



Cancer Programs Practice Profile Reports (CP³R) Rapid Quality Reporting System (RQRS)

Introduction

The Commission on Cancer’s (CoC) National Cancer Database (NCDB) staff has undertaken an effort to improve the transparency with which the measures in the CP³R and RQRS reporting systems are calculated. To this end, for each measure, supporting information, three tables and a flow-diagram are provided:

- The measure type, clinical rationale and references are provided.
- The *Measure Item List* table provides each cancer registry data item used in the assessment of the indicated measure. This includes the STORE data item name, the North American Association of Central Cancer Registry (NAACCR) item number and a brief description of each item.
- The *Case Eligibility Criteria* table itemizes the steps taken to determine whether cases belong in the measure denominator for cases diagnosed 2010 and later. Each condition is described and is accompanied by the data item and code values used in the assessment.
- The *Numerator Criteria* table illustrates how cases are assessed to determine whether they qualify for the numerator of the measure, in other words are concordant for the standard of care.
- A **flow-diagram** is provided to illustrate the steps through which cases pass as they are evaluated for the indicated measure. The number appearing in each flow-diagram element corresponds to the assessment criteria appearing in the *Case Eligibility Criteria* and *Numerator Criteria* tables.

Measure Definitions

This document provides specifications for the following two 2011 National Quality Forum endorsed measures:

Measure	Measure Abbreviation	Measure Type
(NQF #0223) Adjuvant chemotherapy is recommended or administered within 4 months (120 days) of diagnosis for patients under the age of 80 with AJCC Stage III (lymph node positive) colon cancer.	ACT	Accountability
(NQF #0225) At least 12 regional lymph nodes are removed and pathologically examined for resected colon cancer.	12RLN	Quality Improvement

Measure Type

There are several types of measures approved by the CoC. Evidence-based measures or **accountability** measures promote improvements in care delivery and are the highest standard for measurement. These measures demonstrate provider accountability, influence payment for services and promote transparency. The **quality improvement** measure function is to monitor the need for quality improvement or remediation. Generally, these measures are for individual program use. **Surveillance** measures are used to identify the status quo, generate information for decision making, and/or to monitor patterns and trends of care. The following Table summarizes the purposes and use of these measures:

Measure Type	Measure definition and use
Accountability	High level of evidence supports the measure, including multiple randomized control trials. These measures can be used for such purposes as public reporting, payment incentive programs, and the selection of providers by consumers, health plans, or purchasers.
Quality Improvement	Evidence from experimental studies, not randomized control trials supports the measure. These are intended for internal monitoring of performance within an organization.
Surveillance	Limited evidence exist that supports the measure or the measure is used for informative purposes to accredited programs. These measures can be used for to identify the status quo as well as monitor patterns and trends of care in order to guide decision-making and resource allocation.



Last update: 06/30/2019

ACT - Colon - Adjuvant chemotherapy is recommended, or administered within 4 months (120 days) of diagnosis for patients under the age of 80 with AJCC Stage III (lymph node positive) colon cancer

Measure Type: Accountability NQF # 0223

Clinical Rationale:

There are substantial data that there is underuse and wide variation in the use of chemotherapy with Stage III colon cancer.

References:

1. Etzioni DA, El-Khoueiry AB, Beart RW Jr. Rates and predictors of chemotherapy use for Stage III colon cancer: a systematic review. *Cancer*. 2008;113:3279-3289.
2. Renour D, Kennecki H, Gill S. Trends in chemotherapy utilization for colorectal cancer. *Clin Colorectal Cancer*. 2008;7:386-389.
3. Hoffman LJ, Le S, Waddell B, Davis KG. Effect of race on colon cancer treatment and outcomes in the Department of Defense healthcare system. *Dis Colon Rectum*. 2010;53:9-15.
4. Cronin DP, Harlan LC, Potosky AL, et al. Patterns of care for adjuvant therapy in a random population-based sample of patients diagnosed with colorectal cancer. *Am J Gastroenterol*. 2006;101:2308-2318.

