Cancer PROGRAMS
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Commission on Cancer®
National Accreditation Program for Rectal Cancer

A QUALITY PROGRAM of the AMERICAN COLLEGE OF SURGEONS

The Rationale for and Reality of the ACS CoC National Accreditation Program for Rectal Cancer

AMERICAN COLLEGE OF SURGEONS
Inspiring Quality:
Highest Standards, Better Outcomes
100+years

Disclosures

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Rectal Carcinoma: Surgeon Variability

Edmonton, Canada Registry

- January 1st, 1983 – December 31st, 1990
- 5 hospitals
- 683 patients
- 52 surgeons (5 colorectal surgeons)

Porter et al. Ann Surg 1998

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Rectal Carcinoma: Surgeon Variability

Variable	Colorectal Trained (+)	(-)	P
Low and mid tumors (%)	70.6	62.2	<0.001
Low anterior resection (%)	61	25.8	<0.001
Abdominoperineal (%)	27.5	46.9	<0.001

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Local Recurrence and Disease-Specific

	≥ 21 resections (n=360) (%)	< 21 resections (n=323) (%)
Local Recurrence		
Colorectal trained (n=109)	10.4	21.1
Non-colorectal trained (n=574)	27.8	44.6
Disease-Specific Survival		
Colorectal trained	67.3	54.5
Non-colorectal trained	49.0	39.2

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Rectal Carcinoma: Surgeon Variability

Disease Specific Survival		Multivariate Analysis	Risk Local Recurrence	
HR	p	Group	HR	p
1.5	0.03	Non-colorectal trained	2.5	0.001
1.4	0.005	<21 resections/8 years	1.8	<0.001
---	---	Use of adjuvant therapy	---	0.002
---	<0.01	Rectal perforation	---	<0.001
---	<0.001	Vascular/Neural invasion	---	0.002
---	<0.001	Stage	---	---
---		Grade	---	---

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Specialization

"Patients operated upon by a general surgeon were **3.42 times** more likely to develop a local recurrence than those operated upon by a colorectal surgeon"

Dorrance et al. Dis Colon Rectum 2000

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Outcomes by Surgeon Volume

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	Patients (n)	Morbidity	Post-OP Mortality	Recurrence
Bokey, 1997	922	-	↓	↓
Porter, 1998	683	↓	-	↓
Harmon, 1999	5739	-	↓	-
Hermanek, 1999	1121	-	-	↓
Callahan, 2003	48528	↓	↓	-
Smith, 2003	5173	↓	↓	↓
Hao Wang, 2009	738	↓	↓	-
Borowski, 2010	8219	↓	↓	↓
Archampong, 2012	65726	n/a	↓	↓
Hohenberger, 2013	1028	↓	↓	-

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Colostomy Rates

Source	Year(s)	n	Country	Tumor distance from anal verge	Colostomy Rate
Norwegian Rectal Cancer Project	1993-1999	2136	Norway	<12 cm	38%
Dutch Trial	1996-1999	1805	Netherlands/Sweden	<15 cm	32%
MRC CRO-7	1998-2005	1350	UK/Canada/NZ/SAF	<15 cm	35%
German Trial	1994-2002	799	Germany	<16 cm	25%
Trans-Tasman	2001-2006	323	Australia/New Zealand	<12 cm	33%
AHRQ and OSHPD (CA)	2002-2004	19,912	USA	rectum	50%

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+CRM Rates: U.S. vs. Europe

	NCDB (U.S.)	Lyon 96-02	German	Dutch	Polish	CRO-7 (U.K.)
Overall	17%	3%	3.5%	10%	12.9%/ 4.4%	11%
LAR	13%	-	-	8%	-	-
APR	21%	-	-	12%	-	-

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Original article

Changing strategy for rectal cancer is associated with improved outcome

M. Dahlberg, B. Glimelius* and L. Påhlman

Departments of Surgery and *Oncology, Akademiska sjukhuset, University of Uppsala, S-751 85 Uppsala, Sweden
Correspondence to: Dr M. Dahlberg

- Rectal Cancer cases between 1974-1995 in Uppsala, Sweden.
- In 1980 limited to colorectal unit.
- Local Recurrence decreased from 47% to 13%.
- Increase seen in cancer-specific survival.

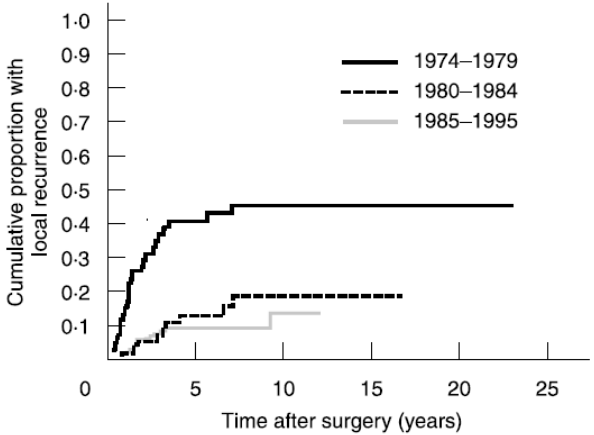

Fig. 2 Cumulative local recurrence rate among patients with resectable tumours undergoing curative surgery

Dahlberg et al. BJS 1998

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Original article

doi:10.1111/j.1463-1318.2009.02098.x

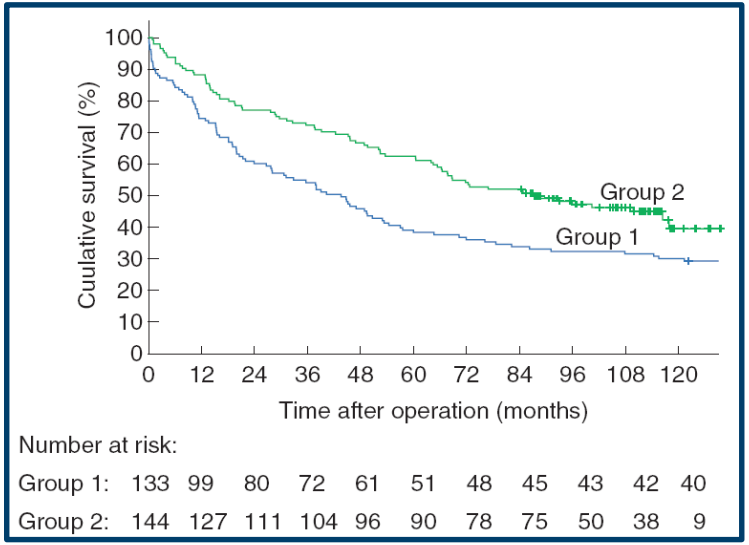
Centralization of rectal cancer surgery improves long-term survival

M. Hosseinali Khani and K. Smedh

Colorectal Unit, Department of Surgery and Centre for Clinical Research of Uppsala University, Central Hospital, Västerås, Sweden

Comparison of long-term outcomes for Rectal Cancer patients before and after implementation of specialized colorectal unit.

Resulted in improved 5- and 10-yr OS from 52% and 40% to 76% and 49% (p=0.003)



Khani et al. Colorectal Dis 2009

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Original article

doi:10.1111/j.1463-1318.2009.02012.x

Improved survival after rectal cancer in Denmark

S. Bülow*, H. Harling†, L. H. Iversen‡ and S. Ladelund§¶ on behalf of The Danish Colorectal Cancer Group[1]

*Department of Surgery, Hvidovre University Hospital, †Department of Surgery, Bispebjerg University Hospital, ‡Department of Surgery P, Århus University Hospital THG, §Research Centre for Prevention and Health, Glostrup Hospital and ¶Clinical Research Centre, Hvidovre University Hospital and the University of Copenhagen, Copenhagen, Denmark

Analysis of long-term survival in 10,632 Rectal cancer patients before and after establishing the Danish Colorectal Cancer Group.

Improved 5-yr Relative and Overall survival.

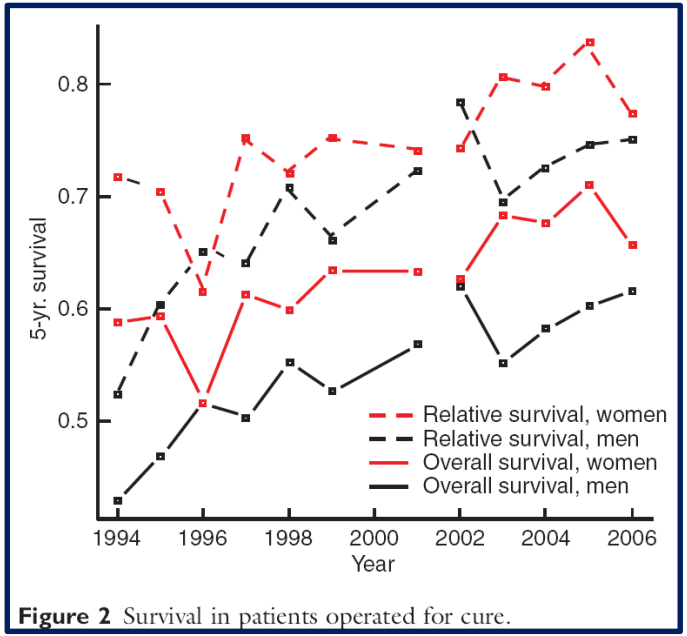

Figure 2 Survival in patients operated for cure.

