Do malignant polyps that are endoscopically resected require surveillance for metastatic disease?

Sharlene Gill MD, MPH, MBA, FRCP(C)

Professor of Medicine

Division of Medical Oncology

BC Cancer – Vancouver

February 17, 2021

BC CANCER
Provincial Health Services Authority

UBC

Disclosures

- No relevant financial conflicts or commercial interests to disclose
- Disclaimer: I am just a medical oncologist…

Why do we offer surveillance?

Early detection of asymptomatic relapse

↓

Identify resectable oligometastatic disease

Reasonable likelihood of metastatic relapse

↓

Curative-intent resection of recurrent disease

Patient would be suitable for salvage resection

↓

Improve Survival

Meta-analyses of intensive* versus less intensive surveillance after potentially curative therapy for colon and rectal cancer

Author; year	Pooled number of patients in randomized trials		Relative risk for mortality (95% CI)
	Intensive	Less Intensive	
Renehan 2002	666	676	0.81 (0.70-0.94)
Figueredo 2003	858	821	0.80 (0.70-0.91)
Tijandra 2007	1474	1449	0.74 (0.59-0.93)
Pita-Hernandez 2015	2000	2055	0.75 (0.66-0.86)
Jeffrey 2016 (Cochrane)	2897	2260	0.90 (0.78 – 1.02)

*Intensive – imaging, CEA

1. Pita-Fernandez s et al. Ann Oncol. 2015;26: 644-56.
2. Renehan AG et al. BMJ. 2002;324: 813-21.
3. Figueredo A. et al BMC Cancer. 2003:3: 26-39.
4. Jeffery M et al. Cochrane Database Syst Rev. 2016;CD002200.
5. Tjandra JJ et al Dis Colon Rectum. 2007;50: 1783-99.

Meta-analyses of intensive* versus less intensive surveillance after potentially curative therapy for colon and rectal cancer

Author; year	Pooled number of patients in randomized trials		Relative risk for mortality (95% CI)
	Intensive		
Renehan 2002			
Jeffrey 2016 (Cochrane)	2897	2260	0.90 (0.78 – 1.02)

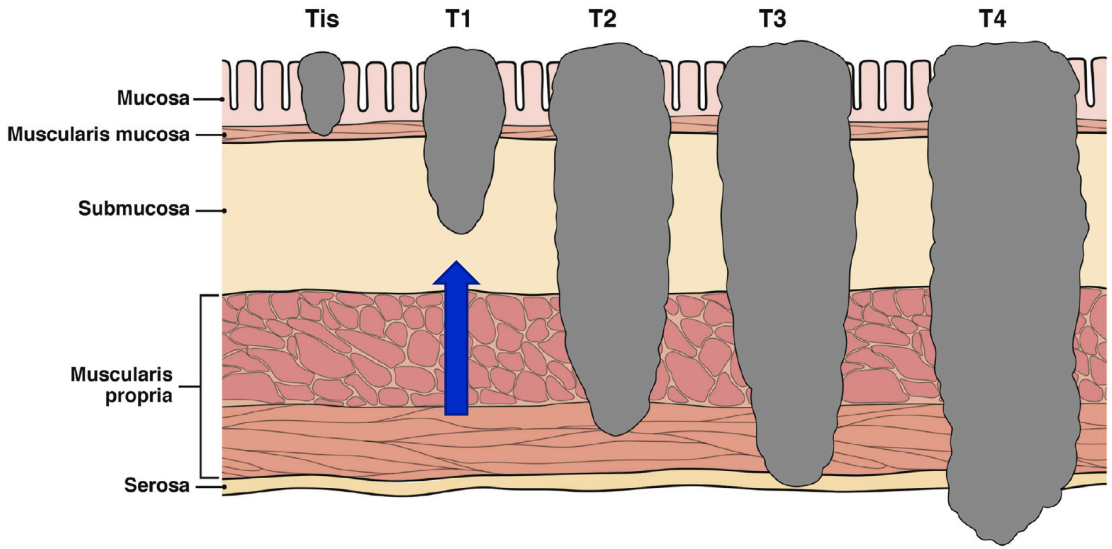
- **Patient with asymptomatic recurrences are more likely to be eligible for potentially curable resection**
  - **RR 2.0 (1.5 – 2.6) for curative-intent resection (Pita-Fernandez 2015)**

*Intensive – imaging, CEA

1. Pita-Fernandez s et al. Ann Oncol. 2015;26: 644-56.
2. Renehan AG et al. BMJ. 2002;324: 813-21.
3. Figueredo A. et al BMC Cancer. 2003:3: 26-39.
4. Jeffery M et al. Cochrane Database Syst Rev. 2016;CD002200.
5. Tjandra JJ et al Dis Colon Rectum. 2007;50: 1783-99.

