

**PUBLIC HEALTH MINISTRY OF UKRAINE  
UZHHOROD NATIONAL UNIVERSITY  
MEDICAL FACULTY  
ONCOLOGY DEPARTMENT**

**ONCOLOGY  
CANCER OF THE COLON AND RECTUM: EPIDEMIOLOGY,  
CLINICAL PICTURE, DIAGNOSTIC ALGORITHM, TREATMENT  
MANAGEMENT**

**Methodical instructions for 5<sup>TH</sup> year medical student practical training**

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## Content

<b>CANCER OF THE COLON AND RECTUM: EPIDEMIOLOGY, CLINICAL PICTURE, DIAGNOSTIC ALGORITHM, TREATMENT MANAGMENT.....</b>	<b>4</b>
<b>Clinical picture and symptoms of colon and rectal cancer .....</b>	<b>5</b>
<b>Diagnostic algorithm for colon and rectal cancer.....</b>	<b>5</b>
<b>Understanding Colon and Rectal Cancer .....</b>	<b>7</b>
<b>Treatment Options for Colon and Rectal Cancer .....</b>	<b>8</b>
<b>Treatment options for locally advanced rectal cancer .....</b>	<b>9</b>
<b>New methods of treatment of locally advanced rectal cancer.....</b>	<b>10</b>
<b>Coping with Colon and Rectal Cancer .....</b>	<b>10</b>
<b>Theoretical questions. ....</b>	<b>12</b>
<b>Tasks for initial level verification. ....</b>	<b>14</b>
<b>Suggested Literature .....</b>	<b>30</b>

# CANCER OF THE COLON AND RECTUM: EPIDEMIOLOGY, CLINICAL PICTURE, DIAGNOSTIC ALGORITHM, TREATMENT MANAGEMENT

## Topic actuality.

The incidence and prevalence of colon and rectal cancer have been a significant concern worldwide. Colorectal cancer, which encompasses both colon and rectal cancer, is the third most frequently diagnosed cancer in men and the second in women. Approximately 66% of new colorectal cancers arise in the colon (43% in the proximal colon and 23% in the distal colon), while 30% occur in the rectum. The age-standardized incidence rates of colorectal cancer vary across the globe, with higher rates in more developed countries. Early detection through screening methods such as fecal immunochemical testing, sigmoidoscopy, or colonoscopy is crucial to reduce the impact of this disease.

Several risk factors contribute to the development of colon and rectal cancer. Known risk factors are classified into genetic, environmental, and lifestyle-related categories. Genetic factors include familial and hereditary conditions, such as Lynch syndrome (hereditary nonpolyposis colorectal cancer). Lifestyle factors, on the other hand, involve dietary habits, physical inactivity, obesity, smoking, and alcohol consumption. Additionally, certain medical conditions, such as inflammatory bowel disease and a history of radiation therapy to the pelvic area, can increase the risk of rectal cancer.

Demographic patterns also play a role in the epidemiology of colon and rectal cancer. Studies have shown variations in the incidence and clinical presentation of colorectal cancer among different populations. For instance, primary signet ring cell carcinoma, an aggressive subtype of colorectal cancer, has been found to have different demographic and clinical characteristics from other forms of the disease. Furthermore, some studies have reported differences in the incidence and clinical presentation of rectal cancer patients compared to colon cancer patients. Understanding these demographic patterns can help in tailoring prevention and treatment strategies to specific populations.

## Teaching aims.

**General purpose: be able to provide differential diagnosis and diagnostic algorithm of colon and rectal cancer.**

<b><u>Concrete aims</u></b>	<b><u>Initial level of knowledge-abilities</u></b>
	<b>Be able:</b>
1. To define the main pathological symptoms of colorectal cancer	1. Will be able to provide full clinical examination and prescribe suitable instrumental diagnostic programme.
2. To take the medical history, perform physical and laboratory examination for patients with colorectal cancer	2. To interpret complaints, anamnesis, physical and laboratory findings for patients with different localizations of colorectal cancer.
3. To provide differential diagnosis of colorectal cancer	3. To interpret results of instrumental methods as a part of diagnostic algorithm of colorectal cancer

## **Clinical picture and symptoms of colon and rectal cancer**

Colon and rectal cancer, collectively referred to as colorectal cancer, is a condition characterized by the formation of malignant cells in the tissues of the colon or rectum. Common symptoms of colorectal cancer include rectal bleeding, weight loss, appetite loss, diarrhea, constipation, and abdominal pain. These symptoms often serve as early warning signs of an existing colorectal cancer condition. It is important to note that approximately 66% of new colorectal cancer cases arise in the colon, with 43% occurring in the proximal colon and 23% in the distal colon, while 30% of cases occur in the rectum.

Diagnosing colon and rectal cancer can present several challenges due to the diverse range of symptoms and the potential for misdiagnosis. Diagnostic colonoscopy is often triggered by blood per rectum (37%), abdominal pain (34%), and anemia (23%). Additionally, emergency surgery is commonly indicated for patients experiencing acute complications, such as bowel obstruction or perforation. Various diagnostic methods for colorectal cancer are available, including imaging techniques, blood tests, and biopsy procedures. Colonoscopy is particularly valuable for detecting and removing polyps, which may be precursors to colorectal cancer.

Staging and prognosis are crucial aspects of colorectal cancer management, as they inform treatment decisions and help predict patient outcomes. The majority of colorectal cancer cases, including rectal cancer, are sporadic (70%), with an average age of diagnosis after 50 years old. A minority of patients (10%) have a genetic predisposition to the disease. Several genetic and environmental risk factors have been identified for colorectal cancer, which can influence the likelihood of developing the disease. Furthermore, the stage of colorectal cancer at diagnosis significantly impacts prognosis and treatment options. For example, if cancer has grown through the wall of the colon or rectum, more aggressive treatment may be necessary.

### **Diagnostic algorithm for colon and rectal cancer.**

Screening and prevention play a crucial role in the early detection and management of colon and rectal cancer. Regular screening can help identify cancerous growths in the colon or rectum before they progress to advanced stages, improving the chances of successful treatment. In particular, diagnostic or screening colonoscopy is required for tissue biopsy and pathological confirmation of colon carcinoma. Some common screening methods include: - Fecal occult blood testing (FOBT): A non-invasive test that checks for hidden blood in the stool, which may indicate the presence of cancer. - Flexible sigmoidoscopy: An examination of the rectum and sigmoid colon using a flexible tube with a light and camera on the end. - Colonoscopy: The gold standard for diagnosing colorectal cancer, allowing the doctor to look inside the entire rectum and colon and remove any suspicious polyps for further testing.