Measure Item List		
STORE Data Item	NAACCR #	Description
Sex	220	Identifies the sex of the patient.
Age at Diagnosis	230	Age of patient at diagnosis
Sequence Number	560	Sequence of malignant and nonmalignant neoplasms over the lifetime of the patient
Class of Case	610	Indicates the reporting facility's role in managing the cancer
Primary Site	400	Organ of origin of the cancer
Date of Initial Diagnosis	390	Date of initial diagnosis of cancer by a physician
Histology	522	Microscopic or cellular anatomy of the cancer
Behavior Code	523	Neoplastic behavior of the cancer
Clinical M	960	Clinical M - AJCC7
Pathologic M	900	Pathologic M - AJCC7
Clinical Stage Group	970	Clinical Stage Group - AJCC7
Pathologic Stage Group	910	Pathologic Stage Group - AJCC7
AJCC TNM Clin M	1003	AJCC Clinical M - AJCC8
AJCC TNM Path M	1013	AJCC Pathologic M - AJCC8
AJCC TNM Clin Stage Group	1004	AJCC Clinical Stage Group - AJCC8
AJCC TNM Path Stage Group	1014	AJCC Pathologic Stage Group - AJCC8
Surgical Procedure of Primary Site	1290	Surgical procedure performed on the primary site of the cancer
Chemotherapy	1390	Type of chemotherapy administered as first course treatment for the cancer, at the reporting facility and all other facilities
Date Chemotherapy Started	1220	Date of initiation of chemotherapy
Regional Lymph Nodes Positive	820	Number of regional lymph nodes examined pathologically and found to contain metastases
Date of Last Contact or Death	1750	Date of last contact with the patient, or date of patient death
Vital Status	1760	Vital status of the patient, as of the date of last contact or death
<i>Exclusion</i> <i>(This is a user field, it is not a STORE item)</i>	N/A	Field used to manually exclude cases

Case Eligibility Criteria			
Diagram Reference	Assessment	STORE Item	Code Definitions
0	All dates of diagnosis are included in this measure	Date of Initial Diagnosis	Any Dx_Year
1	Diagnosis of colon cancer	Primary Site	C18.0 - C18.9
2	Exclude manually censored cases	<i>Exclusion (This is a user field, it is not a STORE item)</i>	Exclude: 80 - Patient enrolled in a clinical trial that directly impacts delivery of the standard of care
3	Adult patient under the age of 80 at diagnosis	Age at Diagnosis	018 - 079
4	Male or Female Patient	Sex	1,2
5	First or only diagnosis of malignant neoplasm	Sequence Number	00 or 01
6	Epithelial tumors which can be staged, according to AJCC	Histology	<i>For Dx Year 2010-2017 AJCC 7th ed:</i> 8000-8152, 8154-8231, 8243-8245, 8247-8248, 8250-8576, 8940-8950, 8980-8981 <i>For Dx Year ≥ 2018 AJCC 8th ed:</i> 8000, 8010, 8013, 8020, 8041, 8070, 8140, 8213, 8246, 8265, 8480, 8481, 8490, 8510, 8560
7	Invasive tumors	Behavior Code	3
8	Exclude cases with Clinical or Pathologic evidence of in situ disease	Clinical Stage Group	<i>Dx Year 2010-2017 AJCC7</i> <i>Dx Year ≥ 2018 AJCC8</i> Clinical and Pathologic Stage Group ≠ 0
		AJCC TNM Clin Stage Group	
		Pathologic Stage Group	
		AJCC TNM Path Stage Group	