Malignant Polyps

- pT1 disease...invasive adenocarcinoma through muscularis mucosa but confined to submucosa
- Nx – estimated that up to 10% of pT1 will have LNM
  - Risk of nodal metastases proportional to high-risk features
    - Poor differentiation
    - Positive margin or <1mm
    - Lymphovascular invasion
    - Sm invasion > 1mm
    - Tumour budding



Yes → Surgery

- Absence of high-risk features = low risk of nodal metastases
  - Very limited data on recurrence patterns and risk in pts with endoscopically resected malignant polyps
    - SM1 disease – risk of LNM 1-3%

Shaukat A AGA guidelines Gastroenterology 2020

Is surveillance beneficial in low-risk disease?

VOLUME 27 · NUMBER 22 · AUGUST 1 2009

JOURNAL OF CLINICAL ONCOLOGY

ORIGINAL REPORT

Postoperative Surveillance Recommendations for Early Stage Colon Cancer Based on Results From the Clinical Outcomes of Surgical Therapy Trial

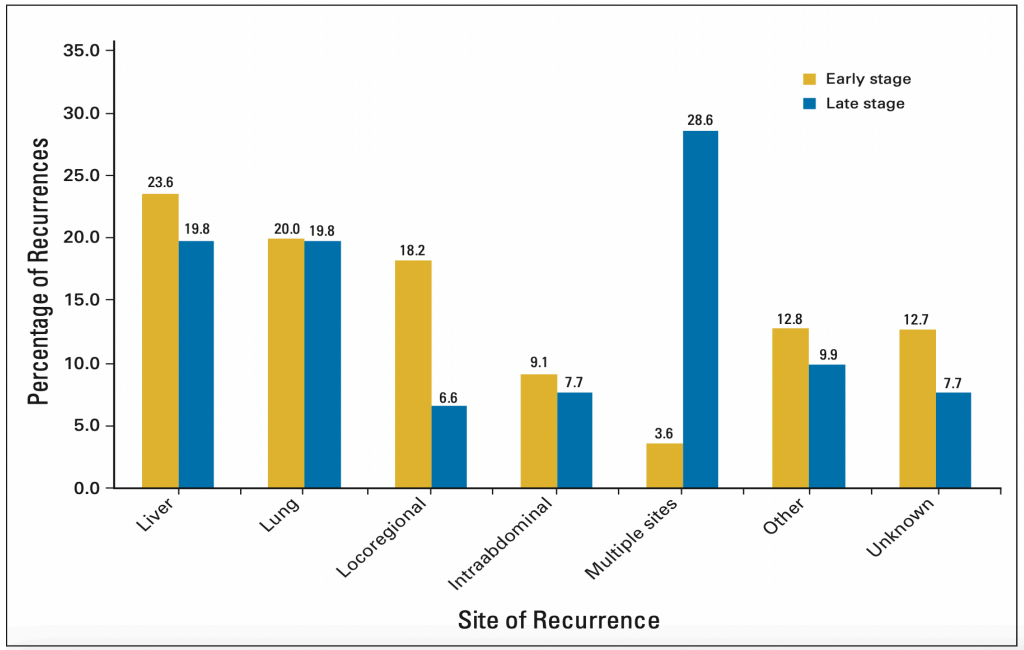
Vassiliki L. Tsikitis, Kishore Malireddy, Erin A. Green, Brent Christensen, Richard Whelan, Jace Hyder, Peter Marcello, Sergio Larach, David Lauter, Daniel J. Sargent, and Heidi Nelson

From the Division of Colon and Rectal Surgery, and the Division of Biomedical Statistics and Informatics, Mayo Clinic, Rochester, MN; LDS Hospital, Salt Lake City, UT; Columbia Presbyterian Hospital, New York, NY; Midwest Surgical PA, Wichita, KS; Group Health Coopera-

A B S T R A C T

Purpose

Intensive postoperative surveillance is associated with improved survival and recommended for patients with late stage (stage IIB and III) colon cancer. We hypothesized that stage I and IIA colon cancer patients would experience similar benefits.



