


AJCC 7th Edition Staging
Disease Site Webinar
Colorectum

Donna M. Gress, RHIT, CTR



AJCC
American Joint Committee on Cancer
Validating science. Improving patient care.

The presentation was supported by the Cooperative Agreement Number DP13-1310 from The Centers for Disease Control and Prevention. Its contents are solely the responsibility of the authors and do not necessarily represent the official views of The Centers for Disease Control and Prevention.

This webinar is sponsored by

The Centers for Disease Control and Prevention

Supported by the Cooperative Agreement Number DP13-1310


The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.

National Center for Chronic Disease Prevention and Health Promotion
National Program of Cancer Registries



Overview


- Highlights of disease site chapter
- Uniqueness, differences and exceptions based on
 - Anatomy
 - Diagnostic workup
 - Treatment
 - Outcomes
- Cautions and reminders for staging



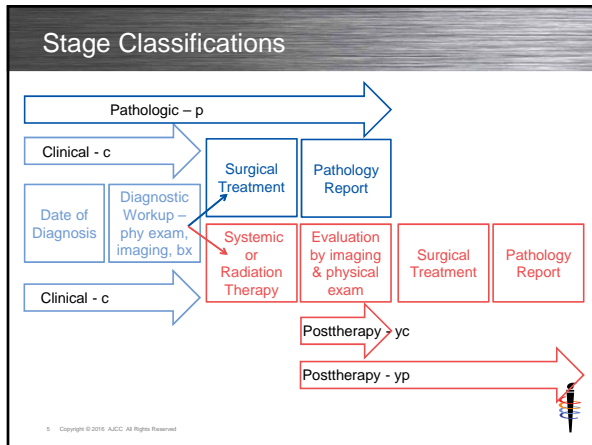
3 Copyright © 2018 AJCC. All Rights Reserved

Learning Objectives

- Recognize differences based on disease site
- Examine criteria for assigning stage
- Analyze effect of uniqueness on staging
- Employ critical thinking in using physician documentation
- Utilize appropriate guidelines to gain knowledge
- Identify resources for AJCC staging

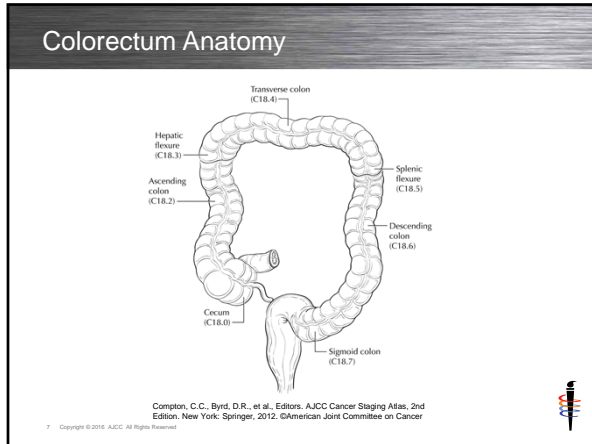


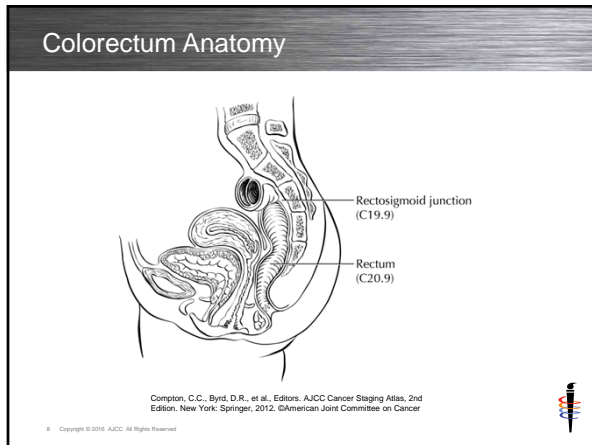
4 Copyright © 2016 AJCC. All Rights Reserved

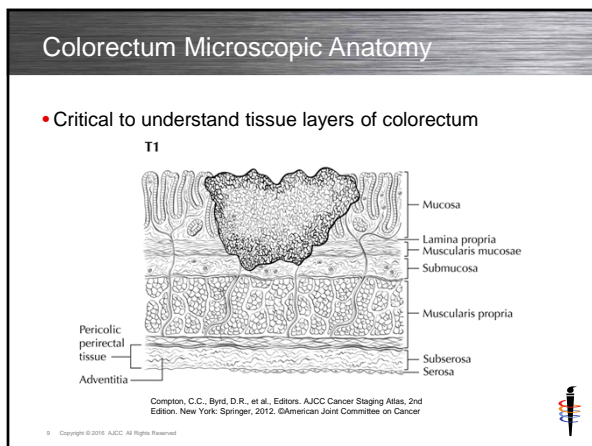


Anatomy Affecting Stage









Colorectum Regional Nodes

- Regional nodes for colorectum

Compton, C.C., Byrd, D.R., et al., Editors. AJCC Cancer Staging Atlas, 2nd Edition. New York: Springer, 2012. ©American Joint Committee on Cancer

