



NPCR Education and Training Series (NETS) **Module 7: Colorectal Malignancies**

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Advanced Abstracting Colorectal Cancer

I. DEMOGRAPHICS

Incidence, Prevalence, and
Cancer Characteristics



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Introduction to Colorectal Cancer

- ◆ **New cases in the United States in 2004:**
 - 145,083 colorectal cancers combined
 - ◆ Colon – 105,694 cancers
 - ◆ Rectum – 39,389 cancers
- ◆ **Risk of developing colorectal cancer during lifetime**
 - 1 in 18 men
 - 1 in 19 women

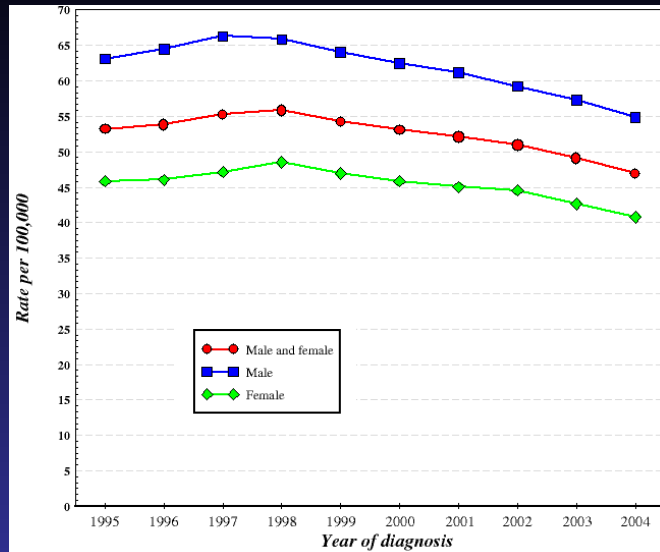
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In 2004, 145,083 new colorectal cancer cases occurred (based on USCS data for 98% of the U.S. population). Of these, 105,694 were colon cancers and 39,989 were rectal cancers.

The National Cancer Institute estimates that 1 in 18 men and 1 in 19 women will develop colorectal cancer over their lifetime (based on 2002 – 2004 data from the SEER Cancer Statistics Review, 1975 – 2004).

Trends in Cancer Incidence 1995 – 2004



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Source: SEER Fast Stats, National Cancer Institute



After a peak in incidence around 1998, cancer incidence rates for both men and women have undergone a steady decline at the rate of almost 3% per year between 2000 and 2004. Even so, colorectal cancer remains the third most common cancer in both men and women.

Reference: SEER Age-Adjusted Incidence Rates by Sex For Colon and Rectum Cancer, All Ages, All Races
SEER 13 Registries for 1995 – 2004, Age-Adjusted to the 2000 U.S. Standard Population

Introduction to Colorectal Cancer

◆ Prevalence

- Highest rates – African Americans
- Third most common cancer in both men and women
- > 90% diagnosed after age 50
- < 10% caused by inherited gene mutations
- > 1,000,000 colorectal cancer survivors

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Colorectal cancer is more prevalent in African Americans. It is the third most common cancer in both men and women. More than 90% of all colorectal cancers are diagnosed after the age of 50. Less than 10% of colorectal cancers are hereditary. The National Cancer Institute estimates that there are more than 1 million colorectal cancer survivors alive today.

Screening Guidelines for the Early Detection of Colorectal Cancer

- ◆ **Beginning at age 50, men and women should follow one of the following examination schedules:**
 - **Annual fecal occult blood test and flexible sigmoidoscopy every 5 years (preferred)**
 - **A fecal occult blood test (FOBT) every year**
 - **A flexible sigmoidoscopy (FSIG) every 5 years**
 - **A double-contrast barium enema every 5 years**
 - **A colonoscopy every 10 years**

Source: www.cancer.org

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The Agency for Healthcare Research and Quality U.S. Preventive Services Task Force (USPSTF) and the American Cancer Society recommend screening for males and females age 50 or older using one or more of the several tests listed on this slide. Tests include a fecal occult blood test (FOBT) every year, a flexible sigmoidoscopy (FSIG) every 5 years, an annual FOBT and FSIG every 5 years, a double-contrast barium enema every 5 years, a colonoscopy every 10 years.

However, in 2004, according to the Behavioral Risk Factor Surveillance System data collected by the Centers for Disease Control and Prevention, only about 19% of U.S. adults aged 50 or older reported having a fecal occult blood test (FOBT) in the previous year. Adults with less than a high school education were less likely to report a recent FOBT. The prevalence of FOBT for adults with no health insurance is approximately 10% lower than the prevalence for all adults.

Similarly, according to the same survey, although there has been a downward trend during recent years in the use of FOBT, the prevalence of flexible sigmoidoscopy (FSIG) or colonoscopy increased from 1999 to 2004. Again, adults with less than a high school education were less likely to report FSIG or colonoscopy compared to all adults. Even more striking is that the prevalence of FSIG for adults with no health insurance was less than 40% of that for all adults; 19% compared to 45%. Efforts to raise public awareness of the availability of screening procedures for what is potentially a curable cancer must continue.