Diagnostic tests and procedures are essential for accurately diagnosing and staging colorectal cancer. In addition to colonoscopy, other diagnostic tests may be performed to confirm the presence of cancer and determine its stage. Symptoms such as rectal bleeding, weight loss, appetite loss, diarrhea, constipation, or abdominal pain might herald an existing condition of colorectal cancer and warrant further investigation. Some of these diagnostic tests include: - Imaging studies: Computed

tomography (CT) scans, magnetic resonance imaging (MRI), or positron emission tomography (PET) scans may be used to visualize the extent of the tumor and assess whether it has spread to other organs. - Biopsy: Tissue samples from suspicious growths or polyps are examined under a microscope to confirm the presence of cancer cells. - Blood tests: Tests such as carcinoembryonic antigen (CEA) levels can help monitor the cancer's response to treatment and detect recurrence.

Treatment options and follow-up care for colon and rectal cancer depend on the stage of the cancer and the overall health of the patient. Systemic therapy for cancers of the colon and rectum are addressed jointly by clinical teams, including oncologists, surgeons, and other specialists. Potential treatment options include: - Surgery: Removal of the tumor and surrounding tissue, including nearby lymph nodes, is the primary treatment for most stages of colorectal cancer. - Chemotherapy: The use of drugs to destroy cancer cells, often administered before or after surgery to shrink the tumor or kill any remaining cancer cells. - Radiation therapy: High-energy rays or particles are used to kill cancer cells, often in combination with chemotherapy as part of the treatment plan for rectal cancer. - Targeted therapy: Therapies that target specific proteins or genes in cancer cells, helping to block their growth and spread. Regular follow-up care is crucial in monitoring the patient's response to treatment, detecting any recurrence of cancer, and managing potential side effects of therapy. This may include periodic physical exams, blood tests, and imaging studies to ensure the cancer remains under control and the patient maintains good health.

### **What are the most significant risk factors for developing colon and rectal cancer?**

Several risk factors contribute to the development of colon and rectal cancer, including both lifestyle and genetic components. Key lifestyle factors include a diet high in red and processed meats, low in fiber, physical inactivity, obesity, smoking, and heavy alcohol use. Genetic factors encompass a family history of colorectal cancer or polyps, and inherited syndromes like Lynch syndrome and familial adenomatous polyposis (FAP). Other risks include a personal history of inflammatory bowel disease, such as Crohn's disease or ulcerative colitis, and type 2 diabetes.

### **What are the common symptoms that might indicate colon or rectal cancer?**

Symptoms of colon and rectal cancer can vary but often include changes in bowel habits, such as diarrhea, constipation, or a change in the consistency of the stool that lasts for more than a few days; rectal bleeding or blood in the stool; persistent abdominal discomfort, such as cramps, gas, or pain; a feeling that the bowel does not empty completely; weakness or fatigue; and unexplained weight loss. It's important to note that these symptoms can also be caused by conditions other than cancer, so proper medical evaluation is crucial.

### **What is involved in the staging process for colon and rectal cancer, and how does it affect prognosis?**

Staging is the process of determining the extent of cancer within the body. For colon and rectal cancer, staging typically involves several steps, including physical examinations, imaging tests (like CT scans, MRIs, and PET scans), and possibly surgical procedures to examine the extent of the disease. The stages range from I (1) to IV (4) and help determine the prognosis and treatment plan. Generally, a lower stage

(I or II) indicates that cancer is more localized and has a better prognosis, while a higher stage (III or IV) suggests that cancer has spread and may have a less favorable outlook.

### **What types of screening and prevention methods are available for colon and rectal cancer?**

Screening for colon and rectal cancer is crucial as it can detect cancer at an early, more treatable stage or even prevent cancer by identifying and removing precancerous growths called polyps. Common screening methods include fecal occult blood testing (FOBT), fecal immunochemical test (FIT), stool DNA tests, sigmoidoscopy, and colonoscopy. Prevention strategies include maintaining a healthy lifestyle with a balanced diet, regular exercise, avoiding smoking and excessive alcohol consumption, and managing conditions that increase risk, such as obesity and diabetes. Additionally, individuals with a family history of colorectal cancer may consider genetic counseling and more frequent screening.

### **What are the current treatment options for colon and rectal cancer, and what follow-up care can be expected?**

Treatment options for colon and rectal cancer depend on the stage of the disease and may include surgery to remove the cancerous tissue, chemotherapy, radiation therapy, targeted therapy, and immunotherapy. The combination of these treatments varies based on individual cases. Surgery is often the first step for localized cancer, while advanced cases may require a combination of therapies. Follow-up care post-treatment involves regular check-ups, including physical exams, blood tests (like CEA tests), and imaging tests to monitor for recurrence of the cancer. It may also involve lifestyle adjustments, support services, and ongoing management of any side effects from treatment.

In conclusion, colon and rectal cancer are significant health concerns that affect a large number of people worldwide. The epidemiology of these cancers is complex, with various risk factors and demographic patterns playing a role in their incidence and prevalence. The clinical picture and symptoms of colon and rectal cancer can be challenging to diagnose, but a diagnostic algorithm that includes screening, diagnostic tests and procedures, and treatment options can help manage these cancers effectively. Early detection and prevention are critical to improving the prognosis and reducing the mortality associated with colon and rectal cancer. Therefore, it is essential to raise awareness about the importance of screening and prevention to reduce the burden of these cancers on individuals and society.

## **Understanding Colon and Rectal Cancer**

Colon and rectal cancer, collectively referred to as colorectal cancer (CRC), is a common and lethal disease influenced by both environmental and genetic factors. These cancers develop in the colon or rectum, which are parts of the large intestine. There are various types of colorectal cancer, with adenocarcinomas being the most common, accounting for over 90% of cases. Other types include gastrointestinal stromal tumors, carcinoid tumors, and lymphomas. Understanding the different types

of colon and rectal cancer can help in determining the most appropriate treatment options and prognosis for patients.

Several risk factors contribute to the development of colorectal cancer. One significant risk factor is a personal or family history of colorectal cancer or adenomatous polyps. Polyps with villous or tubulovillous dysplasia are also considered risk factors. Patients with inflammatory bowel disease, such as ulcerative colitis or Crohn's disease, are at an increased risk of developing colon and rectal cancer as well. In addition to these factors, lifestyle-related risks include obesity, physical inactivity, a diet high in red or processed meats, smoking, and excessive alcohol consumption. Identifying and addressing these risk factors can help in the prevention and early detection of colorectal cancer.

Symptoms of colon and rectal cancer can vary and may include changes in bowel habits, such as persistent diarrhea or constipation, rectal bleeding or blood in the stool, abdominal pain or cramping, and unexplained weight loss. Diagnosis typically involves a combination of tests, such as a colonoscopy, to visually examine the colon and rectum, and biopsy to obtain a tissue sample for analysis. Further tests, including blood tests and imaging studies, may be performed to determine the stage of the cancer and whether it has spread. Treatment for colon and rectal cancer is based largely on the stage of the cancer but may involve surgery, such as partial colectomy to remove the cancerous section of the colon along with nearby lymph nodes, as well as neoadjuvant and adjuvant therapies, including radiotherapy and chemotherapy. These therapies can help shrink tumors before surgery, making them easier to remove, or reduce the risk of recurrence following surgery.

