ACS NAPRC National Accreditation Program for Rectal Cancer
American College of Surgeons

Value of NAPRC Accreditation

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Past Vice-Chair and Board of Regents American College of Surgeons
Editor-in-Chief, Surgery

@swexner

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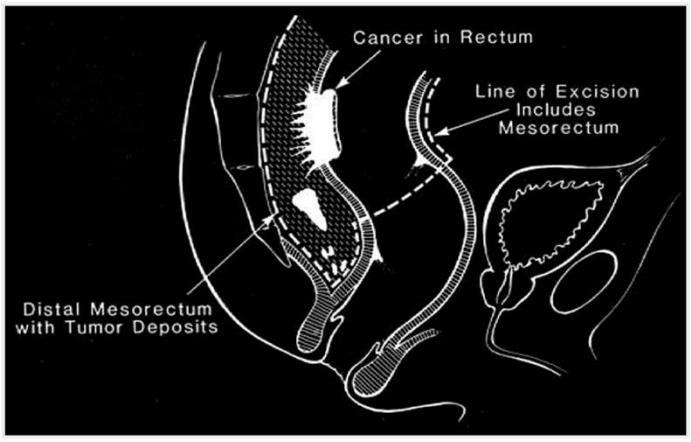
Cancer of the Mesorectum



Heald, Husband and Ryall, BJS, 1982

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Local Recurrence without TME

Author	n	Local Recurrence (%)
Tonak et al 1982	248	21
Philips et al 1984	1988	18
Heiman et al 1986	329	16
Vlasak et al 1989	109	19
Holm et al 1994	347, 337	13, 8
Marsh et al 1995	75, 69	19, 4
Swedish Trial 1996	557	24
Arbman et al 1996	553, 211	9, 19

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Local Recurrence with TME

Author, year	n	+/- adjuvant therapy	Isolated local recurrence (%)
Heald, 1988	135	–	3.5
MacFarlane, 1993	135	–	5
Enker, 1995	246	–	7.3
Moriya, 1995	306	–	6.2
Arbman, 1996	230	–	6
Bjekeset, 1996	118	+	4
Aitken, 1996	103	–	0
Hill, 1998	122	+/-	4
Merchant, 1999	79	–	9
Nissan, 2001	292	+/-	6.1
Kapiteijn, 2002	661	+/-	9
Law, 2002	270	+/-	4.4

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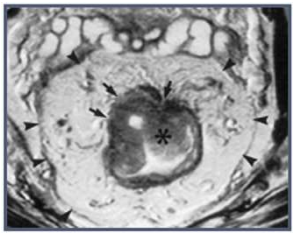
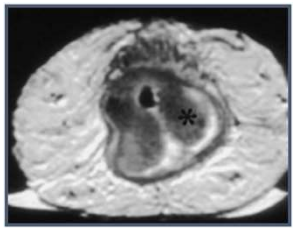
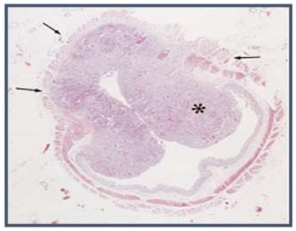
Thin-Section MRI for Rectal Cancer

The potential CRM can be demonstrated on the preoperative MRI

⟹ Highly correlated with the histological specimen







Brown et al. Radiology 1999
Brown et al. Br J Surg 2003

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Clinical Trial > J Clin Oncol. 2014 Jan 1;32(1):34-43. doi: 10.1200/JCO.2012.45.3258. Epub 2013 Nov 25.

