Date: February 14, 2018

To: **Measurement and Reporting Committee (MARC)**

From: Collette Pitzen, RN BSN CPHQ
Clinical Measure Developer
MN Community Measurement

Nicole Hartung, MD
Minnesota Oncology Hematology
MNCM Cancer Care Chair

Re: Chemotherapy Symptom Control Measures-
Results of Pilot Testing and Workgroup Recommendation
Seeking MARC Approval for Implementation in Report Year 2020 (2019 dates of service)

Purpose of Measures:
The patient reported outcome (PRO) based measures are intended for submission and public reporting by oncology practices. These measures are self-funded by MNCM and measure development activities are not performed at the direction of any current contractual agreements.

Four related measures include the following:

1. Symptom Severity Assessment During Chemotherapy (process; PRO tool administration)
2. Symptom Control During Chemotherapy: Pain (outcome)
3. Symptom Control During Chemotherapy: Nausea (outcome)
4. Symptom Control During Chemotherapy: Constipation (outcome)

Enclosures:

- Measure Development Process (overview)
- Symptom Control During Chemotherapy (SCDC) Pilot Analysis Report and Recommendations
- DRAFT Chemotherapy Symptom Control Measure and Field Specifications

Greetings,
The Cancer Care Measure Development Work Group recently completed pilot testing of the new Symptom Control During Chemotherapy (SCDC) measures and is pleased to present the results, modifications made as a result of pilot testing and their recommendations for future use.

Originally, the measure was specified and tested with newly diagnosed cancer patients. Due to complexity in identifying newly diagnosed cancer patients during the pilot and because of the importance of symptom control for all patients regardless of the number of regimens, the workgroup decided to expand the denominator to include all adult cancer patients.

Changes were also made to the measure construct. During the development process, the workgroup wanted a measure construct that only included the patient in the denominator if the patient was assessed, but additionally planned analysis including all eligible patients in the denominator, counting the patient who was not assessed as symptoms not in good control.

Additionally, recent feedback from CMS about concerns for the potential of self-selection of the denominator (cherry-picking) in other patient reported outcomes that rely on the completion of a PRO for inclusion in the denominator was considered by the workgroup. After reviewing and discussing the pilot results and CMS feedback, the workgroup reached consensus to modify the measure construct to include all eligible patients.

The workgroup concludes that the four measures tested are feasible and demonstrate variability and opportunity for improvement. They recommend implementation of the modified measures for dates of service starting 1/1/2019 and support future submission for consideration of use in CMS's Quality Payment Program.

MNCM Cancer Care Measure Development Workgroup:

Name	Member Type	Organization
Nicole Hartung, MD	Clinical Provider; Oncologist; Chair	MN Oncology Hematology
Laura A. Joque, MD	Clinical Provider; Oncologist	EssentiaHealth Hematology/ Onc
Peter Kebbekus, MD	Clinical Provider; Oncologist	EssentiaHealth Duluth Cancer Center
Rebecca Thomas, MD	Clinical Provider; Oncologist	University of Minnesota
Dylan Zylla, MD	Clinical Provider; Oncologist	Park Nicollet Co-Med. Dir. of Onc Research
Robert Foote, MD	Clinical Provider; Oncologist	Mayo Clinic
Ethan Basch, MD	Clinical Provider; Oncologist	University of North Carolina/ ASCO/PCORI
Syndal Ortman, APRN DNP	Clinical Provider; Oncology DNP	Hennepin County Medical Center
Heidi Twedt, MD	Clinical Provider; Primary Care	Sanford Health
Adam Carvel	Data Analyst	Fairview Health Services
Angie Meillier, RN MS CPPM	Quality Improvement	Allina/Proj Mgr/ oncology nurse
JoAnn Williams Ruppert, MSN OCN	Clinic Administration	Avera Cancer Inst- Marshall
Harold Londer, MD	Health Plan	PreferredOne
Michonne Bertrand	State Agency	MN Dept Health/ Cancer
Christine Dwight*	Consumer	Retired U of M Public Health
Matt Flory	MARC member/ Consumer	American Cancer Society
Collette Pitzen	Facilitator/ Measure Dev	MN Community Measurement
Observers/Guests		
Angela Stover	Doctoral Candidate UNC	
Anne Chiang, MD	ASCO/ Yale Oncology	

Post-PILOT

Symptom Control During Chemotherapy

(01/01/2016 2019 through 12/31/2019 Dates of Service)

Measure and Field Specifications

Modifications to Specifications After Pilot Testing Include:

- Denominator expanded to include all cancer patients, not just newly diagnosed patients
- Measure construct redesign from denominator of only those patients assessed to all eligible patients. Patients who are not assessed are counted as their symptoms not being in control. See measure algorithms.

Updated:

- Chemotherapy Biologic Value Set
- Guidance for determining the emetic risk source was changed from Multinational Association of Supportive Care in Cancer (MASCC) to the American Society of Clinical Oncology (ASCO)

Symptom Control During Chemotherapy
Measure Specifications

Measure Specifications

Measure # 1	Symptom Severity Assessment During Chemotherapy	
Description	The percentage of patients 18 years of age and older with cancer receiving chemotherapy and/or biologic immunotherapy for whom a symptom severity assessment was completed during Days 5 - 15 of the chemotherapy and/or biologic immunotherapy cycle using the specified patient-reported outcome tool.	
Measurement Period	Index Period: January 1 through June 30, 2019 Assessment Period: January 1, 2019 through December 31, 2019	
Eligible Population	**Eligible Specialties**	Oncology
	Eligible Providers	Medical Doctor (MD), Doctor of Osteopathy (DO), Physician Assistant (PA), Advanced Practice Registered Nurses (APRN)
	Ages	18 years and older as of January 1 of the index period
	Event (Index) Start of any Chemotherapy and/or Biologic Immunotherapy Regimen	An index occurs when the patient begins a new regimen of chemotherapy and/or biologic immunotherapy and all of the following criteria are met: ▪ Cycle 1 Day 1 date of chemotherapy and/or biologic immunotherapy occurs during the index period ▪ Chemotherapy and/or biologic immunotherapy administration routes as indicated by specified CPT code (*Chemotherapy Biologic* Value Set)
Denominator (calculated)	The eligible population. Each patient who meets the eligible population criteria potentially has three opportunities for assessment of symptoms, once for each cycle 1, 2, or 3 of a regimen. The calculated denominator reflects the number of cycles for the eligible population. Patients who do not start the next cycle or whose Cycle 2 or Cycle 3 Day 1 date does not allow for the 15 day follow-up (after Dec 16) are removed from the calculation.	
Numerator	The number of cycles in the denominator for which a PRO-CTCAE symptom severity assessment was completed during Days 5 – 15 of the cycle.	
Allowable or Required Exclusions	None	
Measure Scoring	Proportion/Rate	
Interpretation of Score	Higher score indicates better quality	
Measure Type	Process	

Symptom Control During Chemotherapy
Measure Specifications

Measure # 2	Symptom Control During Chemotherapy: Pain	
Description	The percentage of patients 18 years of age and older with cancer receiving chemotherapy and/or biologic immunotherapy whose pain severity rating was none or mild during Days 5 – 15 of the chemotherapy and/or biologic immunotherapy cycle.	
Measurement Period	Index Period: January 1 through June 30, 2019 Assessment Period: January 1, 2019 through December 31, 2019	
Eligible Population	**Eligible Specialties**	Oncology
	Eligible Providers	Medical Doctor (MD), Doctor of Osteopathy (DO), Physician Assistant (PA), Advanced Practice Registered Nurses (APRN)
	Ages	18 years and older as of January 1 of the index period
	Event (Index) Start of any Chemotherapy and/or Biologic Immunotherapy Regimen	An index occurs when the patient begins a new regimen of chemotherapy and/or biologic immunotherapy and all of the following criteria are met: ▪ Cycle 1 Day 1 date of chemotherapy and/or biologic immunotherapy occurs during the index period ▪ Chemotherapy and/or biologic immunotherapy administration routes as indicated by specified CPT code (*Chemotherapy Biologic* Value Set)
Denominator (calculated)	The eligible population. Each patient who meets the eligible population criteria potentially has three opportunities for assessment of symptoms, once for each cycle 1, 2, or 3 of a regimen. The calculated denominator reflects the number of cycles for the eligible population. Patients who do not start the next cycle or whose Cycle 2 or Cycle 3 Day 1 date does not allow for the 15 day follow-up (after Dec 16) are removed from the calculation.	
Numerator	The number of cycles in which the patient's pain severity rating was none or mild during Days 5 – 15 of the cycle.	
Allowable or Required Exclusions	None	
Measure Scoring	Proportion/Rate	
Interpretation of Score	Higher score indicates better quality	
Measure Type	Outcome (patient reported)	