### **Treatment Options for Colon and Rectal Cancer**

Staging and surgical options play a critical role in the treatment of colon and rectal cancer. Surgical resection is the cornerstone of curative treatment for rectal adenocarcinomas, with invasive small rectal adenocarcinomas potentially being candidates for partial colectomy. In this procedure, the section of the colon containing the cancer, along with nearby lymph nodes, is removed. The staging and treatment of rectal cancer often involve a treatment algorithm that includes surgery followed by adjuvant chemotherapy and radiotherapy. Ultimately, the choice of surgical options depends on the stage and location of the cancer, as well as the patient's overall health and preferences.

Neoadjuvant and adjuvant treatments are essential components of colon and rectal cancer treatment plans. Neoadjuvant therapy, typically recommended for stage II and III rectal cancer patients, involves a variety of options such as radiotherapy and chemotherapy used alone or in combination. Neoadjuvant radiotherapy in rectal cancer has shown promising results in reducing tumor size and improving surgical outcomes. Following surgical resection, adjuvant therapy may be employed to lower the chances of cancer recurrence. This can include chemotherapy and radiotherapy for stage III node-positive colon cancer patients. The ultimate goal of these treatments is to optimize the patient's chances for long-term survival and minimize the risk of cancer recurrence.

While colon and rectal cancer treatments can be effective, they may also come with various side effects and complications. Some of the potential issues associated



with surgical resection include infection, bleeding, and damage to nearby organs. Additionally, radical resection of the rectum, though considered the mainstay of therapy, has high recurrence rates when used without additional treatments. Neoadjuvant and adjuvant therapies, such as chemotherapy and radiotherapy, can also cause side effects like nausea, vomiting, fatigue, and skin irritation. It is crucial for patients and healthcare providers to carefully weigh the benefits and potential complications of each treatment option, and to closely monitor patients during and after treatment for any signs of complications or recurrence.

### **Treatment options for locally advanced rectal cancer**

Surgery remains the mainstay of treatment for patients with locally advanced rectal cancer (LARC). A complete, margin-negative resection offers the greatest chance for a cure, ensuring that the entire tumor is removed with adequate surrounding tissue to minimize the risk of recurrence. Surgical options for LARC include transabdominal resection, in which the surgeon removes the rectum and part of the colon, and total mesorectal excision (TME), a more extensive procedure that involves the removal of the entire mesorectum, the fatty tissue surrounding the rectum. In recent years, there has been a shift towards using neoadjuvant treatments, such as chemoradiotherapy and systemic chemotherapy, before surgery to improve outcomes and reduce the need for more invasive surgical procedures.

Radiation therapy, often combined with chemotherapy, is another crucial component of LARC treatment. The standard approach involves administering pelvic radiation plus sensitizing chemotherapy with a fluoropyrimidine (chemoradiotherapy) before surgery. This preoperative chemoradiotherapy (CRT) is designed to shrink the tumor, making it easier to remove during surgery and increasing the likelihood of a margin-negative resection. Alternative approaches to radiation therapy include short-course radiotherapy delivered over five days and the selective use of radiation based on a patient's response to chemotherapy. Some studies have suggested that patients with tumors that respond well to chemotherapy may safely forgo radiation therapy before surgery, reducing the risk of side effects and complications.

Chemotherapy is another essential component of LARC treatment, often used in combination with radiation therapy or as a standalone treatment before surgery. Neoadjuvant chemotherapy, administered before surgery, can help shrink the tumor and improve surgical outcomes, while adjuvant chemotherapy is given after surgery to reduce the risk of recurrence. The standard treatment for LARC involves preoperative CRT followed by surgery and adjuvant chemotherapy. However, emerging evidence suggests that some patients with rectal cancer may benefit from combining two chemotherapy drugs before surgery, a strategy that appears to be as effective as chemotherapy and radiation therapy. As research continues to advance, treatment options for patients with LARC will likely continue to evolve, with the goal of optimizing outcomes and minimizing side effects.

## **New methods of treatment of locally advanced rectal cancer**

Immunotherapy has become a promising treatment option for patients with locally advanced rectal cancer (LARC). In a phase 2 clinical trial presented by Cercek et al., patients with LARC exhibiting insufficient mismatch repair (dMMR) and/or high microsatellite instability (MSI-H) received immunotherapy. This innovative approach has shown excellent results: in patients with rectal cancer, the tumor completely disappeared during a study conducted at the Memorial Sloan Kettering Cancer Center. In addition, a pivotal trial of “immunoablative” neoadjuvant immunotherapy reported at the ASCO 2022 conference demonstrated a 100% complete response in patients with dMMR locally advanced rectal cancer. These results suggest that immunotherapy may offer a highly effective treatment option for some LARC patients.

Targeted therapy has also been studied for the treatment of locally advanced rectal cancer. One example of targeted therapy is the use of drugs that inhibit epidermal growth factor receptors (EGFR inhibitors), which can be used to treat some advanced forms of colon or rectal cancer. Cetuximab, an EGFR inhibitor, has been shown to be safely combined with radiotherapy and chemotherapy in neoadjuvant therapy for rectal cancer. Such a combination of targeted therapy with existing treatments may offer improved outcomes for LARC patients, especially those with specific genetic markers that make them more susceptible to targeted therapy.

Neoadjuvant therapy, which involves treatment before surgery, has become an important component of a multimodal approach to the treatment of locally advanced rectal cancer. For LARC (T3-4/N+M0), the standard treatment is neoadjuvant chemoradiotherapy (nCRT) combined with total mesorectal excision surgery. Neoadjuvant radiation therapy has been shown to effectively reduce tumor burden before surgical treatment. Moreover, a clinical trial found the neoadjuvant FOLFOX chemotherapy regimen to be an effective treatment option for patients with T2 node-positive, T3-negative, or T3-node-positive rectal cancer. Integrating neoadjuvant therapy into the treatment plan of patients with LARC may increase the likelihood of achieving a complete response and improve long-term outcomes.

There are several treatment options available for patients with locally advanced rectal cancer, including surgery, radiation therapy, and chemotherapy. Advances in surgical techniques, such as total mesorectal excision (TME), transanal total mesorectal excision (taTME), and robotic surgery, have improved outcomes for patients. Additionally, emerging treatments like immunotherapy, targeted therapy, and neoadjuvant therapy offer promising options for patients with this type of cancer. With ongoing research and advancements in technology, the future of locally advanced rectal cancer treatment looks hopeful.

