RECTAL CANCER

Initial Workup

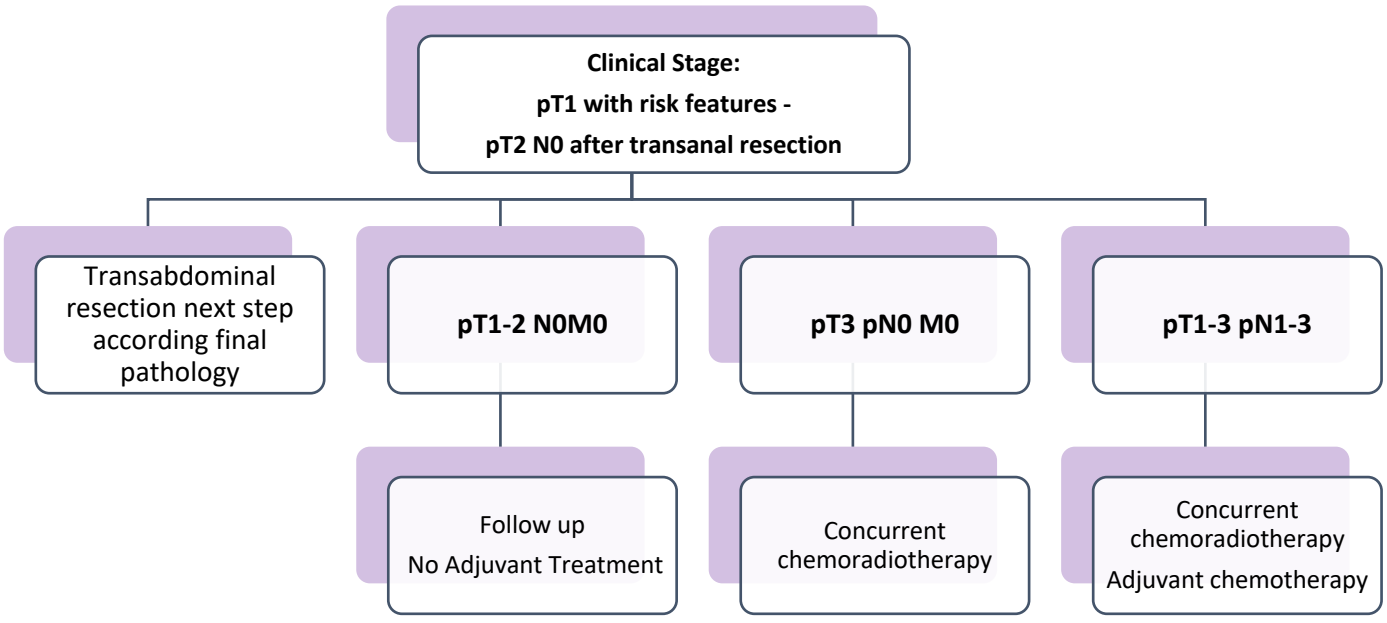
- Personal and family history
- Physical examination
- Laboratory tests:
  - CBC, biochemistry
  - Baseline CEA and CA 19-9
- Colonoscopy (if not performed already, or was incomplete)
- CT thorax + abdomen + pelvis
- PET scan (not routinely)
- MMR protein testing for all patients younger than 50 years to screen for Lynch syndrome.

