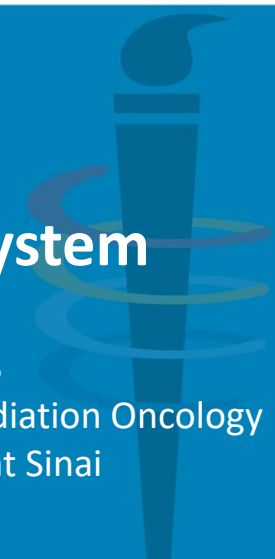




# AJCC Anus Version 9 Cancer Staging System

Karyn A. Goodman, MD, MS  
Professor and Vice Chair, Department of Radiation Oncology  
Icahn School of Medicine at Mount Sinai



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## Version 9 Format



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# Protocol Format

## AJCC updated to protocol format

- **Same information** as previous AJCC chapters, 3 key components:
  1. **Staging report format** is key information for managing physician to document
  2. **Explanatory notes** provide guidance
  3. **Supplemental** information available

## Why change

- Easier for users to **find what they need ... just when they need it**
- Users wanted a synoptic styled report format
- Synoptic reports are proven to **increase accurate and complete** documentation

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# Using Protocol Format

## 1. Staging report format

- Provides all of the key information
- Includes new items
  - Modalities used for staging
  - Clinical staging and workup
  - Pathological staging and workup
  - Staging Rules with Common Staging Scenarios

## 2. Explanatory notes

- Provide the **same details** found in previous AJCC chapters
- Includes **images** for primary site, nodal map, and T N M categories

## 3. Supplemental information includes general staging rules

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## NEW Features – Clinical Staging and Workup Table

DIAGNOSTIC WORKUP	DESCRIPTION	SPECIFIC CONTRIBUTION TO TNM CATEGORY
<b>Clinical exam</b>		
Inspection of perianal skin, Digital anorectal exam	Size, local spread	T1-T4
Lymph node exam	Regional spread	N1
Anoscopy	Size, local spread	T1-T3
Biopsy	Microscopic confirmation	T1-T4, N1, M1
Exam under anesthesia (EUA)	Size, involvement of sphincter, and/or spread to vagina, pelvic wall, bladder involvement	T1-T4
Colonoscopy	Size, local spread, synchronous rectal cancer	T1-T4
Pelvic exam and PAP smear	Local spread, involvement of vagina/cervix, synchronous cervical dysplasia/cancer	T4
<b>Imaging</b>		
CT	Chest/abdomen/pelvis with IV contrast for all stages	Small tumors may not be well seen on CT imaging
PET/CT (whole body)	Base of neck to mid-thigh	T1-T4, N0-N1a-c, M0-M1
MRI	Pelvis – define extent of local disease including inguinal lymph nodes	Role evolving and unclear. Best used in large tumors with possible organ invasion and in cases of incomplete response requiring surgery. T1-T4, N0-N1a-c
<b>Laboratory studies</b>		
HPV p16	Immunohistochemistry (IHC), microscopy	Histopathological classification
HIV status, CD4 count	Viral load, flow cytometry	

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### Contains following elements

- Common diagnostic workup
- Description of the evaluation
- How it contributes to TNM category for staging

### List of workup options, *not* list of required workup

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## NEW Features – Pathological Staging and Workup