Symptom Control During Chemotherapy
Measure Specifications

Measure # 3	Symptom Control During Chemotherapy: Nausea	
Description	The percentage of patients 18 years of age and older with cancer receiving chemotherapy and/ or biologic immunotherapy whose nausea severity rating was none or mild during Days 5 – 15 of the chemotherapy and/or biologic immunotherapy cycle.	
Measurement Period	Index Period: January 1 through June 30, 2019 Assessment Period: January 1, 2019 through December 31, 2019	
Eligible Population	**Eligible Specialties**	Oncology
	Eligible Providers	Medical Doctor (MD), Doctor of Osteopathy (DO), Physician Assistant (PA), Advanced Practice Registered Nurses (APRN)
	Ages	18 years and older as of January 1 of the index period
	Event (Index) Start of any Chemotherapy and/or Biologic Immunotherapy Regimen	An index occurs when the patient begins a new regimen of chemotherapy and/or biologic immunotherapy and all of the following criteria are met: ▪ Cycle 1 Day 1 date of chemotherapy and/or biologic immunotherapy occurs during the index period ▪ Chemotherapy and/or biologic immunotherapy administration routes as indicated by specified CPT code (*Chemotherapy Biologic* Value Set)
Denominator	The eligible population. Each patient who meets the eligible population criteria potentially has three opportunities for assessment of symptoms, once for each cycle 1, 2, or 3 of a regimen. The calculated denominator reflects the number of cycles for the eligible population. Patients who do not start the next cycle or whose Cycle 2 or Cycle 3 Day 1 date does not allow for the 15 day follow-up (after Dec 16) are removed from the calculation.	
Numerator	The number of cycles in which the patient's nausea severity rating was none or mild during Days 5 – 15 of the cycle.	
Allowable or Required Exclusions	None	
Measure Scoring	Proportion/Rate	
Interpretation of Score	Higher score indicates better quality	
Measure Type	Outcome (patient reported)	

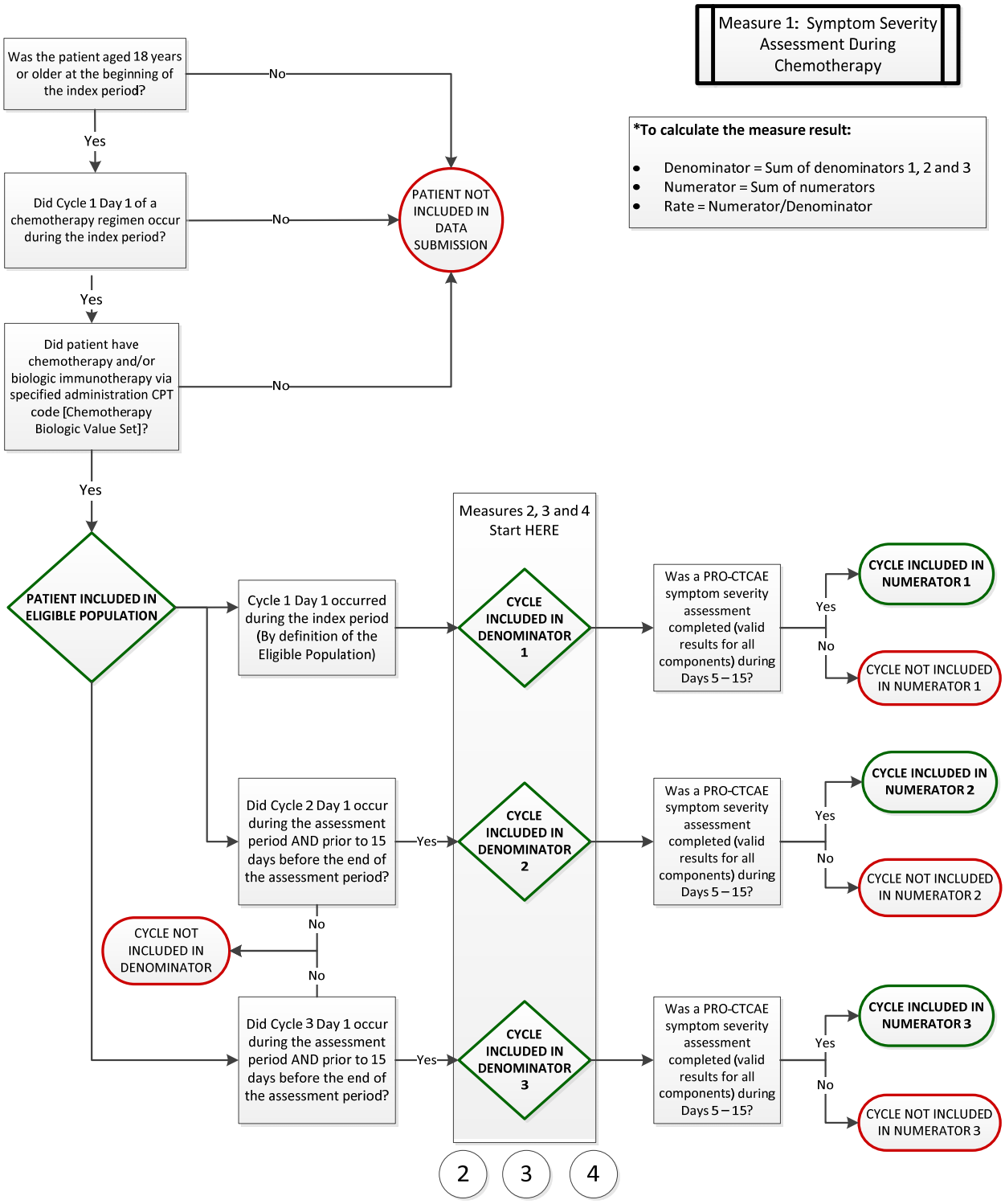
Symptom Control During Chemotherapy
Measure Specifications

Measure # 4	Symptom Control During Chemotherapy: Constipation	
Description	The percentage of patients 18 years of age and older with cancer receiving chemotherapy and/ or biologic immunotherapy whose constipation severity rating was none or mild during Days 5 – 15 of the chemotherapy and/or biologic immunotherapy cycle.	
Measurement Period	Index Period: January 1 through June 30, 2019 Assessment Period: January 1, 2019 through December 31, 2019	
Eligible Population	**Eligible Specialties**	Oncology
	Eligible Providers	Medical Doctor (MD), Doctor of Osteopathy (DO), Physician Assistant (PA), Advanced Practice Registered Nurses (APRN)
	Ages	18 years and older as of January 1 of the index period
	Event (Index) Start of any Chemotherapy and/or Biologic Immunotherapy Regimen	An index occurs when the patient begins a new regimen of chemotherapy and/or biologic immunotherapy and all of the following criteria are met: ▪ Cycle 1 Day 1 date of chemotherapy and/or biologic immunotherapy occurs during the index period ▪ Chemotherapy and/or biologic immunotherapy administration routes as indicated by specified CPT code (*Chemotherapy Biologic* Value Set)
Denominator	The eligible population. Each patient who meets the eligible population criteria potentially has three opportunities for assessment of symptoms, once for each cycle 1, 2, or 3 of a regimen. The calculated denominator reflects the number of cycles for the eligible population. Patients who do not start the next cycle or whose Cycle 2 or Cycle 3 Day 1 date does not allow for the 15 day follow-up (after Dec 16) are removed from the calculation.	
Numerator	The number of cycles in which the patient's constipation severity rating was none or mild during Days 5 – 15 of the cycle.	
Allowable or Required Exclusions	None	
Measure Scoring	Proportion/Rate	
Interpretation of Score	Higher score indicates better quality	
Measure Type	Outcome (patient reported)	