Preoperative magnetic resonance imaging assessment of circumferential resection margin predicts disease-free survival and local recurrence: 5-year follow-up results of the MERCURY study

Fiona G M Taylor [1], Philip Quirke, Richard J Heald, Brendan J Moran, Lennart Blomqvist, Ian R Swift, David Sebag-Montefiore, Paris Tekkis, Gina Brown; Magnetic Resonance Imaging in Rectal Cancer European Equivalence Study Study Group

	MRI-Involved CRM (%)	MRI-Clear CRM (%)	p-value
5-year Overall Survival	42.2	62.2	<0.01
5-year Disease-Free Survival	47.3	6.0	<0.05
Local Recurrence	20.0	7.1	<0.001

Multivariate analysis: MRI-involved CRM was the only significant parameter for OS, DFS and LR

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Quality of TME

Incomplete TME

Complete TME

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Quality of TME – CLASSIC Study

Incomplete

Irregular mesorectum with defects >1cm^2 or incision down to the muscularis propria, little bulk of mesorectum and little clearance anteriorly

Near-Complete

Moderate bulk of mesorectum but some irregularity, moderate coning distally may be present

Complete

Good bulk of mesorectum, smooth surface, good clearance anteriorly, no defects in mesorectum

The CLASSIC Trial – Jayne et al. J Clin Oncol. 2007

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Clinical Trial > JAMA Surg. 2018 Aug 1;153(8):e181607. doi: 10.1001/jamasurg.2018.1607. Epub 2018 Aug 15.

Association of Plane of Total Mesorectal Excision With Prognosis of Rectal Cancer: Secondary Analysis of the CAO/ARO/AIO-04 Phase 3 Randomized Clinical Trial

Julia Kitz [1], Emmanouil Fokas [2], Tim Beissbarth [3], Philipp Ströbel [1], Christian Wittekind [4], Arndt Hartmann [5], Josef Rüschoff [6], Thomas Papadopoulos [7], Elisabeth Rösler [8], Peter Ortloff-Kittredge [8], Ulrich Kania [9], Hans Schlitt [10], Karl-Heinrich Link [11], Wolf Bechstein [12], Hans-Rudolf Raab [13], Ludger Staib [14], Christoph-Thomas Germer [15], Torsten Liersch [16], Rolf Sauer [17], Claus Rödel [2], Michael Ghadimi [16], Werner Hohenberger [18]; German Rectal Cancer Study Group

- Surgeon vs. pathologist evaluation of TME plane in 1152 specimens
- Concordance in 827 (86.4%) cases
- When assessed by pathologists incomplete TME correlated with higher local recurrence and lower OS
- When assessed by surgeons the TME plane failed to demonstrate significance

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Clinical Trial > JAMA Surg. 2018 Aug 1;153(8):e181607. doi: 10.1001/jamasurg.2018.1607. Epub 2018 Aug 15.

Association of Plane of Total Mesorectal Excision With Prognosis of Rectal Cancer: Secondary Analysis of the CAO/ARO/AIO-04 Phase 3 Randomized Clinical Trial

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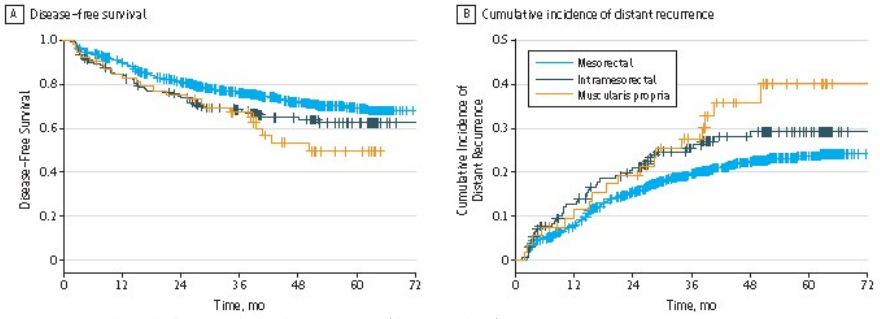
Figure 2. Prognostic Significance of the Quality of Total Mesorectal Excision (TME) Plane in Rectal Cancer



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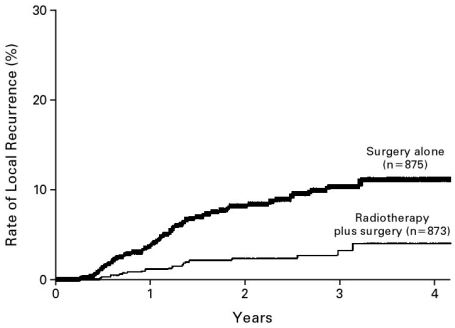
Clinical Trial > N Engl J Med. 2001 Aug 30;345(9):638-46. doi: 10.1056/NEJMoa010580.