Introduction to Colorectal Cancer

◆ Mortality

- 53,580 deaths in 2004
- Estimated 10% of all cancer deaths annually
- Mortality greater for African Americans than Caucasians
- 5-year survival rate (localized stage): 90%
- 5-year relative survival rate
 - ◆ 66% for Caucasians
 - ◆ 56% for African Americans

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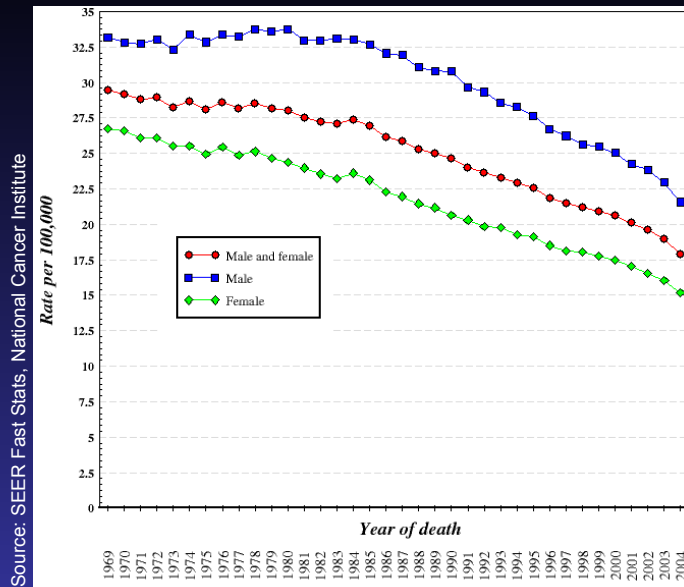


There were 53,580 deaths that occurred from colorectal cancer in 2004. The mortality rate for colorectal cancer is decreasing for both men and women. However, it still accounts for approximately 10% of cancer deaths in the U.S.

The 5-year relative survival rate is approximately 10% higher for Caucasians than it is for African Americans. The overall survival rate for colorectal cancer patients with localized disease is 90%. An estimated 66% of Caucasians will be alive 5 years from diagnosis; whereas, only 56% of African Americans are estimated to be alive 5 years from diagnosis.

Source: SEER Cancer Statistics Review, 1975 – 2004.

Trends in Colorectal Cancer Mortality, 1969 – 2004



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Prevention and detection methods, as well as education of the public, have led to declines in incidence and mortality in this cancer.

During the past 40 years, there has been a steady decline of about 1.5% per year in mortality rates for both men and women. Since 2000, the rate of decline has increased to about 3.3% per year.

Reference: Age-Adjusted Total U.S. Mortality Rates For Colon and Rectum Cancer, All Ages, All Races For 1969 – 2004 by Sex, Age-Adjusted to the 2000 U.S. Standard Population

Detection of Colorectal Cancer

- ◆ Early detection
- ◆ Family history
- ◆ Education of warning signs
- ◆ Screening guidelines

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How can we continue to ensure a decrease in incidence and mortality? We have to ensure that all patients have the benefit of early detection of their colorectal cancer. Patients need to understand the guidelines for screenings and know that a family history of colorectal cancer is a factor that increases their risk. Education on the warning signs for colorectal cancer is also extremely important. The screenings available to patients are life saving. These screening guidelines need to be discussed with patients.

Detection of Colorectal Cancer

◆ Colorectal cancer presentation

- Positive hemoccult
- Positive colonoscopy
- G.I. bleeding
- Unexplained weight loss
- Change in bowel habits
 - ◆ Cramping pain in lower abdomen
 - ◆ Diarrhea or constipation

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The warning signs and presentation of colorectal cancer include a positive hemoccult test, often by a home fecal occult blood test (FOBT) or it can be done during a digital rectal exam (DRE).

A positive colonoscopy is probably the most common means of confirmation and/or detection of colon cancer today.

Patients present with unexplained weight loss.

Gastrointestinal (G.I.) bleeding, change in bowel habits, diarrhea, constipation, and cramping pain in the lower abdomen are very common symptoms of colorectal cancer.

All of these symptoms or warning signs can be related to other GI issues, which is why a diagnostic evaluation for colorectal cancer is so important.

Management of Colorectal Cancer

- ◆ Typical colorectal cancer treatment
 - Surgery – most common treatment
 - Adjuvant chemotherapy plus/minus radiation for
 - ◆ Rectosigmoid and rectal cancer
 - ◆ Non localized colon cancer
 - Clinical trials for patients with
 - ◆ Previously treated advanced colorectal cancer
 - ◆ Metastatic colorectal cancer

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The typical management of colorectal cancer is surgery. Approximately 92% of colon cancers and 85% of rectal cancers undergo surgical intervention. Most colorectal cancers can be cured with surgical intervention. However, for those spreading beyond the colon, or for most rectosigmoid and rectal cancers, chemotherapy, (plus or minus radiation therapy) is needed. Clinical trials have been developed for previously treated patients with advanced colorectal cancer and for metastatic disease from colorectal cancer.

Management of Colorectal Cancer

◆ Non typical colorectal case

- Co-morbidities
- Complications
- Target therapies
- Palliative therapies

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The management of colorectal cancer can be challenging when the patient presents with co-morbidities, which can preclude any treatment intervention or further staging of the patient to determine the extent of disease. Complications that could arise from giving the patient chemotherapy may outweigh the advantages of the chemotherapy being administered. The same is true of surgical or radiation therapy intervention. Targeted therapies are not always appropriate in these patient types and palliation is the only option. FORDS does allow for the coding of palliative treatments.