Symptom Control During Chemotherapy
Measure Specifications

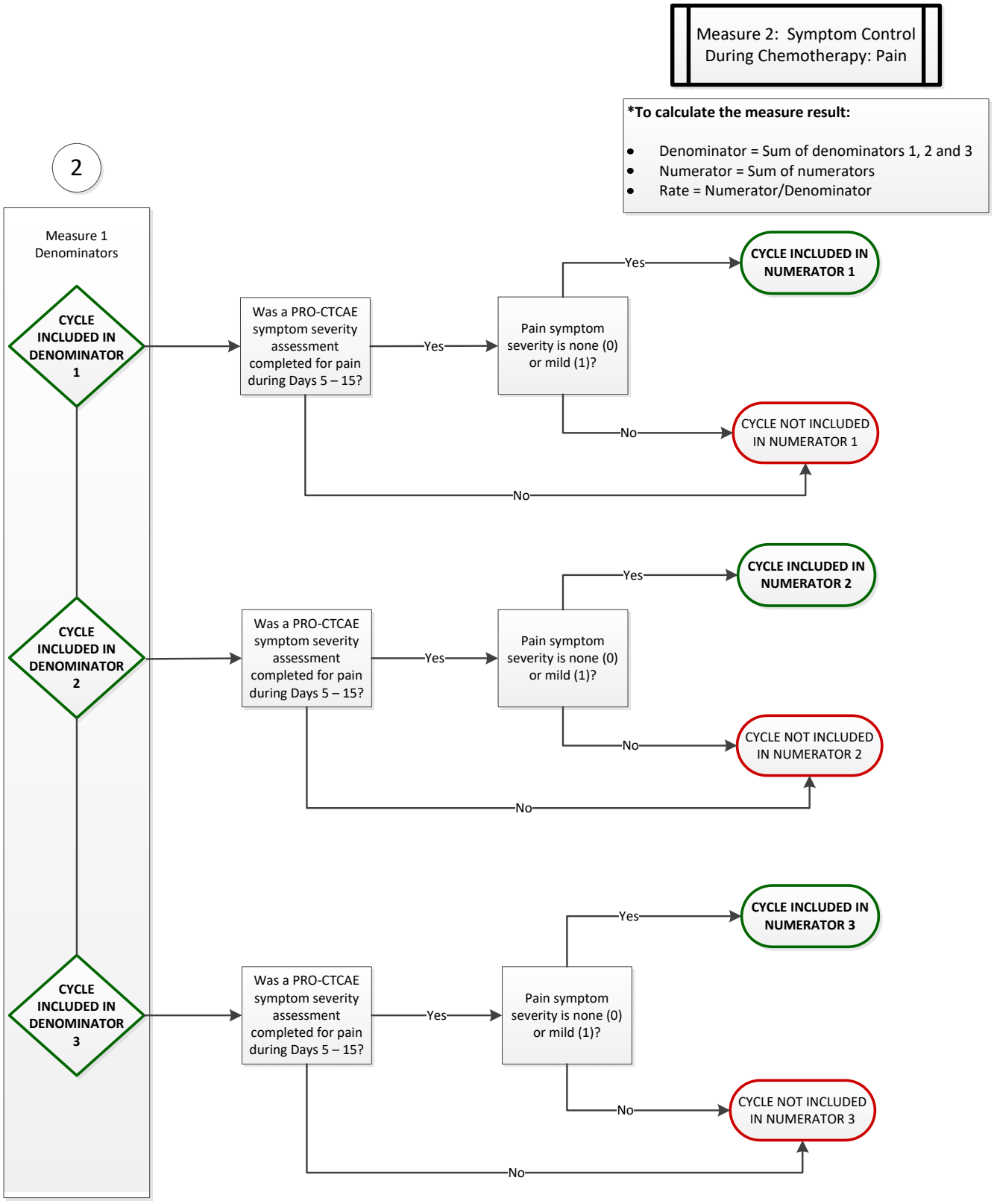
Measure Logic / Flow Charts

Flow Chart 1: Symptom Severity Assessment During Chemotherapy

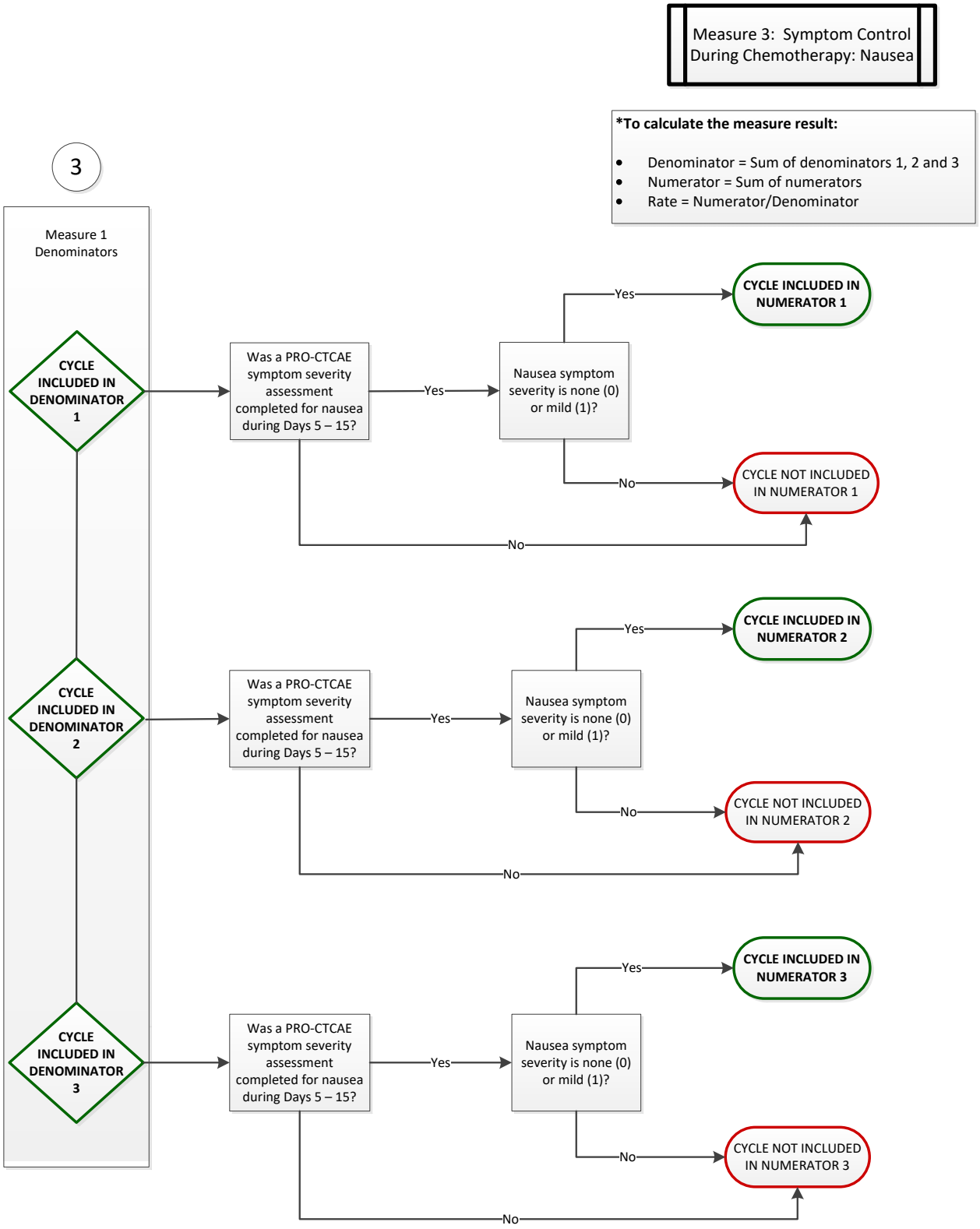


Symptom Control During Chemotherapy
Measure Specifications

Flow Chart 2: Symptom Control During Chemotherapy – Pain

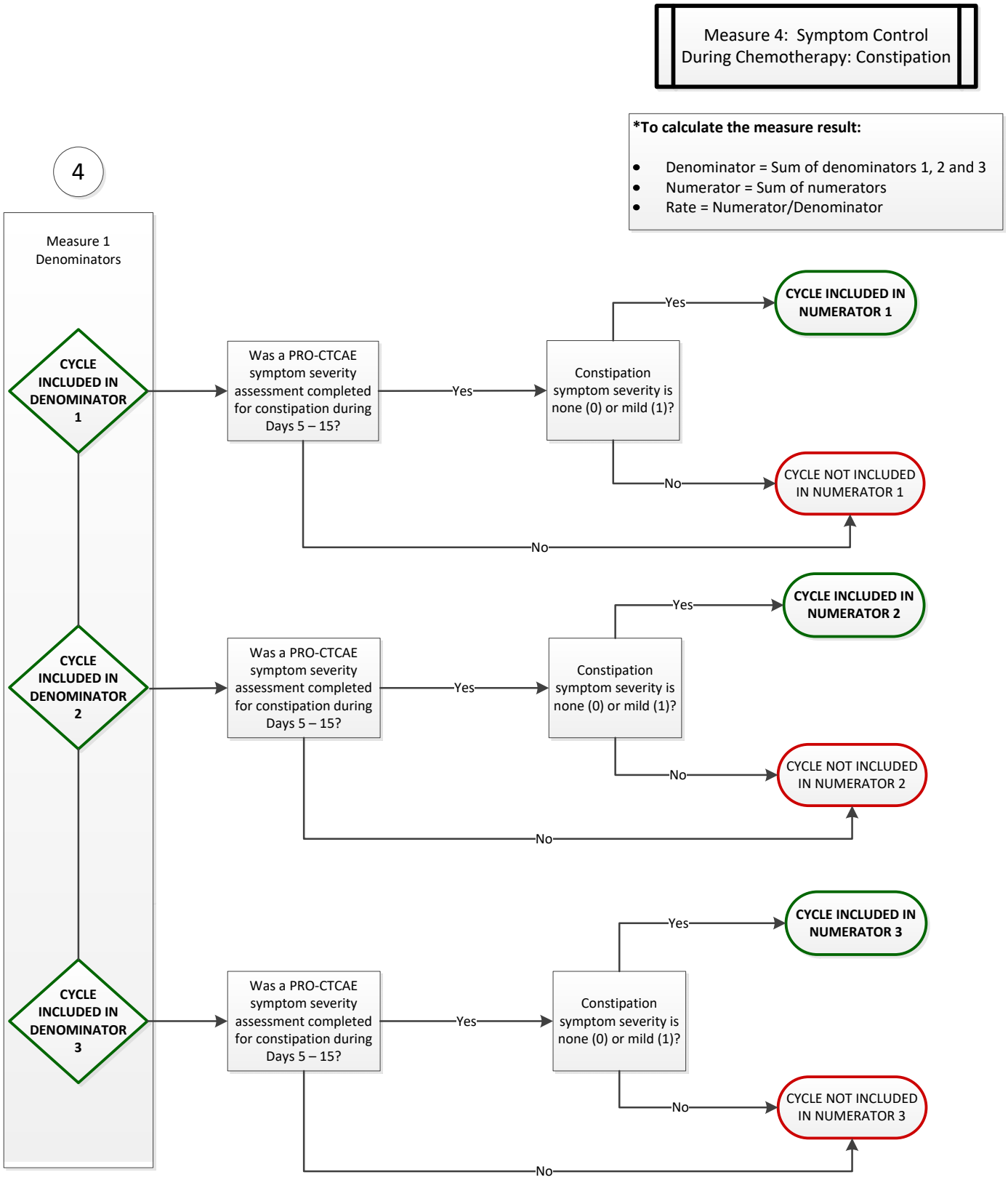


Flow Chart 3: Symptom Control During Chemotherapy – Nausea



Symptom Control During Chemotherapy
Measure Specifications

Flow Chart 4: Symptom Control During Chemotherapy – Constipation



Symptom Control During Chemotherapy
Data Collection

Data Elements and Field Specifications

Use this section to build your data file for submission. The specifications contain detailed information regarding each column in the submission file, including column order, definitions, examples, and appropriate formatting.

Column	Field Name	Notes	Excel Format	Example
A	**Clinic ID**	Enter the **MNCM Clinic ID** of the clinic to which the patient is attributed based on the attribution methodology detailed in Section II. MNCM Data Portal assigns clinic IDs at the time of registration. Clinic IDs are listed in the MNCM Data Portal on the Clinics tab. Do NOT use the medical group ID. A blank field will create an ERROR upon submission. **Quality Check:** Verify that the ID in each cell matches the clinic ID in the MNCM Data Portal.	Text	9999
B	**Patient ID**	Enter a unique patient ID to identify each patient. The patient's medical record number may be used. Medical groups or clinics that choose not to use the medical record number should: • NOT use the patient's Social Security Number • Maintain a crosswalk between the patient ID and the medical record number or patient name and Date of Birth (DOB) Medical groups or clinics that do not have an EHR should also maintain a crosswalk between patient ID and patient name and DOB as a tool to locate records during audit.	Text	1

Column	Field Name	Notes	Excel Format	Example
		A blank field will create an ERROR upon submission. **Quality Check:** Verify that there are not any duplicate patients. If a patient has multiple records (rows), determine which clinic the patient should be attributed to and delete the duplicate record(s)		
