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Clinical Practice Guidelines - Gastrointestinal Disease Site

Guideline Title:	Pre-operative Staging of Primary Rectal Cancer - **Summary**	**Date:**	**(O):** **(R):**	Nov 30, 2011
Tumor Group:	G. I. Disease Site Group	**Page:**		1 of 3
Issuing Authority:	Dr. Jehann Siddiqui Clinical Chief, Cancer Care Program	**Date Signed:**		Oct 21, 2013
Adapted From:	New Zealand Guidelines Group "Management of early colorectal cancer" guideline, May 2011 (5).			

Target Population:

These recommendations apply to all patients with a newly diagnosed primary cancer of the rectum.

Recommendations:

The following recommendations of the Eastern Health G. I. Disease Site Group apply to patients with a pathologically confirmed cancer of the rectum:

- All patients should undergo history and physical exam, complete blood count, renal and liver function tests, and carcinoembryonic antigen (CEA) tumor marker testing.
- All patients should also undergo digital rectal examination (DRE), rigid proctoscopy (to determine tumor location and distance from the anal verge), and total colonoscopy (to rule out synchronous lesions or other pathological conditions).
- All patients should undergo biopsy of the rectal primary tumor.
- A baseline CT scan of chest/abdomen/pelvis should be performed on all patients with ≥ T2 disease.
- MRI of the pelvis is recommended to confirm T stage and assist in nodal staging. Patients with obvious T3/T4 or node positive disease based on other clinical findings may forego the MRI, if this is an obstacle to timely management.
- Routine use of PET/CT scanning as part of baseline staging is not recommended at this time.

Supporting Evidence:

MRI is able to very accurately delineate rectal cancer size, location and mural extension (1,2). The diagnostic performance of MRI in predicting circumferential resection margin (CRM) involvement in rectal patients was examined by one **good-quality** systematic review, with both pooled sensitivity (94%, 95% CI 90-97%) and specificity (85%, 95% CI 81-89%) being relatively high for MRI. The authors suggested MRI should be used as the primary imaging modality in local staging of rectal cancer (3). MRI also has the ability to detect extramural vascular invasion (EMVi), which is believed to be an important prognostic factor that identifies patients at risk of

both local and distant metastases (4). Several national and international guidelines also support the use of MRI for the purpose of staging rectal cancer (5-8).

Qualifying Statements:

Pre-operative staging provides crucial information such as:

- the T stage or extramural depth,
- circumferential resection margin of the tumor (CRM) (tumor <1mm to mesorectal fascia),
- extramural vascular invasion (present or not),
- lymph node involvement,
- peritoneal perforation by tumor,
- location of the primary tumor with respect to the anal sphincter and peritoneal reflection,
- possible evidence of distant metastatic disease (9).

Disclaimer:

These guidelines are a statement of consensus of the G. I. Disease Site Group regarding their views of currently accepted approaches to diagnosis and treatment. Any clinician seeking to apply or consult the guidelines is expected to use independent medical judgment in the context of individual clinical circumstances to determine any patient's care or treatment.

Contact Information:

For more information on this guideline, please contact Dr. Jehann Siddiqui MD FRCPC, Dr. H. Bliss Murphy Cancer Center, St. John's, NL; Telephone 709-777-7593. For the complete guideline on this topic or for access to any of our guidelines, please visit our Cancer Care Program website at www.easternhealth.ca

Literature Support:

1. Brown G, Radcliffe RG, et al. Preoperative assessment of prognostic factors in rectal cancer using high-resolution magnetic resonance imaging. Br J Surg. 2003;90:355-364.
2. The MERCURY Study Group. Extramural depth of tumor invasion at thin-section MR in patients with rectal cancer: Results of the MERCURY study. Radiol. 2007;243(1):132-139.
3. Purkayastha S, Tekkis PP, et al. Diagnostic precision of magnetic resonance imaging for preoperative prediction of the circumferential margin involvement in patients with rectal cancer. Colorectal Dis. 2007;9(5):402-411.
4. Smith NJ, Barbachano Y, et al. Prognostic significance of magnetic resonance imaging-detected extramural vascular invasion in rectal cancer. Brit J Surg. 2008;95:229-236.
5. New Zealand Guidelines Group. Evidence-based best practice guideline: Management of early colorectal cancer. 2011. www.nzgg.org.nz
6. Saskatchewan Cancer Agency. Provincial colorectal cancer treatment guidelines. August 2011. www.saskcancer.ca
7. National Cancer Institute. Rectal cancer treatment: Health professional version. October 2011. www.cancer.gov
8. National Comprehensive Cancer Network. NCCN clinical practice guidelines in oncology: Rectal cancer. January 2012. www.nccn.org

9. Theodoropoulos G, Wise WE, et al. T-level downstaging and complete pathologic response after preoperative chemoradiation for advanced rectal cancer result in decreased recurrence and improved disease-free survival. Dis Colon Rectum. 2002;45(7):895-903.