Reporting of Colorectal Cancer

- ◆ Incidence
- ◆ Prevalence
- ◆ Mortality
- ◆ Detection
- ◆ Management

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We have discussed the incidence, prevalence, mortality, detection and management of colorectal cancers. The statistics previously described in graphs are a result of data collection within cancer registries. This data was captured through a uniform process of data collection, organized and monitored by multiple standard setters nationwide.

Reporting of Colorectal Cancer

- ◆ Standardized data
 - Purpose
 - ◆ Incidence, treatment, and outcomes
 - Uniform data collection
 - Patient trends
 - Referral patterns
 - Allocation of resources

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It is extremely important that we collect cancer data through the use of coded standardized data elements. The uniform collection of cancer data allows us to use that data to monitor and manage patient trends, referral patterns, and where resources need to be allocated within communities. Providing information on cancer incidence, treatment, and outcomes is the purpose of the cancer registry.

Reporting of Colorectal Cancer

◆ Data Collection

- Required data sets
- Research
- Administrative needs
- Future data requests
- Special studies
- Avoiding “unknowns”

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When reporting any cancer diagnosis, we want to be consistent and accurate in coding.

Required data sets may vary slightly from state to state. It is extremely important to understand what you are required to report, based on state and regional mandates. Your own institution may require you to report cancer diagnoses not otherwise required by your state or central registry. These are considered reportable-by-agreement cases. These could be diagnoses that are pertinent to ongoing research within your facility.

Generally administration is interested in the number of newly diagnosed cancers at your facility. Marketing departments may select data based on zip codes to analyze market shares. Always know the direction your institution and/or state is going as it pertains to cancer data collection. This will allow you to be prepared for any data requests that come as a result of shifts in caseloads and/or treatment for specific cancers. Special studies may be generated from such shifts in data nationwide. Uniform coding allows for comparison of your data to regional, state, and national data. For this reason, as an example, you should avoid using the primary site code of “unknown primary” when possible. Too many unknown variables will skew your data or eliminate those data from analysis.

Reporting of Colorectal Cancer

◆ Documentation

- Demographics
- Patient identification
- Codes
- Supporting text

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Registry data is widely underused on a local level. However, the data can be put to very good use on a regional, state, or national level. That is why a registrar needs to be certain that the demographic information (e.g., street address, state, zip code) and patient identification information (e.g., date of birth and social security number) included within the abstract are accurate. The same is true for the coding of the cancer being reported. All codes **must** be supported by text. Remember that anyone should be able to obtain the same information and outcome from the abstract that you provide, just as if they were reviewing the actual medical record from which you abstracted.

Let's review a pathology report and talk about what should be recorded.

Reporting of Colorectal Cancer

- ◆ Pathology 1/8/2007

- ◆ Specimen: Hemicolectomy Specimen# S07-199

Gross Description: Received is a 19.5 cm right hemicolectomy specimen consisting of terminal ileum, cecum, without appendix, ascending and proximal transverse colon. Within the ascending colon is a palpable 5.0 cm mass. No additional gross mucosal lesions are identified. Sectioning the tumor does grossly show involvement to the underlying muscularis with focal extension into the adjacent mesenteric/pericolonic fat, which contains 13 pink to gray tan lymph nodes varying from 0.4 to 0.6 cm.

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[NOTE TO TRAINER:

It might be helpful to have the text of this slide and the next slide printed as a handout.]

Reporting of Colorectal Cancer

◆ Pathology, continued

Final Diagnosis: Ascending colon with moderately differentiated adenocarcinoma measuring 5.0 cm in size with involvement through the muscularis propria into the adjacent pericolic adipose tissue. Thirteen pericolic lymph nodes are negative for metastatic carcinoma. Proximal, distal and circumferential margins are negative. No angiolymphatic or perineural invasion noted.

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(No Notes)

Reporting of Colorectal Cancer

◆ What does it mean to code and text?

- Code 1/8/2007 Text: Date of procedure.
- Code C18.2 Text: Ascending colon
- Code 8140/3 Text: Adenocarcinoma
- Grade code 2 Text: Moderately differentiated
- TS code 050 Text: TS 5.0cm
- Code Reg LN Exam 13, Reg LN Pos 00
Text: 13 pericolic lymph nodes negative
- Additional text: Proximal/distal margins negative

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Record the date of the procedure. In this case, 1/8/2007.

The code for Primary site would be C18.2 (ascending colon).

The histology code would be 8140 with behavior of 3.

The tumor is moderately differentiated, and is coded as 2 in grade/differentiation.

The tumor size is 5.0cm, and should be in text as such and coded to 050.

Thirteen pericolic lymph nodes are negative for carcinoma; this should be noted in text and coded as regional lymph nodes examined (13), regional lymph nodes positive (00).

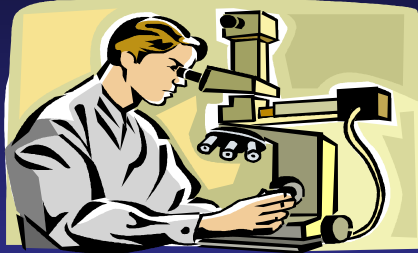
The margins are negative and should be recorded in text.

So, if you are coding any piece of information, there should be text documented within the abstract to support that code, preferably using standard medical abbreviations. Always include dates when they are provided. This is necessary for operative procedures, lab tests, imaging and treatment modalities, etc.

Advanced Abstracting Colorectal Cancer

II. DIAGNOSIS

Site, Histology, Behavior, and Grade



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Now that we have had a brief introduction to colorectal cancer, its warning signs, and general treatment management, we can discuss the diagnosis of colorectal cancer in more detail. This includes determining the primary site of colon and rectal cancers based on imaging and/or surgical information.