Bulow et al. Colorectal Dis 2010

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Impact of Centers of Excellence in Europe

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Country	Year	TME adherence		Permanent stoma rate		Local Recurrence		Overall Survival	
		-	+	-	+	-	+	-	+
Norway	2002	78%	92%	-----	-----	12%	6%	60%	73%
Netherlands	2010	33%	31%	-----	-----	16	9	56%	65%
Sweden	2010	-----	-----	38%	18%	8%	3.5%	38%	62%
Denmark	2010	-----	-----	-----	-----	-----	-----	37%	51%
Spain	2013	-----	-----	-----	-----	-----	5%	-----	88%
Belgium	2015	-----	-----	-----	-----	-----	-----	56%	77%

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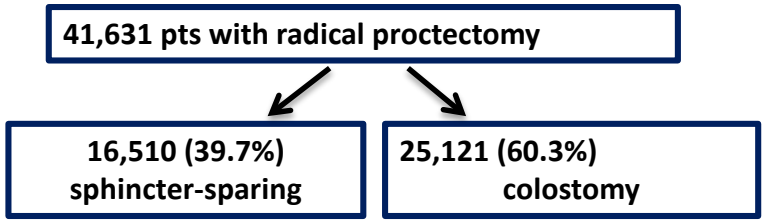
- Nationwide Inpatient Sample
- 20% stratified random sample of U.S. inpatients
- 1988-2003
- Increase in sphincter-preservation rate from 26.9% in 1988 to 48.3% in 2003
- Rate flat after 1999
- Elderly, male, black, Medicaid, low-income zip code predicted colostomy
- *"most radical resections for rectal cancer in U.S. hospitals result in a colostomy"*

The Status of Radical Proctectomy and Sphincter-Sparing Surgery in the United States

Rocco Ricciardi, M.D., M.P.H.,[1,2] Beth A. Virnig, Ph.D., M.P.H.,[1,3] Robert D. Madoff, M.D.,[1] David A. Rothenberger, M.D.,[1] Nancy N. Baxter, M.D., Ph.D.[4]

[1] *Department of Surgery, University of Minnesota Medical School, Minneapolis, Minnesota*
[2] *Department of Colon and Rectal Surgery, Lahey Clinic, Burlington, Massachusetts*
[3] *Division of Health Services Research and Policy, School of Public Health, University of Minnesota, Minneapolis, Minnesota*
[4] *Department of Surgery, St. Michael's Hospital, University of Toronto, Toronto, Ontario, Canada*



Ricciardi et al. DCR 2007

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ORIGINAL CONTRIBUTION

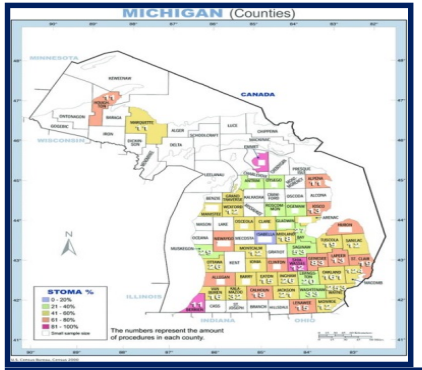
Variability in Reconstructive Procedures Following Rectal Cancer Surgery in the United States

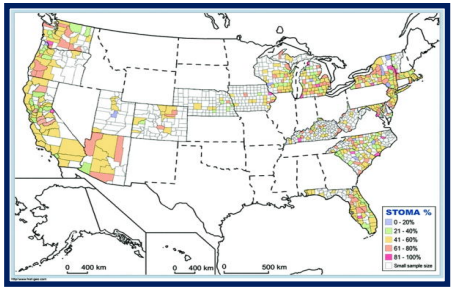
Rocco Ricciardi, M.D., M.P.H.[1] • Patricia L. Roberts, M.D.[1] • Thomas E. Read, M.D.[1]
Peter W. Marcello, M.D.[1] • David J. Schoetz, M.D.[1] • Nancy N. Baxter, M.D., Ph.D.[2]

1 Department of Colon and Rectal Surgery, Lahey Clinic, Burlington, Massachusetts
2 Department of Surgery, University of Toronto, Toronto, Ontario, Canada

- Hospital discharge data from 21 states with county-level place of residence information (2002-04)
- 20,000 proctectomies
- 50% of cases non-restorative (APR)
- Only 20% of counties with colostomy rate <40%

Agency for Healthcare Research and Quality
Office of Statewide Health Planning and Development Calif.





Colostomy, %	County totals	All counties, %
0–20	11	2.2
21–40	87	17.8
41–60	266	54.4
61–80	107	21.9
81–100	18	3.7
All	489	100

Total number of counties in each quintile and the proportion of counties in each quintile are represented.

Ricciardi R et al. DCR 2010

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ORIGINAL CONTRIBUTION

Who Performs Proctectomy for Rectal Cancer in the United States?

Rocco Ricciardi, M.D., M.P.H.[1] • Patricia L. Roberts, M.D.[1] • Thomas E. Read, M.D.[1]
Nancy N. Baxter, M.D., Ph.D.[2] • Peter W. Marcello, M.D.[1] • David J. Schoetz, M.D.[1]

1 Department of Colon and Rectal Surgery, Lahey Clinic, Burlington, Massachusetts
2 Department of Surgery, University of Toronto, Toronto, Canada

- 11 states' hospital discharge data 2003-2004 (1)
- >7500 proctectomies by 2600 surgeons
- 40% of surgeons performed ***ONLY*** non-restorative procedures (APR) for their rectal cancer patients !
  - higher mortality rates (2x) and longer lengths of stay (2 days)
- "Restorative" (LAR) surgeons were ***specialized*** by virtue of more pelvic pouch and anorectal procedures

Ricciardi R et al. DCR 2010

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ORIGINAL CONTRIBUTION

Presence of Specialty Surgeons Reduces the Likelihood of Colostomy After Proctectomy for Rectal Cancer

Rocco Ricciardi, M.D., M.P.H.[1] • Patricia L. Roberts, M.D.[1] • Thomas E. Read, M.D.[1]
Nancy N. Baxter, M.D., Ph.D.[2] • Peter W. Marcello, M.D.[1] • David J. Schoetz, M.D.[1]

1 Department of Colon and Rectal Surgery, Lahey Clinic, Burlington, Massachusetts
2 Department of Surgery, University of Toronto, Toronto, Ontario, Canada

Same dataset as prior study *plus* tumor characteristics from SEER, screening rates from Medicare, hospital characteristics from AHA, and surgeon specialty from ASCRS and SSO rosters

"High Stoma Counties"(26% of all counties)

- **Defined as >60% colostomy rate (mean 71%)**
- **Less likely to have MRI or PET scanner**
- **Less likely to have teaching hospital**
- **Significantly fewer specialty surgeons**

"data support concept that surgeon specialization and familiarity with rectal cancer treatment are important determinants of rectal cancer care"

Ricciardi R et al. DCR 2010

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Consortium for Optimizing Surgical Treatment of Rectal Cancer

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OSTRiCh consortium

Established in 2011 Members represent all facets of U.S. healthcare delivery system

- Private clinics, academic centers, community hospitals
- Diverse in size and geography

Improve quality and uniformity of rectal cancer care in the U.S.

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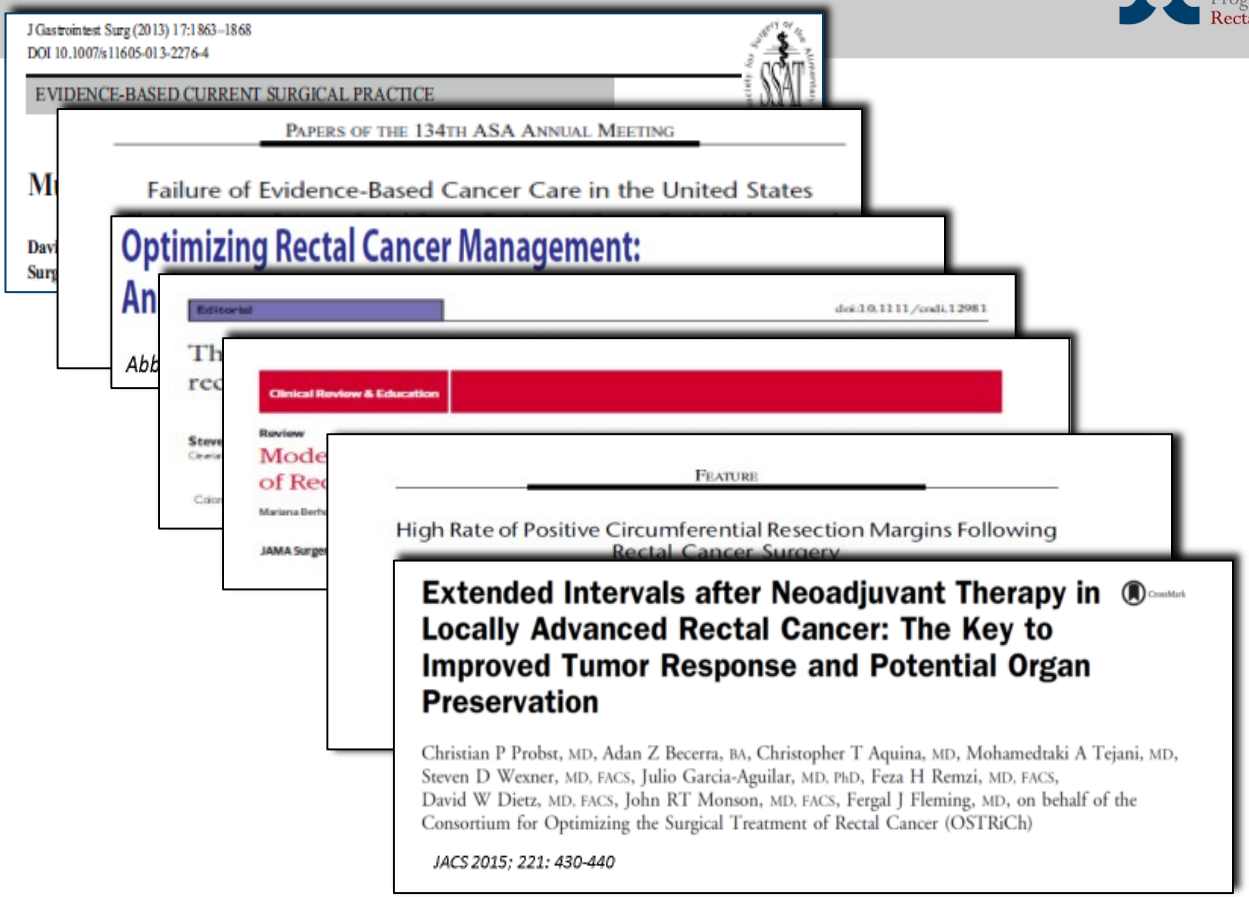