10 Copyright © 2016 AJCC. All Rights Reserved.

Colorectum Regional Nodes

- Regional nodes are specific to
 - Colon segment
 - Rectosigmoid
 - Rectum
- Regional nodes named for arterial blood supply
- Reference AJCC 7th edition Colon and Rectum chapter


11 Copyright © 2016 AJCC. All Rights Reserved.

Classification Issues

Clinical and Pathologic Staging

- Clinical staging
 - Colonoscopy usually not sufficient to assign clinical stage
 - May be assigned with imaging information
 - Incidental findings at surgical resection not clinically staged
- Pathologic staging
 - Use clinical stage information together with
 - Operative findings and
 - Resection of tumor


13 Copyright © 2016 AJCC. All Rights Reserved



Posttherapy Staging

- Neoadjuvant therapy is often used for rectal cases
- yPathologic staging – rectum
 - First treatment must be neoadjuvant
 - All information from yclinical staging with
 - Operative findings and
 - Resection of tumor

14 Copyright © 2016 AJCC. All Rights Reserved




Assigning T, N, M, Stage Group



T Category


- TX is correctly assigned for many cases
 - Colonoscopy does not provide tissue layer involvement
- Potential direct involvement of other organs or structures
 - cT4b: imaging shows adherent to other structures
 - pT4b: tumor found in adhesions on microscopic exam
 - pT1-4a: tumor not microscopically found in adhesions
 - Assign pT category based on microscopic anatomical depth of invasion



16 Copyright © 2016 AJCC. All Rights Reserved

T Category

- Operative findings are part of pathologic stage
 - Surgeon sees T4b involvement but does not biopsy
 - Pathologist reports T3 since based on specimen received
 - Correct T category assignment is T4b
- Incidental finding at time of emergency surgery
 - No clinical stage may be assigned
 - All T, N, M categories are blank
 - Stage group may be coded as 99 for cancer registries




17 Copyright © 2016 AJCC. All Rights Reserved

T Category

Primary Tumor (T)	
TX	Primary tumor cannot be assessed
T0	No evidence of primary tumor
Tis	Carcinoma in situ: intraepithelial or invasion of lamina propria*
T1	Tumor invades submucosa
T2	Tumor invades muscularis propria
T3	Tumor invades through the muscularis propria into pericolorectal tissues
T4a	Tumor penetrates to the surface of the visceral peritoneum**
T4b	Tumor directly invades or is adherent to other organs or structures***

**Note: Direct invasion in T4 includes invasion of other organs or other segments of the colorectum as a result of direct extension through the serosa, as confirmed on microscopic examination (for example, invasion of the sigmoid colon by a carcinoma of the cecum) or, for cancers in a retroperitoneal or subperitoneal location, direct invasion of other organs or structures by virtue of extension beyond the muscularis propria (i.e., respectively, a tumor on the posterior wall of the descending colon invading the left kidney or lateral abdominal wall, or a mid or distal rectal cancer with invasion of prostate, seminal vesicles, cervix, or vagina).

***Note: Tumor that is adherent to other organs or structures, grossly, is classified cT4b. However, if no tumor is present in the adhesion, microscopically, the classification should be pT1-4a depending on the anatomical depth of wall invasion. The V and L classifications should be used to identify the presence or absence of vascular or lymphatic invasion whereas the PN site-specific factor should be used for perineural invasion.




18 Copyright © 2016 AJCC. All Rights Reserved

N Category

- Tumor deposits
 - N1c when regional nodes are not involved
 - Not part of N category if regional nodes are involved
- Clinical N
 - Must estimate number of nodes on imaging
 - Physician judgment

19 Copyright © 2016 AJCC. All Rights Reserved.




N Category

Regional Lymph Nodes (N)

NX	Regional lymph nodes cannot be assessed
N0	No regional lymph node metastasis
N1	Metastasis in 1–3 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 pericolic or perirectal tissues without regional nodal metastasis
N2	Metastasis in four or more regional lymph nodes
N2a	Metastasis in 4–6 regional lymph nodes
N2b	Metastasis in seven or more regional lymph nodes

Note: A satellite peritumoral nodule in the pericolorectal adipose tissue of a primary carcinoma without histologic evidence of residual lymph node in the nodule may represent discontinuous spread, venous invasion with extravascular spread (V1/2), or a totally replaced lymph node (N1/2). Replaced nodes should be counted separately as positive nodes in the N category, whereas discontinuous spread or venous invasion should be classified and counted in the Site-Specific Factor category Tumor Deposits (TD).