Diagnosis of Colorectal Cancer

◆ Procedures

- Hemoccult testing
- Digital rectal exam (DRE)
- Flexible Sigmoidoscopy
- Colonoscopy
- Imaging
 - ◆ To support a diagnosis
 - ◆ Staging

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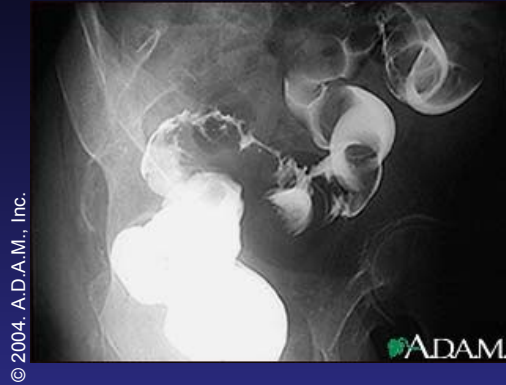


These procedures are commonly used for the detection of colorectal cancer. As mentioned on a previous slide, Hemoccult testing can be done in conjunction with the DRE.

A flexible sigmoidoscopy and/or a colonoscopy is often performed on patients when a lesion is palpated within the rectum.

Imaging can be used to support a diagnosis, and it can also be used to identify any regional extension and/or lymph node disease associated with the primary colorectal cancer (but is not diagnostic without a biopsy). Imaging will include, but is not limited to, CT scan of the abdomen and pelvis, PET scan, barium enema, or lower GI series.

Imaging of Colorectal Cancer

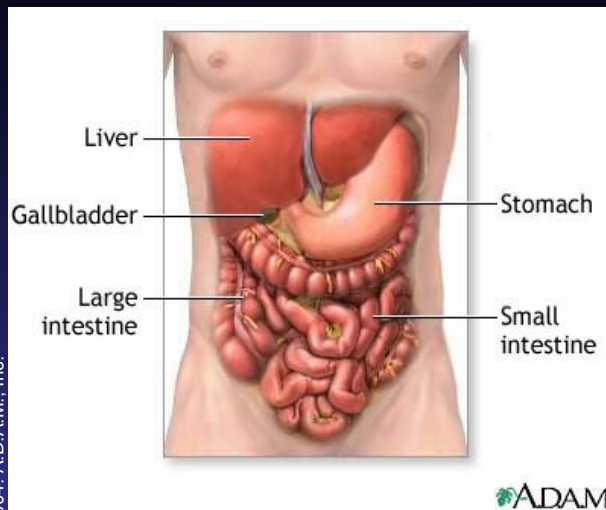


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This is an image of a barium enema in a patient with a sigmoid colon cancer. The light area is the barium. Note that there is an abrupt cutoff that is probably the site of the lesion.

Anatomy of the Abdomen



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In order to understand a diagnosis of colorectal cancer, you must understand the anatomy of the colon in relation to other regional organs. Here you can see where the colon, rectum and anus lie in relation to the small intestine, gallbladder, liver, and stomach. Contiguous or direct extension to these regional organs is dependent on the segment of colon in which the cancer arises.

Colorectal Anatomy

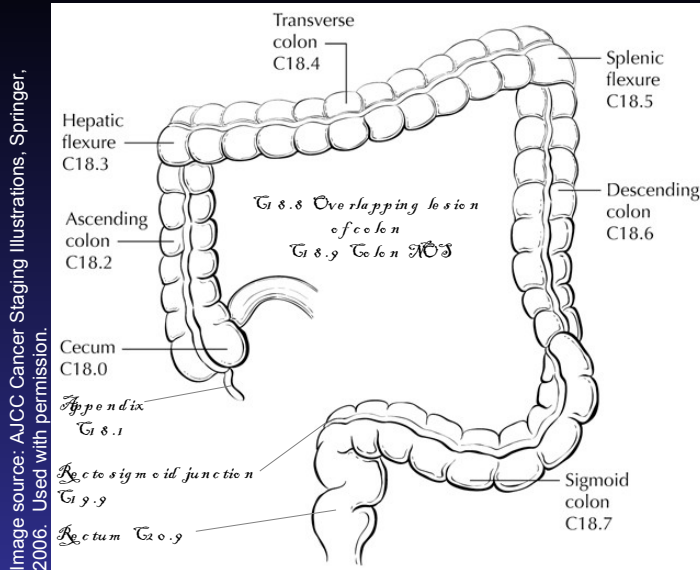


Image source: AJCC Cancer Staging Illustrations, Springer, 2006. Used with permission.



The colon is divided into segments. The cecum measures about 6 to 9 cm in length, and is in the peritoneum. It joins the ascending colon or right colon (retroperitoneally located), and measures 15 to 20 cm in length. The next segment is the transverse colon, otherwise known as the middle colon, which crosses the front of the abdomen. The descending colon or left colon, (also retroperitoneally located) measures 10 to 15 cm in length. This segment is followed by the sigmoid colon and rectum. The rectum is noted to be approximately 12 cm in length, or approximately 12 cm from the anal verge. The anus is reported following a unique set of rules that differ from colorectal malignancies.