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ACS Quality Programs

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- **1917:** The Joint Commission and Joint Commission on Accreditation of Healthcare Organizations
- **1922:** Commission on Cancer (CoC)
- **1950:** Committee on Trauma (COT)
- **1998:** American College of Surgeons Oncology Group (ACOSOG)
- **2004:** National Surgical Quality Improvement Program (ACS NSQIP®)
- **2005:** National Accreditation Program for Breast Centers (NAPBC)
  Metabolic and Bariatric Surgery Accreditation and Quality Improvement Program (MBSAQIP)

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Our Mission…

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The Commission on Cancer is a consortium of professional organizations dedicated to improving survival and quality of life for cancer patients through standard-setting, prevention, research, education, and the monitoring of comprehensive *quality care.*

57 professional member organizations

Over 100 CoC members and staff

8 volunteer leadership committees

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Commission on Cancer Member Organizations

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Administrative

Association of Cancer Executives (ACE)
Association of Community Cancer Centers (ACCC)
American Hospital Association (AHA)
Community Oncology Alliance (COA)
National Consortium of Breast Centers (NCBC)

Advocacy/Patient Based

American Cancer Society, Inc. (ACS)
Cancer Support Community (CSC)
National Coalition for Cancer Survivorship (NCCS)

Allied Health

American Academy of Hospice and Palliative Medicine (AAHPM)
American Academy of Physical Medicine & Rehabilitation (AAPM&R)
Academy of Nutrition and Dietetics, Oncology Nutrition Group (AND)
Academy of Oncology Nurse and Patient Navigators (AONN+)
American Physical Therapy Association (APTA)
American Psychosocial Oncology Society (APOS)
Association of Oncology Social Work (AOSW)
National Society of Genetic Counselors (NSGC)

Clinical

American Academy of Pediatrics (AAP)
American Association of Endocrine Surgeons (AAES)
American Association of Pathologists' Assistants (AAPA)
American College of Obstetricians and Gynecologists (ACOG)
American College of Medical Genetics and Genomics (ACMG)
American College of Physicians (ACP)
American College of Radiology (ACR)
American Head and Neck Society (AHNS)
American Medical Association (AMA)
American Pediatric Surgical Association (APSA)
American Radium Society (ARS)
American Society of Breast Surgeons (ASBS)
American Society of Clinical Oncology (ASCO)
American Society of Colon and Rectal Surgeons (ASCRS)
American Society of Plastic Surgeons (ASPS)
American Society for Radiation Oncology (ASTRO)
American Urological Association (AUA)
College of American Pathologists (CAP)
Hematology/Oncology Pharmacy Association (HOPA)
Oncology Nursing Society (ONS)
Resident and Associate Society American College of Surgeons (RASACS)
Society of Gynecologic Oncology (SGO)
Society for Immunotherapy of Cancer (SITC)
Society of Nuclear Medicine and Molecular Imaging (SNMMI)
Society of Surgical Oncology (SSO)
Society of Thoracic Surgeons (STS)
Young Fellows Association American College of Surgeons (YFAACS)

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Commission on Cancer Member Organizations

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Government

Centers for Disease Control and Prevention (CDC)
Department of Defense Military Health System (DOD)
Department of Veterans Affairs/Veterans Health (VA)
National Cancer Institute Healthcare Delivery Research Program (NCI HDRP)
National Cancer Institute Surveillance, Epidemiology, and End Results Program (NCI SEER)

Registry

National Cancer Registrars Association, Inc. (NCRA)
North American Association of Central Cancer Registries (NAACCR)

Research/Education

Alliance Clinical Research Program (ALLIANCE)
American Association for Cancer Education (AACE)
American Joint Committee on Cancer (AJCC)
Association of American Cancer Institutes (AACI)
National Accreditation Program for Breast Centers (NAPBC)
National Comprehensive Cancer Network (NCCN)
National Surgical Adjuvant Breast and Bowel Project (NSABP)

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National Cancer Database (NCDB)

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- The NCDB is the preeminent, multidisciplinary, national clinical cancer registry system dedicated to **continuous quality improvement** for the evaluation, management and surveillance of cancer patients.

- Founded in 1989. Continues to grow; approaching 39 million cancer cases diagnosed between years 1985-2016.

- After the 2018 Call for Data, 1.47 million new cases were added representing 72% of newly diagnosed cancer cases in the U.S. 16.9 million cases overall were submitted.

- NCDB captures 250 data points per patient.

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NAPBC Accreditation Demonstrates Improved Compliance with Post-Mastectomy Radiation Therapy Quality Measure

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NAPBC quality measure:
post-mastectomy patients with ≥4 positive lymph nodes should receive radiation therapy (PMRT)

Objective:
examine how NAPBC accreditation has affected compliance with this quality measure

NAPBC®
NATIONAL ACCREDITATION PROGRAM FOR BREAST CENTERS

Methods:
Women who underwent mastectomy at either an NAPBC-accredited center or a CoC only accredited hospital were identified (2006-2013) in the NCDB

Berger et al. JACS 2017

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NAPBC centers yielded a significantly higher rate of PMRT than CoC hospitals (66.0% vs 59.2%, p<0.001)

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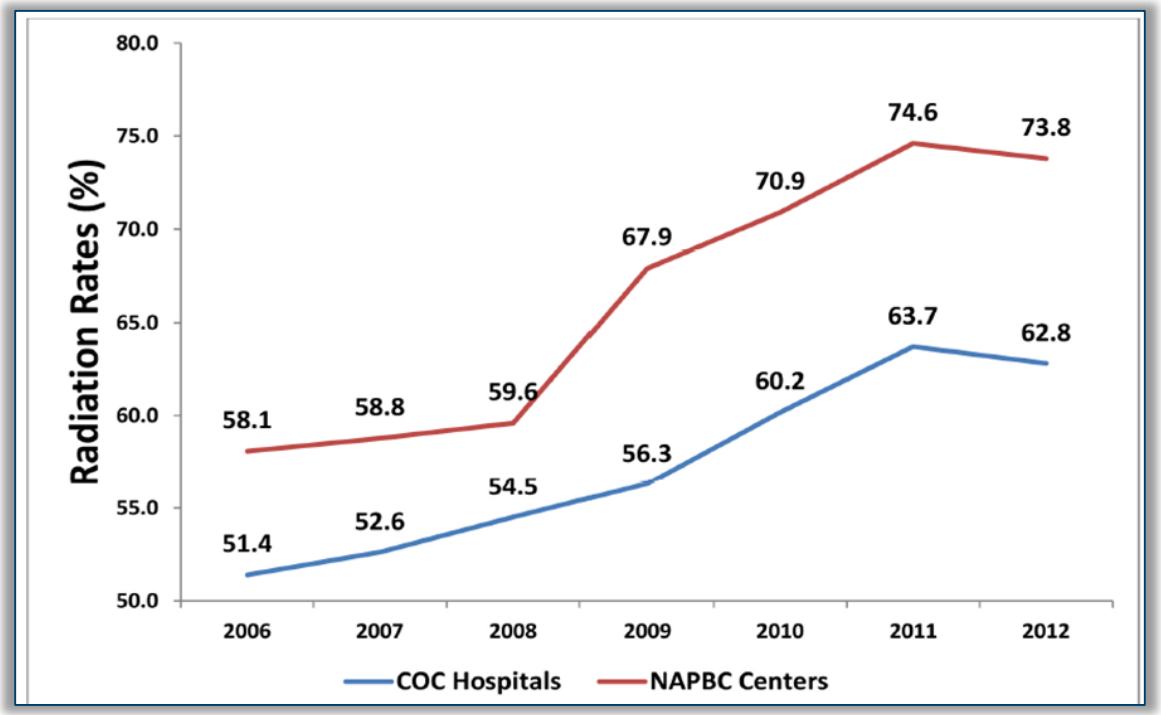

Berger et al. JACS 2017

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For each year of accreditation (2009- 2011), centers had significantly higher rates of radiation in the accreditation year compared to the year prior to accreditation (p <0.001)

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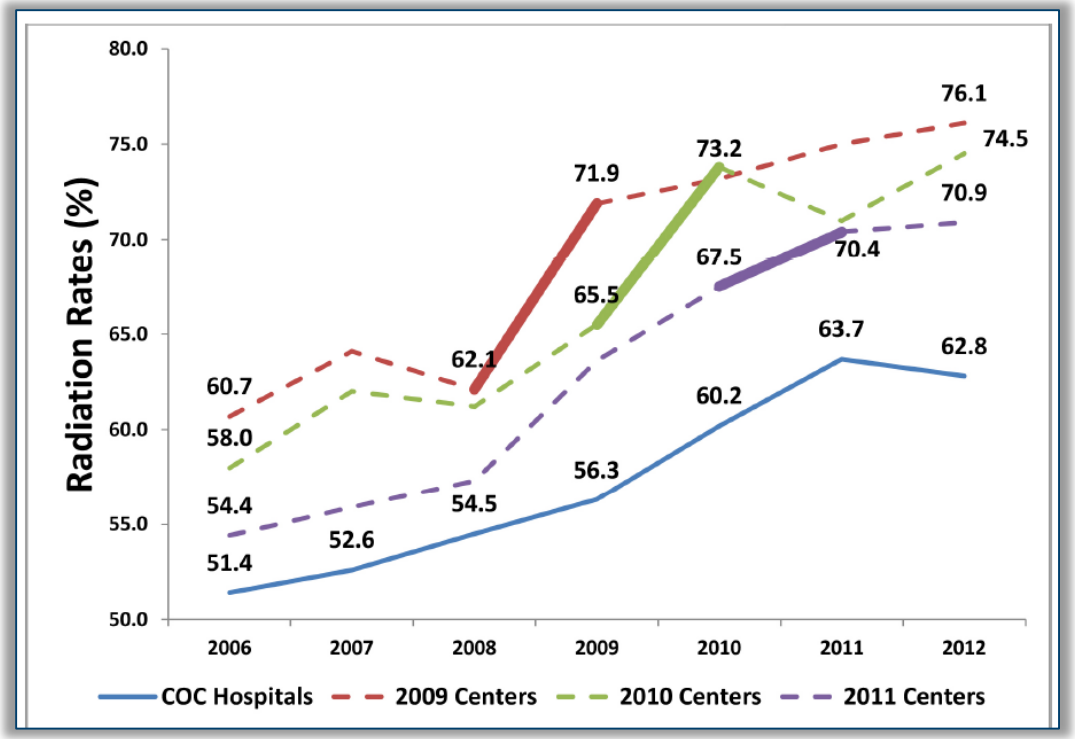