9	Exclude cases with Clinical or Pathologic evidence of metastatic disease	Clinical Stage Group	<i>Dx Year 2010-2017 AJCC7</i> <i>Dx Year ≥ 2018 AJCC8</i> Clinical and Pathologic Stage Group ≠4, M≠1
		AJCC TNM Clin Stage Group	
		Pathologic Stage Group	
		AJCC TNM Path Stage Group	
		Clinical M	
		AJCC TNM Clin M	
		Pathologic M	
		AJCC TNM Path M	
10	All or part of the first course of treatment was performed at the reporting facility	Class of Case	10-22
11	Surgically treated	Surgical Procedure of Primary Site	30 – 90
12	Patient reported living within the treatment timeframe period of 120 days from date of diagnosis	Date of Initial Diagnosis	# Elapsed days between Dx and Last Contact >120 OR Vital Status = 1
		Date of Last Contact or Death	
		Vital Status	
13	Lymph node positive Disease	Regional Lymph Nodes Positive	01-90, 95, 97

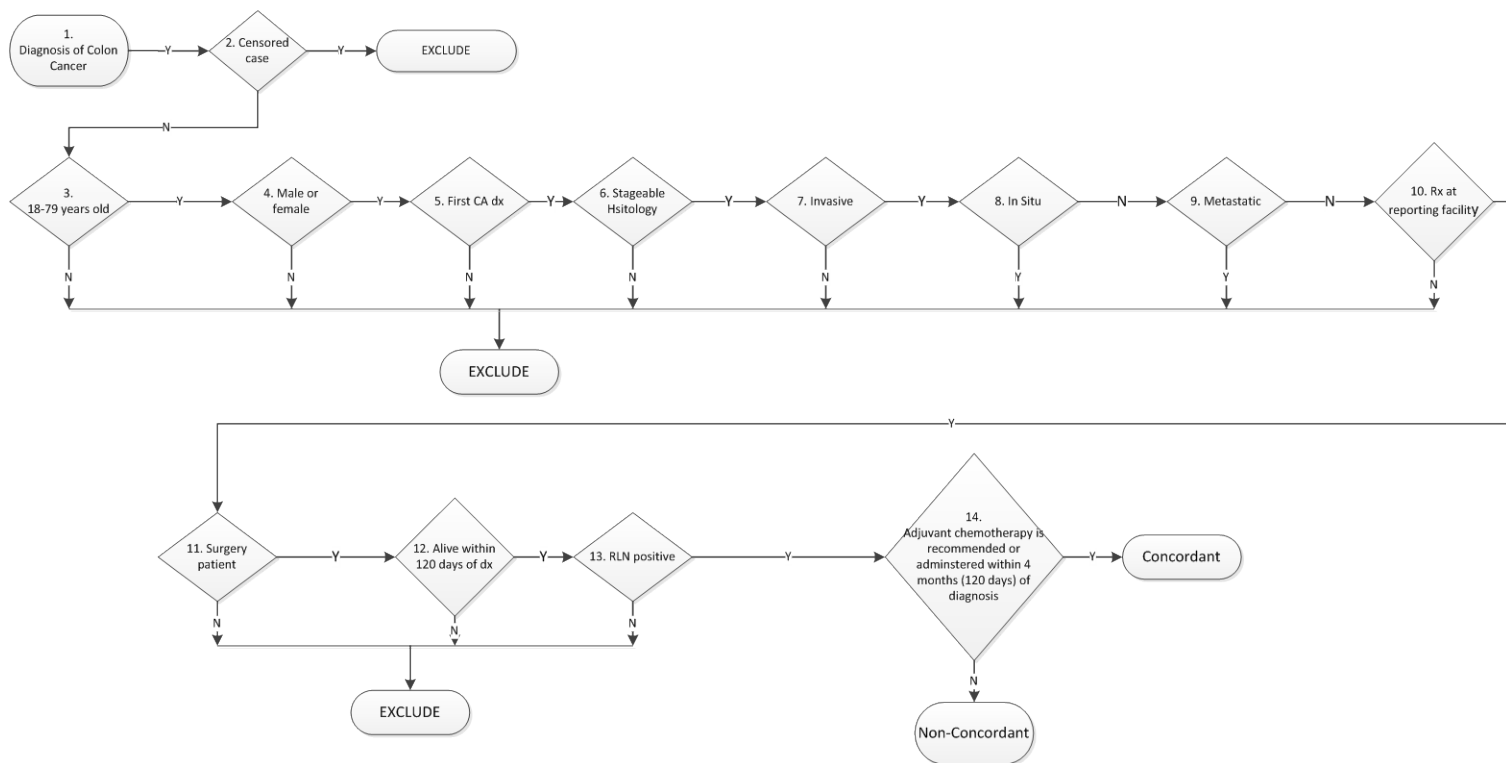
Numerator Criteria			
Diagram Reference	Assessment	STORE Item	STORE Codes
14	Chemotherapy Administered within 120 days following Diagnosis	Chemotherapy	Chemotherapy = 01, 02, 03 AND # Elapsed days from dx to chemo ≤ 120
		Date of Initial Diagnosis	
		Date Chemotherapy Started	
	OR		
	Chemotherapy Recommended, but not Administered	Chemotherapy	82, 85, 86, 87