Preoperative radiotherapy combined with total mesorectal excision for resectable rectal cancer

E Kapiteijn [1], C A Marijnen, I D Nagtegaal, H Putter, W H Steup, T Wiggers, H J Rutten, L Pahlman, B Glimelius, J H van Krieken, J W Leer, C J van de Velde; Dutch Colorectal Cancer Group



Local recurrence	Radiotherapy + Surgery	Surgery Alone	P-value	Hazard ratio
2 years	2.4%	8.2%	**<0.001**	**3.42**

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Surgeon Related Factors: Surgeon Volume

	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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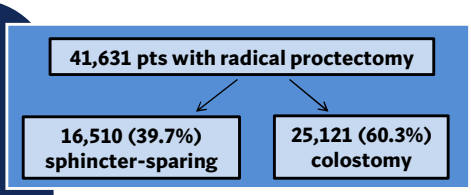
Dis Colon Rectum. 2007 Aug;50(8):1119-27; discussion 1126-7. doi: 10.1007/s10350-007-0250-5.

The status of radical proctectomy and sphincter-sparing surgery in the United States

Rocco Ricciardi [1], Beth A Virnig, Robert D Madoff, David A Rothenberger, Nancy N Baxter

- 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"*



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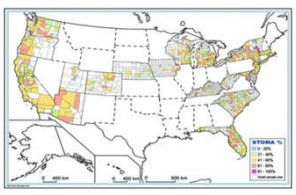
Dis Colon Rectum. 2010 Jun;53(6):874-80. doi: 10.1007/DCR.0b013e3181cf6f58.

Variability in reconstructive procedures following rectal cancer surgery in the United States

Rocco Ricciardi [1], Patricia L Roberts, Thomas E Read, Peter W Marcello, David J Schoetz, Nancy N Baxter

- 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%

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



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

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Dis Colon Rectum. 2011 Oct;54(10):1210-5. doi: 10.1097/DCR.0b013e31822867a5.

Who performs proctectomy for rectal cancer in the United States?

Rocco Ricciardi [1], Patricia L Roberts, Thomas E Read, Nancy N Baxter, Peter W Marcello, David J Schoetz

- 11 states' hospital discharge data 2003-2004
- >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

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Colostomy Rates

Source	Year(s)	n	Country	Tumor distance from anal verge	Colostomy Rate
Norwegian Rectal Cancer Project	1993-1999	2,136	Norway	<12 cm	38%
Dutch Trial	1996-1999	1,805	Netherlands/Sweden	<15 cm	32%
MRC CRO-7	1998-2005	1,350	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%

Ricciardi et al. Dis Colon Rectum 2011

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(+)ve CRM Rates: US 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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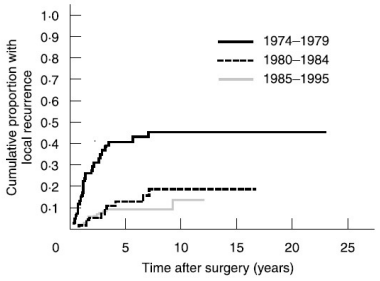
Centralized rectal cancer treatment

Br J Surg. 1999 Mar;86(3):379-84. doi: 10.1046/j.1365-2168.1999.01040.x.

Changing strategy for rectal cancer is associated with improved outcome

M Dahlberg [1], B Glimelius, L Påhlman

- 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



No. at risk

1974–1979	61	28	22	15	4	0
1980–1984	68	37	25	4	0	0
1985–1995	185	62	9	0	0	0

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

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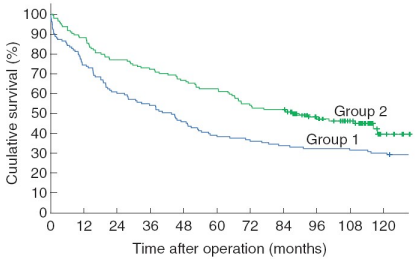
Comparative Study > Colorectal Dis. 2010 Sep;12(9):874-9.
doi: 10.1111/j.1463-1318.2009.02098.x.