C	**Patient Date of Birth**	Enter the patient's date of birth. Patient must be 18 years or older (no upper age limit) at the start of the index period. • Birth date on or prior to 1/1/2001. A blank field or a value outside of the allowable range will create an ERROR upon submission. **Quality Check:** Verify that the date of birth in each cell is within the accepted range.	Date (mm/dd/yyyy)	5/8/1985
D	**Patient Gender**	Enter the patient's gender: Female = F Male = M Unknown = U Unknown should be utilized for transgender or androgynous patients or in situations when the patient's gender is not available in the record. A blank field will create an ERROR upon submission. **Quality Check:** Verify that each cell has one of the accepted codes.	Text	F
E	**Zip Code_Primary Residence**	Enter the five-digit zip code of the patient's primary residence at the most recent encounter on or prior to 12/31/2019. • If extraction results in a nine-digit zip code, all nine-digits may be submitted. The MNCM Data Portal will only store the first five digits. A blank field will create an ERROR upon submission.	Text	55111

Symptom Control During Chemotherapy
Data Collection

Column	Field Name	Notes	Excel Format	Example
		Quality Check: Verify that the zip code is at least five digits and that each cell has a value.		
F	**Race/Ethnicity1**	Please refer to a separate document entitled *REL Data Elements, Field Specifications & Codes* for Column F-N field definitions and specifications. This document can be found in the MNCM Data Portal under the Resources tab in the Race/Ethnicity/Language Data (REL) section, or on MNCM.org under Submitting Data > Training and Guidance > Data Collection Guides. For more information about collecting this data from patients, refer to the *Handbook on the Collection of Race Ethnicity and Language Data* available on MNCM.org under Submitting Data > Training & Guidance > Data Collection Guides. **Quality Check:** Verify that each cell has one of the accepted codes. Blank cells (if data is not available) are acceptable.	Number	1
G	**Race/Ethnicity2**			
H	**Race/Ethnicity3**			
I	**Race/Ethnicity4**			
J	**Race/Ethnicity5**			
K	**Country of Origin Code**		Number	2
L	**Country of Origin Other Description**		Text	Country A
M	**Preferred Language Code**		Number	1
N	**Preferred Language Other Description**		Text	Language B
O	**Provider NPI**	Enter the 10-digit National Provider Identifier (NPI) of the provider to which the patient is attributed based on the attribution methodology detailed in Section II. A blank field will create an ERROR upon submission.	Text	1234567891