## **Coping with Colon and Rectal Cancer**

Supportive care and managing symptoms play a crucial role in coping with colon and rectal cancer. The primary treatment for colon cancer is surgery to remove the section of the colon containing the cancer, known as a partial colectomy, along with nearby lymph nodes. However, managing symptoms and providing supportive care are equally important to ensure the patient's well-being during and after treatment. This includes addressing any pain, anxiety, and depression that may arise due to the surgical

intervention. Some strategies to manage these symptoms include: - Pain management through medication, relaxation techniques, and physical therapy - Providing emotional support through counseling, support groups, and family therapy - Addressing dietary and lifestyle changes to promote healing and overall health

Emotional and mental health support is essential for patients coping with colon and rectal cancer. Rectal cancer treatment options include surgery, radiation therapy, chemotherapy, targeted therapy, and active surveillance. Neoadjuvant therapy, which involves a variety of options such as radiotherapy and chemotherapy, is often used before surgery in rectal cancer to shrink the tumor and make it easier to remove. This treatment route is preferred for stage II and III rectal cancer adenocarcinoma (RCA) patients, but some patients may opt for upfront surgical resection. Regardless of the chosen treatment, patients may experience significant stress, anxiety, and depression. Emotional and mental health support can be provided through: - Professional counseling and therapy sessions - Support groups for cancer patients and their families - Encouragement to openly discuss fears, concerns, and feelings with loved ones

Follow-up care and survivorship are critical aspects of coping with colon and rectal cancer. After the initial treatment, patients may require adjuvant chemotherapy to reduce the chance of cancer recurrence, particularly for those with stage 1 colon cancer. Neoadjuvant chemoradiation therapy has been shown to result in significant tumor downstaging, enhancing curative resection and subsequently improving local disease control. However, neoadjuvant radiotherapy for rectal cancer has been associated with an increase in postoperative complications, predominantly due to surgical difficulty. To ensure the best possible outcome, follow-up care should include: - Regular checkups and monitoring for cancer recurrence or new cancers - Ongoing symptom management and supportive care - Rehabilitation and physical therapy to address any lingering side effects of treatment - Encouragement to maintain a healthy lifestyle and seek emotional support as needed

### **What is the difference between colon and rectal cancer?**

Colon and rectal cancer, often grouped under the term colorectal cancer, are similar as they both originate in the large intestine. However, the primary difference lies in their location. Colon cancer starts in the colon, which is the longest part of the large intestine, while rectal cancer begins in the rectum, the last several inches of the large intestine leading to the anus. While they share some symptoms and treatment methods, the surgical approaches and potential complications can differ due to the anatomical differences of their locations.

### **How are colon and rectal cancers diagnosed?**

Colon and rectal cancers are usually diagnosed through a combination of patient medical history, physical examinations, and diagnostic tests. Common diagnostic methods include colonoscopy, which allows direct visualization and biopsy of the tumor, and imaging tests like CT scans, MRI, and PET scans to determine the extent of the disease. Blood tests, including carcinoembryonic antigen (CEA) levels, may also be used to monitor treatment effectiveness and disease recurrence.

## **What are the main surgical options for treating colon and rectal cancer, and how do they differ?**

The main surgical options for colon cancer include partial colectomy, where the affected portion of the colon is removed, and colostomy, where an opening is created for waste to leave the body if the colon needs to heal or if a large portion is removed. For rectal cancer, options include low anterior resection for tumors in the upper part of the rectum, which preserves the anal sphincter, and abdominoperineal resection for lower rectal tumors, where both the rectum and anus are removed, resulting in a permanent colostomy. Laparoscopic and robotic surgeries are less invasive options that may be available depending on the tumor's location and stage.

## **What is the role of neoadjuvant and adjuvant treatments in colon and rectal cancer?**

Neoadjuvant treatments, such as chemotherapy and radiation therapy, are given before surgery to shrink the tumor and make it easier to remove. This is more common in rectal cancer. Adjuvant treatments are administered after surgery to eliminate any remaining cancer cells and reduce the risk of recurrence. The decision to use these treatments depends on the cancer stage, with later stages more likely to receive both neoadjuvant and adjuvant treatments to improve outcomes.

## **What are the potential complications of colon and rectal cancer treatments?**

The potential complications of colon and rectal cancer treatments vary depending on the treatment type. Surgical complications can include bleeding, infection, and issues related to anesthesia. There may also be long-term effects such as changes in bowel habits or bowel incontinence, particularly after rectal cancer surgery. Chemotherapy and radiation therapy can cause side effects like fatigue, nausea, vomiting, hair loss, and an increased risk of infection. Emotional and psychological support is crucial as patients may experience anxiety, depression, or stress related to their diagnosis and treatment.

In conclusion, colon and rectal cancer are serious diseases that require prompt diagnosis and treatment. Understanding the causes, symptoms, and treatment options is crucial for patients and their families. Surgical options and neoadjuvant and adjuvant treatments are effective in managing the disease, but they may come with side effects and complications. Coping with cancer requires supportive care, managing symptoms, and emotional and mental health support. Follow-up care and survivorship are also important aspects of cancer management. With proper care and support, patients with colon and rectal cancer can lead fulfilling lives.

## **Teaching content in accordance with aims.**

### **Theoretical questions.**

1. What does the term colorectal cancer mean?
2. What is the epidemiology of colorectal cancer?
3. What risk factors can cause development of colon and rectal cancer?
4. What are the most common symptoms of colorectal cancer?
5. How to perform physical examination in patients with suspected colorectal cancer?

6. What type of laboratory studies do you need in diagnostic algorithm of colorectal cancer?
7. What instrumental methods should we use in differential diagnosis of colorectal cancer?
8. With what diseases should we perform differential diagnosis?
9. What are criteria's for staging in colorectal manegment?
10. How to prevent colorectal cancer?
11. Treatment management for colorectal cancer?
12. What type of adjuvant treatment is case of choise?
13. What is the role of surgical treatment in patients with colorectal cancer?