20 Copyright © 2016 AJCC. All Rights Reserved.



M Category

- M1a – one organ or site
 - Includes paired organs such as lung and ovary
- M1b – more than one organ or site, or peritoneum
 - If only one site proven microscopically, still assign pM1b
 - Important to indicate there is microscopic evidence

21 Copyright © 2016 AJCC. All Rights Reserved.




M Category

Distant Metastasis (M)

M0	No distant metastasis
M1	Distant metastasis
M1a	Metastasis confined to one organ or site (e.g., liver, lung, ovary, nonregional node)
M1b	Metastases in more than one organ/site or the peritoneum


22 Copyright © 2016 AJCC. All Rights Reserved




AJCC Staging Rules

- Standard AJCC staging rules apply if no exceptions noted
- AJCC Curriculum for Registrars
 - Utilize this resource for staging rules
 - Slides available for download
 - Recordings available to watch at any time
- Refer to AJCC website for more information and education

23 Copyright © 2016 AJCC. All Rights Reserved




Case Scenarios



Case #1 – Diagnostic Workup


- History/Chief Complaint
 - 54-year-old female with iron deficiency anemia
- Physical Exam
 - Abdomen: Flat, soft, and non-tender with suggestion of mass in right lower quadrant when examined in supine position
- Procedure
 - Colonoscopy: fungating non-obstructing large mass at ileocecal valve. Mass partially circumferential (involving one-third of lumen circumference). Measured 5 cm in length. No bleeding.
- Pathology Report
 - Moderately differentiated adenocarcinoma, colonoscopy biopsy.



25 Copyright © 2018 AJCC. All Rights Reserved

Case #1 – Clinical Staging


- Physical exam
 - Suggestion of mass does not provide staging information
- Procedure
 - Description of tumor length and involving 1/3 of lumen circumference does not play a role in assigning stage
- Pathology report
 - Confirms cancer but does not provide staging information



26 Copyright © 2018 AJCC. All Rights Reserved

Case #1 – Clinical Staging Answer

- cTX
 - No information in diagnostic workup provides info for T category
- cN0
 - Physician judgment may be used
 - Probability of nodal involvement based on primary lesion seen
 - Imaging ordered as deemed necessary
- cM0
 - No signs or symptoms of mets
- Stage unknown, cannot be assigned




27 Copyright © 2018 AJCC. All Rights Reserved

Case #1 – Treatment

- History/Chief Complaint
 - 54-year-old female underwent a colonoscopy where fungating, non-obstructing large mass found at ileocecal valve and involved approximately ½ of lumen. Biopsied and demonstrated a moderately differentiated adenocarcinoma.
- Operative Report
 - Right hemicolectomy
- Pathology Report
 - Moderately differentiated adenocarcinoma with prominent mucin production extending through muscularis propria to extensively involve pericolic fat, right hemicolectomy. All twenty lymph nodes are negative; metastatic tumor deposits in adjacent mesentery.


28 Copyright © 2016 AJCC. All Rights Reserved



Case #1 – Pathologic Staging

- Surgery
 - Patient had right hemicolectomy
- Clinical staging information
 - cTX cN0 cM0
- Operative report
 - No significant findings
- Pathology report
 - Extends through muscularis propria
 - Extensively involves pericolic fat
 - Lymph nodes are negative
 - Tumor deposits in adjacent mesentery


29 Copyright © 2016 AJCC. All Rights Reserved



Case #1 – Pathologic Staging Answer


- pT3
 - Involvement of pericolic tissue
- pN1c
 - Tumor deposits in mesentery without involvement of regional nodes
- cM0
 - No signs or symptoms of mets
- Stage IIIB

30 Copyright © 2016 AJCC. All Rights Reserved



Case #2 – Diagnostic Workup


- History/Chief Complaint
 - Nausea, vomiting, abdominal pain, abdominal distension with history of rectal bleeding
 - CT scan a week ago shows stricture of distal descending colon and proximal sigmoid colon
- Physical Exam
 - Distended abdomen, tender in the RUQ, impression is large bowel obstruction
- Imaging
 - CT abd/pelvis: complete obstruction sigmoid colon with narrowed area and dilated colon



31 Copyright © 2016 AJCC. All Rights Reserved

Case #2 – Clinical Staging


- No diagnosis of cancer
- Patient does not qualify for clinical staging



32 Copyright © 2016 AJCC. All Rights Reserved

Case #2 – Clinical Staging Answer

- No T, N, M, or stage group may be assigned
- All categories left blank – does not qualify for staging
- Stage group may be coded as 99 for cancer registries




33 Copyright © 2016 AJCC. All Rights Reserved

Case #2 – Treatment

- History/Chief Complaint
 - Colon obstruction needing immediate surgery
- Operative Report
 - Sigmoid colectomy
- Pathology Report
 - Microscopic: circumferential 4.1 x 3 cm, tan-red, ulcerating lesion 3.5 cm from one margin, 11.5 cm from opposite margin, and 3.3 cm from radial resection margin
 - Grossly invades into but not through muscularis propria
 - 16 lymph nodes identified within pericolonic fat
 - Final diagnosis: partial resection sigmoid colon – moderately differentiated adenocarcinoma, metastases to 2/16 regional nodes, and lymphovascular invasion.