Centralization of rectal cancer surgery improves long-term survival

M Hosseinali Khani [1], K Smedh

- 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)



Number at risk:

Group 1:	133	99	80	72	61	51	48	45	43	42	40
Group 2:	144	127	111	104	96	90	78	75	50	38	9

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Comparative Study > Colorectal Dis. 2010 Jul;12(7 Online):e37-42.
doi: 10.1111/j.1463-1318.2009.02012.x. Epub 2009 Jul 15.

Improved survival after rectal cancer in Denmark

S Bülow [1], H Harling, L H Iversen, S Ladelund, Danish Colorectal Cancer Group

Affiliations + expand

PMID: 19614669 DOI: 10.1111/j.1463-1318.2009.02012.x

- 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

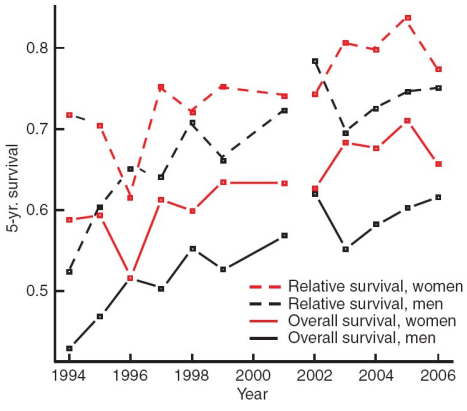

Figure 2 Survival in patients operated for cure.

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Impact of Centers of Excellence in Europe

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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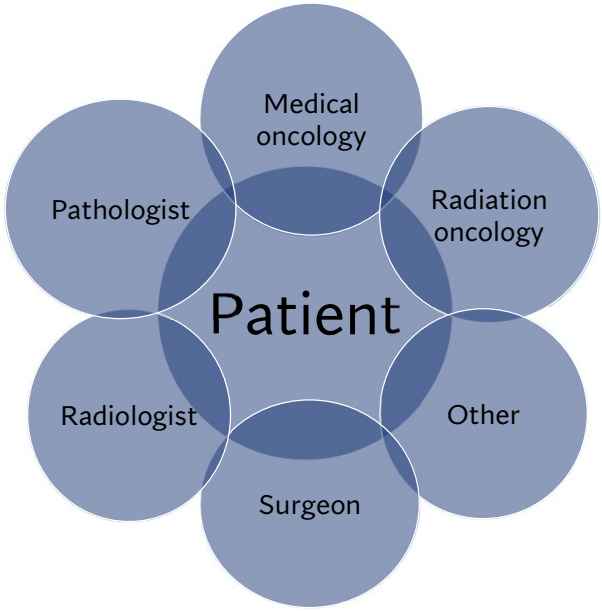

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› Pathology. 2016 Jun;48(4):349-52. doi: 10.1016/j.pathol.2016.03.003. Epub 2016 Apr 21.

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

Simon King [1], Margaret Dimech [2], Susan Johnstone [3]

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

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Multicenter Study › Am J Surg. 2020 Jul;220(1):165-169. doi: 10.1016/j.amjsurg.2019.09.036. Epub 2019 Sep 28.

Completeness of operative reports for rectal cancer surgery

Arielle E Kanters [1], Joceline V Vu [2], Ari D Schuman [3], Inga Van Wieren [3], Ashley Duby [3], Karin M Hardiman [4], Samantha K Hendren [2]

- Rectal cancer operative reports from **Jun → Dec 2018** from **10** Michigan hospitals
- **100** operative reports reviewed
- **62 (56%) reports** used a synoptic template, **48 (44%)** did not
- Using a synoptic template significantly improved documentation
- Synoptic reports contained **92%** of required elements vs. **39%** for narrative reports

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Comparative Study > Dis Colon Rectum. 2020 Feb;63(2):190-199.
doi: 10.1097/DCR.0000000000001518.