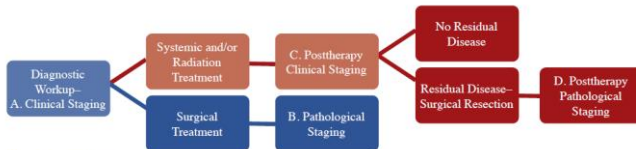
CATEGORY	SPECIMEN	PATHOLOGIST	MANAGING PHYSICIAN (Stage Documented by Cancer Registry)
General Information		<ul style="list-style-type: none"> <li>• Assignment of pTNM categories is based on surgical resection <b>specimen</b>, as well as intraoperative findings, biopsy procedures and clinical evaluation up to the point of definitive surgical treatment, if available</li> <li>• All other surgical procedure specimens use cTNM. For example, biopsy of a positive regional lymph node without surgical resection of the primary carcinoma is classified as cN1</li> </ul>	<ul style="list-style-type: none"> <li>• Assignment of pTNM categories for the <b>patient</b> requires use of information from all biopsy procedures performed during the clinical evaluation up to and including definitive surgical treatment</li> <li>• Requires information from clinical assessment or imaging studies or intraoperative findings to assign pTNM categories (may not change pTNM, but must be considered)</li> </ul>
pTX		Not for use by pathologist; assigned only by managing physician	May assign if unable to determine pT category after surgical resection
pT0		No tumor found in specimen and never identified on diagnostic biopsies	No tumor found in specimen and never identified on diagnostic biopsies
pT1	Local excision or surgical resection	Information from surgical specimens	Local excision of small lesions with negative margins may be curative
pT2	Surgical resection, usually abdominoperineal resection	May require biopsy-proven documentation of spread to vagina, urethra, bladder to assign pT4	Pathology reports plus intraoperative findings and imaging studies
pT3			
pT4			
pNX		Not for use by pathologist;	• May assign if unable to determine pN

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- Demonstrates role of pathologist in assessing resection **specimen**
- Demonstrates role of managing physician in assigning TNM categories and stage to **patient**

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## NEW Features – Staging Rules for Anus



### Common staging scenarios:

#### 1) Anal lesion treated with definitive chemoradiation

The most common scenario is the patient has an anal lesion found on exam. Based on clinical exams and imaging, the physician assigns the **clinical staging** (A in figure above) of cT for the primary anal lesion, cN for any nodal involvement, and cM for distant metastasis found on exam or imaging and pM for microscopic proof of distant metastasis. The treatment plan based on the clinical stage is primary chemotherapy and radiation therapy. **Posttherapy clinical staging** (C in figure above) may be assigned after completion of the primary treatment to assess the response based on physical exam, imaging, and biopsies assigning ycT for residual tumor, ycN for nodal assessment, and the M category as assigned in the clinical stage.

In rare cases of persistent disease, the patient may undergo a surgical resection. The pathologist will assign posttherapy pathological ypT based on assessment of the primary tumor, and ypN for regional nodes. The managing physician will then use the posttherapy yc stage combined with the operative findings and the pathology report to assign the **posttherapy pathological staging** (D in figure above) ypT, ypN, and the cM or pM.

#### 2) Anal lesion treated surgically

Less commonly, after clinical staging it may be determined that a small anal lesion may be resected. **Clinical staging** (A in figure above), cT, cN, and cM/pM are assigned based on physical exam, imaging findings, and any biopsies. The patient then has a surgical resection. The pathologist assigns pT, pN, and pM (when lymph nodes and any distant metastases are sampled) based on the resected specimen. The managing physician then assigns the **pathological staging** (B in figure above) based on the clinical stage information, the operative findings, and the resected specimen pathology report information. Since many of these early stage tumors are resected with a wide local excision, the rT may be the only

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### Graphic of

- Appropriate AJCC stage classification
- Based on treatment choice

Staging scenarios describe information used to assign AJCC stage classification

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## Key Changes in Anus Staging



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## T & N Category Changes

- **Tis category removed along with prognostic stage group 0**
  - Tis lesions are a form of high-grade squamous intraepithelial lesions (HSIL)
  - HSIL lesions are not malignant
  - Inclusion of Tis in staging may lead to overtreatment
  - Patients with Tis may benefit from local ablation (ANCHOR Study)
- **N1a category**
  - Now includes obturator nodes
  - Along with inguinal, mesorectal, superior rectal, and internal iliac