Within those centers, the rate of radiation increased post-accreditation in each accreditation year

Berger et al. JACS 2017

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Need for A Rectal Cancer National Accreditation Program

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PAPERS OF THE 134TH ASA ANNUAL MEETING

Failure of Evidence-Based Cancer Care in the United States

The Association Between Rectal Cancer Treatment, Cancer Center Volume, and Geography

John R. T. Monson, MD, Christian P. Probst, MD,* Steven D. Wexner, MD,† Feza H. Remzi, MD,‡ James W. Fleshman, MD,§ Julio Garcia-Aguilar, MD,¶ George J. Chang, MD,‖ and David W. Dietz, MD‡; On behalf of The Consortium for Optimizing the Treatment of Rectal Cancer (OSTRiCh)*

- ✓ National Cancer Data Base 2006-2011
- ✓ Stage II-III Rectal cancer, 30,994 pts
- ✓ **Significant variations in the use of neoadjuvant treatment** by cancer center type, geographical location, hospital volume, Pt age, sex, race, primary payer, urban/rural, comorbidity, stage
- ✓ Vast majority of pts **treated in low** (1-10/year) and **intermediate** (10-30/year) volume centers **23,808 vs 6,466** in **high volume centers** (>30/year)
- ✓ **Highest adherence observed in high volume centers 78% vs 69% p<0.001**

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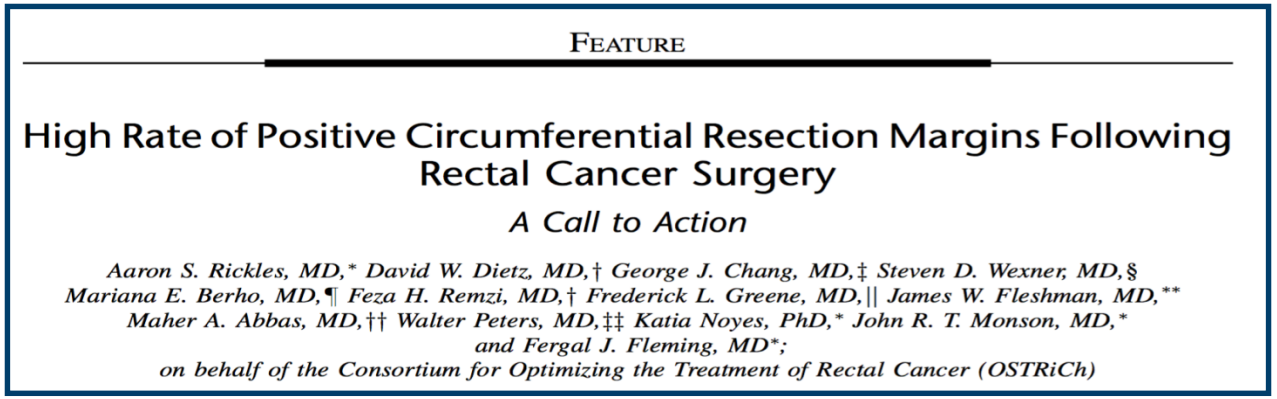

FEATURE

High Rate of Positive Circumferential Resection Margins Following Rectal Cancer Surgery

A Call to Action

Aaron S. Rickles, MD, David W. Dietz, MD,† George J. Chang, MD,‡ Steven D. Wexner, MD,§ Mariana E. Berho, MD,¶ Feza H. Remzi, MD,† Frederick L. Greene, MD,|| James W. Fleshman, MD,** Maher A. Abbas, MD,†† Walter Peters, MD,‡‡ Katia Noyes, PhD,* John R. T. Monson, MD,* and Fergal J. Fleming, MD*; on behalf of the Consortium for Optimizing the Treatment of Rectal Cancer (OSTRiCh)*

- ✓ National Cancer Data Base 2010-2011
- ✓ Stage I-III Rectal cancer
- ✓ **Rate of positive CRM (<1mm) by Pt demographics, tumor characteristics, and treatment**
- ✓ **T3/4, high grade, LVI, neural invasion all independently associated**
- ✓ **Middle Atlantic (13.5%) vs West-South-Central-Pacific (18.9%) p<0.001**
- ✓ Neoadjuvant chemoradiation not associated with CRM status
- ✓ 16,619 pts → 2,859 had positive **CRM (17.%)**

Rickles AS et al. Ann Surg 2015

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1.1 | 1.2 | 1.3 | 1.4 | 1.5 | 1.6 | 1.7 | 2.1 | 2.2 | 2.3 | 2.4 | 2.5 | 2.6 | 2.7 | 2.8 | 2.9 | 2.10 | 2.11 | 2.12 | 2.13 | 3.1 | 3.2 | References

Chapter 1: **Program Management**	**Standard 1.1:** Commission on Cancer Accreditation **Standard 1.2:** Rectal Cancer Multidisciplinary Care **Standard 1.3:** Rectal Cancer Multidisciplinary Team Attendance **Standard 1.4:** Rectal Cancer Multidisciplinary Team Meetings **Standard 1.5:** Rectal Cancer Program Director **Standard 1.6:** Rectal Cancer Program Coordinator **Standard 1.7:** Rectal Cancer Program Education*
Chapter 2: **Clinical Services**	**Standard 2.1:** Review of Diagnostic Pathology **Standard 2.2:** Staging before Definitive Treatment **Standard 2.3:** Standardized Staging Reporting for Magnetic Resonance Imaging Results **Standard 2.4:** Carcinoembryonic Antigen Level **Standard 2.5:** Rectal Cancer Multidisciplinary Team Treatment Planning Discussion **Standard 2.6:** Treatment Evaluation and Recommendation Summary **Standard 2.7:** Definitive Treatment Timing **Standard 2.8:** Surgical Resection and Standardized Operative Reporting* **Standard 2.9:** Pathology Reports after Surgical Resection **Standard 2.10:** Photographs of Surgical Specimens **Standard 2.11:** Multidisciplinary Team Treatment Outcome Discussion **Standard 2.12:** Treatment Outcome Discussion Summary **Standard 2.13:** Adjuvant Therapy after Surgical Resection
Chapter 3: **Quality Improvement**	**Standard 3.1:** Rapid Quality Reporting System* **Standard 3.2:** Accountability and Quality Improvement Measures*

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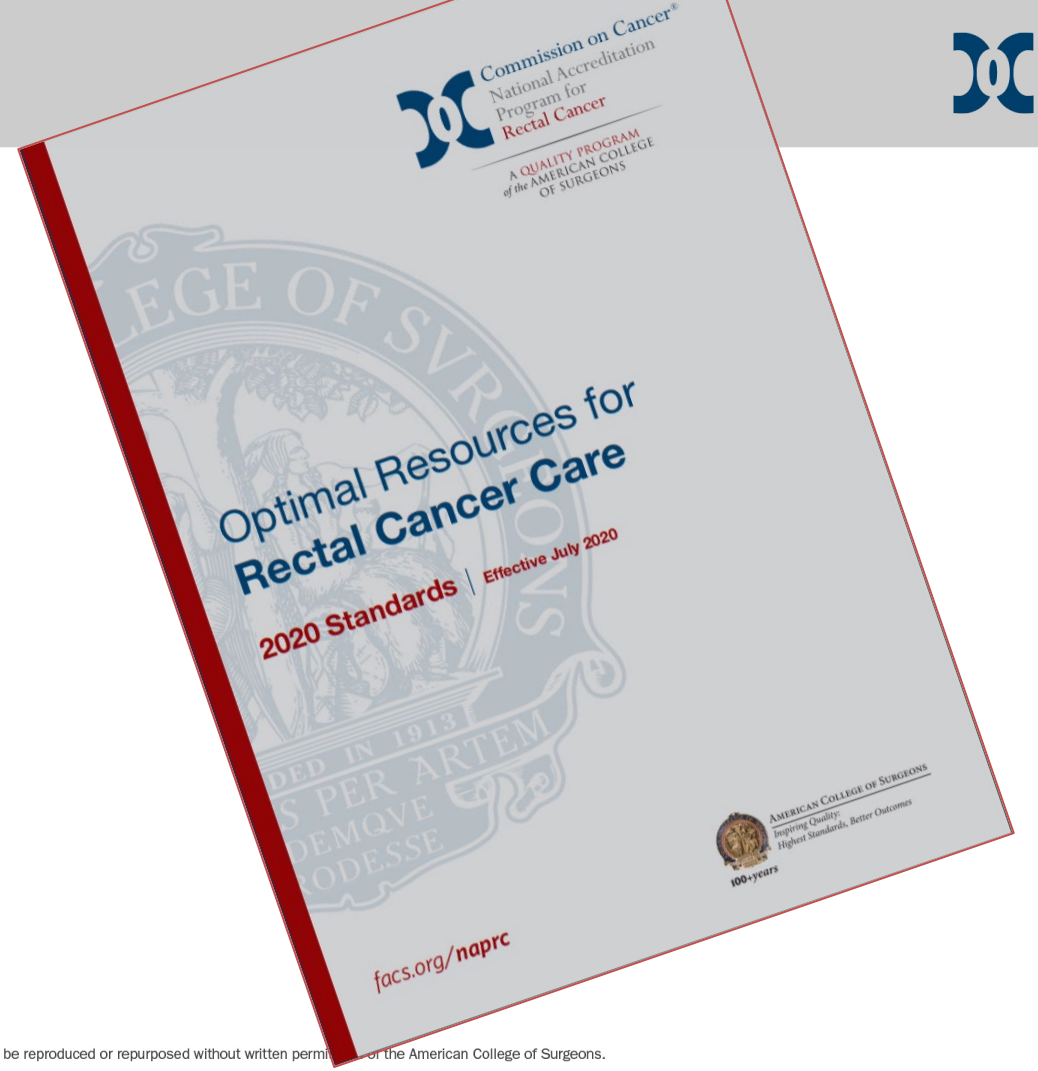

