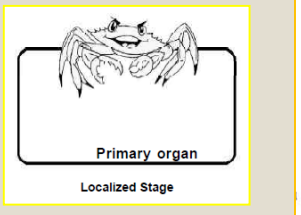
ACS/AJCC Cancer Staging Poster, 7th ed

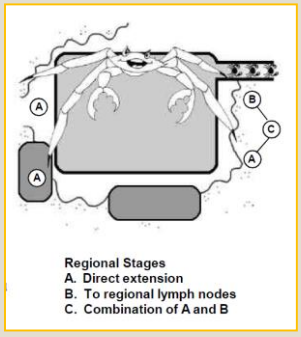
SEER Summary Stage

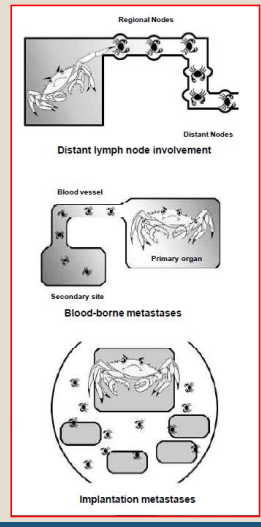
37



Purpose of Staging
Biochemical Tumor Markers
Molecular Tumor Markers
Genetic Mutations/Variations
Risk Stratification







Source: SEER Summary Staging Manual 2000

SEER Summary Stage

COLON
C18.0-C18.9
C18.0 Cecum
C18.1 Appendix
C18.2 Ascending (right) colon
C18.3 Hepatic flexure of colon
C18.4 Transverse colon
C18.5 Splenic flexure of colon
C18.6 Descending (left) colon
C18.7 Sigmoid colon
C18.8 Overlapping lesion of colon
C18.9 Colon, NOS

SUMMARY STAGE

0 In situ: Noninvasive; intraepithelia
(Adeno)carcinoma in a po

1 Localized only
Invasive tumor confined to:
Intramucosa, NOS
Lamina propria
Mucosa, NOS
Muscularis mucosae
Muscularis propria
Perimuscular tissue invad
Polyp, NOS:
Head of polyp
Stalk of polyp
Submucosa (superficial in
Subserosal tissue/(sub)ser
Transmural, NOS
Wall, NOS

Confined to colon, NOS
Extension through wall, NOS
Invasion through muscularis p

Localized, NOS

Regional by direct extension only
Extension to:
All colon sites:
Invasion of/through serosa (mesoth
Extension into/through:
Abdominal wall###
Adjacent tissue(s), NOS
Connective tissue
Fat, NOS
Greater omentum
Mesenteric fat
Mesentery
Mesocolon
Pericolic fat
Retroperitoneum (excluding fa
Small intestine

Ascending colon:
Kidney, right###
Liver, right lobe
Retroperitoneal fat###
Ureter, right###

Transverse colon and flexures:
Bile ducts###
Gallbladder###
Gastrocolic ligament
Kidney
Liver
Pancreas
Spleen
Stomach###

Descending colon:
Kidney, left###
Pelvic wall###
Retroperitoneal fat###
Spleen
Ureter, left

Sigmoid colon:
Pelvic wall###

3 Regional lymph node(s) involved only
REGIONAL Lymph Nodes

All colon subsites:
Colic, NOS
Epicolic (adjacent to bowel wall)
Mesenteric, NOS
Paracolic/pericolic

Nodule(s) in pericolic fat

Cecum and Appendix:
Cecal, NOS
Anterior (prececal)
Posterior (retrocecal)
Ileocolic
Right colic

Ascending colon:
Ileocolic
Middle colic
Right colic

Transverse colon and flexures:
Inferior mesenteric **for splenic flexur**
Left colic **for splenic flexure only**
Middle colic[§]
Right colic **for hepatic flexure only**

Descending colon:
Inferior mesenteric
Left colic
Sigmoid###

Sigmoid:
Inferior mesenteric
Sigmoidal (sigmoid mesenteric)
Superior hemorrhoidal###
Superior rectal###

Regional lymph node(s), NOS

7 Distant site(s)/node(s) involved
All colon sites unless included in code 2
Distant lymph node(s):
Para-aortic
Retroperitoneal
Superior mesenteric[§]
Other distant lymph node(s)
Extension to:
Adrenal (suprarenal) gland
Bladder
Diaphragm
Fallopian tube[£]
Fistula to skin
Gallbladder
Other segment(s) of colon via seros
Ovary[£]
Uterus[£]