Notes:

- 1) November 2015 release:
 - a. Allow for manual exclusion with censor 80.
- 2) August 2016 release:
 - a. NAACCRv16, add c or p prefix to TNM.
- 3) June 2019 release:
 - a. AJCC8/NAACCRv18 - update histology, cM, pM, and clin/path Stage Group codes for dx year ≥2018.
 - b. NAACCRv18 STORE Manual



ACT - Adjuvant chemotherapy is recommended or administered within 4 months (120 days) of diagnosis for patients under the age of 80 with AJCC Stage III (lymph node positive) colon cancer.





Last update: 06/30/2019

12RLN - At least 12 regional lymph nodes are removed and pathologically examined for resected colon cancer

Measure Type: Quality Improvement NQF # 0225

Clinical Rationale:

The American College of Pathologists (1999) recommended that a minimum of 12 lymph nodes be examined to accurately identify AJCC stage III colon cancer. The AJCC (5th edition) indicated that it was desirable to obtain at least 12 lymph nodes in radical colon resections (1997). In its 6th edition, the AJCC modified this recommendation to obtain at least 7 to 14 lymph nodes but included rectal resections among the procedures associated with this numeric recommendation. By its 7th edition, citing data from NCI/SEER, the AJCC clearly noted the positive relationship between the number of nodes pathologically examined and patient survival.

References:

1. Compton CC, Fielding LP, Burgart LJ, Conley B, Cooper HS, Hamilton SR, Hammond ME, Henson DE, Hutter RV, Nagle RB, Nielsen ML, Sargent DJ, Taylor CR, Welton M, Willett C. Prognostic factors in colorectal cancer. College of American Pathologists Consensus Statement 1999. *Arch Pathol Lab Med.* 2000 Jul;124(7):979-994.
2. Baxter NN, Virnig DJ, Rothenberger DA, Morris AM, Jessurun J, Virnig BA. Lymph node evaluation in colorectal cancer patients: a population-based study. *J Natl Cancer Inst.* 2005 Feb 2;97(3):219-25.
3. Compton CC. Key Issues in Reporting Common Cancer Specimens: Problems in Pathologic Staging of Colon Cancer. *Archives of Pathology & Laboratory Medicine.* March 2006;130(3):318-324.
4. Chang GJ, Rodriguez-Bigas MA, Skibber JM, Moyer VA. Lymph node evaluation and survival after curative resection of colon cancer: Systematic review. *J Natl Cancer Inst.* March 21, 2007;99(6):433-441.