Primary Site Code

- ◆ Determining the primary site
 - Reference: ICD-O-3 coding manual
 - ◆ Colon – C18.0 – C18.9
 - C .
 - Site Subsite
 - ◆ Rectosigmoid Junction – C19.9
 - ◆ Rectum – C20.9

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Determining the primary site code can sometimes be challenging. The *ICD-O-3* Manual is your best reference resource. Colon cancer primary sites are determined based on the segment of colon involved, as noted in the anatomic drawing just reviewed. The different segments of the colon are identified by the subsite digit to the right of the decimal point. The segments of the colon are coded from C18.0 through C18.9. There are no sub-sites for the rectosigmoid junction or rectum. The rectosigmoid junction is the area of colon near the lower part of the sigmoid colon and the upper part of the rectum, and is coded to C19.9. Cancers of the rectosigmoid junction are generally managed the same as rectal carcinomas. Rectal cancers are coded to C20.9.

Benign Colorectal Disease

◆ Most common benign diseases

- Diverticulitis
- Crohn's disease
- Ulcerative colitis
- Lipoma
- Adenoma (villous, tubular, tubulovillous)

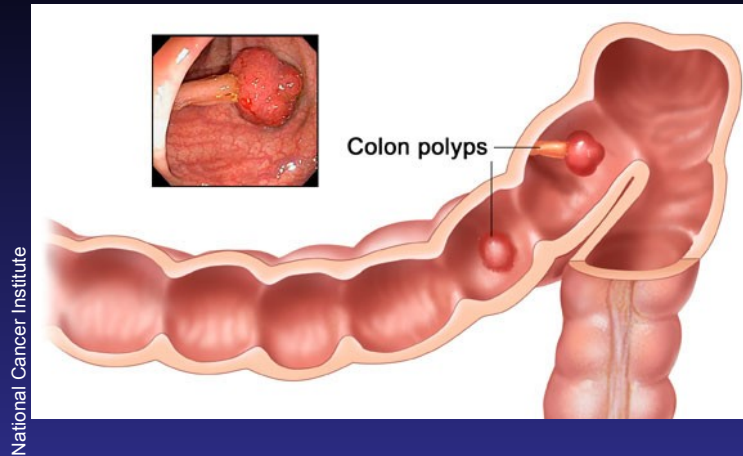
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These are some of the terms that you might come across when reviewing a colonoscopy report.

- Diverticulitis is a common disease among adults. It is a disease that occurs when the bulging pockets (diverticula) in the intestines become infected. Frequently, patients experience abdominal pain and diarrhea.
- Crohn's disease and ulcerative colitis are other terms that are associated with the intestinal tract. Crohn's disease and ulcerative colitis are inflammatory diseases often called Inflammatory Bowel Disease (IBD).
- Lipomas are also found within the colon. These may be removed and have no potential to become malignant.
- Adenomas are also benign, but unlike lipomas, they have the potential to become malignant. Adenomas account for 75% of all polyps. There are several subtypes of adenomas. They can be villous, tubular, and tubulovillous. Villous adenomas are the most likely to become cancerous and tubular adenomas are the least likely to develop into cancer. The histology code documents the evolution of a colon cancer from a polyp, based on the way the cells of the polyp are assembled.

Polyps in Colorectal Cancer



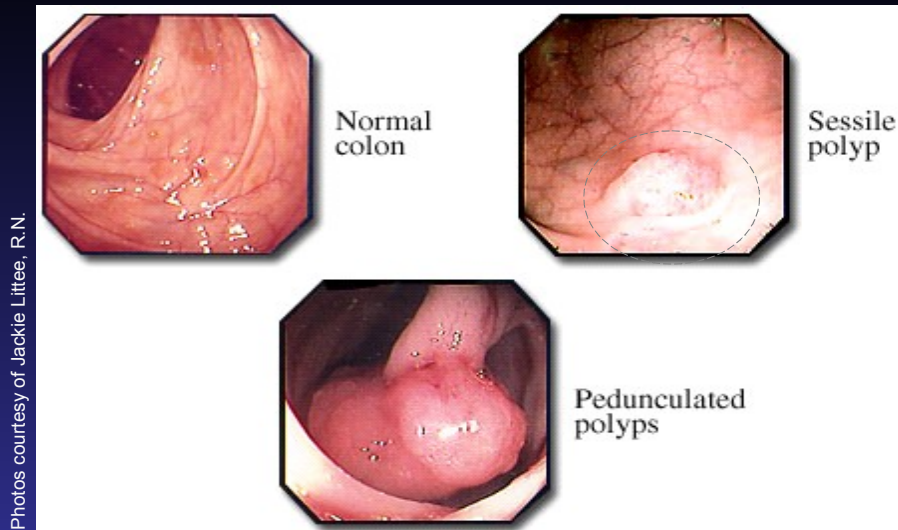
National Cancer Institute

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The larger the polyp becomes, the more likely it is to become cancerous. This is why colonoscopy is recommended. These polyps can easily be removed, thereby reducing the risk of colon cancer tremendously.

Polyps in Colorectal Cancer



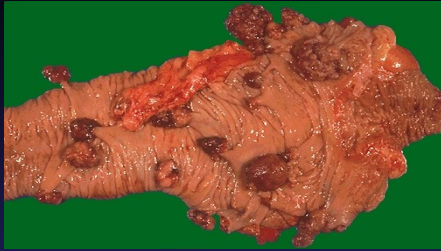
Photos courtesy of Jackie Littee, R.N.