## Determination and providing of initial level of knowledge-abilities.

### Tasks for initial level verification.

1. What is the third most frequently diagnosed cancer in men and the second in women?

X - Skin cancer

X - Lung cancer

X - Breast cancer

X - Prostate cancer

✓ - Colorectal cancer

2. What percentage of new colorectal cancers arise in the colon?

✓ - 66%

X - 43%

X - 10%

X - 23%

X - 30%

3. Which screening method is considered the gold standard for diagnosing colorectal cancer?

✓ - Colonoscopy

X - Fecal occult blood testing (FOBT)

X - Computed tomography (CT) scan

X - Stool DNA test

X - Flexible sigmoidoscopy

4. What are some common symptoms of colorectal cancer?

✓ - Rectal bleeding, weight loss, appetite loss, diarrhea, constipation, abdominal pain

X - Headache, fever, sore throat, cough, runny nose

X - Back pain, muscle weakness, numbness, tingling

X - Blurred vision, eye pain, redness, sensitivity to light

X - Chest pain, shortness of breath, dizziness, fatigue

5. What are some risk factors for developing colon and rectal cancer?

X - Vegetarian diet, daily fiber intake, regular exercise, non-smoker

X - High meat consumption, low fiber diet, physical inactivity, smoker, moderate alcohol consumption

X - Low meat consumption, high fiber diet, regular exercise, non-smoker

✓ - Diet high in red and processed meats, low in fiber, physical inactivity, obesity, smoking, heavy alcohol use

X - Regular exercise, balanced diet, non-smoker, moderate alcohol consumption

6. What is the primary treatment for most stages of colorectal cancer?

X - Immunotherapy

X - Chemotherapy

✓ - Surgery

X - Radiation therapy

X - Targeted therapy

7. What is the process of determining the extent of cancer within the body called?

X - Prognosis

✓ - Staging

X - Screening

X - Diagnosis

X - Treatment

8. What are some common screening methods for colon and rectal cancer?

✓ - Fecal occult blood testing (FOBT), flexible sigmoidoscopy, colonoscopy

X - Prostate-specific antigen (PSA) test, digital rectal exam (DRE), biopsy

X - Mammogram, Pap test, ultrasound

X - Blood pressure measurement, cholesterol test, electrocardiogram (ECG)

X - Bone density scan, magnetic resonance imaging (MRI), X-ray

9. What is the most treatable stage of colon and rectal cancer?

- X - Stage 0 (carcinoma in situ)
- X - Stage IV (metastatic)
- X - Stage IIIB (locally advanced)
- X - Higher stage (III or IV)
- ✓ - Lower stage (I or II)

10. What is the purpose of regular follow-up care for colon and rectal cancer patients?

- X - Educating patients about healthy lifestyle choices, facilitating survivorship programs
- ✓ - Monitoring response to treatment, detecting recurrence, managing potential side effects
- X - Providing emotional support, improving quality of life
- X - Ensuring access to affordable healthcare, advocating for patient rights
- X - Preventing the development of new cancers, promoting overall health and well-being

11. What are the current treatment options for colon and rectal cancer, and what follow-up care can be expected?

- ✓ - Treatment options for colon and rectal cancer depend on the stage of the disease and may include surgery to remove the cancerous tissue, chemotherapy, radiation therapy, targeted therapy, and immunotherapy.
- X - The current treatment options for colon and rectal cancer include only surgery to remove the cancerous tissue.
- X - The current treatment options for colon and rectal cancer include only chemotherapy.
- X - The current treatment options for colon and rectal cancer include only radiation therapy.

X - The current treatment options for colon and rectal cancer include only targeted therapy.

12. What are the most common types of colorectal cancer?

- X - The most common types of colorectal cancer are gastrointestinal stromal tumors.
- X - The most common types of colorectal cancer are sarcomas.
- X - The most common types of colorectal cancer are carcinoid tumors.
- X - The most common types of colorectal cancer are lymphomas.
- ✓ - The most common types of colorectal cancer are adenocarcinomas.

13. What are the risk factors for developing colorectal cancer?

- X - Risk factors for developing colorectal cancer include only inflammatory bowel disease.
- X - Risk factors for developing colorectal cancer include only obesity.
- ✓ - Risk factors for developing colorectal cancer include personal or family history of colorectal cancer or adenomatous polyps, inflammatory bowel disease, obesity, physical inactivity, a diet high in red or processed meats, smoking, and excessive alcohol consumption.
- X - Risk factors for developing colorectal cancer include only personal or family history of colorectal cancer or adenomatous polyps.
- X - There are no known risk factors for developing colorectal cancer.

14. What are the symptoms of colon and rectal cancer?

- ✓ - Symptoms of colon and rectal cancer can include changes in bowel habits, rectal bleeding or blood in the stool,

abdominal pain or cramping, and unexplained weight loss.

X - Symptoms of colon and rectal cancer can include nausea and vomiting.

X - Symptoms of colon and rectal cancer can include shortness of breath and chest pain.

X - Symptoms of colon and rectal cancer can include persistent diarrhea or constipation.

X - There are no symptoms associated with colon and rectal cancer.

15. How is colon and rectal cancer diagnosed?

X - Colon and rectal cancer is diagnosed through a blood test.

✓ - Colon and rectal cancer is typically diagnosed through a colonoscopy, biopsy, additional tests, including blood tests and imaging studies.

X - Colon and rectal cancer is diagnosed through a physical exam.

X - Colon and rectal cancer is diagnosed through a urine test.

X - Colon and rectal cancer is diagnosed through a chest X-ray.

16. What is the role of surgery in the treatment of colon and rectal cancer?

X - Surgery is only used for advanced cases of colon and rectal cancer.

X - Surgery is not a treatment option for colon and rectal cancer.

✓ - Surgery is often the first step in the treatment of colon and rectal cancer. It involves removing the cancerous tissue from the colon or rectum.

X - Surgery is the only treatment option for colon and rectal cancer.

X - Surgery is only used as a last resort in the treatment of colon and rectal cancer.

17. What are neoadjuvant and adjuvant therapies in the treatment of colon and rectal cancer?

✓ - Neoadjuvant therapy is a treatment given before surgery to shrink tumors and make them easier to remove. It may include chemotherapy, radiation therapy, or a combination of both. Adjuvant therapy is a treatment given after surgery to lower the risk of cancer recurrence. It may include chemotherapy, radiation therapy, or targeted therapy.

X - Neoadjuvant and adjuvant therapies are the same thing in the treatment of colon and rectal cancer.

X - Neoadjuvant and adjuvant therapies are not used in the treatment of colon and rectal cancer.

X - Neoadjuvant therapy is a treatment given after surgery to lower the risk of cancer recurrence.

X - Adjuvant therapy is a treatment given before surgery to shrink tumors and make them easier to remove.

18. What are the potential side effects and complications of colon and rectal cancer treatments?

✓ - Potential side effects and complications of colon and rectal cancer treatments can include infection, bleeding, damage to nearby organs, nausea, vomiting, fatigue, and skin irritation. It is important for patients and healthcare providers to carefully weigh the benefits and potential complications of each treatment option and to closely monitor patients during and after treatment for any signs of complications or recurrence.

X - There are no potential side effects or complications of colon and rectal cancer treatments.



X - Potential side effects and complications of colon and rectal cancer treatments are limited to nausea and vomiting.

X - Potential side effects and complications of colon and rectal cancer treatments are limited to fatigue and skin irritation.

X - Potential side effects and complications of colon and rectal cancer treatments are limited to infection and bleeding.

19. How can patients cope with colon and rectal cancer?

X - There is no way for patients to cope with colon and rectal cancer.