- Secondary analysis of COST study
  - Early-stage (stage I and IIA): n=537
  - Late-stage (stage IIB and III): n=254
- Cumulative incidence of recurrence
  - Early stage: 6.0% (2y) and 9.5% (5y)
    - 36% rate of salvage surgery
  - Late-stage: 23.7% (2y) and 35.7% (5y)
    - 35% rate of salvage surgery
- Patients with stage I/IIA colon cancer
  - Less likely to have multi-site recurrence
  - Similar likelihood of curative-intent resection as stage IIB and III but absolute numbers are small

Journal of
Clinical Medicine

MDPI

Article

Long-Term Outcomes of T1 Colorectal Cancer after Endoscopic Resection

Eun Young Park [1,2], Dong Hoon Baek [1,2,*], Moon Won Lee [1,2], Gwang Ha Kim [1,2], Do Youn Park [2,3] and Geun Am Song [1,2]

1 Department of Internal Medicine, Pusan National University School of Medicine, Busan 49421, Korea; wyforever@hanmail.net (E.Y.P.); neofaceoff@hanmail.net (M.W.L.); doc0224@pusan.ac.kr (G.H.K.); gasong@pusan.ac.kr (G.A.S.)
2 Biomedical Research Institute, Pusan National University Hospital, Busan 49421, Korea
3 Department of Pathology, Pusan National University School of Medicine, Busan 49421, Korea; pdy220@pusan.ac.kr
* Correspondence: dhbeak77@gmail.com; Tel.: +82-51-2407869; Fax: +82-51-2448180

Received: 26 June 2020; Accepted: 30 July 2020; Published: 31 July 2020

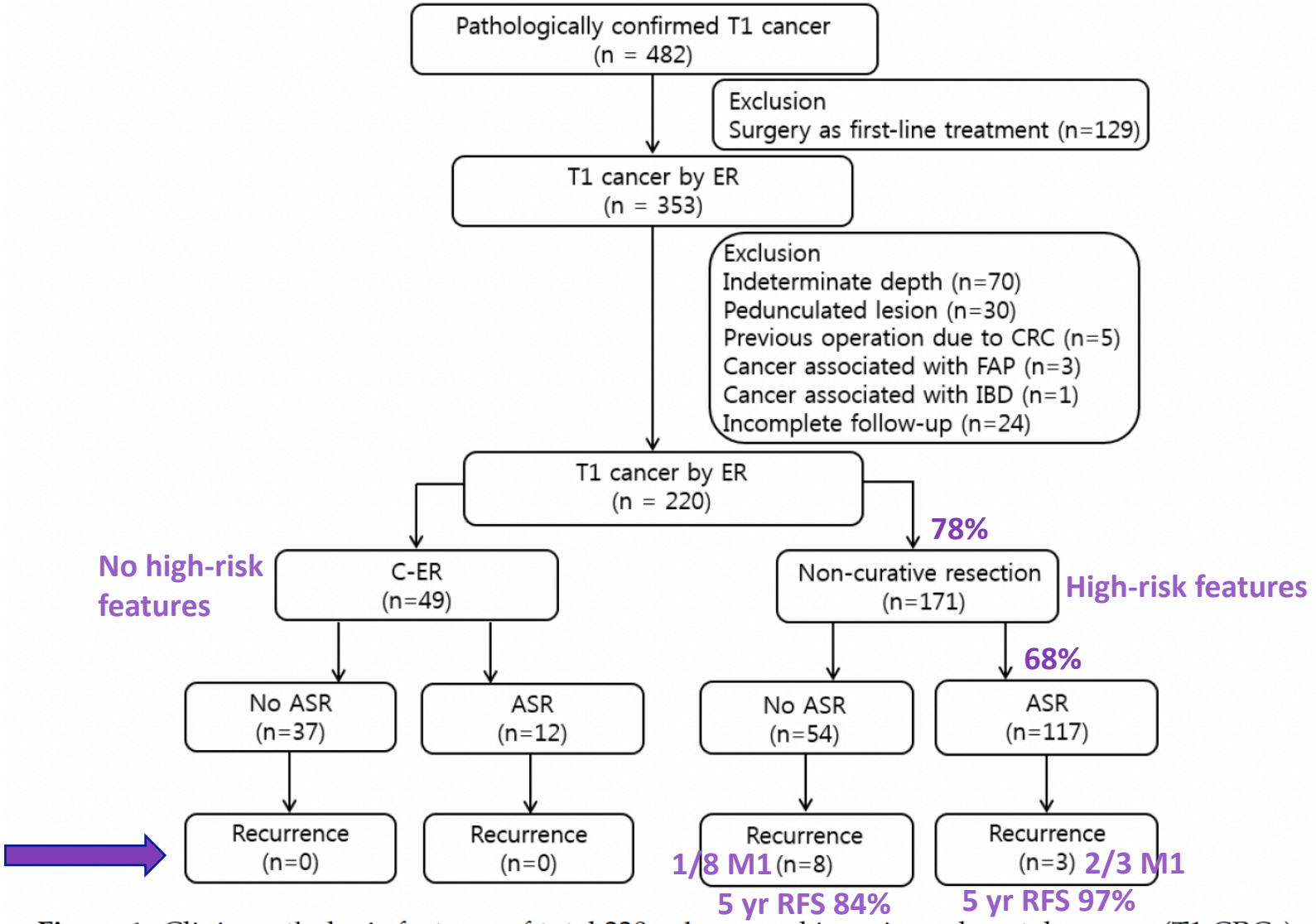


Figure 1. Clinicopathologic features of total 220 submucosal invasive colorectal cancers (T1 CRCs). FAP—familiar adenomatous polyposis; IBD—inflammatory bowel disease; C-ER—curative-endoscopic resection; NC-ER—non-curative endoscopic resection; ASR—additional surgical resection.