Implementation of a Synoptic Operative Report for Rectal Cancer: A Mixed-Methods Study

Serena S Bidwell [1], Sylvia Bereknyei Merrell [1], Gabriela Poles [2], Arden M Morris [1];
Synoptic Operative Report Study Group

- 37 surgeons – 14 institutions submitted pre-implementation operative reports (n=180)
- 32/37 surgeons submitted post implementation reports (n=118)

Pre-implementation:

- Tumor location
- Type of reconstruction
- Distal margins

Reported in <50%

Post-implementation:

- All items

Reported in ≥89%

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Need for A Rectal Cancer National Accreditation Program

> Ann Surg. 2014 Oct;260(4):625-31; discussion 631-2. doi: 10.1097/SLA.0000000000000928.

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 [1], Christian P Probst, Steven D Wexner, Feza H Remzi, James W Fleshman, Julio Garcia-Aguilar, George J Chang, David W Dietz;
Consortium for Optimizing the Treatment of Rectal Cancer (OSTRiCh)
Affiliations + expand
PMID: 25203879 DOI: 10.1097/SLA.0000000000000928

- 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, age, sex, race, primary payer, urban/rural, co-morbidity, stage
- Vast majority of patients **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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Need for A Rectal Cancer National Accreditation Program

> Ann Surg. 2015 Dec;262(6):891-8. doi: 10.1097/SLA.0000000000001391.

High Rate of Positive Circumferential Resection Margins Following Rectal Cancer Surgery: A Call to Action

Aaron S Rickles [1], David W Dietz, George J Chang, Steven D Wexner, Mariana E Berho, Feza H Remzi, Frederick L Greene, James W Fleshman, Maher A Abbas, Walter Peters, Katia Noyes, John R T Monson, Fergal J Fleming; Consortium for Optimizing the Treatment of Rectal Cancer (OSTRiCh)

Collaborators, Affiliations + expand

PMID: 26473651 PMCID: PMC5260485 DOI: 10.1097/SLA.0000000000001391

- Stage I-III Rectal cancer
- **Rate of positive CRM (<1mm)** by patient demographics, tumor characteristics, and treatment
- 16,619: 2,859 positive **CRM (17.%)**
- **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

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J Gastrointest Surg (2013) 17:1863–1868
DOI 10.1007/s11605-013-2276-4

EVII

Editorial

The long overdue inception of accreditation of centres for rectal

Clinical Review & Education

Review

Modern of Rectal

JAMA Surgery

FEATURE

Extended Intervals after Neoadjuvant Therapy in Locally Advanced Rectal Cancer: The Key to Improved Tumor Response and Potential Organ Preservation

Christian P Probst, MD, Adan Z Becerra, BA, Christopher T Aquina, MD, Mohamedtaki A Tejani, MD, Steven D Wexner, MD, FACS, Julio Garcia-Aguilar, MD, PhD, Feza H Remzi, MD, FACS, David W Dietz, MD, FACS, John RT Monson, MD, FACS, Fergal J Fleming, MD, on behalf of the Consortium for Optimizing the Surgical Treatment of Rectal Cancer (OSTRiCh)

JACS 2015; 221: 430-440

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J Am Coll Surg. 2018 May;226(5):874-880. doi: 10.1016/j.jamcollsurg.2018.01.056. Epub 2018 Mar 23.

Multidisciplinary Conference and Clinical Management of Rectal Cancer

Georgios Karagkounis [1], Luca Stocchi [1], Ian C Lavery [2], David Liska [2], Emre Gorgun [2], Joseph Veniero [3], Thomas Plesec [4], Sudha Amarnath [5], Alok A Khorana [6], Matthew F Kalady [7]

- All rectal cancer cases presented at CRC-MDC
- July 2015 –June 2016
- 408 rectal cancer cases, survey responses: 371 (91%)
- Documented **change in plan as a result of the CRC-MDC discussion in 97/371 (26%)**

Changes in management:
- Change in therapy
- Change in therapy sequence

} 76 cases

Recommendation of additional evaluation → 36 cases

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

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ACS NAPRC National Accreditation Program for Rectal Cancer American College of Surgeons

NAPRC Constituent Societies

Commission on Cancer®

ASCRS American Society of Colon & Rectal Surgeons

ACS American College of Surgeons

SAGES

ACR American College of Radiology

SSO Society of Surgical Oncology LEADING. TOGETHER.