Symptom Control During Chemotherapy
Data Collection

Column	Field Name	Notes	Excel Format	Example
		Quality Check: Verify that each cell has data.		
P	**Provider Specialty Code**	Enter the specialty code of the provider. 20 = Oncology/Hematology A blank field will create an ERROR upon submission. **Quality Check:** Verify that each cell has an accepted code.	Number	1
Q	**Insurance Coverage Code**	Please refer to a separate document entitled *Insurance Coverage Data Elements, Field Specifications & Codes* for these field specifications. This document can be found via the link above, in the MNCM Data Portal under the Resources tab in the Insurance Coverage Field Specs & Codes for DDS section, or on MNCM.org under Submitting Data > Training and Guidance > Data Collection Guides. • Enter codes corresponding to the patient's most recent insurance on or prior to 12/31/2019. **Quality Check:** Verify that each cell has an accepted code and that all 99 codes have a name entered in Column R. Verify names entered in Column R do not have an available accepted code. Verify that Social Security Numbers are NOT submitted.	Number	1
R	**Insurance Coverage Other Description**		Text	DAKOTACARE
S	**Insurance Plan Member ID**		Text	FBZXV1234
T	**Treatment Intent**	Enter the code that corresponds with the treatment intent at the start of cycle 1. 1 = curative intent 2 = non-curative intent Blank values will create an ERROR upon submission.	Number	1
U	**Emetic Risk**	Enter the code that corresponds with the patient's level of risk for nausea (emetic) based on the chemotherapy and/or radiation regimen during cycles 1, 2, and 3. For multiple drug regimens, or for chemotherapy with concurrent radiation therapy, select the highest emetic level of risk for any component of the regimen. See Appendix D for guidance in categorizing chemotherapy or radiation therapy by emetic risk group.	Number	1

Column	Field Name	Notes	Excel Format	Example
		1 = high 2 = moderate 3 = low/ minimal Blank values will create an ERROR upon submission.		
V	**Cycle 1 Day 1 Date**	Enter the Cycle 1 Day 1 date for the patient's chemotherapy regimen. A blank field or value outside of the index period (07/01/2016 to 12/31/2016) will create an ERROR upon submission.	Date (mm/dd/yyyy)	8/15/2016
W	**C1 PRO-CTCAE Date**	Enter the date of the **most recent** PRO-CTCAE result during Days 5 – 15 of Cycle 1.	Date (mm/dd/yyyy)	8/26/2016
X	**C1 Pain Frequency**	Enter the code that corresponds with the patient's response for frequency of pain. [Question = In the past 7 days, how OFTEN did you have PAIN?] 0 = Never 1 = Rarely 2 = Occasionally 3 = Frequently 4 = Almost constantly	Number	0
Y	**C1 Pain Severity**	Enter the code that corresponds with the patient's response for severity of pain. [Question = In the past 7 days, what was the SEVERITY of your PAIN at its WORST?] 0 = None 1 = Mild 2 = Moderate 3 = Severe	Number	0

Column	Field Name	Notes	Excel Format	Example
		4 = Very Severe		
Z	**C1 Pain Interfere**	Enter the code that corresponds with the patient's response for interference of pain. [Question = In the past 7 days, how much did PAIN INTERFERE with your usual or daily activities?] 0 = Not at all 1 = A little bit 2 = Somewhat 3 = Quite a bit 4 = Very much	Number	0
AA	**C1 Nausea Frequency**	Enter the code that corresponds with the patient's response for frequency of nausea. [Question = In the past 7 days, how OFTEN did you have NAUSEA?] 0 = Never 1 = Rarely 2 = Occasionally 3 = Frequently 4 = Almost constantly	Number	1
AB	**C1 Nausea Severity**	Enter the code that corresponds with the patient's response for severity of nausea. [Question = In the past 7 days, what was the SEVERITY of your NAUSEA at its WORST?] 0 = None 1 = Mild 2 = Moderate 3 = Severe	Number	1

Symptom Control During Chemotherapy
Data Collection

Column	Field Name	Notes	Excel Format	Example
		4 = Very severe		
AC	**C1 Constipation Severity**	Enter the code that corresponds with the patient's response for severity of constipation. [Question = In the past 7 days, what was the SEVERITY of your CONSTIPATION at its WORST?] 0 = None 1 = Mild 2 = Moderate 3 = Severe 4 = Very severe	Number	0
AD	**Cycle 2 Day 1 Date**	Enter the Cycle 2 Day 1 date for this patient's chemotherapy regimen.	Date (mm/dd/yyyy)	9/26/2016
AE	**C2 PRO-CTCAE Date**	Enter the date of the **most recent** PRO-CTCAE result during Days 5 – 15 of Cycle 2.	Date (mm/dd/yyyy)	10/3/2016
AF	**C2 Pain Frequency**	Enter the code that corresponds with the patient's response for frequency of pain. [Question = In the past 7 days, how OFTEN did you have PAIN?] 0 = Never 1 = Rarely 2 = Occasionally 3 = Frequently 4 = Almost constantly	Number	1
AG	**C2 Pain Severity**	Enter the code that corresponds with the patient's response for severity of pain. [Question = In the past 7 days, what was the SEVERITY of your PAIN at its WORST?] 0 = None	Number	1

Symptom Control During Chemotherapy
Data Collection

Column	Field Name	Notes	Excel Format	Example
		1 = Mild 2 = Moderate 3 = Severe 4 = Very Severe		
AH	**C2 Pain Interfere**	Enter the code that corresponds with the patient's response for interference of pain. [Question = In the past 7 days, how much did PAIN INTERFERE with your usual or daily activities?] 0 = Not at all 1 = A little bit 2 = Somewhat 3 = Quite a bit 4 = Very much	Number	1
AI	**C2 Nausea Frequency**	Enter the code that corresponds with the patient's response for frequency of nausea. [Question = In the past 7 days, how OFTEN did you have NAUSEA?] 0 = Never 1 = Rarely 2 = Occasionally 3 = Frequently 4 = Almost constantly	Number	2
AJ	**C2 Nausea Severity**	Enter the code that corresponds with the patient's response for severity of nausea. [Question = In the past 7 days, what was the SEVERITY of your NAUSEA at its WORST?] 0 = None	Number	1

Column	Field Name	Notes	Excel Format	Example
		1 = Mild 2 = Moderate 3 = Severe 4 = Very severe		
AK	**C2 Constipation Severity**	Enter the code that corresponds with the patient's response for severity of constipation. [Question = In the past 7 days, what was the SEVERITY of your CONSTIPATION at its WORST?] 0 = None 1 = Mild 2 = Moderate 3 = Severe 4 = Very severe	Number	1
AL	**Cycle 3 Day 1 Date**	Enter the Cycle 3 Day 1 date for this patient's chemotherapy regimen.	Date (mm/dd/yyyy)	12/5/2016
AM	**C3 PRO-CTCAE Date**	Enter the date of the **most recent** PRO-CTCAE result during Days 5 – 15 of Cycle 3.	Date (mm/dd/yyyy)	12/15/2016
AN	**C3 Pain Frequency**	Enter the code that corresponds with the patient's response for frequency of pain. [Question = In the past 7 days, how OFTEN did you have PAIN?] 0 = Never 1 = Rarely 2 = Occasionally 3 = Frequently 4 = Almost constantly	Number	0