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Alert

- This is a high-level overview
- For full details on standards requirements, review the **Definitions and Requirements Documentation**, and **Measure of Compliance** sections for each standard in the *Optimal Resources for Rectal Cancer Care (2020 standards)*

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1.1 Administrative Commitment (new standard)

- Programs provide a letter of authority from facility leadership (CEO or equivalent) demonstrating the commitment to the rectal cancer program, which includes, but is not limited to:
  - A high-level description of the rectal cancer program
  - Any initiatives involving the rectal cancer program during the accreditation cycle that were initiated for the purposes of quality and safety
  - Facility leadership's involvement in the rectal cancer program
  - Examples of the current and future financial investment in the rectal cancer program

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2.1 Rectal Cancer Multidisciplinary Care

- Facility must have a defined Rectal Cancer Multidisciplinary Team
- All surgeons who perform rectal cancer surgery must be members of the RC-MDT
- Minimum of one and maximum of eight appointed physician member from each of the following medical specialties. A lead physician is selected for each specialty.
    - Pathology
    - Radiology
    - Medical oncology
    - Radiation oncology
- Additional required members of the RC-MDT are the Rectal Cancer Program Director (Standard 2.2) and the Rectal Cancer Program Coordinator (Standard 2.3)

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2.2 Rectal Cancer Program Director

- The facility appoints a Rectal Cancer Program (RCP) Director who chairs the Rectal Cancer MDT
- Liaison between the RC-MDT and the CoC committee
- Must be an active physician who provides care to rectal cancer patients
- A co-director may be appointed at the discretion of the RCP
- Responsible for evaluating, interpreting, and reporting the MDT performance using NCDB data

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2.3 Rectal Cancer MDT Program Coordinator(s)

- Program Coordinator appointed to coordinate activities of the Rectal Cancer MDT
- Responsible for registering and monitoring of patients with suspected and confirmed rectal cancer throughout their diagnostic and treatment pathways
- Ensures patient care pathways are followed according to agreed guidelines, including time targets for relevant interventions:
  first definitive treatment, subsequent adjuvant therapy, etc.
- Following MDT meeting, fully informs the referring providers of discussion outcomes regarding their patients

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2.4 Rectal Cancer Multidisciplinary Team Meetings

- The Rectal Cancer MDT meets at least twice each month during each calendar year
- At least one RC-MDT member from surgery, pathology, radiology, medical oncology, and radiation oncology must be in attendance for the RC-MDT meeting to qualify under this standard
- All meeting minutes must contain sufficient detail to accurately reflect the activities of the RC-MDT as well as demonstrate compliance with National Accreditation Program for Rectal Cancer requirements

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2.5 Rectal Cancer Multidisciplinary Team Attendance

Specialty/Role	Minimum RC-MDT Attendance Requirements*
Surgeons	50%
Pathologists	20%
Radiologists	20%
Radiation Oncologists	20%
Medical Oncologists	20%
RCP Director	50%
RCP Coordinator	50%
Specialty Lead Physicians	30%

*may include participation through teleconference if the tele-attendee can participate in discussions and has access to necessary meeting materials

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3.1 Commission on Cancer Accreditation

Commission on Cancer®
National Accreditation Program for Rectal Cancer

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The facility must be accredited by the American College of Surgeons Commission on Cancer before earning accreditation by the National Accreditation Program for Rectal Cancer

Accreditation only granted to facilities that currently hold CoC accreditation status of:

- **3-Year with Commendation**
- **3-Year Accreditation**
- **3-Year with Contingency**

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5.1 Review of Outside Pathology Reports

- Before initiation of treatment, must confirm diagnosis for **all patients** who were diagnosed elsewhere
- Must obtain and review the outside pathology slides and/or pathology reports and include the pathology reports and/or slides in the patient's medical record

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5.2 Staging before Definitive Treatment

Staging in 95% of patients

Systemic staging

- CT or PET/CT scan of the chest, abdomen, and pelvis
- PET scan without the CT scan does not meet this standard

Local tumor staging:

MRI of the pelvis using a *rectal cancer protocol* :

- Depth of tumor penetration into mesorectum
- Status of circumferential resection margin
- Involvement of adjacent organs
- Lymph node involvement
- Extramural venous invasion
- Relation to anal sphincter complex

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5.3 Standardized Staging Reporting for MRI Imaging Results

- 90% of pretreatment MRI exams are read by a radiologist who is a member of the RC-MDT
- 95% of results must be reported in a standardized synoptic report
- Required report elements are defined on the NAPRC website

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5.4 Carcinoembryonic Antigen Level

- Pretreatment CEA level is obtained before definitive treatment in minimum of 75% of previously untreated patients

- CEA level is recorded in the patient's medical record

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5.5 Rectal Cancer MDT Treatment Planning Discussion (rev. 11/2019)

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- Individualized treatment planning discussion before beginning definitive treatment in all patients.
- Definitive treatment is defined as neoadjuvant therapy, surgical resection, or initiation of palliative care
- Emergency surgery excluded
- The RC-MDT treatment planning discussion must include, but is not limited to
  - Review of diagnostic and staging studies
  - Assignment of clinical stage
  - Creation of individualized treatment plan
- The rectal cancer program (RCP) conforms to local policy and requirements for conducting and documenting multidisciplinary team treatment discussions and communicating with the patient.

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5.6 Treatment Evaluation and Recommendation Summary (rev. 11/2019)

- Before initiation of treatment, a standardized treatment evaluation and recommendation summary is provided to the treating physician in at least 50% of patients.

- Summary includes:
  - Tumor location in the rectum (lower, middle, or upper third)
  - Indication of sphincter involvement
  - Pretreatment (clinical) AJCC stage
  - Pretreatment CRM status (involved, threatened, or not threatened)
  - CEA level
  - Neoadjuvant therapy recommendation
  - Type and duration of neoadjuvant therapy recommended
  - Anticipated date and type of surgical procedure
  - Clinical research study eligibility and/or enrollment

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5.7 Definitive Treatment Timing

- Minimum of 80% of previously untreated patients begin definitive treatment within **60** days of the patient's initial clinical evaluation for rectal cancer at the accredited rectal cancer program
- Delays due to documented patient noncompliance or failure of payers to authorize recommended treatment in a timely fashion shall not be considered a failure to meet this standard

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5.8 Standardized Synoptic Operative Reporting for Surgical Resection

- 80% of surgical resections for rectal cancer are performed by a surgeon who is a member of the RC-MDT
- Operative reports for 95% of all rectal cancer patients who undergo surgical resection are recorded in a standardized synoptic report containing the minimum required elements
- Local excisions are excluded from these requirements

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5.9 Pathology Reports after Surgical Resection

- Pathology reports are completed by an RC-MDT pathologist in at least 90% of patients
- 95% of rectal cancer pathology reports are completed in two weeks, contain all College of American Pathologists (CAP) required data elements, and use a standardized synoptic format

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5.10 Photographs of Surgical Specimens

- A minimum of 65% of specimens are photographed to include anterior, posterior, and left and right lateral views
- Photographs of the fresh unpinned, unfixed ex-vivo specimen obtained using any standard digital camera in either the operating room or in the pathology laboratory
- Images discussed by MDT and electronically stored

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5.11 Multidisciplinary Team Post-Surgical Treatment Outcome Discussion (11/2019)

Four steps of the treatment outcome conference discussion:

- Pre-surgical evaluation and treatment: clinical stage, neoadjuvant therapy
- Review of the outcome of the surgery: approach, complications, stoma, unexpected findings
- Review the final pathology report and stage:
  - CRM, DRM, tumor regression grade, mesorectal grade, AJCC pathologic stage
- Recommendation for adjuvant treatment

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5.12 Post-Surgical Treatment Outcome Discussion Summary (rev. 11/2019)

- The post-surgical treatment summary is provided to the treating physician for 50 percent of patients within four weeks of the Standard 5.11 Rectal Cancer Multidisciplinary Team Post-Surgical Treatment Outcome Discussion

- Required elements of the Post-Surgical Treatment Summary are enumerated in the full standard

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5.13 Adjuvant Therapy after Surgical Resection

- Recommended adjuvant treatment regimen begins within eight weeks of definitive surgical resection of the primary tumor in at least 50% of eligible patients who elect adjuvant therapy
- Referrals for adjuvant treatment are evaluated and monitored by the RCP Coordinator, reported to the RC-MDT, and documented in the RC-MDT meeting minutes

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7.1 Accountability and Quality Improvement Measures

- NAPRC accredited programs treat patients with cancer according to nationally accepted accountability and quality measures indicated by the National Cancer Database quality reporting tools
- The RC-MDT monitors performance with the estimated performance rates (EPR), develops action plans if performance falls below the required level, and documents performance and actions in the RC-MDT meeting minutes
- This standard is in development

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8.1 Rectal Cancer Program Education

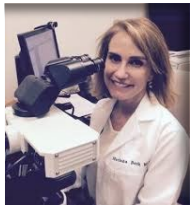
Individual components created by relevant society:

- Surgery: TME (ASCRS)
- Pathology: standard pathology specimen evaluation and reporting (completed by CAP and CoC)
- Radiology: rectal cancer protocol MRI, standard reporting (ACR)

ASCRS American Society of Colon and Rectal Surgeons

cap

ACR® American College of Radiology



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Annals of Surgical Oncology, **11**(10):941–947
DOI: 10.1245/ASO.2004.12.045

The Computer Synoptic Operative Report—A Leap Forward in the Science of Surgery

Ibrahim Edhemovic, MD, MSc, Walley J. Temple, MD, FRCSC, FACS,
Christopher J. de Gara, MD, MB, BS, FRCS (Ed., Eng. and C.), MS (London),
and Gavin C. E. Stuart, MD, FRCSC

- Standard Narrative Report (NP) vs. Computerized Synoptic Report (WebSMR).
- Cancer Surgery Working Group in Alberta including 7 hospitals.
- 40 Cases Reviewed, 29 AR and 11 APR.
- **45.9%** of information recorded in NR vs. **99%** in WebSMR.
- **6 minutes** to complete computerized report.