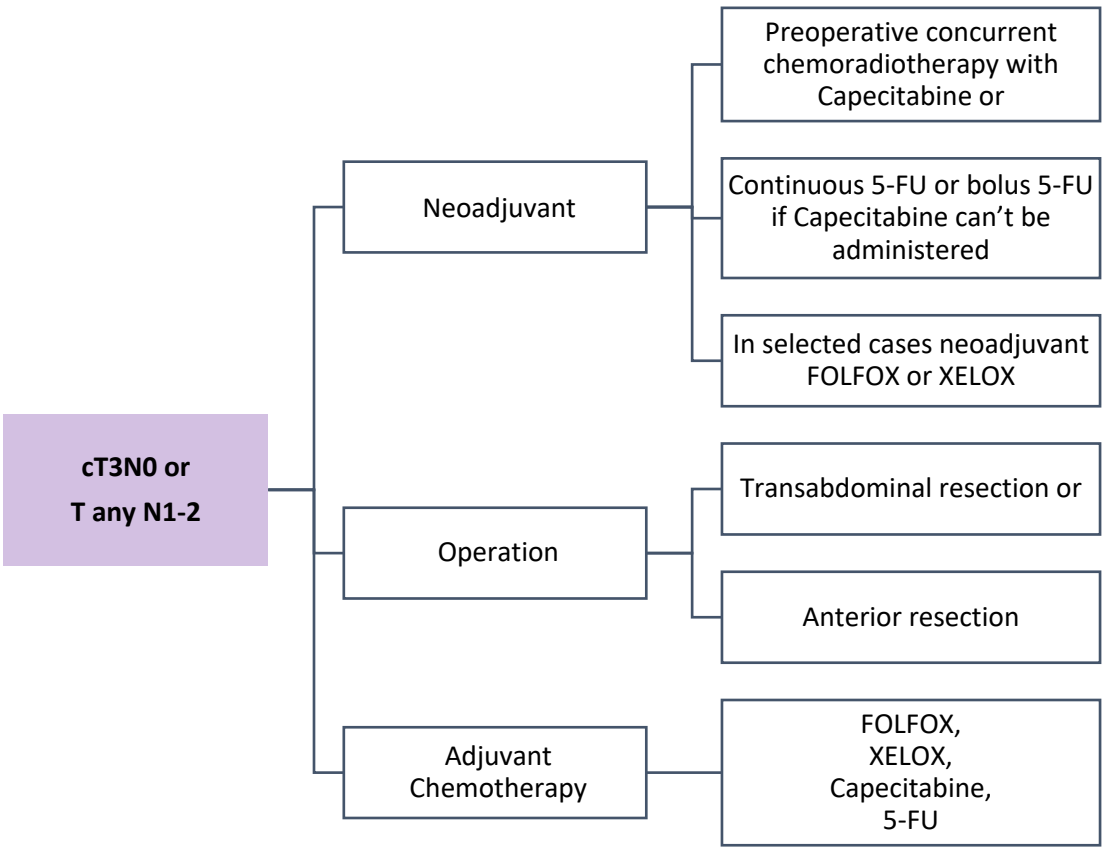
Treatment Options According to the Clinical Stage

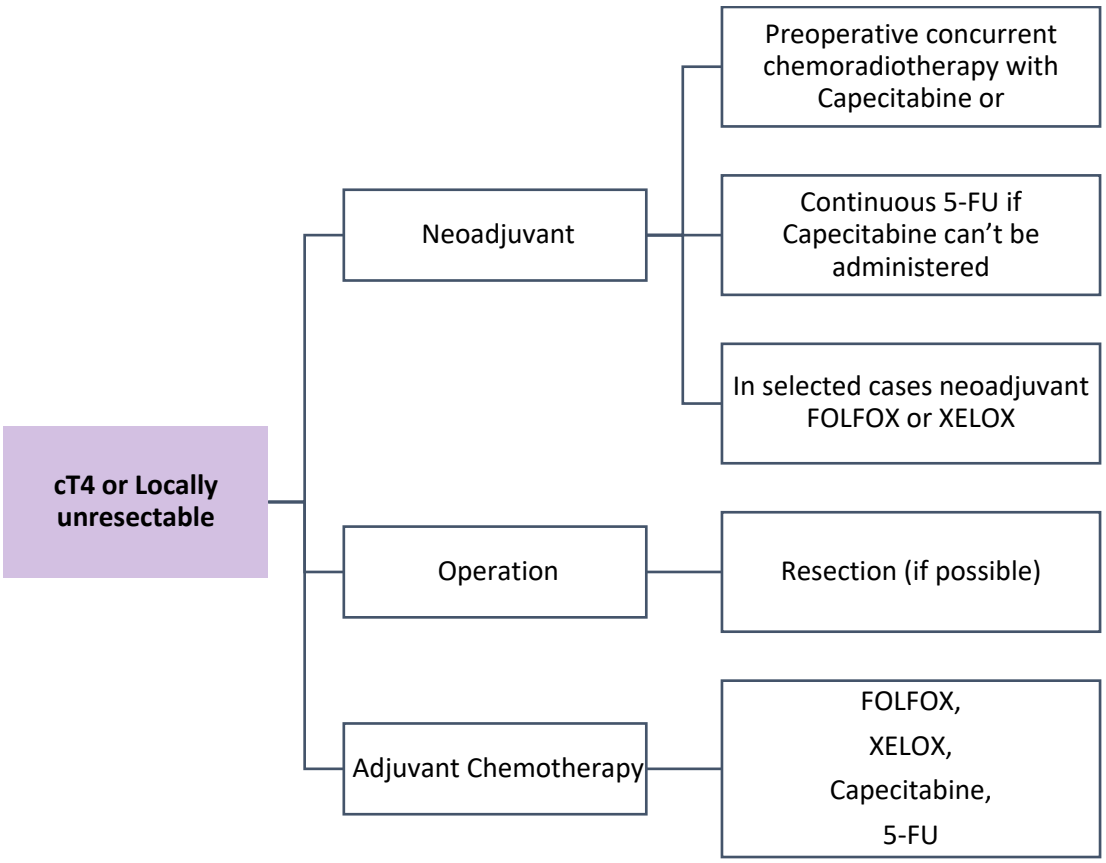
High Risk Features:

- Positive margins,
- Lymphovascular invasion,
- Poorly differentiated tumors, or
- Submucosal invasion to the lower third.