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This is the view of the colon through an endoscope. The first picture on your left is a view of a normal colon. The picture at the top right shows a sessile or flat polyp. These polyps are stalkless, and attach to the colon mucosa directly at the base. The bottom view is that of a pedunculated polyp, which is a polyp growing on a pedicle or stalk.

Polyps in Colorectal Cancer



Multiple adenomatous polyps, cecum

Familial adenomatous polyposis



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Photos from WebPath, courtesy of Edward C. Klatt MD



These illustrations are of polyps. The top picture is that of multiple adenomatous polyps within the cecum. The bottom picture is of familial adenomatous polyposis (FAP). FAP is an inherited colorectal cancer syndrome. The number of polyps increases with age and can number in the hundreds or thousands of polyps. Some of these polyps will likely become cancerous if not surgically removed. FAP affects about 1 in every 30,000 people, with 800 to 1,000 new diagnoses yearly.

Single vs. Multiple Primaries

- ◆ New rules for 2007 diagnoses forward
- ◆ Tumors diagnosed more than one year apart are multiple primaries.
- ◆ Histology coding is coded from final diagnosis **ONLY**.

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Once a malignancy is confirmed, the primary site (or sites) must be determined and coded. For 2007 and forward, there are new coding rules for colorectal cancer to determine whether there is a single tumor versus multiple primary tumors. These rules will be discussed in the next several slides. It is important to note that tumors diagnosed more than one year apart are multiple primaries. This is a change in timing from previous rules. The histology coding is taken from the final diagnosis only. Again, this a new concept for registrars. We will discuss the new histology coding rules later in this presentation.

Single Primary

- ◆ A **single** tumor is always a **single** primary.
- ◆ Adenocarcinoma in **familial adenomatous polyposis** with one or more malignant polyps is a **single** primary.
- ◆ A **frank** malignant or in situ **adenocarcinoma** and an in situ or **malignant** tumor in a **polyp** are a **single** primary.

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We will begin with identifying a single primary of colorectal cancer. A single tumor is always a single primary. This is the easiest of the rules. We looked at slides of familial adenomatous polyposis. Adenocarcinomas in the presence of FAP are recorded as a single primary. Frank adenocarcinoma, (cancer that develops from the mucosa without underlying adenoma) can be in situ or invasive. A tumor in a polyp can be in situ or invasive. When found together, they are abstracted as a single primary. The tumors can also be present in a single or multiple segments of the colon, rectosigmoid, or rectum; and are still counted and abstracted as a single primary.

Single Primary

◆ Abstract as a *single* primary when one tumor is:

- Cancer/malignant neoplasm, NOS (8000) and another is a specific histology
- Carcinoma, NOS (8010) and another is a specific carcinoma
- Adenocarcinoma, NOS (8140) and another is a specific adenocarcinoma
- Sarcoma, NOS (8800) and another is a specific sarcoma

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Non specific and specific histology combinations are counted as a single primary. For example, cancer or malignant neoplasm, NOS (8000) and another specific histology is abstracted as a single primary. The same is true for carcinoma, NOS (8010) and adenocarcinoma, NOS (8140) with an associated specific histology. A sarcoma, NOS (8800) and another specific sarcoma is also counted as a single primary.

Single Primary

- ◆ **Multiple** in situ and/or malignant **polyps** are a **single** primary.
 - Note: Includes all combinations of tubular, adenomatous, villous, and tubulovillous adenomas or polyps.

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There can be multiple polyps with in situ and/or invasive carcinomas within the colon. These are counted as a single primary. This includes all combinations of adenomatous, tubular, villous, and tubulovillous adenomas or polyps.

Single Primary

- ◆ **Unknown whether single or multiple tumors**
 - **Abstract as a single primary when it is not possible to determine if there is a single or multiple tumors.**

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Always abstract a case as a single primary when it is not possible to determine if there is a single or multiple tumors. Do this only after exhausting every other possibility. This is done as a last resort.

Single Primary

- ◆ Tumors that do not meet any of the other listed criteria are a **single** primary.
 - When an invasive tumor follows an in situ tumor within 60 days, abstract as a single primary.
 - All cases covered by this rule are in the same segment of the colon.

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When tumors do not meet any of the new rules, code as a single primary. When an invasive tumor follows an in situ tumor within 60 days, abstract as a single primary. Note that all cases covered by this rule are in the same segment of the colon.

Multiple Primaries

- ◆ Tumors diagnosed **more than one (1) year** apart are **multiple** primaries.
- ◆ An **invasive** tumor **following an in situ** tumor more than 60 days after diagnosis are **multiple** primaries.
- ◆ Tumors with **ICD-O-3 histology** codes that are **different** at the first (xxxx), second (xxxx) or third (xxxx) number are **multiple** primaries.

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Tumors diagnosed more than 1 year apart are multiple primaries as mentioned in a previous slide.

An invasive tumor following an in situ tumor more than 60 days after the first diagnosis is coded as multiple primaries. The purpose of this rule is to ensure that the invasive case is counted as an incident case when incidence data are analyzed. Abstract such cases as multiple primaries, even if the medical record or physician states it is a recurrence or progression of disease.

Tumors with ICD-O-3 histology codes that are different at the first, second, or third number are multiple primaries.

Multiple Primaries

- ◆ Tumors in sites with *ICD-O-3 topography* codes that are *different* at the second (Cxxx), third (Cxxx) or fourth (C18x) character are *multiple* primaries.
 - Example: C18.7 (sigmoid colon) and C18.0 (cecum) are separate primaries.