Cecum and appendix:
Distant lymph node(s):
Inferior mesenteric
Other distant lymph node(s)
Extension to:
Kidney, right
Liver###
Ureter, right

Ascending colon:
Distant lymph node(s):
Inferior mesenteric
Other distant lymph node(s)

Transverse colon and flexures:
Distant lymph node(s):
Inferior mesenteric **for hepatic fle**
Other distant lymph node(s)
Extension to:
Ureter

Sigmoid colon:
Extension to:
Cul de sac (rectouterine pouch)
Ureter

Note: Ignore intraluminal extension to adjacent segment(s) of colon/rectum or to the ileum from the cecum.

"c" and "p" and "yp"

39

- Clinical (c)
- Clinical Stage is determined before any type of definitive therapy is started. Clinical stage is used as a guide to determine what the first steps should be to establish the diagnosis of colon or rectal cancer; and to decide upon the approach and intent of 1st course of treatment – should 1st treatment include polypectomy, segmental resection, hemi or total colectomy, surgical bypass with or without -ostomy, neoadjuvant (pre-operative) chemo and/or radiation, or palliative care.
- Clinical Stage – includes the patient's medical history, physical exam, sigmoidoscopy, and colonoscopy with biopsy to establish/confirm the diagnosis. Examinations to demonstrate the presence or absence of extrarectal or extracolonic metastasis may include radiographic films, CT of abdomen, pelvis and/or chest, MRI, and PET or PET/CT scans. Endoscopic Ultrasound (EUS) may be used to assess preoperative pelvic extent of disease in addition to CT, MRI, and/or PET scans.

"c" and "p" and "yp"

40

- Pathologic (p)
- Most cancers of the colon and many cancers of the rectum are pathologically staged following surgical exploration of the abdomen, cancer-directed surgical resection and pathologic examination of the resected specimen.
- Pathologic Stage is assigned following complete resection of the primary tumor and includes microscopic examination of the primary tumor, regional lymph nodes and/or other suspect tissues. Carcinoma in a polyp is classified according to the pT definitions adopted for colorectal carcinomas.
- Pathologic Stage is used to guide stage-specific adjuvant therapy decisions and to estimate prognosis.
- Pathologic Stage includes all information in the clinical setting PLUS all information obtained from surgical reports and pathology reports related to the extent of cancer spread through the completion of definitive surgery performed as a part of the 1st course of treatment or within 4 months of initial diagnosis of cancer in the absence of disease progression.

"c" and "p" and "yp"

41

- Post Neoadjuvant Treatment (yp)
- Post Neoadjuvant Treatment Stage is assigned following a prescribed "course" of neoadjuvant therapy (chemo, biologics, radiation, etc.). The standard of care for most rectal cancers is pre-surgical (neoadjuvant) therapy with chemo and/or radiation prior to any surgical resection.
- Post Neoadjuvant Treatment Stage includes microscopic examination of the primary, regional lymph nodes and/or other suspect tissues.
- Response to Neoadjuvant Therapy is determined by comparison of pre-treatment Clinical Stage to post-treatment Pathologic Stage and is qualified by the presence or absence of cancer in the primary tumor, regional lymph nodes, etc. or T, N, or M Category Differences.
  - Pathologically Confirmed Complete Response (CR)
  - Pathologically Confirmed Partial Response (PR)
  - Pathologically Confirmed No Response (NRL)

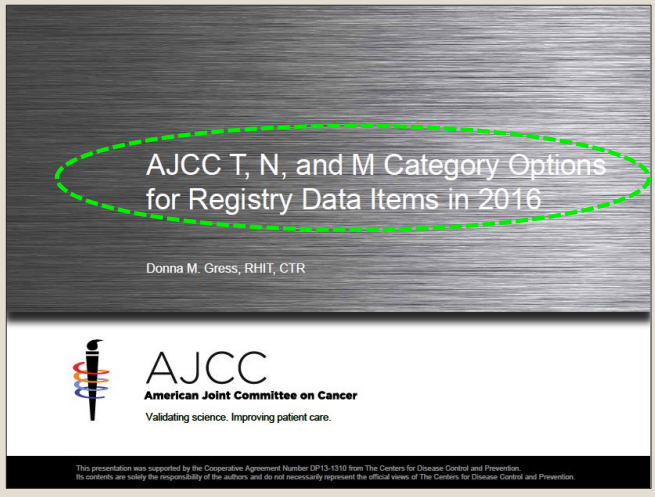
2016 Prefix Requirements / Physician Stage