Clinical Stage	Treatment Option
cT1 N0	Transanal excision followed by observation only if confirmed pT1 with no risk features.




cT3N0 or
T any N1-2
Neoadjuvant
Preoperative concurrent chemoradiotherapy with Capecitabine or
Continuous 5-FU or bolus 5-FU if Capecitabine can't be administered
In selected cases neoadjuvant FOLFOX or XELOX
Operation
Transabdominal resection or
Anterior resection
Adjuvant Chemotherapy
FOLFOX,
XELOX,
Capecitabine,
5-FU


cT4 or Locally unresectable
Neoadjuvant
Preoperative concurrent chemoradiotherapy with Capecitabine or
Continuous 5-FU if Capecitabine can't be administered
In selected cases neoadjuvant FOLFOX or XELOX
Operation
Resection (if possible)
Adjuvant Chemotherapy
FOLFOX,
XELOX,
Capecitabine,
5-FU

Stage IV

Basic management of stage IV rectal cancer is like that of stage IV colon cancer (see the previous chapter).

Additional points in Stage IV management:

Surgical:

- Surgical resection/anastomosis or bypass of obstructing lesions in selected cases or resection for palliation.
- Surgical resection of isolated metastases (liver, lung, ovaries), followed by postoperative chemotherapy 4-6 months.

Chemotherapy:

- Chemoradiation for local palliation.
- Chemotherapy + targeted agent combination for:
  - Distant disease after resection/ablation of local disease.
  - Distant disease followed by resection/ablation of distant disease.
  - Cases not suitable for resection/ablation.

Recurrent Rectal Cancer

Multidisciplinary Management:

- Type and sequence of chemotherapy, surgery, and/or radiation therapy is **individualized** to patient based on the multidisciplinary review.
- Multidisciplinary team includes:
  - Surgeon,
  - Medical oncologist, and
  - Radiation oncologist.

In all cases, surgical resection should be performed with the intent for a cure rather than palliation

- Resection:
  - Resection of locally recurrent rectal cancer in selected patients.
  - Resection of liver metastases in selected patients.
  - Resection of isolated pulmonary or ovarian metastases in selected patients.
- Palliative Therapy:
  - Palliative radiation therapy.
  - Palliative chemotherapy.
  - Palliative chemoradiation.
- Stents to relieve the obstruction.

Surveillance

Stage I (T1N0M0 and T2N0M0):

Colonoscopy

- Performed after 1 year of surgery
- If no pre-operative colonoscopy due to obstructive tumor:
  - Colonoscopy in 3-6 months after surgery
- If advanced adenoma:
  - Repeat colonoscopy in 1 year
- If no advanced adenoma:
  - Repeat colonoscopy in 3 years,
  - Then every 5 years.

Stage II (low and high-risk) and Stage III:

History and Physical Examination

- Every 3-6 months for 2 years
- Then every 6 months for a total of 5 years.

CEA

- Every 3-6 months for 2 years
- Then every 6 months for a total of 5 years

Contrast-enhanced CT scan of chest + abdomen + pelvis

- Annually for 3-5 years; as clinical indicated

Colonoscopy

- Performed after 1 year of surgery
- If no pre-operative colonoscopy due to obstructive tumor:
  - Colonoscopy in 3-6 months after surgery
- If advanced adenoma:
  - Repeat colonoscopy in 1 year
- If no advanced adenoma:
  - Repeat colonoscopy in 3 years,
  - Then every 5 years.

Laboratory (CBC, biochemistry)

- As clinically indicated

Stage IV and Stage IV NED:
History and Physical Examination
• Every 3-6 months for 2 years • Then every 6 months for a total of 5 years.
CEA
• Every 3-6 months for 2 years • Then every 6 months for a total of 5 years
Contrast-enhanced CT scan of chest + abdomen + pelvis
• Every 3-6 monthly for 2 years • Then every 6-12 months up to a total of 5 years.
Colonoscopy

• After 1 year of surgery
• If no pre-operative colonoscopy due to obstructive tumor:
  ○ Colonoscopy in 3-6 months after surgery
• If advanced adenoma:
  ○ Repeat colonoscopy in 1 year
• If no advanced adenoma:
  ○ Repeat colonoscopy in 3 years,
  ○ Then every 5 years.

