Preoperative Staging MRI in Rectal Cancer: Where Are We Going in the Pelvis?

Dr. Anat Ravid
Surgical Oncology Lead
Erie St. Clair Regional Cancer Program

May 1, 2014
Objectives:

- How are we looking?
- Who is looking?
- When can we review it together?
- Snapshot of ESC practice
EVIDENCE BASED APPROACH

BEST PRACTICE

GUIDELINES
Evidence-Based Series #17-8: Section 1

A Quality Initiative of the Program in Evidence-Based Care (PEBC), Cancer Care Ontario (CCO)

Optimization of Preoperative Assessment in Patients Diagnosed with Rectal Cancer Guideline Recommendations

E. Kennedy, E. Vella, D. B. MacDonald, S. Wong, R. McLeod, and the Preoperative Assessment for Rectal Cancer Guideline Development Group

Report Date: January 20, 2014
RECOMMENDATION 1

- Staging for all rectal cancer patients should include:
  - CT of the abdomen and pelvis
  - CT of the chest or chest X-ray
- Complete colonic examination by colonoscopy should be performed preoperatively, if possible
- Serum carcinoembryonic antigen (CEA) should be assessed preoperatively
RECOMMENDATION 2

Patients with rectal cancer should undergo MRI pelvis in order to assess T and N categories and the distance to the MRF [i.e., potential circumferential resection margin (CRM)]
Operative Quality is the most important aspect of management

- Local recurrence =
  - a failure to achieve clear margins
  - a failure to preserve an intact mesorectum
- Integrity of the mesorectum has evolved into a marker of operative quality
MRI has to determine the following:

1. Location of the tumor. Is it a low or high rectal tumor, what is the size, circumferential growth?

2. T-stage: T1, T2, T3 or T4

3. Distance of the tumor to the mesorectal fascia. Is it threatened or involved?

4. Tumor growth or lymph nodes within 1 mm of the resection margin?

5. N-stage: Are there any lymph nodes within the mesorectum or beyond the mesorectum?
RECOMMENDATION 3

At a minimum, axial, coronal and sagittal T2-weighted images of the pelvis and high resolution T2-weighted sequences perpendicular to the long axis of the rectum at the level of the tumour using phased-array coil are required.
RECOMMENDATION 4

The MRI report for preoperative, local staging of rectal cancer should include the elements outlined in the CCO Synoptic MRI Report for Rectal Cancer available here:

https://www.cancercare.on.ca/cms/One.aspx?portalId=1377&pageId=80771
Who Is Looking into the Pelvis?

✓ Radiologists
✓ Surgeons
✓ Radiation Oncologists
✓ Medical Oncologists
When do we review the MRI? - MCC’s
How Did This Occur in our LHIN?

December 2007
Presenter: DR. ANDY SMITH
Location: Windsor
Topic: Optimization of Surgical and Pathological Performance in Colon and Rectal Cancer Management

MRI SHOULD BE USED FOR PRE-OPERATIVE STAGING
Rectal QI

To plan, implement and evaluate a rectal cancer QI initiative focusing on four quality areas:

- MRI (or TRUS) for preoperative staging
- Radiation Oncology consultation
- MCC review
- Sphincter sparing surgery (SSS)
Quality Objectives

• Establish ESC best practices re:
  ➢ new rectal cancer cases presented at MCC
  ➢ new rectal cancer cases to see RO for consult prior to surgery
• Increase the use of MRI for preop staging
• Increase access to sphincter sparing surgery

(Improved quality of life for patients post rectal cancer treatment)
MRI - Regional

2011

# of patients that had an MRI for staging at least once

- Yes (46, 52%)
- No (42, 48%)

13/14 Q1

- Yes (12, 57%)
- No (9, 43%)
# MCC GI Cases Presented ESC

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<th>Fiscal Year</th>
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LHIN 1 and LHIN 2

1hr. 24 mins U.S. route
2hr. 8 mins Cnd route

1hr. 14 mins

Windsor Regional Cancer Centre

London
Next Steps

1. Improve MRI staging

2. Increase MCC participation and presentation of cases to promote best practices

3. Implement standardized surgery dictation templates
Synoptic Report for MRI - Rectal Cancer

Radiology Challenges;