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Journal of Surgical Oncology 2015;112:555–560

Synoptic Operative Reports Enhance Documentation of Best Practices for Rectal Cancer

REAGAN L. MANIAR, MD, PETER SYTNIK, MD, DEBRAH A. WIRTZFELD, MD, MSc, FRCSC, FACS, DAVID J. HOCHMAN, MD, FRCSC, FASCRS, ANDREW M. MCKAY, MD, MSc, FRCSC, FACS, BENSON YIP, MD, FRCSC, PAMELA C. HEBBARD, MD, FRCSC, AND JASON PARK, MD, MEd, FRCSC, FACS*
Department of Surgery, University of Manitoba, Winnipeg, Manitoba, Canada

- Independent Review of Operative Reports for Rectal Cancer
- Comparing Quality and ease of reporting for Rectal Cancer Checklist.
- **Synoptic Reports** scored Significantly **Better** than Narrated Reports.
- Reviewers abstracted data Significantly **Faster** with Synoptic Reports.

Maniar et al. J Surg Oncol 2015

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Synoptic operative reporting for laparoscopic cholecystectomy and pancreaticoduodenectomy: A multi institutional pilot study evaluating completeness and surgeon perceptions

Shanley B. Deal [a, *], Michael I. D'Angelica [b], William G. Hawkins [c], Michael Pucci [d], Michael Ujiki [e], L. Michael Brunt [c], Steven Wexner [f], Adnan A. Alseidi [a]

[a] Virginia Mason Medical Center, General Thoracic and Vascular Surgery, 1100 9th Avenue, Seattle, WA, 98101, USA
[b] Memorial Sloan Kettering Cancer Center, 1275 York Ave, New York, NY, 10065, USA
[c] Washington University St. Louis, 660 South Euclid Ave, Box 8109, Saint Louis, MO, 63110, USA
[d] Jefferson University Hospital, 1100 Walnut St, 5th Floor, Philadelphia, PA, 19107, USA
[e] NorthShore University Health System, 1000 Central St #800, Evanston, IL, 60201, USA
[f] Cleveland Clinic, 2950 Cleveland Clinic Blvd, Weston, FL, 33331, USA

- Multi-institution study of operative reports for Laparoscopic Cholecystectomy and Whipple.
- Comparison of dictated and historical operative reports to synoptic reports.
- Survey of surgeons using synoptic report.

Am j Surg,Jun 2018

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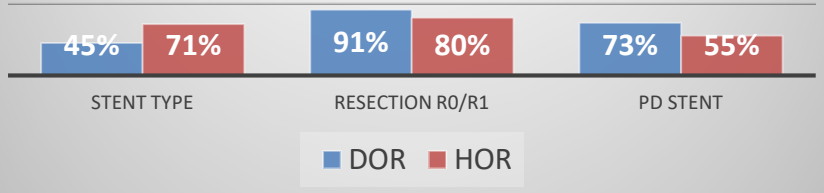
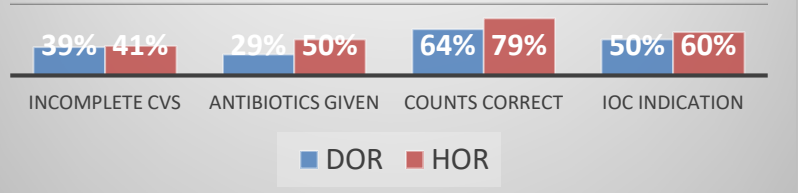
Percentage of frequently missed components in pancreaticoduodenectom…



Percentage of frequently missed components for laparoscopic…



Am j Surg,Jun 2018

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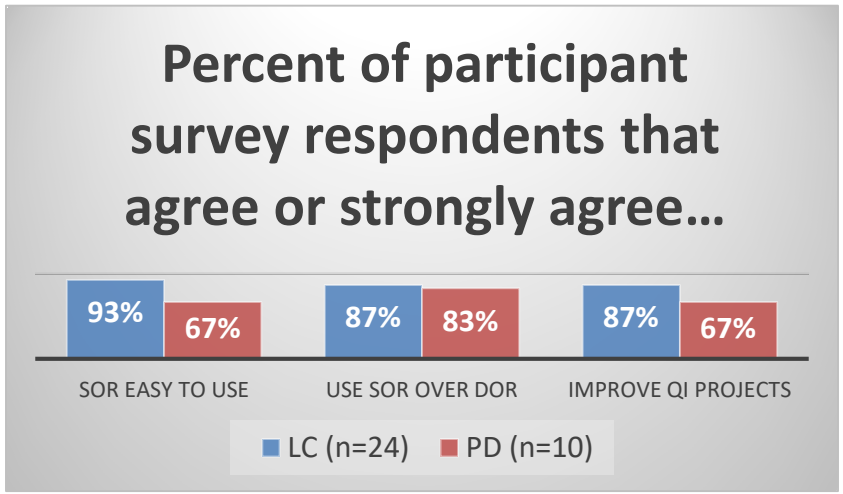

Operative Report Type	Accuracy	Quality	Cost Savings	Aids in Research/QI project
Synoptic	++	++	+	++
Dictation	+/-	+/–	–	–
Template	–	+/–	+	–

Am j Surg,Jun 2018

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Operative Synoptic Report

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Table 1.* Required elements and response options for standardized synoptic operative report (Standard 2.8).

Elements	Response options
1. ASA score	I; II; III; IV; V
2. Case status	Elective; urgent (obstructed; bleeding; perforated)
3. Operation	LAR; APR; TPC; local excision
4. Modality	Open; laparoscopic; hand-assisted laparoscopic; robotic; TES
5. Location of tumor within rectum	High; middle; low
6. Height of lower edge of tumor from anal verge	0–20 cm
7. Mobilization of splenic flexure	Yes; no
8. Level of ligation of inferior mesenteric artery	IMA; SRA; none
9. Level of ligation of inferior mesenteric vein	High; low; none
10. Level of rectal transection distal to distal edge of tumor (distal margin)	0–20 cm
11. Type of reconstruction	Stapled end-end; stapled end-side; handsewn end-end; handsewn end-side; colon J-pouch; ileal pouch-anal anastomosis; coloplasty; none
12. Anastomotic testing method(s)	Rectal air infusion under pelvic fluid; rectal instillation of betadine, indigo, or other fluid; palpation; observation of circular stapler rings only; none
13. Creation of stoma	Yes (ileostomy; colostomy); no
14. En bloc resection	Yes (bladder; vagina; prostate; ureter; small intestine; sacrum; other); no
15. Metastectomy	Yes (liver; peritoneum; other); no
16. Completeness of tumor resection	R0; R1; R2
17. Intraoperative complications	Yes (ureter injury; rectal perforation; enterotomy; vascular injury; other); no
18. Blood transfusion	Yes; no
19. TME photographed	Yes—in pathology report; yes—in operative report; no
20. Short narrative	***

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Pathology (June 2016) 48(4), pp. 349–352

ANATOMICAL PATHOLOGY

Structured pathology reporting improves the macroscopic assessment of rectal tumour resection specimens

SIMON KING[1], MARGARET DIMECH[2] AND SUSAN JOHNSTONE[1]

[1]*Department of Anatomical Pathology, Pathology North, John Hunter Hospital, Newcastle, and* [2]*Senior Project Manager, Royal College of Pathologists of Australasia, Surry Hills, Sydney, NSW, Australia*

Comparison of data elements recorded between free text and synoptic reports

Data Element Recorded	Free Text (n=50)	Synoptic Report (n=50)	P-value
Relationship to the anterior peritoneal reflection	45 (90%)	50 (100%)	0.0218
Intactness of mesorectum	38 (76%)	50 (100%)	0.0002
Distance of tumor to the non-peritonealized CRM	38 (76%)	50 (100%)	0.0002

King et al. Pathology 2016

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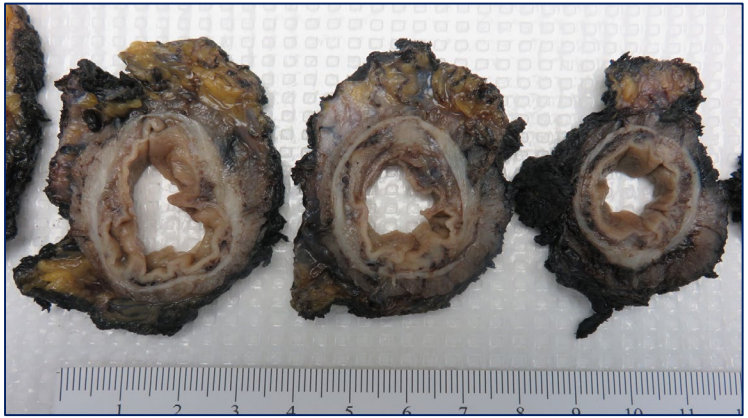

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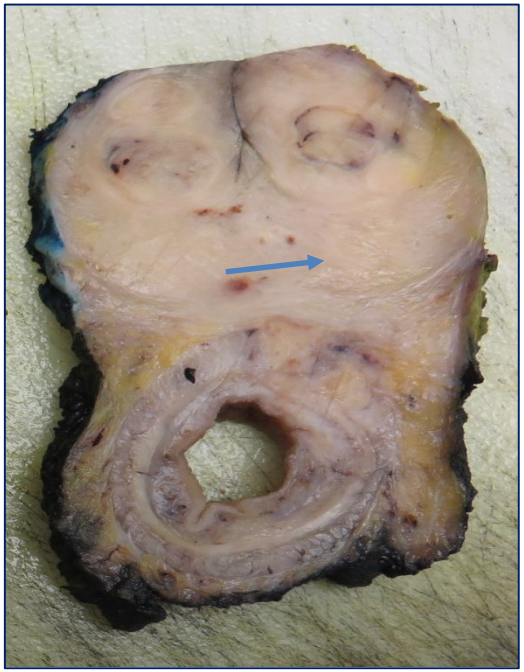