42

- 2016 Requirements for "c" and "p" prefix use
  - Now must include "c" or "p" prefix for each T, N, M Category
  - New Codes for T, N, and M will be available in software soon
  - Use of Allowable Codes will be Strictly Enforced in 2016>
  - Clinical Stage now includes cT, pTis, cN and either c or pM
  - Pathologic Stage now includes pT, pN and either c or pM
  - Convert Roman Numerals (I, II, III) to Arabic (1, 2, 3)
- Physician Stage can be difficult to qualify as it may be a mixed clinical and pathologic stage, especially when the AJCC Stage is provided per history. Always check the Physician Stage to validate use of prefix and the correct T, N, and M Category Codes that best reflect the case.

AJCC Self Instruction - Updates

43



https://cancerstaging.org/CSE/Registrar/Pages/AJCC-Curriculum.aspx

AJCC Self Instruction - Updates

44

In Situ Neoplasm

- CIS definition
  - Has not involved any structures in primary organ that
  - Allows tumor cells to spread to regional nodes or distant sites
- CIS exception to stage group guidelines
  - Clinical stage
    - pTis cN0 cM0 clinical stage 0
  - Pathologic stage
    - pTis cN0 cM0 pathologic stage 0
- Caution for pathologic stage
  - Cannot use CIS rule in isolation
  - Must also meet pathologic stage resection criteria
    - Avoids sampling error when resection might show invasion
    - Example: TURB

https://cancerstaging.org/CSE/Registrar/Pages/AJCC-Curriculum.aspx

2016 New Category Code Format - EXAMPLE

45

Table 1. TNM Clin T [940]

Code	Definition
(blank)	Not recorded
cX	cTX
c0	cT0
pA	pTa
pIS	pTis
pISU	pTispu
pISD	pTispd
c1Mi	cT1mi, cT1 mic
c1	cT1
c1A	cT1a
c1A1	cT1a1
c1A2	cT1a2

Code	Definition
c1B	cT1b
c1B1	cT1b1
c1B2	cT1b2
c1C	cT1c
c1D	cT1d
c2	cT2
c2A	cT2a
c2A1	cT2a1
c2A2	cT2a2
c2B	cT2b
c2C	cT2c
c2D	cT2d

Code	Definition
c3	cT3
c3A	cT3a
c3B	cT3b
c3C	cT3c
c3D	cT3d
c4	cT4
c4A	cT4a
c4B	cT4b
c4C	cT4c
c4D	cT4d
c4E	cT4e
88	Not applicable

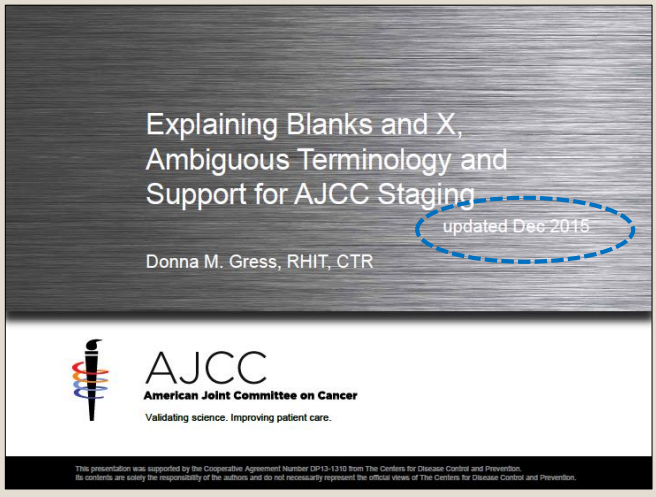
Deleted codes: A [Ta], IS [Tis], ISPU [Tispu], ISPD [Tispd]

Added codes: pA [pTa], pIS [pTis], pISU [pTisu], pISD [pTisd]

NAACCR 2016 Implementation Guidelines (NAACCRv16)