What do guidelines recommend for Stage I (pT1-2/N0) disease?

Organization	History and Physical Exam	CEA testing	CT scanning	Endoscopic surveillance	Comments
ASCO[1] and CCO[2]	Every 3 to 6 months for 5 years	Every 3 to 6 months for 5 years	Abdomen and chest annually for three years; pelvis: rectal only annually for 3 to 5 years	Colonoscopy at 1 year; subsequent studies dictated by prior finding. If negative, every 5 years. Proctosigmoidoscopy every 6 months for 2 to 5 years if rectal cancer and no pelvic RT	Posttreatment surveillance strategy guided by the estimated risk of recurrence and functional status. These recommendations are for resected stage II and Stage III colon and rectal cancer. **Recommendations not provided for resected Stage I and IV disease due to lack of data to guide recommendation**

1. Meyerhardt JA et al. JCO 2013;31: 4465-70.
2. Cancer Care Ontario 2016. www.cancercare.on.ca;.

NCCN Guidelines Version 2.2021
Colon Cancer

NCCN Guidelines Index
Table of Contents
Discussion

PATHOLOGIC STAGE	SURVEILLANCE[b]
Stage I	Colonoscopy[a] at 1 y after surgery • If advanced adenoma, repeat in 1 y • If no advanced adenoma,[hh] repeat in 3 y, then every 5 y[ii]
Stage II, III	• History and physical every 3–6 mo for 2 y, then every 6 mo for a total of 5 y • CEA[jj] every 3–6 mo for 2 y, then every 6 mo for a total of 5 y • Chest/abdominal/pelvic CT every 6–12 mo (category 2B for frequency <12 mo) for a total of 5 y • Colonoscopy[a] in 1 y after surgery except if no preoperative colonoscopy due to obstructing lesion, colonoscopy in 3–6 mo ▸ If advanced adenoma, repeat in 1 y ▸ If no advanced adenoma,[hh] repeat in 3 y, then every 5 y[ii] • PET/CT scan is not indicated • See Principles of Survivorship (COL-H)
Stage IV	• History and physical every 3–6 mo for 2 y, then every 6 mo for a total of 5 y • CEA[jj] every 3–6 mo x 2 y, then every 6 mo for a total of 5 y • Chest/abdominal/pelvic CT scan every 3–6 mo (category 2B for frequency <6 mo) x 2 y, then every 6–12 mo for a total of 5 y • Colonoscopy[a] in 1 y after surgery except if no preoperative colonoscopy due to obstructing lesion, colonoscopy in 3–6 mo ▸ If advanced adenoma, repeat in 1 y ▸ If no advanced adenoma,[hh] repeat in 3 y, then every 5 y[ii] • See Principles of Survivorship (COL-H)

→ Serial CEA elevation or documented recurrence → See Workup and Treatment (COL-9)

Follow-up and Surveillance of Colon Cancer Patients Treated with Curative Intent

Revised May 2018

Following completion of definitive surgery and chemotherapy, patients are typically advised to undergo a surveillance program for a period of up to 5 years, except colonoscopy, which should continue while the patient is a candidate for treatment should a metachronous or recurrent cancer be found. This is typically managed under the direction of their primary care provider.

Stage 0-I:

- If complete colonoscopy was not performed at time of initial cancer diagnosis, it should be completed within 6 months to rule out metachronous lesions. Otherwise, repeat colonoscopy is recommended in one year, and if normal, in three years, and if normal every five years thereafter.
- For patients with specific genetic syndromes, the American Gastroenterological Association guidelines should be followed.
- No evidence of improved survival with routine imaging or blood work.

Surveillance for endoscopically resected malignant polyps

- Baseline staging investigations including chest and abdominopelvic imaging and CEA is recommended at the time of diagnosis
- Beyond endoscopic follow-up, surveillance for detection of metastatic disease (with imaging or CEA) is not recommended in patients with endoscopically resected malignant polyps
  - Risk of lymph node metastases in low-risk pT1 is 1-3%
  - Malignant polyps with high-risk features should be considered for oncologic resection and lymph node assessment
    - Patients with node-positive disease will be offered adjuvant chemotherapy and intensive surveillance
    - Patients with high-risk features who are not suitable candidates for oncologic resection (due to age, comorbidities etc) are also not appropriate candidates for surveillance