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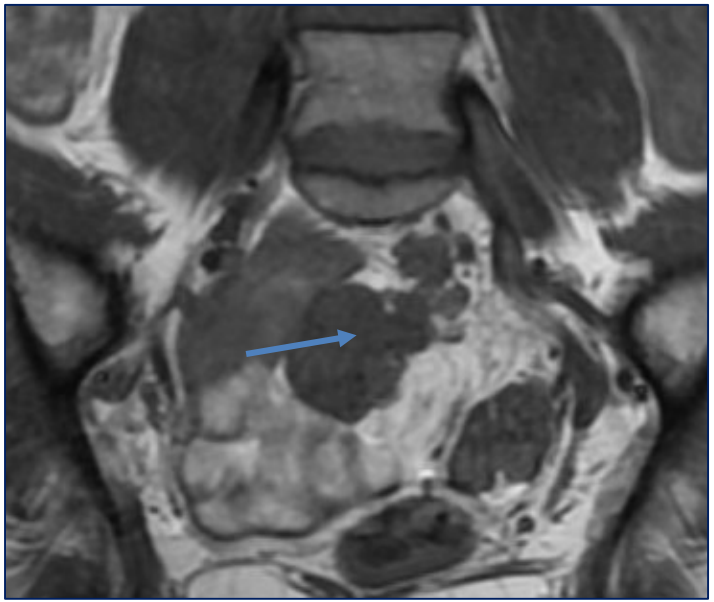

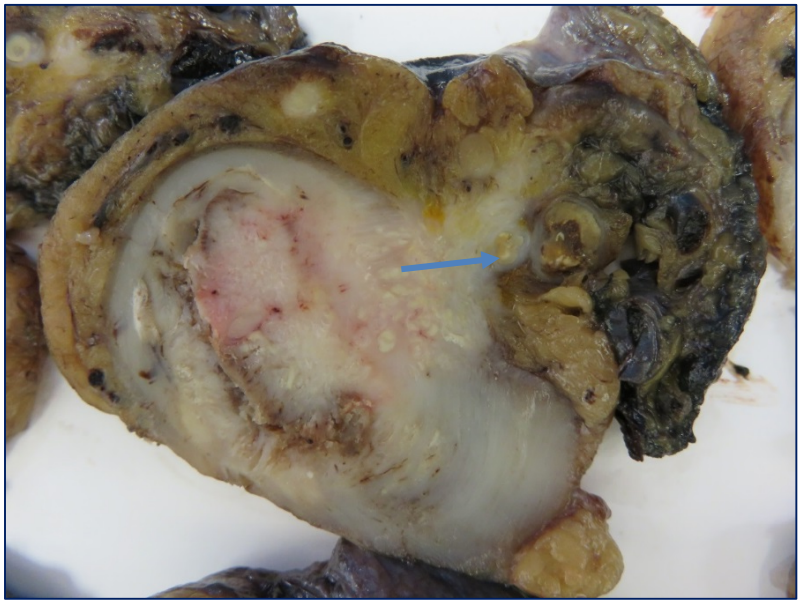

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Surg Endosc (2014) 28:2783–2788
DOI 10.1007/s00464-014-3545-3

Decision-making in Colorectal Cancer Tumor Board meetings: Results of a prospective observational assessment

S. Shah · S. Arora · G. Atkin · R. Glynne-Jones · P. Mathur · A. Darzi · N. Sevdalis

On average… 76min for 24 pts with 16 attendants.

- **3.16min** per case.

Case history, radiology, and pathology were rated highest quality of information presented.

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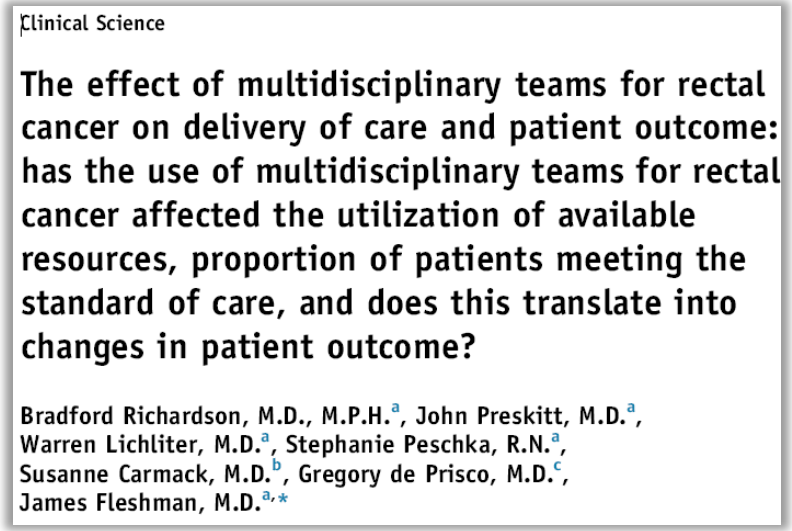
Has it Helped?



Clinical Science

The effect of multidisciplinary teams for rectal cancer on delivery of care and patient outcome: has the use of multidisciplinary teams for rectal cancer affected the utilization of available resources, proportion of patients meeting the standard of care, and does this translate into changes in patient outcome?

Bradford Richardson, M.D., M.P.H.[a], John Preskitt, M.D.[a], Warren Lichliter, M.D.[a], Stephanie Peschka, R.N.[a], Susanne Carmack, M.D.[b], Gregory de Prisco, M.D.[c], James Fleshman, M.D.[a,*]

Am J Surg, 2016

Evaluation of MDT effect on short-term oncologic outcomes.

Retrospective review data collected before and after implementation of mandatory MDT for Rectal Cancer.

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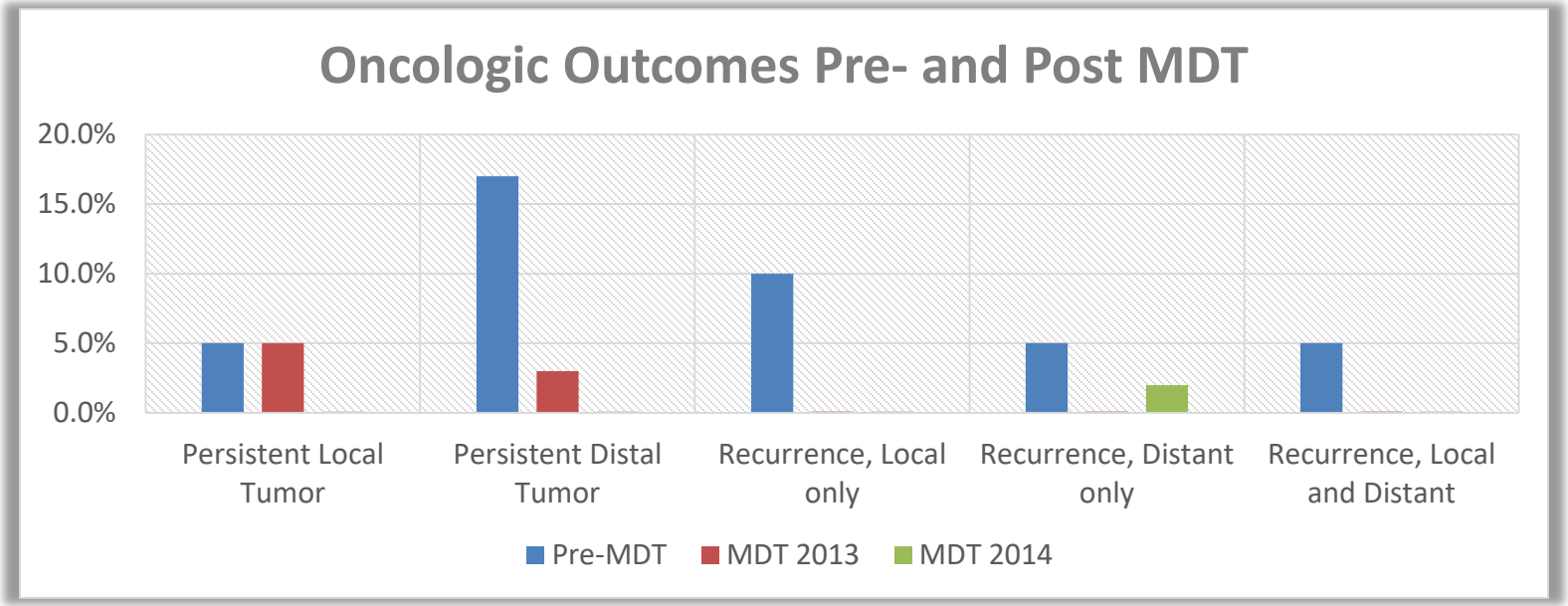

Richardson et al. Am J of Surg 2016

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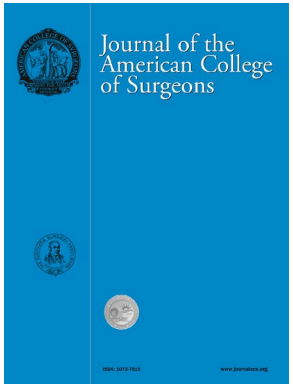
Multidisciplinary Conference Changes Clinical Management of Rectal Cancer

Georgios Karagkounis, MD, Luca Stocchi, MD, FACS, Ian C. Lavery, MD, FACS, David Liska, MD, FACS, Emre Gorgun, MD, FACS, Joseph Veniero, MD, PhD, Thomas Plesec, MD, Sudha Amarnath, MD, Alok A. Khorana, MD, Matthew F. Kalady, MD, FACS

Journal of the American College of Surgeons (2018), doi: 10.1016/ j.jamcollsurg.2018.01.056.



All rectal cancer cases presented at a weekly CRC-MDC between July 2015 and June 2016 were prospectively included

408 rectal cancer cases were included, and survey responses were obtained for 371 (91%)

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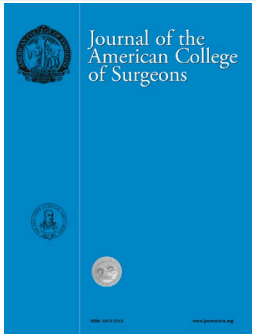

Documented change in plan as a result of the CRC-MDC discussion in 97 of 371 (26%)

Changes in management included a change in therapy or change in therapy sequence in 76 cases, and recommendation of additional evaluation in 36 cases.