AJCC Self Instruction - Updates

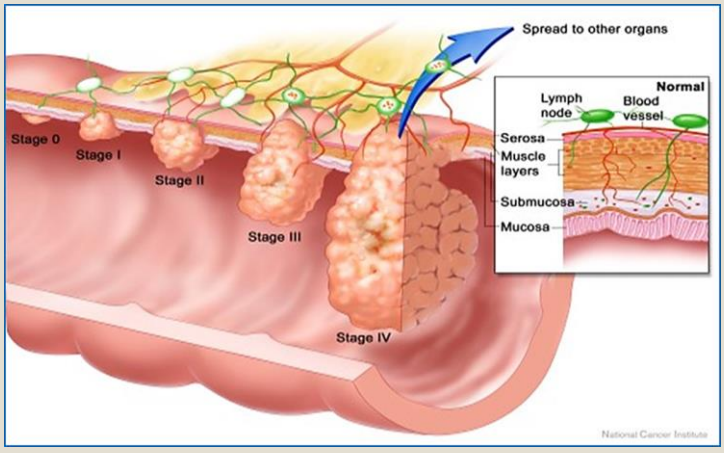
46



https://cancerstaging.org/CSE/Registrar/Pages/AJCC-Curriculum.aspx

Colon and Rectal Cancer Staging

47



Source: National Cancer Institute

Staging Parameters

48

- Clinical (Pre-Tx) Stage is Critical for Rectal Cancers
- Primary Tumor Grade Important for NET/GIST
- Typical Colon/Rectal Cancers
  - Type of Adenoma
  - Primary Tumor Location
  - Intramucosal Spread (“T”)
  - Depth of Invasion into Wall (“T”)
  - Depth of Invasion thru Wall (“T”)
  - Number of Lymph Nodes Examined (“N”)
  - Number of Lymph Nodes Positive (“N”)
  - Extranodal Tumor Deposits (“N”)
  - Status of Resection Margins
  - Lymph-Vascular Invasion (LVI)
  - Metastatic Sites (“M”)

http://safetyca.info

Site-Specific Factors Required for Staging

49

NO Site-Specific Factors Required for Staging

Of Colon, Rectum, Anus or NET of GI Tract

T Category – tumor size and extension

50

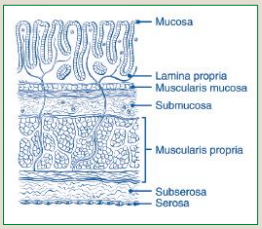
- Non-Invasive or In Situ (Tis)
  - Intraepithelial – no invasion of glandular basement membrane)
  - Intramucosal with extension into lamina propria
  - Intramucosal with no extension thru muscularis mucosae
  - Intramucosal with no extension into submucosa
- Intramucosal with Extension into Submucosa (T1)
- Mixed Non-Invasive (In Situ) and Invasive – MPH Rule
- Invasive Only – Extension into/thru wall - critical
- The Primary Tumor Extends Beyond Colon Wall

"T" Codes and Description

51

Primary tumor (T)

TX	Primary tumor cannot be assessed
T0	No evidence of primary tumor
Tis	Carcinoma in situ
T1	Tumor invades the submucosa
T2	Tumor invades the muscularis propria
T3	Tumor invades the subserosa or into nonperitonealized perirectal tissues
T4a	Tumor penetrates to the surface of the visceral peritoneum
T4b	Tumor directly invades or is adherent to other organs or structures



2016 Valid Codes for "T" Category

52

Table 1. TNM Clin T [940]

Code	Definition	Code	Definition	Code	Definition
(blank)	Not recorded	c1B	cT1b	c3	cT3
cX	cTX	c1B1	cT1b1	c3A	cT3a
c0	cT0	c1B2	cT1b2	c3B	cT3b
pA	pTa	c1C	cT1c	c3C	cT3c
pIS	pTis	c1D	cT1d	c3D	cT3d
pISU	pTispu	c2	cT2	c4	cT4
pISD	pTispd	c2A	cT2a	c4A	cT4a
c1MI	cT1mi, cT1 mic	c2A1	cT2a1	c4B	cT4b
c1	cT1	c2A2	cT2a2	c4C	cT4c
c1A	cT1a	c2B	cT2b	c4D	cT4d
c1A1	cT1a1	c2C	cT2c	c4E	cT4e
c1A2	cT1a2	c2D	cT2d	88	Not applicable

Deleted codes: A [Ta], IS [Tis], ISPU [Tispu], ISPD [Tispd]

Added codes: pA [pTa], pIS [pTis], pISU [pTisu], pISD [pTisd]