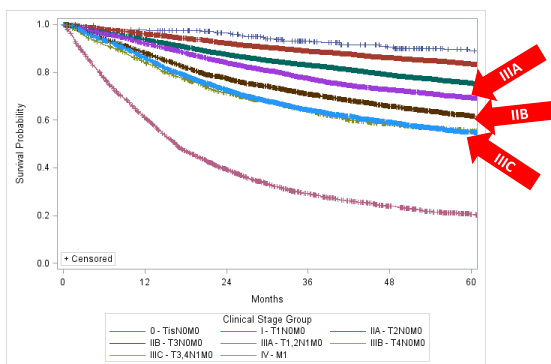
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## Prognostic Stage Group Changes

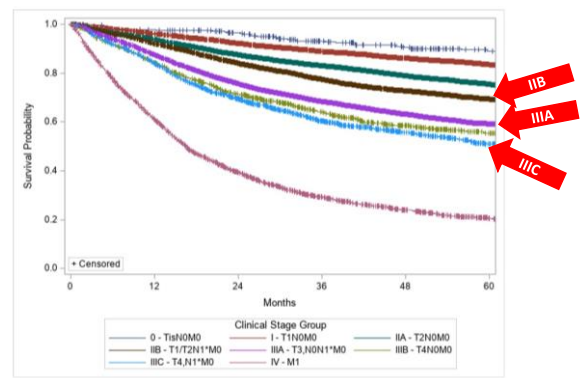
- Prognostic stage groups based on survival
- New NCCN data led to stage group changes in stage II and III

8<sup>th</sup> Ed Clinical Stage Grouping 5-year Unadjusted Survival



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Ver 9 Clinical Stage Grouping 5-year Unadjusted Survival



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## Prognostic Stage Group Changes

- Revisions in order of prognosis

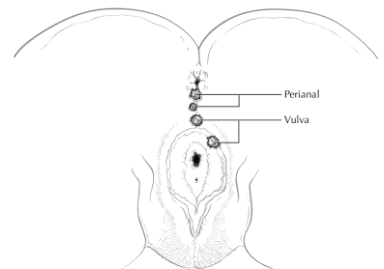
Stage Group	New Version 9	8 <sup>th</sup> Edition
IIB	T1-2 N1 M0	T3 N0 M0
IIIA	T3 N0-1 M0	T1-2 N1 M0
IIIC	T4 N1 M0	T3-4 N1 M0

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## Perianal and Perineum

- **Management of perianal carcinomas is mixed, both operative & non-operative**
- **Definition of perianal lesions**
  - Arising within skin at or distal to squamous mucocutaneous junction
  - Can be seen in entirety with gentle traction on buttocks
  - Within 5 cm of the anus
- **Definition of Perineum lesions**
  - Vulvar: arising from vulva and extend onto perineum
  - Perianal: arising from distal anal squamous mucosa and extend onto perineum
  - Categorize based on clinical impression: lesions localized to perineum and not clearly arising from either vulva or anus
  - Recommend consultations with colleagues in gynecology or colorectal surgery
  - Treatment plans may be quite dissimilar



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## HPV Status and p16

- HPV is risk factor for squamous cell anal cancer
- Most anal squamous cell cancers are HPV-associated
- p16 results collected in cancer registries with AJCC Version 9 Anus Protocol

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## New Staging & Workup Tables, Scenarios

- **Clinical Staging and Workup**
  - Algorithm of investigation and procedures used to determine T, N, and M categories
- **Pathological Staging and Workup**
  - Demonstrates how resection information is used in staging
- **Staging Rules for Anus**
  - Staging graphic showing common scenarios
  - Common staging scenarios provided
    - Treated with definitive chemoradiation
      - Clinical staging: diagnostic workup
      - Posttherapy clinical: assessment after chemoradiation
      - Posttherapy pathological: assessment after chemoradiation & surgery, rare cases where resection is needed
    - Treated surgically
      - Clinical staging: diagnostic workup
      - Pathological staging: after resection using diagnostic workup, op findings, and pathology report