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Tumors in sites with ICD-O-3 topography codes that differ at the second, third, or fourth character are multiple primaries. For example, sigmoid colon C18.7 and cecum C18.0 are two primaries.

Histology Coding

◆ Histopathologic type:

- Adenocarcinoma in situ, NOS (8140/2)
- Adenocarcinoma, NOS (8140/3)
- Medullary carcinoma (8510/3)
- Mucinous carcinoma (8480/3)
- Signet ring cell carcinoma (8490/3)
- Squamous cell carcinoma (8070/3)
- Adenosquamous carcinoma (8560/3)
- Small cell carcinoma (8041/3)

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These are the most common histopathologic types of carcinomas associated with colorectal cancers. However, 98% of colorectal cancers are adenocarcinomas. There are some additional histology codes that are more specific than those listed here. For example, an adenocarcinoma arising in a villous adenoma is coded to 8261/3. Refer to your *ICD-O-3* Manual for the most appropriate code for the histology provided by the pathologist. The behavior of the tumors reported will either be in situ (/2), or malignant (/3). Benign (/0) and borderline (/1) behaviors of colorectal cancers are not reportable.

Histology Coding Rules

- ◆ **Code the histology documented by the physician when there is no pathology or cytology specimen or if the pathology/ cytology report is not available.**
- ◆ **Priority for using documents to code the histology:**
 - Documentation in the medical record that refers to the pathologic or cytologic findings
 - Physician's reference to a specific type of cancer in the medical record
 - Code the histology to 8000 or 8010 as stated by the physician when nothing more specific is documented.

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Sometimes there will be no pathology or cytology report for the case. When this occurs, code the histology documented by the physician. Use the following priorities for recording documentation from the medical record regarding histology:

- 1.) Documentation in the medical record that refers to the pathologic or cytologic findings.
- 2.) Next is the physician's reference to a specific type of cancer in the medical record.
- 3.) Finally, code the histology to 8000 (cancer/malignant neoplasm NOS) or 8010 (carcinoma, NOS), as stated by the physician when nothing more specific is documented.

Remember that there is nothing in the rules that prevents you from picking up the phone and calling either the surgeon's office or another registry to obtain more precise information about the initial diagnosis.

Histology Coding Rules

- ◆ Code **8140** (adenocarcinoma, NOS) when pathology describes only **intestinal type adenocarcinoma** or **adenocarcinoma, intestinal type**.

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Code 8140, adenocarcinoma, NOS when the pathology report describes only intestinal type adenocarcinoma or adenocarcinoma, intestinal type. Intestinal type adenocarcinoma usually occurs in the stomach. When a diagnosis of intestinal adenocarcinoma is further described by a specific term such as type, continue to the next rule.

Histology Coding Rules

- ◆ Code **8210** (adenocarcinoma in adenomatous polyp), **8261** (adenocarcinoma in villous adenoma) or **8263** (adenocarcinoma in tubulovillous adenoma) when the final diagnosis is:
 - Adenocarcinoma in a polyp
 - Adenocarcinoma in a residual polyp or polyp architecture is recorded in other parts of the pathology report.
 - Adenocarcinoma and there is reference to a residual or pre-existing polyp OR
 - Mucinous/colloid or signet ring cell adenocarcinoma in a polyp OR
 - There is documentation that the patient had a polypectomy.

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Code 8210, adenocarcinoma in adenomatous polyp, or 8261 adenocarcinoma in villous adenoma, or 8263 adenocarcinoma in tubulovillous adenoma, when the final diagnosis is as follows:

- 1) Adenocarcinoma in a polyp.
- 2) Adenocarcinoma in a residual polyp, or polyp architecture is recorded in other parts of the pathology report.
- 3) Adenocarcinoma, and there is reference to a residual or pre-existing polyp or
- 4) Mucinous/colloid or signet ring cell adenocarcinoma in a polyp.
- 5) There is a documentation that the patient had a polypectomy.

It is important to know that the adenocarcinoma originated in a polyp.

Histology Coding Rules

- ◆ Code **8480** (mucinous/colloid adenocarcinoma) or **8490** (signet ring cell carcinoma) when the final diagnosis is:
 - Adenocarcinoma, NOS and the microscopic description documents that **50% or more** of the tumor is **mucinous/colloid** OR
 - Adenocarcinoma, NOS and the microscopic description documents that **50% or more** of the tumor is **signet ring cell** carcinoma

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Code to 8480 when the final diagnosis on the pathology report is mucinous/colloid adenocarcinoma. Also code to mucinous/colloid adenocarcinoma when there is a diagnosis of adenocarcinoma, NOS, and there is also a description stating that 50% or more of the tumor is mucinous/colloid adenocarcinoma.

Code 8490 when the final diagnosis is signet ring cell carcinoma. Code 8490, signet ring cell carcinoma, when there is adenocarcinoma, NOS, and a description stating that 50% or more of the tumor is signet ring cell carcinoma. Use the more specific histology code whenever possible.

Histology Coding Rules

- ◆ Code **8255** (adenocarcinoma with mixed subtypes) when there is a **combination of mucinous/colloid and signet ring cell carcinoma**.
- ◆ Code **8240** (carcinoid tumor, NOS) when the diagnosis is **neuroendocrine carcinoma (8246) and carcinoid tumor (8240)**.

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Code adenocarcinoma with mixed subtypes to 8255 when there is a combination of mucinous/colloid and signet ring cell carcinoma noted in the final diagnosis in the pathology report.