34 Copyright © 2016 AJCC. All Rights Reserved



Case #2 – Pathologic Staging

- Surgery
 - Patient had surgical resection qualifying for pathologic staging
- Clinical staging information
 - No clinical stage
- Operative report
 - No significant findings
- Pathology report
 - Invades into muscularis propria
 - Does not invade through muscularis propria
 - Margin status does not play a role in staging
 - Involvement of regional nodes
 - Lymphovascular invasion does not play a role in staging


35 Copyright © 2016 AJCC. All Rights Reserved




Case #2 – Pathologic Staging Answer

- pT2
 - Invades into but not through muscularis propria
- pN1b
 - Involvement of two regional nodes
- cM0
 - No signs or symptoms of mets
- Stage IIIA

36 Copyright © 2016 AJCC. All Rights Reserved




Information and Questions
on AJCC Staging



AJCC Web site


- <https://cancerstaging.org>
- Cancer Staging Education **Registrar menu** includes
 - Timing is Everything – stage classification timeframe graphic
 - Presentations
 - Self-study or group lecture materials
 - Registrar's Guide to Chapter 1, AJCC Seventh Edition
 - Explaining Blanks and X, Ambiguous Terminology and Support for Staging
 - AJCC T, N, and M Category Options for Registry Data Items in 2016
 - AJCC Curriculum for Registrars
 - 4 free self-study modules of increasing difficulty on staging rules
 - Each module consists of 7 lessons, including recorded webinar with quizzes



38 Copyright © 2016 AJCC. All Rights Reserved

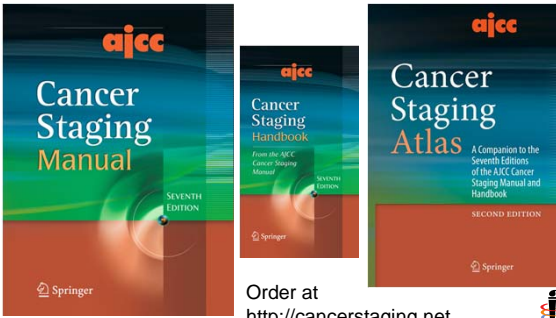
AJCC Web site

- <https://cancerstaging.org>
- Cancer Staging Education **Physician menu** includes
 - Articles
 - 18 articles on AJCC staging in various medical journals
 - Webinars
 - 14 free webinars on staging rules and some disease sites
- Cancer Staging Education **General menu** includes
 - Staging Moments
 - 15 case-based presentations in cancer conference format to promote accurate staging with answers and rationales



39 Copyright © 2016 AJCC. All Rights Reserved

AJCC Cancer Staging Manual and Atlas




Order at
<http://cancerstaging.net>

40 Copyright © 2016 AJCC. All Rights Reserved


CAnswer Forum

- Submit questions to AJCC Forum
 - Located within CAnswer Forum
 - Provides information for all
 - Allows tracking for educational purposes
- <http://cancerbulletin.facs.org/forums/>



41 Copyright © 2016 AJCC. All Rights Reserved


Summary



42 Copyright © 2016 AJCC. All Rights Reserved

Summary

- Recognize differences based on disease site
 - Examine criteria for assigning stage
 - Effect of uniqueness of anatomy, workup, treatment
- Employ critical thinking in using physician documentation
 - Understanding current standard medical practice
 - Interpretation of available information
- Utilize guidelines available to registrars to gain knowledge
- Identify resources for AJCC staging
 - Information and guidance
 - Obtain answers to questions to learn staging
 - Understand rationale to apply to future cases
 - Not just an answer for today's case



43 Copyright © 2018 AJCC. All Rights Reserved.

Thank you

Donna M. Gress, RHIT, CTR
AJCC Technical Specialist



AJCC
American Joint Committee on Cancer
Validating science. Improving patient care.



633 N. Saint Clair, Chicago, IL 60611-3211
cancerstaging.org

No materials in this presentation may be repurposed without the express written permission of the American Joint Committee on Cancer. Permission requests may be submitted at CancerStaging.net

This webinar is sponsored by

The Centers for Disease Control and Prevention

Supported by the Cooperative Agreement Number DP13-1310

The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.



National Center for Chronic Disease Prevention and Health Promotion
National Program of Cancer Registries