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## Updated Illustrations

- **Updated coronal and sagittal illustrations of anus and surrounding structures**
- **Perianal lesions staged with this protocol**
  - Perianal tumor within 5 cm of anal verge
  - Anatomic distinctions between perianal and vulva
- **Nodal map**
  - New cross-sectional imaging view added
  - Obturator nodes added as regional nodes

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## Access to Version 9 Protocol



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## Access to Version 9 Anus Protocol

- **Kindle on Amazon**
  - Purchase as ebook or paperback
  - Free software to enable reading on PC, MAC, tablet, and phone
  - Individual ownership of ebook content, not to be shared
  
- **Facility may purchase Kindle ebook for staff**
  - Group purchase allowed
  - Purchaser emails links for users to download AJCC ebook
  
- **Institutional access vendors**
  - Multiple vendors who supply ebooks to hospital libraries
  - EHR companies may include content in their software, staging tables or complete protocol

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## FAQ

- **AJCC has FAQ document on website**
  - Covers most common questions
  - Provides information and options for institutional purchases
  
- **Additional questions should be directed to [ajcc@facs.org](mailto:ajcc@facs.org)**

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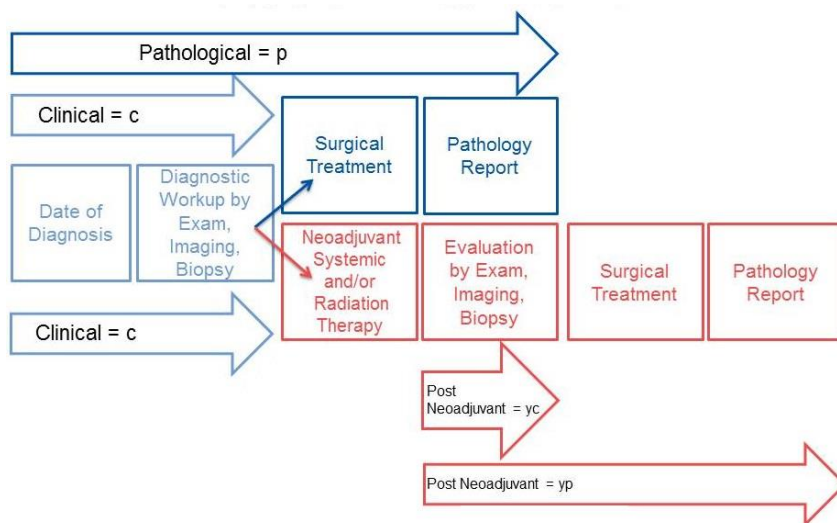
# Information and Questions on AJCC Staging

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## Timing Is Everything

### AJCC Stage Classifications

Defining Time Frame and Criteria



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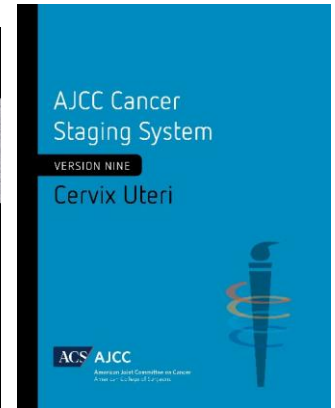
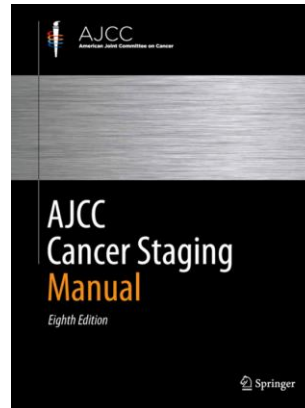
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## AJCC Web site

- <https://cancerstaging.org>
- <https://www.facs.org/quality-programs/cancer-programs/american-joint-committee-on-cancer/>

- **General information**

- Overview
- Version 9
- Cancer Staging Systems
  - AJCC 8<sup>th</sup> edition Chapter 1: Principles of Cancer Staging
- Cancer Staging Education
- FAQ & Resources



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