NAACCR 2016 Implementation Guidelines (NAACCRv16)

2016 Valid Codes for "T" Category

53

Table 2. TNM Path T [880]

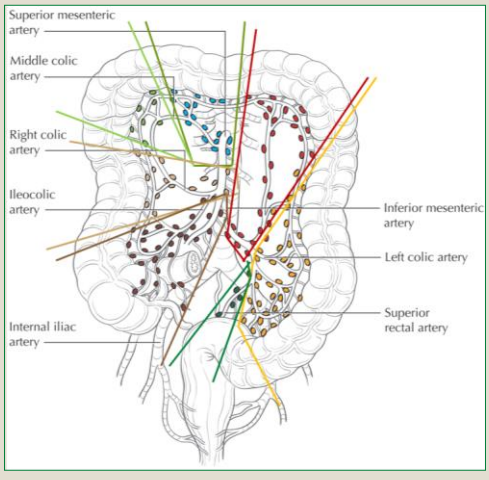
Code	Definition	Code	Definition	Code	Definition
(blank)	Not recorded	p1B	pT1b	p3	pT3
pX	pTX	p1B1	pT1b1	p3A	pT3a
p0	pT0	p1B2	pT1b2	p3B	pT3b
pA	pTa	p1C	pT1c	p3C	pT3c
pIS	pTis	p1D	pT1d	p3D	pT3d
pISU	pTispu	p2	pT2	p4	pT4
pISD	pTispd	p2A	pT2a	p4A	pT4a
p1MI	pT1mi, pT1 mic	p2A1	pT2a1	p4B	pT4b
p1	pT1	p2A2	pT2a2	p4C	pT4c
p1A	pT1a	p2B	pT2b	p4D	pT4d
p1A1	pT1a1	p2C	pT2c	p4E	pT4e
p1A2	pT1a2	p2D	pT2d	88	Not applicable

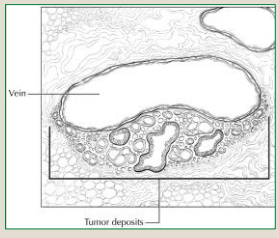
Added codes: pISU [pTisu], pISD [pTisd]

NAACCR 2016 Implementation Guidelines (NAACCRv16)

N Category - Regional Lymph Nodes

54





Modified AJCC Image - The regional lymph nodes of the colon and rectum are colored by anatomic location.

"N" Codes and Description

55

Regional lymph nodes (N)	
NX	Regional lymph nodes cannot be assessed
N0	No regional nodal metastasis
N1	Metastasis in one to three regional lymph nodes
N1a	Metastasis in one regional lymph node
N1b	Metastasis in 2–3 regional lymph nodes
N1c	Tumor deposit(s) in the subserosa, mesentery, or nonperitonealized perirectal tissues without regional nodal metastasis
N2	Metastasis in 4 or more regional lymph nodes
N2a	Metastasis in 4–6 regional lymph nodes
N2b	Metastasis in 7 or more regional lymph nodes

Counting Lymph Nodes Important for Colon
Lymph Node Dissection Should Include 10-14 Regional Lymph Nodes
No Criteria Yet for Isolated Tumor Cells in Lymph Node (pN0)
Special Category for Tumor Deposits (pN1c)

2016 Valid Codes for "N" Category

56

Table 3. TNM Clin N [950]

Code	Definition	Code	Definition	Code	Definition
(blank)	Not recorded	c0A	cN0a	c2B	cN2b
cX	cNX	c0B	cN0b	c2C	cN2c
c0	cN0	c1	cN1	c3	cN3
c0I-	cN0i-	c1A	cNla	c3A	cN3a
c0I+	cN0i+	c1B	cN1b	c3B	cN3b
c0M-	cN0m-	c1C	cN1c	c3C	cN3c
c0M+	cN0m+	c2	cN2	c4	cN4
c1MI	cN1mi	c2A	cN2a	88	Not applicable

NAACCR 2016 Implementation Guidelines (NAACCRv16)

2016 Valid Codes for "N" Category

57

Table 4. TNM Path N [890]