✓ - Patients can cope with colon and rectal cancer by managing symptoms and receiving supportive care. This may include pain management, emotional support through counseling or support groups, and addressing any anxiety or depression that may arise.

X - Patients can cope with colon and rectal cancer by relying solely on medication.

X - Patients can cope with colon and rectal cancer by avoiding all forms of treatment.

X - Patients can cope with colon and rectal cancer by undergoing additional surgeries.

20. What is the importance of early detection and prevention in colon and rectal cancer?

X - Early detection and prevention are only important for individuals with a family history of colon and rectal cancer.

X - Early detection and prevention have no impact on the prognosis and mortality of colon and rectal cancer.

X - Early detection and prevention only play a minor role in the prognosis and mortality of colon and rectal cancer.

X - Early detection and prevention are only important for certain types of cancer, not colon and rectal cancer.

✓ - Early detection and prevention are critical in improving the prognosis and reducing the mortality associated with colon and rectal cancer.

21. What are the follow-up care requirements after treatment for colon and rectal cancer?

X - Follow-up care after treatment for colon and rectal cancer only involves blood tests.

✓ - Follow-up care after treatment for colon and rectal cancer involves regular check-ups, including physical exams, blood tests (like CEA tests), and imaging tests to monitor for recurrence of the cancer.

X - Follow-up care after treatment for colon and rectal cancer only involves physical exams.

X - Follow-up care after treatment for colon and rectal cancer only involves imaging tests.

X - There are no follow-up care requirements after treatment for colon and rectal cancer.

22. Which screening method is considered the gold standard for diagnosing colorectal cancer?

✓ - Colonoscopy

X - Fecal occult blood testing (FOBT)

X - Computed tomography (CT) scan

X - Stool DNA test

X - Flexible sigmoidoscopy

23. What are some common symptoms of colorectal cancer?

✓ - Rectal bleeding, weight loss, appetite loss, diarrhea, constipation, abdominal pain

X - Headache, fever, sore throat, cough, runny nose

X - Back pain, muscle weakness, numbness, tingling

X - Blurred vision, eye pain, redness, sensitivity to light

X - Chest pain, shortness of breath, dizziness, fatigue

24. What are some risk factors for developing colon and rectal cancer?

X - Vegetarian diet, daily fiber intake, regular exercise, non-smoker

X - High meat consumption, low fiber diet, physical inactivity, smoker, moderate alcohol consumption

X - Low meat consumption, high fiber diet, regular exercise, non-smoker

✓ - Diet high in red and processed meats, low in fiber, physical inactivity, obesity, smoking, heavy alcohol use

X - Regular exercise, balanced diet, non-smoker, moderate alcohol consumption

25. What is the primary treatment for most stages of colorectal cancer?

X - Immunotherapy

X - Chemotherapy

✓ - Surgery

X - Radiation therapy

X - Targeted therapy

26. What is the process of determining the extent of cancer within the body called?

X - Prognosis

✓ - Staging

X - Screening

X - Diagnosis

X - Treatment

27. What are some common screening methods for colon and rectal cancer?

✓ - Fecal occult blood testing (FOBT), flexible sigmoidoscopy, colonoscopy

X - Prostate-specific antigen (PSA) test, digital rectal exam (DRE), biopsy

X - Mammogram, Pap test, ultrasound

X - Blood pressure measurement, cholesterol test, electrocardiogram (ECG)

X - Bone density scan, magnetic resonance imaging (MRI), X-ray

28. What is the most treatable stage of colon and rectal cancer?

X - Stage 0 (carcinoma in situ)

X - Stage IV (metastatic)

X - Stage IIIB (locally advanced)

X - Higher stage (III or IV)

✓ - Lower stage (I or II)

29. What is the purpose of regular follow-up care for colon and rectal cancer patients?

X - Educating patients about healthy lifestyle choices, facilitating survivorship programs

✓ - Monitoring response to treatment, detecting recurrence, managing potential side effects

X - Providing emotional support, improving quality of life

X - Ensuring access to affordable healthcare, advocating for patient rights

X - Preventing the development of new cancers, promoting overall health and well-being

30. What are the current treatment options for colon and rectal cancer, and what follow-up care can be expected?

✓ - Treatment options for colon and rectal cancer depend on the stage of the disease and may include surgery to remove the cancerous tissue, chemotherapy, radiation therapy, targeted therapy, and immunotherapy.

X - The current treatment options for colon and rectal cancer include only surgery to remove the cancerous tissue.

X - The current treatment options for colon and rectal cancer include only chemotherapy.

X - The current treatment options for colon and rectal cancer include only radiation therapy.

X - The current treatment options for colon and rectal cancer include only targeted therapy.

31. What are the most common types of colorectal cancer?

X - The most common types of colorectal cancer are gastrointestinal stromal tumors.

X - The most common types of colorectal cancer are sarcomas.

X - The most common types of colorectal cancer are carcinoid tumors.

X - The most common types of colorectal cancer are lymphomas.

✓ - The most common types of colorectal cancer are adenocarcinomas.

32. What are the risk factors for developing colorectal cancer?

X - Risk factors for developing colorectal cancer include only inflammatory bowel disease.

X - Risk factors for developing colorectal cancer include only obesity.

✓ - Risk factors for developing colorectal cancer include personal or family history of colorectal cancer or adenomatous polyps, inflammatory bowel disease, obesity, physical inactivity, a diet high in red or processed meats, smoking, and excessive alcohol consumption.

X - Risk factors for developing colorectal cancer include only personal

or family history of colorectal cancer or adenomatous polyps.

X - There are no known risk factors for developing colorectal cancer.

33. What are the symptoms of colon and rectal cancer?

✓ - Symptoms of colon and rectal cancer can include changes in bowel habits, rectal bleeding or blood in the stool, abdominal pain or cramping, and unexplained weight loss.

X - Symptoms of colon and rectal cancer can include nausea and vomiting.

X - Symptoms of colon and rectal cancer can include shortness of breath and chest pain.

X - Symptoms of colon and rectal cancer can include persistent diarrhea or constipation.

X - There are no symptoms associated with colon and rectal cancer.

34. How is colon and rectal cancer diagnosed?

X - Colon and rectal cancer is diagnosed through a blood test.

✓ - Colon and rectal cancer is typically diagnosed through a colonoscopy, biopsy, additional tests, including blood tests and imaging studies.

X - Colon and rectal cancer is diagnosed through a physical exam.

X - Colon and rectal cancer is diagnosed through a urine test.

X - Colon and rectal cancer is diagnosed through a chest X-ray.

35. What is the role of surgery in the treatment of colon and rectal cancer?

X - Surgery is only used for advanced cases of colon and rectal cancer.

X - Surgery is not a treatment option for colon and rectal cancer.

✓ - Surgery is often the first step in the treatment of colon and rectal cancer. It

involves removing the cancerous tissue from the colon or rectum.