Symptom Control During Chemotherapy
Data Collection

Column	Field Name	Notes	Excel Format	Example
AO	**C3 Pain Severity**	Enter the code that corresponds with the patient's response for severity of pain. [Question = In the past 7 days, what was the SEVERITY of your PAIN at its WORST?] 0 = None 1 = Mild 2 = Moderate 3 = Severe 4 = Very severe	Number	0
AP	**C3 Pain Interfere**	Enter the code that corresponds with the patient's response for interference of pain. [Question = In the past 7 days, how much did PAIN INTERFERE with your usual or daily activities?] 0 = Not at all 1 = A little bit 2 = Somewhat 3 = Quite a bit 4 = Very much	Number	0
AQ	**C3 Nausea Frequency**	Enter the code that corresponds with the patient's response for frequency of nausea. [Question = In the past 7 days, how OFTEN did you have NAUSEA?] 0 = Never 1 = Rarely 2 = Occasionally 3 = Frequently 4 = Almost constantly	Number	1

Symptom Control During Chemotherapy
Data Collection

Column	Field Name	Notes	Excel Format	Example
AR	**C3 Nausea Severity**	Enter the code that corresponds with the patient's response for severity of nausea. [Question = In the past 7 days, what was the SEVERITY of your NAUSEA at its WORST?] 0 = None 1 = Mild 2 = Moderate 3 = Severe 4 = Very severe	Number	2
AS	**C3 Constipation Severity**	Enter the code that corresponds with the patient's response for severity of constipation. [Question = In the past 7 days, what was the SEVERITY of your CONSTIPATION at its WORST?] 0 = None 1 = Mild 2 = Moderate 3 = Severe 4 = Very severe	Number	1

Appendix C: Value Sets

Table 1: Chemotherapy Biologic Value Set

CPT	CPT Description
96401	Chemotherapy administration, subcutaneous or intramuscular; non-hormonal anti-neoplastic
96409	intravenous, push technique, single or initial substance/drug
96413	Chemotherapy administration, intravenous infusion; up to 1 hour, single or initial substance/ drug
96416	Initiation of prolonged chemotherapy infusion (> 8 hours) requiring portable or implantable pump
96446	Chemotherapy administration into the peritoneal cavity via indwelling port or catheter
96405	Chemotherapy administration, intralesional
96420	Chemotherapy administration, intra-arterial push
96422	Chemotherapy administration, intra-arterial infusion
96425	Intra-arterial pump initiation
96440	Chemo admin into pleural cavity
96446	Chemo admin into peritoneal cavity
96450	Chemo admin into CNS
96542	Chemo admin via subcutaneous reservoir

Appendix D: Guidance for High and Moderate Emetic Risk Groups, Chemotherapy and Radiation Therapy

The following tables are to provide guidance for the Emetic Risk [Field U] category that reflects the patient's level of risk of nausea related to their current chemotherapy and/ or radiation therapy regimen (concurrent) if applicable. This list is not meant to be inclusive of all possible chemotherapy drugs.
Source: 2017 Antiemetic Guidelines American Society of Clinical Oncology
http://ascopubs.org/doi/pdf/10.1200/JCO.2017.74.4789

Table 1: List of Drugs and Areas of Radiation Considered to be High Emetic Risk

Chemotherapy Drug/ Radiation	Emetic Risk
Anthracycline/cyclophosphamide combination	High
Carmustine	High
Cisplatin	High
Cyclophosphamide > 1,500 mg/m2	High
Dacarbazine	High
Mechlorethamine	High
Streptozocin	High
Total body irradiation	High

Table 2: List of Drugs and Areas of Radiation Considered to be Moderate Emetic Risk

Chemotherapy Drug/ Radiation	Emetic Risk
Alemtuzumab	Moderate
Azacitidine	Moderate
Bendamustine	Moderate
Carboplatin	Moderate
Clofarabine	Moderate
Cyclophosphamide < 1,500 mg/m2	Moderate
Cytarabine > 1,000 mg/m2	Moderate
Daunorubicin	Moderate
Doxorubicin	Moderate
Epirubicin	Moderate
Idarubicin	Moderate
Ifosfamide	Moderate
Irinotecan	Moderate
Irinotecan liposomal injection	Moderate
Oxaliplatin	Moderate
Romidepsin	Moderate

Chemotherapy Drug/ Radiation	Emetic Risk
Temozolomide	Moderate
Thiotepa	Moderate
Trabectedin	Moderate
Upper abdomen irradiation	Moderate
Craniospinal irradiation	Moderate

Table 3: List of Drugs and Areas of Radiation Considered to be Low/ Minimal Emetic Risk

Chemotherapy Drug/ Radiation	Emetic Risk
Aflibercept	Low
Atezolizumab	Low
Belinostat	Low
Blinatumomab	Low
Bortezomib	Low
Brentuximab	Low
Cabazitaxel	Low
Carfilzomib	Low
Catumaxumab	Low
Cetuximab	Low
Cytarabine # 1,000 mg/m2	Low
Docetaxel	Low
Elotuzumab	Low
Eribulin	Low
Etoposide	Low
Fluorouracil	Low
Gemcitabine	Low
Ipilimumab	Low
Ixabepilone	Low
Methotrexate	Low
Mitomycin	Low
Mitoxantrone	Low
Nab-paclitaxel	Low
Necitumumab	Low
Paclitaxel	Low
Panitumumab	Low
Pemetrexed	Low

Symptom Control During Chemotherapy
Appendices

Chemotherapy Drug/ Radiation	Emetic Risk
Pegylated liposomal doxorubicin	Low
Pertuzumab	Low
Temsirolimus	Low
Topotecan	Low
Trastuzumab-emtansine	Low
Vinflunine	Low
Brain irradiation	Low
Head and neck irradiation	Low
Thorax irradiation	Low
Pelvis irradiation	Low
Bevacizumab	Minimal
Bleomycin	Minimal
Busulfan	Minimal
2- Chlorodeoxyadenosine	Minimal
Cladribine	Minimal
Daratumumab	Minimal
Fludarabine	Minimal
Nivolumab	Minimal
Obinutuzumab	Minimal
Ofatumumab	Minimal
Pembrolizumab	Minimal
Pixantrone	Minimal
Pralatrexate	Minimal
Ramucirumab	Minimal
Rituximab	Minimal
Trastuzumab	Minimal
Vinblastine	Minimal
Vincristine	Minimal
Vinorelbine	Minimal
Extremities irradiation	Minimal
Breast irradiation	Minimal

NCI PRO-CTCAE™ ITEMS

Item Library Version 1.0

As individuals go through treatment for their cancer they sometimes experience different symptoms and side effects. For each question, please check or mark an ☒ in the one box that best describes your experiences over the past 7 days...