Code carcinoid tumor, NOS (8240) when the diagnosis is neuroendocrine carcinoma (8246) and carcinoid tumor (8240).

Histology Coding Rules

- ◆ Code **8245** (adenocarcinoid) when the diagnosis is **exactly “adenocarcinoid.”**
- ◆ **Code the histology** when only **one histologic type** is identified.
- ◆ **Code the invasive histology** when both **invasive and in situ** histologies are present.
- ◆ Code the histology with the **numerically higher ICD-O-3 code**.

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Code adenocarcinoid, (8245) only when the exact term adenocarcinoid is used in the final diagnosis on the pathology report.

Code the histology listed when only one histologic type is identified.

Code the invasive histology when you have mention of both invasive and in situ carcinoma within a pathology report.

Also, code the histology with the numerically higher ICD-O-3 code, unless there is a rule that states to do otherwise. This last rule has last priority—use it only when all other rules do not apply.

Histology Coding Rules

- ◆ **Code the most specific** histologic term when the diagnoses are:

Examples:

- Cancer/malignant neoplasm, NOS (8000) and a more specific histology
- Carcinoma, NOS (8010) and a more specific carcinoma
- Adenocarcinoma, NOS (8140) and a more specific adenocarcinoma
- Sarcoma, NOS (8800) and a more specific sarcoma (invasive only)

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Always code the more specific histologic term in the final diagnosis on the pathology report. The “not otherwise specified” term should be disregarded and the more specific term should be coded when one is available. For example, if one biopsy is cancer/malignant neoplasm, NOS and a more specific histology is diagnosed on the resection, code the more specific histology. Similarly, a more specific carcinoma term has priority over carcinoma, NOS; and a more specific adenocarcinoma has priority over adenocarcinoma, NOS. Finally, code a more specific sarcoma in preference to sarcoma, NOS.

Histology Coding Rules

- ◆ Invasive tumors can be identified as:
 - type, subtype, predominantly, with features of, major, or with ____ differentiation
- ◆ In situ tumors use the same terms for identification with the addition of:
 - pattern and architecture

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It is important to note that the more specific histology for invasive tumors can be identified as type, subtype, predominantly, with features of, major, or with “(measure of)” differentiation.

In situ tumors can be identified with the same identification terms, with the addition of the words pattern and architecture.

Histology Coding Rules

- ◆ Code **8220** (adenocarcinoma in adenomatous polyposis coli) when:
 - **Clinical** history says **familial polyposis** and final diagnosis on the pathology report from resection is **adenocarcinoma in adenomatous polyps** OR
 - There are **>100 polyps** identified in the resected specimen OR
 - The number of polyps is not given but the diagnosis is **familial polyposis**

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Code adenocarcinoma in adenomatous polyposis (8220) when the clinical history on the patient states familial polyposis, and the final diagnosis on the pathology report from the resection specimen states adenocarcinoma in adenomatous polyps. Also code to 8220 when there are more than 100 polyps identified in the resected specimen. It is appropriate to code to 8220 when the number of polyps is not given, but the diagnosis is familial polyposis.

Histology Coding Rules

- ◆ Code to **8263** (adenocarcinoma in a tubulovillous adenoma) when **multiple** in situ or malignant **polyps** are present, **at least one** of which is **tubulovillous**.

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There are several rules to follow when it comes to the coding of polyps within the colon. Code to adenocarcinoma in a tubulovillous adenoma (8263) when there are multiple in situ or malignant polyps present, and at least one of them is identified as a tubulovillous.

Histology Coding Rules

- ◆ Code **8221** (adenocarcinoma in multiple adenomatous polyps) when:
 - There are **≤100 polyps** identified in the resected specimen or
 - There are multiple polyps and the number is not given, and **familial polyposis is not mentioned**

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Code to adenocarcinoma in multiple adenomatous polyps (8221) when there are 100 polyps or less identified in the resected specimen; or when there are multiple polyps and the number is not given, and the term familial polyposis is not mentioned within the medical record.

Histology Coding Rules

- ◆ Code the histology of the **most invasive tumor** when:
 - There is a frank adenocarcinoma and a carcinoma in a polyp OR
 - There are in situ and invasive tumors OR
 - There are multiple invasive tumors

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Code the most invasive histology described in the pathology report when there is a frank adenocarcinoma and a carcinoma in a polyp, when there are in situ and invasive tumors, or when there are multiple invasive tumors described. When one tumor is in situ and one is invasive, use the histology code for the invasive tumor. When both (or all) histologies are invasive, code the histology of the most invasive tumor.

Grade/Differentiation

- ◆ **Grade I** **Well differentiated**
- ◆ **Grade II** **Moderately differentiated;
low grade**
- ◆ **Grade III** **Poorly differentiated;
medium grade**
- ◆ **Grade IV** **Undifferentiated; high grade**

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Once the histology is coded, the grading of the tumor must be recorded. The grading or differentiation of colorectal carcinomas is standard. Grade I is well differentiated, Grade II is moderately differentiated, Grade III is poorly differentiated, and Grade IV is undifferentiated. The term low- grade is recorded as grade II, medium grade as grade III, and high grade as grade IV.

Colorectal Cancer Exercises

- ◆ Let's do two exercises to determine:
 - How many primaries?
 - ◆ Primary Site 1 Histology
 - ◆ Primary Site 2 Histology

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It's time for an exercise or two before we move on to Parts 3 – 4.

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

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