X - Surgery is the only treatment option for colon and rectal cancer.

X - Surgery is only used as a last resort in the treatment of colon and rectal cancer.

36. What are neoadjuvant and adjuvant therapies in the treatment of colon and rectal cancer?

✓ - Neoadjuvant therapy is a treatment given before surgery to shrink tumors and make them easier to remove. It may include chemotherapy, radiation therapy, or a combination of both.

X - Neoadjuvant and adjuvant therapies are the same thing in the treatment of colon and rectal cancer.

X - Neoadjuvant and adjuvant therapies are not used in the treatment of colon and rectal cancer.

X - Neoadjuvant therapy is a treatment given after surgery to lower the risk of cancer recurrence.

X - Adjuvant therapy is a treatment given before surgery to shrink tumors and make them easier to remove.

37. What are the potential side effects and complications of colon and rectal cancer treatments?

✓ - Potential side effects and complications of colon and rectal cancer treatments can include infection, bleeding, damage to nearby organs, nausea, vomiting, fatigue, and skin irritation.

X - There are no potential side effects or complications of colon and rectal cancer treatments.

X - Potential side effects and complications of colon and rectal cancer treatments are limited to nausea and vomiting.

X - Potential side effects and complications of colon and rectal cancer treatments are limited to fatigue and skin irritation.

X - Potential side effects and complications of colon and rectal cancer treatments are limited to infection and bleeding.

38. How can patients cope with colon and rectal cancer?

X - There is no way for patients to cope with colon and rectal cancer.

✓ - Patients can cope with colon and rectal cancer by managing symptoms and receiving supportive care. This may include pain management, emotional support through counseling or support groups, and addressing any anxiety or depression that may arise. It is important to provide comprehensive care to ensure the patient's well-being during and after treatment.

X - Patients can cope with colon and rectal cancer by relying solely on medication.

X - Patients can cope with colon and rectal cancer by avoiding all forms of treatment.

X - Patients can cope with colon and rectal cancer by undergoing additional surgeries.

39. What is the importance of early detection and prevention in colon and rectal cancer?

X - Early detection and prevention are only important for individuals with a family history of colon and rectal cancer.

X - Early detection and prevention have no impact on the prognosis and mortality of colon and rectal cancer.

X - Early detection and prevention only play a minor role in the prognosis and mortality of colon and rectal cancer.

X - Early detection and prevention are only important for certain types of cancer, not colon and rectal cancer.

✓ - Early detection and prevention are critical in improving the prognosis and reducing the mortality associated with colon and rectal cancer.

40. What are the follow-up care requirements after treatment for colon and rectal cancer?

X - Follow-up care after treatment for colon and rectal cancer only involves blood tests.

✓ - Follow-up care after treatment for colon and rectal cancer involves regular check-ups, including physical exams, blood tests (like CEA tests), and imaging tests to monitor for recurrence of the cancer.

X - Follow-up care after treatment for colon and rectal cancer only involves physical exams.

X - Follow-up care after treatment for colon and rectal cancer only involves imaging tests.

X - There are no follow-up care requirements after treatment for colon and rectal cancer.

41. What are the treatment options for rectal cancer?

X - Dietary changes, herbal remedies, and meditation

X - Massage therapy, aromatherapy, and hypnosis

✓ - Surgery, radiation therapy, chemotherapy, targeted therapy, and active surveillance

X - Exercise, relaxation techniques, and music therapy

X - Medication, physical therapy, and acupuncture

42. What is neoadjuvant therapy?

X - Treatment given after surgery to eliminate remaining cancer cells

X - Treatment given to prevent cancer recurrence

✓ - Treatment given before surgery to shrink the tumor

X - Treatment given during surgery to remove the tumor

X - Treatment given to manage symptoms and side effects

43. What is the primary difference between colon and rectal cancer?

✓ - Their location in the large intestine

X - The treatment options available

X - The type of cells involved

X - The age group affected

X - The symptoms experienced

44. What are the potential complications of colon and rectal cancer treatments?

✓ - Bleeding, infection, changes in bowel habits, and emotional distress

X - Hair loss, fatigue, and nausea

X - Loss of appetite, weight loss, and diarrhea

X - Pain, swelling, and difficulty swallowing

X - Anxiety, depression, and stress

45. What is the role of adjuvant treatments in colon and rectal cancer?

✓ - To eliminate any remaining cancer cells and reduce the risk of recurrence

X - To manage symptoms and side effects

X - To improve emotional and mental health

X - To shrink the tumor before surgery

X - To prevent cancer from spreading to other organs

46. How are colon and rectal cancers diagnosed?

X - Through genetic testing and biopsies

✓ - Through a combination of patient medical history, physical examinations, and diagnostic tests

X - Through symptoms and self-assessment

X - Through psychological evaluations and counseling

X - Through blood tests and imaging scans

47. What are the main surgical options for treating colon cancer?

X - Chemotherapy and radiation therapy

✓ - Partial colectomy and colostomy

X - Physical therapy and rehabilitation

X - Laparoscopic and robotic surgeries

X - Low anterior resection and abdominoperineal resection

48. What is the purpose of follow-up care for colon and rectal cancer?

✓ - To monitor for cancer recurrence, manage symptoms, and provide supportive care

X - To perform additional surgeries and treatments

X - To improve emotional and mental health

X - To provide rehabilitation and physical therapy

X - To prevent cancer from spreading to other organs

49. What is the recommended treatment for stage 1 colon cancer?

X - Surgical resection

X - Radiation therapy

X - Active surveillance

X - Neoadjuvant therapy

✓ - Adjuvant chemotherapy

50. What is the purpose of neoadjuvant therapy in rectal cancer?

X - To eliminate any remaining cancer cells

✓ - To shrink the tumor and make it easier to remove

X - To improve emotional and mental health

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- X - Diagnosis
- X - Treatment

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- X - Higher stage (III or IV)
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62. What are the symptoms of colon and rectal cancer?

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66. What are the potential side effects and complications of colon and rectal cancer treatments?

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X - There are no potential side effects or complications of colon and rectal cancer treatments.

X - Potential side effects and complications of colon and rectal cancer treatments are limited to nausea and vomiting.

X - Potential side effects and complications of colon and rectal cancer treatments are limited to fatigue and skin irritation.

X - Potential side effects and complications of colon and rectal cancer treatments are limited to infection and bleeding.

67. How can patients cope with colon and rectal cancer?

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X - Follow-up care after treatment for colon and rectal cancer only involves imaging tests.

X - There are no follow-up care requirements after treatment for colon and rectal cancer.

70. What are the treatment options for rectal cancer?

X - Dietary changes, herbal remedies, and meditation

X - Massage therapy, aromatherapy, and hypnosis

✓ - Surgery, radiation therapy, chemotherapy, targeted therapy, and active surveillance

X - Exercise, relaxation techniques, and music therapy

X - Medication, physical therapy, and acupuncture

What is neoadjuvant therapy?