Changes occurred in 23%, 28%, and 26% of cases presented by surgeons with <10, 10-20, and >20 years of experience.

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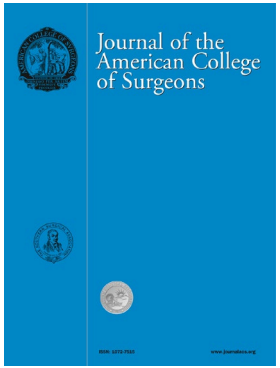

Conclusions:

- CRC-MDC changes clinical management for a significant portion of rectal cancer patients at a tertiary center, independent of the presenting surgeon's years of clinical experience.
- Our results support the CRC-MDC standard for the National Accreditation Program for Rectal Cancer.

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Accreditation Readiness in US Multidisciplinary Rectal Cancer Care: A Survey of OSTRICH Member Institutions

Lawrence Lee, MD, PhD[1]; David W. Dietz, MD[2]; Fergal J. Fleming, MD[3]; Feza H. Remzi, MD[4]; Steven D. Wexner, MD[5]; David Winchester, MD[6]; John R. T. Monson, MD[1]

Anonymous 39-item Questionnaire on NAPRC standards.

328 OSTRICH institutions.

41.8% response rate

JAMA Surg. 2018;153(4):388-390. doi:10.1001/jamasurg.2017.4871

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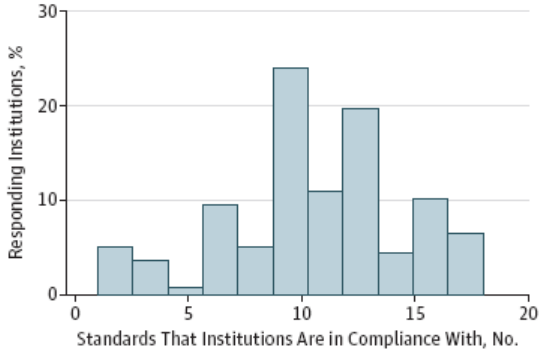
Mean compliance = 10.6

37 (27.0%) respondents were high compliance (13 standards).

100% compliance in 4 centers (2.9%).

High Volume Centers (>30/yr) more likely to be compliant.

Figure. Distribution of Responding OSTRICH Member Institutions and Their Compliance With Standards



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ORIGINAL SCIENTIFIC ARTICLE

Evaluating the Current Status of Rectal Cancer Care in the US: Where We Stand at the Start of the Commission on Cancer's National Accreditation Program for Rectal Cancer

Justin T Brady, MD, Zhaomin Xu, MD, Kelly B Scarberry, BS, Amin Saad, MD, Fergal J Fleming, MD, FRCS, Feza H Remzi, MD, FACS, FTSS(Hon), Steven D Wexner, MD, PhD (Hon), FACS, FRCS, FRCS(Ed), FRCSI (Hon), David P Winchester, MD, FACS, John RT Monson, MD, FRCS (Ire, Eng, Ed (Hon), Glas (Hon)), FASCRS, FACS, Lawrence Lee, MD, PhD, FRCSC, David W Dietz, MD, FACS, FASCRS, for The Consortium for Optimizing the Treatment of Rectal Cancer (OSTRiCh)

https://doi.org/10.1016/j.jamcollsurg.2018.01.057
ISSN 1072-7515/18

The 2011-2014 National Cancer Database was queried for non-metastatic rectal cancer

The NAPRC process measures evaluated included:

- Clinical staging completion
- Treatment starting fewer than 60 days from diagnosis
- CEA level drawn before treatment
- Tumor regression grading
- Margin assessment.

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- **The NAPRC performance measures included:**
  - Negative proximal, distal, and circumferential margins
  - 12 lymph nodes harvested during resection

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	Completed, n (%)
Clinical staging (95%)*	35,738 (91.5)
Serum CEA obtained prior to treatment (75%)*	25,225 (64.6)
Treatment started within 60 days of diagnosis (80%)*	33,264 (85.1)
Tumor regression grading (95%)*	34,382 (88.1)
CRM assessed (95%)*	33,108 (88.15)
Proximal and distal margin assessed (95%)*	38,462 (98.45)
All process measures	9,522 (28.1)
All process measures achieved by clinical stage	
0	26 (8.0)
I	628 (14.2)
II	3,558 (35)
III	4,695 (38.3)
All Above Process measures completed by Path Stage	
0	1,281 (42.3)
I	540 (19.1)
II	2,441 (28.3)
III	2,476 (27.7)

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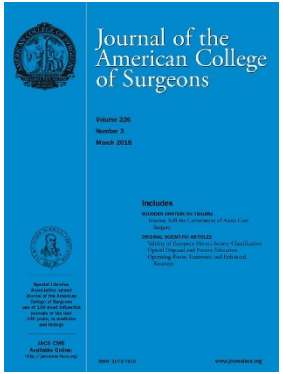

	Achieved, n (%)
Negative proximal and distal margin*	35,828 (93.4)
Negative CRM*	27,187 (82.1)
All margins negative*	26,617 (79.8)
12 or more lymph nodes assessed*	28,285 (73.2)
All performance measures achieved	19,917 (56.3)
All performance measures achieved by clinical stage	
0	183 (46.8)
I	3,310 (60.4)
II	5,351 (53.0)
III	6,583 (56.2)
All performance measures achieved by pathologic stage	
0	1,593 (56.5)
I	1,797 (56.2)
II	5,171 (56.3)
III	5,696 (60.0)

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Journal of Gastrointestinal Surgery
April 2019, Volume 23, Issue 4, pp 659–669 | Cite as

Surgeon-Level Variation in Utilization of Local Staging and Neoadjuvant Therapy for Stage II-III Rectal Adenocarcinoma

Authors | Authors and affiliations

Douglas S. Swords, David E. Skarda, William T. Sause, Ute Gawlick, George M. Cannon, Mark A. Lewis, Courtney L. Scaife,

- Retrospective study
- Stage 2-3 rectal adenocarcinoma
- 2010–2016 in one of nine hospitals
- Local staging omitted - 43/240 **(17.9%)**
- Neoadjuvant Therapy (NT) omitted - 41/240 **(17.1%)**

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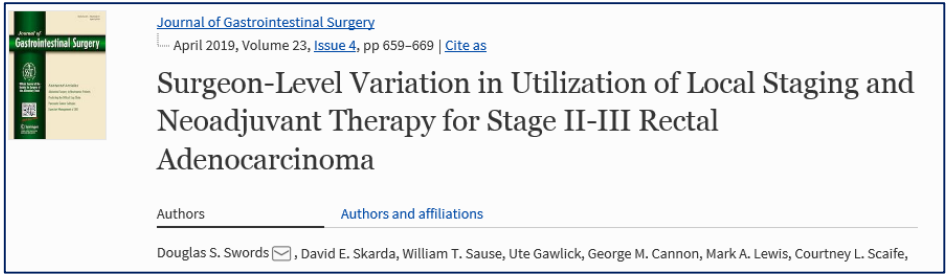

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- The strongest risk factors for staging and NT omission: upper rectal tumors and surgeons ≤ 3 cases/year.
- 36/41 (87.8%) cases of omitted NT had local staging omitted.
- Surgeon local staging and NT rates - strongly correlated (r = 0.92).
- NT was associated with lower rates of positive CRM (7.9 vs. 20.0%; P = 0.02), node positivity (33.3 vs. 55.0%; P = 0.01),and local recurrence (7.6 vs. 14.9% at 5 years; P = 0.0176).

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Impact of Preoperative Care for Rectal Adenocarcinoma on Pathologic Specimen Quality and Postoperative Morbidity: A NSQIP Analysis

Susanna S Hill, MD, Sebastian K Chung, MD, David C Meyer, MD, Allison S Crawford, MS, Paul R Sturrock, MD, Cristina R Harnsberger, MD, Jennifer S Davids, MD, FACS, Justin A Maykel, MD, FACS, Karim Alavi, MD, MPH, FACS

- NSQIP analysis of clinical stage I-III rectal cancer patients
- Underwent LAR
- 1125 patients who had complete or incomplete preoperative care
- Complete preoperative care associated with higher pathologic specimen quality and reduced postoperative morbidity

J Am Coll Surg. 2020 Jan;230(1):17-25

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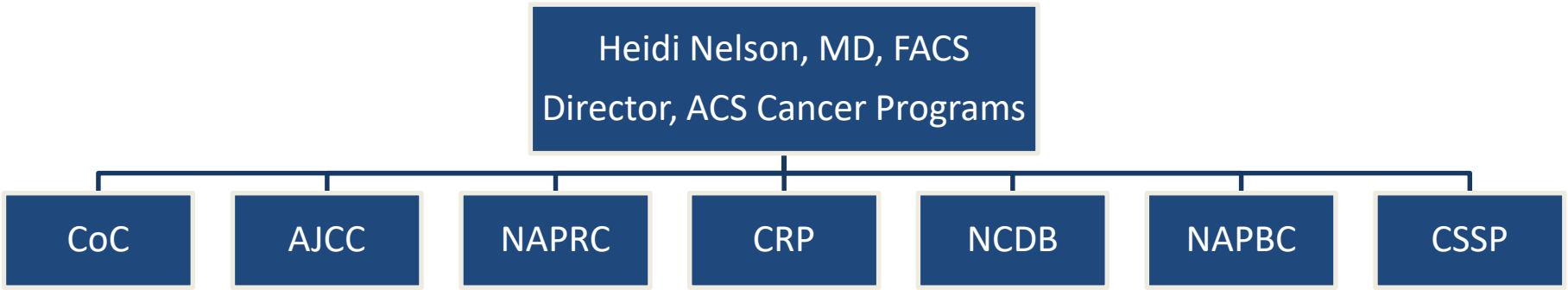

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UT Southwestern, Dallas TX

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Chicago IL

Justin Kelly, MD, FACS*
AdventHealth, Orlando FL

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Baptist Health, Jacksonville, FL

John Monson, MD, FACS
AdventHealth, Orlando FL

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Baylor University Medical Center, Dallas TX

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