1. Synoptic report - for all sites
2. Engaging Radiologists

• CCO has suggested synoptic reports with sample template
2. MCC’s

Our Goal

1. Every rectal cancer discussed in MCC’s
2. Participation of all sites

Challenges

- Not all sites show up
- Not all sub-specialties are represented
- Not all suitable cases are presented
- Fatigue - multiple MCC’s and preparation required
- Reimbursement
ESC MCC's

2014

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2014 HOLIDAYS

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Friday, April 18th, 2014
Monday, May 19th, 2014
Monday, June 9th, 2014
Tuesday, July 1st, 2014
Monday, August 4th, 2014
Monday, September 1st, 2014
Monday, October 13th, 2014
Tuesday, November 11th, 2014
Thursday, December 25th, 2014
Friday, December 26th, 2014
Thursday, January 1st, 2015

FOR MCC SUBMISSIONS:
Kim Fralick, Coordinator
Surgical Oncology Program
519-254-5577 Ext. 58620
Fax: 519-255-8670
mccs@wrh.on.ca

PLEASE NOTE: DATES WILL BE RESCHEDULED FOR SURGICAL SHUTDOWN, HOLIDAYS, REVISED: SCHEDULES WILL BE SENT OUT AS NEEDED
## Multidisciplinary Cancer Conference Attendance

**Division Participation by MCC Disease Site**

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**Colour Coding:**
- **All MCCs Attended**:
- **1/2 MCCs attended**:
- **No MCCs attended**:
- **Attendance noted, but not required by hospital-discipline**

*Attendance may exceed number of MCCs in ESC if SW MCCs are attended*

Report reflects minimum requirements of MCC standards. Generally, 2 MCCs are held/monthly/disease site in ESC. 1 MCC/month for Endo. MCCs may be added or removed.

**cancer care ontario**

erie st.clair regional cancer program
Interventions

- Site visits
- Educational Events
- Local Champions for adequate data collection
- Possibly participating from home/office
  - Webex or Personal
- Videoconferencing equipment
- MCC Etiquette
Radiologist Requests For MCC Cases:
Reason for review or clinical question must be clear
➢ Specific Question must be included, not “review imaging”
Next Steps

- Improve MRI staging
  - Work with Radiology Lead on any MCC discrepancies

---

**MCC Discrepancy - Feedback Sheet**

"This notification is for review and education purposes, as part of our Imaging quality assurance program."

A case you interpreted has been reviewed at MCC. A discrepancy has been found. This may be due to additional information or other factors that may not have been available to you at the time of initial interpretation. Please review. This is a confidential notification.

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<td>From</td>
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<td>MCC Disease Site</td>
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<td>Date of Rounds</td>
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<td>Pt. name/MRN</td>
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<td>Study ID</td>
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<td>Discrepancy</td>
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<td>Recommendation</td>
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An addendum may be required to your initial report. See the following wording as possible suggestions:

- "Knowing where to look, ________________"
- "In retrospect, knowing where to look ________________"
- "Additional information has been provided that changes the interpretation. ________________"

If you have any questions about this notice or this process, please contact:

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Brigette.Al@wrh.on.ca or 519-973-4412
Dept of Diagnostic Imaging, Windsor Regional Hospital Ouellette Campus
3. Surgery

- Implement standardized surgery dictation templates

**Dictation Topics for ESC Rectal Cancer Quality Initiative**

1. Case presented at MCC?  Y/N

2. MRI stage?  T___  N___  CRM___

3. **Radiation Consultation** prior to surgery  Y/N

4. Indicate the **type of surgery** (i.e. Anterior resection, APR, low anterior section, colonanal anastomosis, colonic pouch, diverting stoma...)

5. Please state the **level of the tumour:**
   - Low
   - Mid
   - Upper
   - Recto sigmoid

**Synoptic Operative Report**
In Conclusion:

1. It’s Team Work

2. All disciplines are essential

3. Multidisciplinary Implementation of Standards and Guidelines