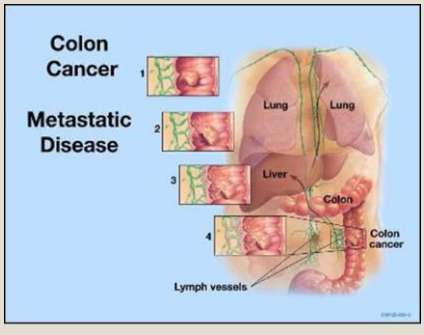
Code	Definition	Code	Definition	Code	Definition
(blank)	Not recorded	p0A	pN0a	p2C	pN2c
pX	pNX	p0B	pN0b	p3	pN3
c0	cN0	p1	pN1	p3A	pN3a
p0	pN0	p1A	pNla	p3B	pN3b
p0I-	pN0i-	p1B	pN1b	p3C	pN3c
p0I+	pN0i+	p1C	pN1c	p4	pN4
p0M-	pN0m-	p2	pN2	88	Not applicable
p0M+	pN0m+	p2A	pN2a		
p1MI	pN1mi	p2B	pN2b		

Added code: of c0 [cN0]

NAACCR 2016 Implementation Guidelines (NAACCRv16)

M Category - Metastasis

58



www.colorectal-surgeon.com

"M" Codes and Description

59

Distant metastasis (M)

M0	No distant metastasis
M1	Distant metastasis
M1a	Metastasis confined to 1 organ or site
M1b	Metastasis in more than one organ/site or the peritoneum

2016 Valid Codes for "M" Category

60

Table 5. TNM Clin M [960]

Code	Definition
(blank)	Not recorded
c0	cM0
c0I+	cM0(i+)
c1	cM1
c1A	cM1a
c1B	cM1b
c1C	cM1c
c1D	cM1d
c1E	cM1e

Code	Definition
p1	pM1
p1A	pM1a
p1B	pM1b
p1C	pM1c
p1D	pM1d
p1E	pM1e
88	Not applicable

Added codes: p1, p1A, p1B, p1C, p1D, and p1E [pM1, pM1a, pM1b, pM1c, pM1d, pM1e, respectively]

Table 6. TNM Path M [900]

Code	Definition
(blank)	Not recorded
c0	cM0
p1	pM1
p1A	pM1a
p1B	pM1b
p1MI	pN1mi

Code	Definition
p1C	pM1c
p1D	pM1d
p1E	pM1e
c1	cM1
c1A	cM1a
p2B	pN2b

Code	Definition
c1B	cM1b
c1C	cM1c
c1D	cM1d
c1E	cM1e
88	Not applicable

Deleted code: 0 [M0]

Added codes: c0 [cM0], c0I+ [cM0(i+)], c1 [cM1], c1A, c1B, C1C, C1D, and C1E [cM1a, cM1b, cM1c, cM1d, cM1e, respectively]

NAACCR 2016 Implementation Guidelines (NAACCRv16)

Anatomic Stage/Prognostic Group

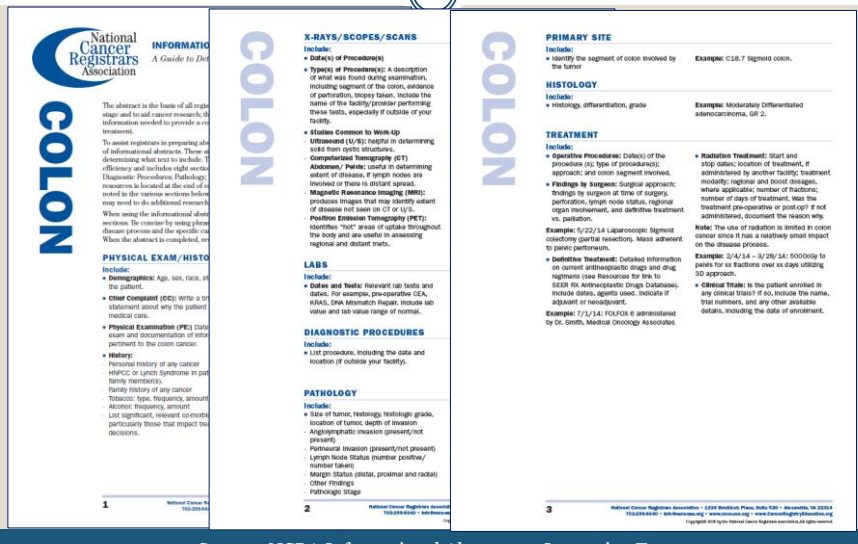
61

NOTE: No Biologic or Molecular SSF Results Change the Stage Group

ANATOMIC STAGE/PROGNOSTIC GROUPS			
Stage 0	Tis	N0	M0
Stage IA	T1*	N0	M0
Stage IB	T0	N1mi	M0
	T1*	N1mi	M0
Stage IIA	T0	N1**	M0
	T1*	N1**	M0
	T2	N0	M0
Stage IIB	T2	N1	M0
	T3	N0	M0
Stage IIIA	T0	N2	M0
	T1*	N2	M0
	T2	N2	M0
	T3	N1	M0
	T3	N2	M0
Stage IIIB	T4	N0	M0
	T4	N1	M0
	T4	N2	M0
Stage IIIC	Any T	N3	M0
Stage IV	Any T	Any N	M1