1.	In the last 7 days, how OFTEN did you have NAUSEA?				
	○ Never	○ Rarely	○ Occasionally	○ Frequently	○ Almost constantly
	In the last 7 days, what was the SEVERITY of your NAUSEA at its WORST?				
	○ None	○ Mild	○ Moderate	○ Severe	○ Very severe

2.	In the last 7 days, what was the SEVERITY of your CONSTIPATION at its WORST?				
	○ None	○ Mild	○ Moderate	○ Severe	○ Very severe

3.	In the last 7 days, how OFTEN did you have PAIN?				
	○ Never	○ Rarely	○ Occasionally	○ Frequently	○ Almost constantly
	In the last 7 days, what was the SEVERITY of your PAIN at its WORST?				
	○ None	○ Mild	○ Moderate	○ Severe	○ Very severe
	In the last 7 days, how much did PAIN INTEREFERE with your usual or daily activities?				
	○ Not at all	○ A little bit	○ Somewhat	○ Quite a bit	○ Very much

Do you have any other symptoms that you wish to report?	
○ Yes	○ No

Please list any other symptoms:

NCI PRO-CTCAE™ ITEMS

Item Library Version 1.0

1.	In the last 7 days, what was the SEVERITY of this symptom at its WORST?				
	○ None	○ Mild	○ Moderate	○ Severe	○ Very severe
2.	In the last 7 days, what was the SEVERITY of this symptom at its WORST?				
	○ None	○ Mild	○ Moderate	○ Severe	○ Very severe
3.	In the last 7 days, what was the SEVERITY of this symptom at its WORST?				
	○ None	○ Mild	○ Moderate	○ Severe	○ Very severe
4.	In the last 7 days, what was the SEVERITY of this symptom at its WORST?				
	○ None	○ Mild	○ Moderate	○ Severe	○ Very severe
5.	In the last 7 days, what was the SEVERITY of this symptom at its WORST?				
	○ None	○ Mild	○ Moderate	○ Severe	○ Very severe

MNCM Cancer Symptom Control Measure Development Pilot Results- December 2017 for MARC Review

Recommendations

- Due to complexity in identifying newly diagnosed cancer patients and the importance of symptom control for all patients regardless of number of regimens, expand the denominator to include all adult cancer patients.
- Modify the denominator construct; patients who are not assessed during Day 5 - 15 of the chemotherapy cycle remain in the denominator and are counted as if their symptoms are not in control.
- Guidance for determining the emetic risk source was changed from Multinational Association of Supportive Care in Cancer (MASCC) to the American Society of Clinical Oncology (ASCO).
- Chemotherapy Biologic Value Set (CPT codes) was updated
- The four measures tested are feasible and demonstrate variability and opportunity for improvement. The workgroup recommends implementation of the modified measures for dates of service starting 1/1/2019 and supports future submission for consideration of use in CMS's Quality Payment Program.

Background

As part of an MNCM measure portfolio review for gaps in measures, and a directive to focus new development on measures for specialists, cancer and symptom control during chemotherapy was explored as a measure concept. The Measurement and Reporting Committee (MARC) reviewed the impact of potential measures for patients undergoing chemotherapy and directed development efforts to focus on symptom control outcomes.

Development Time Line	Task	Date/s
	Research/ environmental scan	September 2014
	Impact presented at MARC, development approved	10/8/2014
	Work group member recruitment	February 2015
	1st measure development meeting	April 2015
	2nd measure development meeting	June 2015
	3rd measure development meeting	August 2015
	4th measure development meeting	October 2015
	Measure specs completed by work group	10/30/2015
	Public Comment	11/3/2015 - 11/17/2015
	MARC approval for pilot	12/9/2015
	Pilot dates of chemotherapy (six months of index C1D1)	7/1/2016 - 12/31/2016
	Date of service to allow assessment of all 3 cycles	7/1/2016 - 6/30/2017
	Data submission from pilot participants (extend 6 weeks)	7/17/2017 - 9/29/2017
	Survey Pilot Tools, Data and Burden	9/27/2017 - 10/27/2017
	Pilot analysis and re-convene	10/31/2017
	Post meeting work/ consensus for changes	Nov/ December 2017
	Review of agreed modifications	January 2018
	Presentation of recommendations to MARC	February 2018

Pilot Goals/ Objectives

- Determine feasibility of using patient reported outcome (PRO) tools for performance measures
- Understand group's capability to administer PROs in daily clinical practice/ work flows
- Pilot to allow groups time to prepare for implementation; dates of chemotherapy starting 7/1/2016
- Evaluate group's success in administration of tools within a narrow window when symptoms occur; Day 5 to Day 15 of the chemotherapy cycle
- Feasibility of various measure related data elements with special consideration for PRO data fields and fields related to variables that could be used for risk adjustment.
- Evaluate strength of proposed measures- rates demonstrate variability and results meet original intent to understand
- Identify missing elements or components of measures
- Record and track lessons learned. Share questions/ answers/ successes/ challenges
- Improve measure by incorporating feedback and providing clarification to improve data collection guide (instructions).
- Facilitate work group discussion to address common challenges in collecting and reporting data

Pilot Results

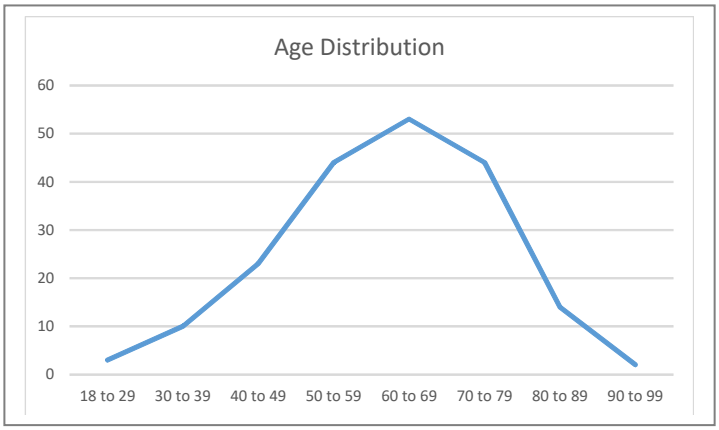
Two oncology practices, representing four clinic locations, participated in the pilot submission for newly diagnosed cancer patients. Pilot data submitted represented 23 oncologists.

Demographics of Pilot Patients

N = 199 patients
Observations/ Cycles = 547

58% female, 42% male
Average age = 61.5
Range 23 to 94 years

Treatment Intent:	42% Curative	
	58% Non-Curative	
Emetic Risk:	High	41%
	Moderate	32%
	Low/Minimal	27%



- Discontinuation 33/199 patients (16.7%) See Appendix B for details.
- Country of origin- 94% US with 95.5% of patients whose preferred language is English. The PRO-CTCAE tool questions are available in the MNCM data portal for use in English and Spanish. There are other translations available through the National Cancer Institute as well.
- All patients had their race/ ethnicity documented:
  White 95.0%, Asian 2.5%, Black or African American 1.0%, American Indian or Alaska Native 1.0%, Hispanic or Latino 0.5%

Measure Results

Measure # 1 Symptom Severity **Assessment** During Chemotherapy
The number of cycles in the denominator for which a PRO-CTCAE symptom severity assessment was completed during Days 5 - 15 of the cycle. This measure reflects tool administration rates.

Clinic	Numerator	Denominator	Rate
A	39	78	50.0%
B	139	272	51.1%
C	93	117	79.5%
D	29	80	36.3%
Total	300	547	54.8%

Overall ability to capture PRO data within a narrow timeframe (10 days) is promising at 54.8%
Clinic C exceeding expectations at almost 80%.

Measure # 2 Symptom Control During Chemotherapy- **Pain**
The number of cycles in which the patient's pain severity rating was none or mild during Days 5 - 15 of the cycle.

Clinic	Numerator	Denominator (assessed)	Rate (assessed)		Denominator (eligible)	Re-Calculated Rate (eligible)
A	24	39	61.5%		78	30.8%
B	117	139	84.2%		272	43.0%
C	71	93	76.3%		117	60.7%
D	24	29	82.8%		80	30.0%
Total	236	300	78.7%		547	43.1%

Assessed: patient cycles with a completed symptom assessment during Day5 to Day15
Eligible: patients who had a cycle; may or may not have completed a symptom assessment

Measure # 3 Symptom Control During Chemotherapy- **Nausea**
The number of cycles in which the patient's nausea severity rating was none or mild during Days 5 - 15 of the cycle.

Clinic	Numerator	Denominator (assessed)	Rate (assessed)		Denominator (eligible)	Re-Calculated Rate (eligible)
A	32	39	82.1%		78	41.0%
B	114	139	82.0%		272	41.9%
C	76	93	81.7%		117	65.0%
D	25	29	86.2%		80	31.3%
Total	247	300	82.3%		547	45.2%

Assessed: patient cycles with a completed symptom assessment during Day5 to Day15
Eligible: patients who had a cycle; may or may not have completed a symptom assessment

Measure # 4 Symptom Control During Chemotherapy- **Constipation**
The number of cycles in which the patient's constipation severity rating was none or mild during Days 5 - 15 of the cycle.