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X - Treatment given to prevent cancer recurrence

✓ - Treatment given before surgery to shrink the tumor

X - Treatment given during surgery to remove the tumor

X - Treatment given to manage symptoms and side effects

71. What is the primary difference between colon and rectal cancer?

✓ - Their location in the large intestine

X - The treatment options available

X - The type of cells involved

X - The age group affected

X - The symptoms experienced

72. What are the potential complications of colon and rectal cancer treatments?

✓ - Bleeding, infection, changes in bowel habits, and emotional distress

X - Hair loss, fatigue, and nausea

X - Loss of appetite, weight loss, and diarrhea

X - Pain, swelling, and difficulty swallowing

X - Anxiety, depression, and stress

73. What is the role of adjuvant treatments in colon and rectal cancer?

✓ - To eliminate any remaining cancer cells and reduce the risk of recurrence

X - To manage symptoms and side effects

X - To improve emotional and mental health

X - To shrink the tumor before surgery

X - To prevent cancer from spreading to other organs

74. How are colon and rectal cancers diagnosed?

X - Through genetic testing and biopsies

✓ - Through a combination of patient medical history, physical examinations, and diagnostic tests

X - Through symptoms and self-assessment

X - Through psychological evaluations and counseling

X - Through blood tests and imaging scans

75. What are the main surgical options for treating colon cancer?

X - Chemotherapy and radiation therapy

✓ - Partial colectomy and colostomy

X - Physical therapy and rehabilitation

X - Laparoscopic and robotic surgeries

X - Low anterior resection and abdominoperineal resection

76. What is the purpose of follow-up care for colon and rectal cancer?

✓ - To monitor for cancer recurrence, manage symptoms, and provide supportive care

X - To perform additional surgeries and treatments

X - To improve emotional and mental health

X - To provide rehabilitation and physical therapy

X - To prevent cancer from spreading to other organs

77. What is the recommended treatment for stage 1 colon cancer?

X - Surgical resection

X - Radiation therapy

X - Active surveillance

X - Neoadjuvant therapy

✓ - Adjuvant chemotherapy

78. What is the purpose of neoadjuvant therapy in rectal cancer?

X - To eliminate any remaining cancer cells

✓ - To shrink the tumor and make it easier to remove

X - To improve emotional and mental health

X - To manage symptoms and side effects

X - To prevent cancer recurrence

79. What are the treatment options for rectal cancer?

X - Antibiotics, antiviral medication, painkillers, anti-inflammatory drugs, and immunotherapy

X - Dietary supplements, homeopathy, aromatherapy, chiropractic care, and reflexology

✓ - Surgery, radiation therapy, chemotherapy, targeted therapy, and active surveillance

X - Physical therapy, acupuncture, herbal remedies, meditation, and yoga

X - Blood transfusion, organ transplant, stem cell therapy, gene therapy, and hormone therapy

80. What is neoadjuvant therapy?

X - Treatment given during surgery to prevent infection

X - Treatment given to prevent cancer recurrence

✓ - Treatment given before surgery to shrink the tumor and make it easier to remove

X - Treatment given to manage side effects of chemotherapy

X - Treatment given after surgery to eliminate any remaining cancer cells

81. What is the difference between colon and rectal cancer?

X - Colon cancer starts in the rectum, while rectal cancer begins in the colon

X - Colon cancer is more aggressive than rectal cancer

X - Colon cancer affects men, while rectal cancer affects women

X - Colon cancer has a higher survival rate than rectal cancer

✓ - Colon cancer starts in the colon, while rectal cancer begins in the rectum

82. What are the potential complications of colon and rectal cancer treatments?

X - Joint pain, muscle weakness, and fatigue

X - Hair loss, fatigue, nausea, and vomiting

X - Anxiety, depression, and stress

X - Difficulty in swallowing, weight loss, and loss of appetite

✓ - Bleeding, infection, changes in bowel habits, and long-term effects

83. What are the main surgical options for treating colon and rectal cancer?

✓ - Partial colectomy, colostomy, low anterior resection, and abdominoperineal resection

X - Hip replacement, knee replacement, shoulder replacement, and spinal fusion

X - Heart bypass surgery, angioplasty, stent placement, and valve replacement

X - Laparoscopic surgery, robotic surgery, endoscopic surgery, and laser surgery

X - Gastric bypass, gastric sleeve, gastric banding, and duodenal switch

84. What is the role of adjuvant treatments in colon and rectal cancer?

✓ - To eliminate any remaining cancer cells and reduce the risk of recurrence

X - To prevent infection during surgery

X - To prevent cancer recurrence

X - To manage side effects of chemotherapy

X - To shrink the tumor and make it easier to remove

85. How are colon and rectal cancers diagnosed?

✓ - Through a combination of patient medical history, physical examinations, and diagnostic tests

X - Through biopsy only

X - Through genetic testing only

X - Through imaging tests only

X - Through blood tests only

86. What is the recommended follow-up care for colon and rectal cancer?

✓ - Regular checkups, monitoring for cancer recurrence, symptom management, and supportive care

X - Only emotional support

X - Only maintaining a healthy lifestyle

X - No follow-up care is necessary

X - Only rehabilitation and physical therapy

87. What is the difference between neoadjuvant and adjuvant treatments?

X - Neoadjuvant treatments are given during surgery, while adjuvant treatments are given after surgery

✓ - Neoadjuvant treatments are given before surgery, while adjuvant treatments are given after surgery

X - Neoadjuvant treatments are given to manage side effects, while adjuvant treatments are given to prevent cancer recurrence

X - Neoadjuvant treatments are given after surgery, while adjuvant treatments are given before surgery

X - Neoadjuvant treatments are given to prevent cancer recurrence, while adjuvant treatments are given to manage side effects

88. What is the role of emotional and mental health support in colon and rectal cancer?

X - To provide symptom management and supportive care

X - To provide physical therapy and rehabilitation

✓ - To provide counseling, therapy sessions, and support groups for patients and their families

X - To provide regular checkups and monitoring

X - To provide dietary and lifestyle changes

### **Short methodical instructions for practical study.**

At the beginning of the study students pass control of initial knowledge-abilities level by means of test tasks. Students of oncological department examine the patients with colorectal cancer, make the plan of their investigation, interpret laboratory studies, got to know with the results of laboratory and tools examination in patients state dynamics, study hospital charts. Then students make the plan of care for patients with the different variants of colorectal cancer, including patients of child's and elderly age.

Situational tasks decide in default of such patients. Patient examination and answers of students controlled by a teacher.

In the classroom, students together with the teacher discuss the results of examination, and their mistakes. After the students pass test control. In the end worked out students get the marks of the work on study.

## Suggested Literature

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