ACRO American College of Radiation Oncology

SSAT The Society for Surgery of the Alimentary Tract

ONS Oncology Nursing Society

College of American Pathologists

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J Am Coll Surg. 2018 May;226(5):881-890. doi: 10.1016/j.jamcollsurg.2018.01.057. Epub 2018 Mar 23.

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 [1], Zhaomin Xu [2], Kelly B Scarberry [1], Amin Saad [3], Fergal J Fleming [2], Feza H Remzi [4], Steven D Wexner [5], David P Winchester [6], John R T Monson [7], Lawrence Lee [8], David W Dietz [9]; Consortium for Optimizing the Treatment of Rectal Cancer (OSTRiCh)

- 2011 – 2014 NCDB queried for non-metastatic rectal cancer

- NAPRC ***process*** measures evaluated included:
  - Clinical staging completion
  - Treatment starting fewer than 60 days from diagnosis
  - CEA level drawn before treatment
  - Tumor regressions grading
  - Margin assessment

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

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Table 3. Process Measures

Measure*	Completed n	Completed %
Clinical staging (95%)	35,738	91.5
Serum CEA obtained before treatment (75%)	25,225	64.6
Treatment started within 60 d of diagnosis (80%)	33,264	85.1
Tumor regression grading (95%)	34,382	88.1
Circumferential radial margin 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	35.0
III	4,695	38.3
All of the above process measures completed by pathology stage		
0	1,281	42.3
I	540	19.1
II	2,441	28.3
III	2,476	27.7

*Compliance goals in parentheses.

Table 6. Performance Measures

Variable	Achieved n	Achieved %
Negative proximal and distal margin*	35,828	93.4
Negative circumferential radial margin*	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

*National Accreditation Program for Rectal Cancer performance goals to be determined.

Brady et al. JACS 2018

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ACS NAPRC National Accreditation Program for Rectal Cancer American College of Surgeons

Multicenter Study > JAMA Surg. 2019 Jun 1;154(6):516-523. doi: 10.1001/jamasurg.2018.5521.

Evaluation of Access to Hospitals Most Ready to Achieve National Accreditation for Rectal Cancer Treatment

Alexis G Antunez [1 2], Arielle E Kanters [2 3], Scott E Regenbogen [2 3]

- 1315 CoC accredited hospitals
- **38 (2.9%) met** proposed thresholds for **all 5** NAPRC process standards
- **220 (16.7%)** met the threshold on **4** standards
- Low-adherence hospitals were more likely to care for black and Hispanic patients (17.2% vs 10.1%; p<0.001)
- **High-volume hospitals had better 5-year survival outcomes** than low-volume hospitals (hazard ratio, 0.99; 95% CI, 0.99-1.00; P < .001)
- No significant survival difference by hospital process standard adherence

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ACS NAPRC National Accreditation Program for Rectal Cancer American College of Surgeons

> J Am Coll Surg. 2022 Mar 1;234(3):368-376. doi: 10.1097/XCS.0000000000000054.

Analysis of Patterns of Compliance with Accreditation Standards of National Accreditation Program for Rectal Cancer

Shankar Raman [1], Steven S Tsoraides [2], Patricia Sylla [3], Ankit Sarin [4], Linda Farkas [5], Erin DeKoster [6], Tracy Hull [7], Steven Wexner [8]

Analysis of Patterns of Compliance with Accreditation Standards of National Accreditation Program for Rectal Cancer

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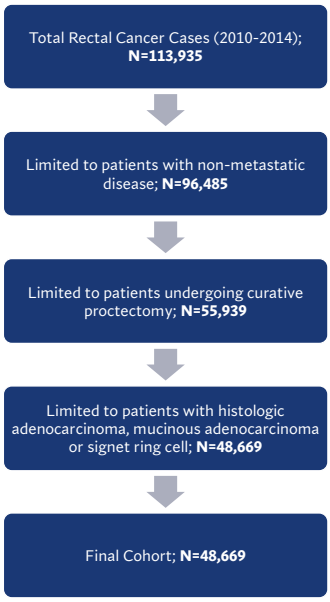
ACS NAPRC National Accreditation Program for Rectal Cancer American College of Surgeons

Colorectal Dis. 2023 Feb 2. doi: 10.1111/codi.16503. Online ahead of print.