Laboratory (CBC, biochemistry)
• As clinically indicated

ANAL CANCER

Initial Workup

- Personal and family history
- Physical examination
  - Digital rectal exam (DRE).
  - Procto-anoscopy
  - Gynecological evaluation for female
- Inguinal lymph node evaluation:
  - Consider biopsy or Fine-needle aspiration cytology (FNAC) of the suspicious node.
- Radiography:
  - CT scan chest
  - CT scan abdomen and pelvis or
  - MRI abdomen and pelvis
  - Consider PET/CT (skull base to mid-thigh)
- Screening for cervical cancer.
- HIV testing and/or CD4 count

Treatment According to the Stage

Stage	Management
T1N0 well differentiated, selected T2 if no extension to sphincter	Local excision [aiming for complete excision] Then observe
T1N0 well differentiated, incomplete excision	Re-excision or 5FU/Mitomycin with RT May consider 5FU/Cisplatin
T1, N0 Poorly differentiated or T2-4 N0 or any T, N1-3	Mitomycin + 5FU with RT or Mitomycin + Capecitabine with RT May consider Cisplatin/5FU with RT

Recurrence Treatment According to Site of Recurrence

A. Local recurrence	
I. Management	Abdominoperineal resection (APR) + groin dissection
II. Follow Up	If positive inguinal nodes are present, arrange for: • Inguinal node palpation every 3–6 month for 5 years after resection. • Chest/abdomen/pelvic CT with contrast annually for 3 years.

B. Inguinal Node Recurrence	
I. Management	Groin dissection followed by RT [if no prior RT] ± 5-FU/Mitomycin or Mitomycin/capecitabine or 5-FU/cisplatin
II. Follow Up	• DRE every 3–6 months for 5 years • Inguinal node palpation every 3–6 months for 5 years • Anoscopy every 6-12 months for 3 years • Chest/abdomen/pelvic CT with contrast annually for 3 years

C. Any T, Any N, M1 (metastatic)	
I. Management	Cisplatin + 5FU with or without RT or Carboplatin/Paclitaxel with or without RT or FOLFOX with or without RT
II. In case of Progression	Nivolumab or Pembrolizumab
III. Follow Up	Evaluate every 8–12 weeks with exam + DRE
IV. If Complete remission	• DRE every 3–6 mo for 5 y. • Inguinal node palpation every 3–6 mo for 5 y. • Anoscopy every 6–12 mo x 3 y. • Chest/abdomen/pelvic CT with contrast annually for 3 years.

Regimen	**Administration**
Cisplatin + 5FU	Cisplatin 100mg/m^2 day 2 5FU continuous IV 1000mg/m^2/d on days 1-5 Repeated 4 weekly

5-FU + Mitomycin + RT	Continuous infusion 5-FU 1000 mg/m^2/d IV days 1–4 and 29–32 + Mitomycin 10 mg/m^2 IV bolus days 1 and 29 + Concurrent radiotherapy
	Continuous infusion 5-FU 1000 mg/m^2/d IV days 1–4 and 29–32 + Mitomycin 12 mg/m^2 on day 1 (capped at 20 mg) + Concurrent radiotherapy.
Capecitabine + Mitomycin + RT	Capecitabine 825 mg/m^2 PO BID, Monday–Friday, on each day that RT is given, throughout the duration of RT (typically 28 treatment days) + Mitomycin 10 mg/m^2 days 1 and 29 + Concurrent radiotherapy.

Metastatic Regimens
Cisplatin 60 mg/m^2 day 1 + Continuous infusion 5-FU 1000 mg/m^2/d IV days 1–4 Repeat every 3 weeks
Cisplatin 75 mg/m2 day 1 + Continuous infusion 5-FU 750 mg/m2/d IV days 1–5 Repeat every 4 weeks
mFOLFOX6 Oxaliplatin 85 mg/m2 IV day 1 + Leucovorin 400 mg/m2 IV day 1 5-FU 400 mg/m2 IV bolus on day 1 then 1200 mg/m2/d x 2 days (total 2400 mg/m2 over 46–48 hours) IV continuous infusion Repeat every 2 weeks
Carboplatin AUC 5 IV day 1 Paclitaxel 175 mg/m2 IV day 1 Repeat every 21 days
Nivolumab 240 mg flat total dose every 2 weeks or flat dose 480 mg every 4 weeks or 3 mg/kg every 2 weeks
Pembrolizumab 200 mg every 3 weeks or Pembrolizumab 2 mg/kg every 3 weeks