Text Documentation

62



Source: NCRA Informational Abstracts – Improving Text

Staging Practice

63

Case 1 – Case Vignette

64

- HISTORY: 59 year old African American female admitted following recent colonoscopy showing malignant appearing mass in ascending colon. Family History: Father had rectal cancer Physical Exam is essentially WNL.
- CT CHEST/ABDOMEN: no abnormalities noted
- COLONOSCOPY per history showed malignant appearing mass in proximal ascending colon – unknown if biopsy was taken to confirm malignancy.
- CEA 0.6 – WNL
- PATHOLOGY from Resection - Right colon, hemicolectomy: Low grade (moderately differentiated) adenocarcinoma of cecum. Maximum dimension: 3.0 cm. Grossly the lesion invades through the muscularis propria into the underlying mesenteric adipose tissue. Microscopic tumor extension: invades through muscularis propria. Lymphovascular invasion: present (venous). Perineural invasion: not identified. Discontinuous extramural tumor deposits: not identified. Margins: free of tumor. Twenty two lymph nodes negative for metastatic carcinoma (0/22).

Case 2 – Case Vignette

65

- HISTORY: 64 year old white male admitted through the ER with severe abdominal pain.
- CT CHEST/ABD: extra-luminal gas right lower quadrant in area of cecum, suspect perforation of ascending colon
- PATHOLOGY Laparoscopic Ileocecectomy: poorly differentiated adenocarcinoma of cecum.; Maximum dimension: 4.4 cm, Microscopic tumor extension: penetrates serosal surface (visceral peritoneum) with perforation and direct invasion of distal ileum; LVI: present; One discontinuous extramural tumor deposit found in mesentery without nodal structure; Margins: free of tumor, nine lymph nodes negative for mets (0/9).

Case 3 – Case Vignette

66

- HISTORY: 57 year-old Hispanic female with biopsy-confirmed adenocarcinoma of the rectosigmoid.
- CT CHEST: few small (<1cm) nonspecific hilar lymph nodes noted in chest. Exam otherwise negative.
- COLONOSCOPY SPECIMEN: Tumor colon @ 15 cm biopsy: invasive well differentiated adenocarcinoma
- PATHOLOGY: Sigmoidectomy - 3.9 x 3.2 x 0.7 cm circumferential ulcerative lesion; invasive moderately differentiated colonic adenocarcinoma with extension into and through muscularis propria and focal transmural extension to serosal surface, margins free of tumor, 2/13 lymph nodes positive for metastatic carcinoma; discontinuous tumor deposits – present; liver wedge biopsy metastatic colonic adenocarcinoma

Case 4 – Case Vignette

67

- HISTORY: 61 yr old white female, lifelong smoker, with multiple medical problems including recent adenoma on routine screening colonoscopy. Physical exam - negative.
- CT CHEST: Negative
- COLONOSCOPY : Transverse colon polyp @ 110cm – high grade dysplasia with focal intramucosal well differentiated adenocarcinoma arising in an adenoma. PATHOLOGY: laparoscopic transverse colectomy – Small residual component of tubulovillous adenoma w/ no evidence of residual carcinoma, no evidence to suggest invasion of lamina propria, 0/4 + pericolonic lns

Case 5 – Case Vignette

68

- HISTORY: 57 year old obese white female with chronic constipation and bright red blood in stool. Rectal exam positive for mass low in rectum with fixation.
- EUS: large mass fixed to rectal wall with evidence of invasion into perirectal fat and partial lumen obstruction
- RECTAL BX: poorly differentiated adenocarcinoma
- Treatment Summary: Patient was treated with pre-operative 5-FU with concurrent radiation therapy. Patient completed her short-course XRT but did not return for surgical resection and expired in home.

References

69

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Questions

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