Could meeting the standards of the National Accreditation Program for Rectal Cancer in the National Cancer Database improve patient outcomes?

Justin T Brady [1], Katherine Bingmer [1], Jonathan Bliggenstorfer [1], Zhaomin Xu [2], Fergal J Fleming [2], Feza H Remzi [3], John R T Monson [4], Steven D Wexner [5], David W Dietz [1]; Consortium for Optimizing the Treatment of Rectal Cancer (OSTRiCh)

- Data collection between 2010 – 2014
- Included measure:
  - Clinical staging completion
  - Treatment starting <60 days from diagnosis
  - CEA level drawn prior to treatment
  - TRG
  - Margin assessment



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Process Measures	Hazard ration (95% CI)	P-value
Clinical staging	0.73 (0.69 – 0.77)	<0.001
Serum CEA obtained prior to treatment	0.90 (0.86 – 0.95)	<0.001
Treatment started within 60 days of diagnosis	0.93 (0.87 – 0.99)	0.03
Tumor regression grading	0.79 (0.74 – 0.84)	<0.001
CRM assessed	1.04 (0.98 – 1.11)	0.21
Proximal and distal margin assessed	1.04 (0.86 – 1.26)	0.68
All process measures	0.74 (0.70 – 0.79)	<0.001

Process Measures	Achieved, n (%)
Proximal and distal margin assessed (95%)	47,911 (98.4)
Treatment started within 60 days of diagnosis (80%)	41,441 (85.2)
CRM assessed (95%)	40,842 (83.9)
Clinical staging (95%)	35,858 (73.7)
Tumor regression grading (95%)	22,835 (67.4)
Serum CEA obtained prior to treatment (75%)	31,050 (63.8)
All process measures	10,636 (23.6)

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ACS NAPRC National Accreditation Program for Rectal Cancer American College of Surgeons

› Colorectal Dis. 2023 Feb 2. doi: 10.1111/codi.16503. Online ahead of print.

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- All process measure were completed in 23.6% of patients
- Completion of all process measures > decreased mortality (HR 0.88, OR 0.82-0.94, p<0.001)
- If adoption of NAPRC process measures leads to improved performance
  - Survival rates for US rectal cancer likely to increase

Compliance with NAPRC standards could save approx. 300 lives annually in the US

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ACS NAPRC National Accreditation Program for Rectal Cancer American College of Surgeons

› Colorectal Dis. 2023 Nov;25(11):2155-2159. doi: 10.1111/codi.16766. Epub 2023 Oct 3.

Experience of a single academic institution with the National Accreditation Program for Rectal Cancer and the resulting improvement in care

Alexandra J Johns [1], Paul S Yoon [1], Anthony J Sabo [1], Timothy T Huynh [1], Diana L Farmer [1], Shannon M Navarro [1], Linda M Farkas [2]

- Retrospective review - 133 Rectal adenocarcinoma patients
- Compliance to the NAPRC standards compared
- 88 (68%) – Pre-rectal tumor board, 42 (32%) – rectal tumor board
- All patients in rectal tumor board cohort met all criteria
- Clinical service compliance improved in the rectal tumor board cohort for 13 metrics
- 10 were statistically significant

MDT Rectal cancer tumor boards → improved compliance with recommended care by NAPRC
Patients discussed at a rectal cancer tumor board were more likely to receive appropriate staging, coordinated care and have better clinical documentation

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ACS NAPRC National Accreditation Program for Rectal Cancer American College of Surgeons

Surgery. 2024 Apr;175(4):1007-1012. doi: 10.1016/j.surg.2023.12.005. Epub 2024 Jan 23.