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Primary Site	400	Organ of origin of the cancer
Date of Initial Diagnosis	390	Date of initial diagnosis of cancer by a physician
Histology	522	Microscopic or cellular anatomy of the cancer
Behavior Code	523	Neoplastic behavior of the cancer
Clinical M	960	Clinical M - AJCC7
Pathologic M	900	Pathologic M - AJCC7
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AJCC TNM Clin Stage Group	1004	AJCC Clinical Stage Group - AJCC8
AJCC TNM Path Stage Group	1014	AJCC Pathologic Stage Group - AJCC8
Surgical Procedure of Primary Site at this facility	670	Surgical procedure of the primary site performed at this facility
Regional Lymph Nodes Examined	830	The total number of lymph nodes that were removed and examined by the pathologist
Regional Lymph Nodes Positive	820	The exact number of regional lymph nodes examined by the pathologist and found to contain metastases
<i>Exclusion</i> <i>(This is a user field, it is not a STORE item)</i>	N/A	Field used to manually exclude cases

Case Eligibility Criteria			
Diagram Reference	Assessment	STORE Item	Case Definition
0	All dates of diagnosis are included in this measure	Date of Initial Diagnosis	Any Dx_Year
1	Diagnosis of Colon cancer	Primary Site	C18.0 - C18.9
2	Exclude manually censored cases	<i>Exclusion</i> (This is a user field, it is not a STORE item)	Exclude: 41 - Perforation of the primary site 42 - Acute obstruction 43 - Positive FNA; nodes removed surgically were negative due to neo-adjuvant chemo
3	Male or Female	Sex	1, 2
4	Adult patient over 17 at diagnosis	Age at Diagnosis	018 - 120
5	Any Sequence of Malignant primary tumor	Sequence Number	00 - 59, 99
6	Epithelial tumors which can be staged according to AJCC	Histology	<i>For Dx Year 2010-2017 AJCC 7th ed:</i> 8000-8152, 8154-8231, 8243-8245, 8247-8248, 8250-8576, 8940-8950, 8980-8981 <i>For Dx Year ≥ 2018 AJCC 8th ed:</i> 8000, 8010, 8013, 8020, 8041, 8070, 8140, 8213, 8246, 8265, 8480, 8481, 8490, 8510, 8560
7	Invasive tumors	Behavior Code	3
8	Exclude cases with Clinical or Pathologic evidence of In-Situ disease	Clinical Stage Group	<i>Dx Year ≤2017 AJCC7</i> <i>Dx Year ≥ 2018 AJCC8</i> Clinical and Pathologic Stage Group ≠0
		AJCC TNM Clin Stage Group	
		Pathologic Stage Group	
		AJCC TNM Path Stage Group	

9	Exclude cases with Clinical or Pathologic evidence of metastatic disease	Clinical Stage Group	<i>Dx Year ≤2017 AJCC7</i> <i>Dx Year ≥ 2018 AJCC8</i> Clinical and Pathologic Stage Group ≠4, M≠1
		AJCC TNM Clin Stage Group	
		Pathologic Stage Group	
		AJCC TNM Path Stage Group	
		Clinical M	
		AJCC TNM Clin M	
		Pathologic M	
		AJCC TNM Path M	
10	All or part of the first course of treatment performed at the reporting facility	Class of Case	10, 11, 12, 13, 14, 20, 21, 22
11	Surgically treated at this facility	Surgical Procedure of Primary Site at this Facility	30 - 80

Numerator Criteria			
Diagram Reference	Assessment	STORE Item	STORE Codes
12	At least 12 regional lymph nodes are removed and pathologically examined	Regional Lymph Nodes Examined	Regional Lymph Nodes Examined 12-90
		Regional Lymph Nodes Positive	

Note:

- 1) March 2015 release:
 - a. Beginning with the March 2015 release assessing all sequence numbers for this measure will only affect cases diagnosed in 2012 and later. For 2011 and before, only sequence numbers 00 and 01 (first or only primary) will be included.
- 2) November 2015 release updates:
 - b. Allow for manual exclusion with censor 41 and 42.
- 3) August 2016 release:
 - a. NAACCRv16, add c or p prefix to TNM.
- 4) June 2017 release:
 - a. Add Censor 43.
- 5) June 2019 release:
 - a. AJCC8/NAACCRv18 - update histology, cM, pM, and clin/path Stage Group codes for dx year \geq 2018.
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12RLN - At least 12 regional lymph nodes are removed and pathologically examined for resected colon cancer