The value of national accreditation program for rectal cancer: A survey of accredited programs and programs seeking accreditation

Muneera R Kapadia [1], Peter J Senatore [2], Craig Messick [3], Tracy L Hull [4], Virginia O Shaffer [5], Arden M Morris [6], David W Dietz [7], Steven D Wexner [8], Elizabeth C Wick [9]

- An electronic survey was distributed to 85 rectal cancer programs that had already achieved (22) or were interested (63) in pursuing NAPRC accreditation
- 40 Qs: Likert scale, MCQs, open-ended Qs
- Mixed methods study – quantitative and qualitative
- Responses from 14 accredited and 41 interested programs

'improved quality and culture of rectal cancer care'
'enhanced program organization and coordination'
'challenges our program to provide optimal, high-quality care'

Most frequently cited barrier: cost and lack of personnel

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ACS NAPRC National Accreditation Program for Rectal Cancer American College of Surgeons

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- The survey found significant perceived value of NAPRC accreditation
- Adhering to standards and an MDT approach to rectal cancer care are critical components of high-quality care rectal cancer program

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ACS NAPRC National Accreditation Program for Rectal Cancer American College of Surgeons

Observational Study > J Am Coll Surg. 2024 Aug 1;239(2):98-105.
doi: 10.1097/XCS.0000000000001064. Epub 2024 Jul 17.

Association of National Accreditation Program for Rectal Cancer Accreditation with Outcomes after Rectal Cancer Surgery

Calista M Harbaugh [1 2], Nicholas J Kunnath [2], Pasithorn A Suwanabol [1 2], Justin B Dimick [1 2], Samantha K Hendren [1 2], Andrew M Ibrahim [1 2]

- Retrospective observational study of Medicare beneficiaries
  - 65 to 99 with rectal cancer who underwent proctectomy from 2017 to 2020
- **Primary outcome**: Mortality (in-hospital, 30-day and 1-year) and 30-day complications, readmissions and reoperations

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ACS NAPRC National Accreditation Program for Rectal Cancer American College of Surgeons

Observational Study > J Am Coll Surg. 2024 Aug 1;239(2):98-105.
doi: 10.1097/XCS.0000000000001064. Epub 2024 Jul 17.

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NAPRC-accredited hospitals have lower risk-adjusted morbidity and mortality for major rectal cancer surgery

Although NAPRC standards address variability in practice, without directly addressing surgical safety, findings suggest that **NAPRC-accredited hospitals may provide higher quality surgical care**

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ACS NAPRC National Accreditation Program for Rectal Cancer American College of Surgeons

> Am Surg. 2024 Oct 14:31348241292730. doi: 10.1177/00031348241292730. Online ahead of print.

The Effect of the Adoption of the National Accreditation Program for Rectal Cancer Process on Compliance Standards at a Single Institution

Garrett W Peters [1], Gregory Thomas [2], Jacob A Applegarth [2], Joanna Wasvary [1], Forrest Bohler [1], Rose E Callahan [2], Shelli Bergeron [2], Harry J Wasvary [1 2]

Affiliations + expand

PMID: 39402893 DOI: 10.1177/00031348241292730

- 353 Rectal cancer patients 2016 to 2023
- Retrospectively reviewed for compliance: NAPRC (207) vs. pre-selected patient care standards (146)
- Pre-treatment standards: Post-NAPRC significantly higher compliance vs. pre-NAPRC
  - MRI (p=0.015), CT (p<0.001), CEA level (p<0.001)
- Post-operative standards: Post-NAPRC significantly higher compliance vs. pre-NAPRC
- No significant differences: confirming a tissue diagnosis, starting treatment within 60-days, completing surgical pathology report

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PMID: 39402893 DOI: 10.1177/00031348241292730

Pre-NAPRC:
2/7 standards were met

→

Post-NAPRC:
6/7 standards were met

A single institution's adoption of NAPRC standards **improved compliance** with multiple rectal cancer care standards, achieving near-complete accreditation level compliance within 2 years

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