Clinic	Numerator	Denominator (assessed)	Rate (assessed)		Denominator (eligible)	Re-Calculated Rate (eligible)
A	34	39	87.2%		78	43.6%
B	117	139	84.2%		272	43.0%
C	86	93	92.5%		117	73.5%
D	28	29	96.6%		80	35.0%
Total	265	300	88.3%		547	48.4%

Assessed: patient cycles with a completed symptom assessment during Day5 to Day15
Eligible: patients who had a cycle; may or may not have completed a symptom assessment

Pilot Test- Measure Specifications and Construct

Eligible Population (Denominator)

Measurement Period	Index Period: July 1 through December 31, 2016 Assessment Period: July 1, 2016 through June 30, 2017	
Eligible Population	**Eligible Specialties**	Oncology
	Eligible Providers	Medical Doctor (MD), Doctor of Osteopathy (DO), Physician Assistant (PA), Advanced Practice Registered Nurses (APRN)
	Ages	18 years and older as of July 1 of the index period
	Event (Index) Initial Chemotherapy Regimen	An index occurs when all of the following criteria are met: ▪ A New Patient Evaluation and Management or Consultation office visit (*New Patient or Consultation Visit* Value Set) with an eligible provider in an eligible specialty occurs during the index period AND ▪ Cycle 1 Day 1 date of chemotherapy (*Chemotherapy* Value Set) occurs during the index period AND within 90 days of the new patient visit (*New Patient Visit* Value Set)

Feedback about denominator during pilot testing

- Testing three months into the pilot demonstrated that not all newly diagnosed cancer patients have the new patient evaluation and management CPT billing code utilized during their first visit to the oncologist, as many as 45% of patients had a consultative visit billing code and these types of codes do not differentiate new from established patients. The value set was modified to include the consultative codes, however this is not as "clean" as the original intent of the new patient visit billing codes.
- The eligible population criteria is too complicated. One of the practices participating in the pilot stores the date of the diagnosis is a discrete reportable field, the other practice does not but would be willing to explore this possibility.
- Pilot participants shared that it was difficult for staff to determine who and when they should be administering the tools.
- Pilot participants were asked "If we are unable to accurately identify new patients, would there be value in measuring symptom outcomes for cycles 1, 2 and 3 for all patients (not just newly diagnosed) regardless of regimen?" 2 respondents felt that this would be valuable, 1 respondent thought it would not be valuable and 4 skipped the question.

Staff recommendations:

- *Replace the visit methodology with date of diagnosis during the index period. Keep C1D1 date → Date of Diagnosis AND C1D1 Date during index period.*
- *Remove the requirement that C1D1 needs to be within 90 days of a specified event. 80% of patients were within 30 days, 94% within 60 days*

Measure Construct

Each patient in the eligible population has the opportunity to be assessed and measured three times, once during cycle 1, once during cycle 2 and once during cycle 3.

Measure Calculation Combines 3 Cycles

$$\frac{\text{\# patients C1 Num + \# patients C2 Num + \# patients C3 Num}}{\text{\# patients C1 Den + \# patients C2 Den + \# patients C3 Den}}$$

$$\frac{50 + 55 + 51 = 156}{104 + 102 + 98 = 304}$$ **or** 51.3%

The measure development workgroup discussed different options for the measure construct and evaluated different kinds of target based measures. The discussion included how to evaluate the patient who is not assessed during Day5 to Day15. Construct options were to leave the patient in the denominator and count as if symptoms were not in control or to remove the patient from the denominator. Consensus was reached to remove the patient who was not assessed from the denominator of that cycle; however, during the pilot process we would test and review the results using each method.

Feedback from CMS about PRO- based Measures and Denominators

MNCM has several orthopedic patient reported outcome measures that are currently under consideration for use in the CMS's Quality Payment Program (QPP), measures that are used in the implementation of health payment reform under MACRA. The orthopedic measures have a similar denominator twist; in order to calculate measures of the average change each patient needs to have both a pre-operative and post-operative assessment tool completed. While CMS applauded the orthopedic measure development workgroups efforts in measuring patient reported outcomes (PRO), they have some concerns about the potential for self-selection of the denominator (cherry-picking). "If I have a patient sitting in front of me and he/she is not doing very well, I simply don't have to administer the PRO tool and then they aren't counted in the measure." Even though it is unlikely that the care team is thinking about this and changing the course of assessment in this manner, CMS has a valid point in that the current measure construct can allow this to occur.

Current Construct	Recommended Change in Construct
Patient needs to have started a cycle of chemotherapy as evidenced by a cycle Day 1 date	No change (same) If patient discontinues after cycle 1, not included for measurement of cycles 2 or 3
Additionally, all of the following need to be true to be included in the denominator of each cycle ▪ PRO-CTCAE date is present ▪ PRO-CTCAE date is during Day 5 to Day 15 of cycle ▪ Valid severity values of 0, 1, 2, 3 or 4	All eligible patients (those having treatment as evidenced by a cycle Day 1 date) are included in the denominator If PRO assessment values are not present/ blank the patient remains in the denominator
Numerator is then assessed ▪ Severity value of 0 or 1 is numerator hit (symptom in good control) ▪ Severity value of 2, 3, or 4 is a numerator miss (symptom not in good control)	Numerator is then assessed ▪ Severity value of 0 or 1 is numerator hit (symptom in good control) ▪ Severity value of 2, 3,or 4 is a numerator miss (symptom not in good control) ▪ Severity value is not present/blank because the patient is not assessed, the patient is a numerator miss (symptom not in good control)

Current Construct	Recommended Change in Construct
Advantages Provider centric	Advantages Patient centric; all patients who are treated are included and providers are accountable for outcomes
Disadvantages Potential for denominator self-selection resulting in loss of comparability among practices Status-quo; does not drive improvement in assessment rates and measuring outcomes	Disadvantages Potential lack of provider support

Staff recommendation:
Include all eligible patients in the denominator of the symptom outcome measures

- *Patients who have treatment for a cycle but are not assessed are counted as if their symptoms are not in control*
- *Continue to remove patients who discontinue treatment (no cycle 2 or 3) from the denominator*

Data Fields for Consideration of Risk Adjustment Variables or Stratification

Variables for Consideration- Treatment Intent and Emetic Risk

	Clinic A	Clinic B	Clinic C	Clinic D	Total
Number of Patients	28	100	42	29	199
Number of Cycles	78	272	117	80	547
Treatment Intent					
Curative	43%	38%	38%	59%	42%
Palliative	57%	62%	62%	41%	58%
Emetic Risk					
High	43%	43%	33%	45%	41%
Moderate	25%	39%	33%	10%	32%
Low/Minimal	32%	18%	33%	45%	27%

One of the guiding principles in the selection of a variable for risk adjustment is that there is a disproportionate rate of this variable between different practices. Currently, we do not yet have enough data to test these variables performance in a statistical risk adjustment model. Methodology for calculating observed to expected ratios for a two variable model requires at least 2000 observations.

Results from Validation Audit:

Denominator certification prior to data collection is a key process for insuring that all practices are including the correct patients for rate calculation.

For the newly diagnosed cancer population, the main elements for assessment include the correct use of CPT codes and Dates of cycle Day 1 to insure that all patients are included, not just those with completed symptom assessments.

A validation audit is then conducted with each group on a random sample of patients submitted. The purpose of validation is to assure that the information submitted is a match between what is contained in the medical record. During the pilot phase, this is an opportunity for education. Validation audits demonstrated a high level of agreement with the medical record, but also highlighted the difficulty of manual data collection efforts. Audit detail is located in Appendix E. Things learned during the validation process included:

Lessons Learned:

- Medical groups need sufficient lead time in order to implement new patient reported outcome tools into their practice and clinical work flows.
- Valiant efforts were made by the practices to participate and support the pilot testing but needed to rely on very manual methods for collecting the data. One practice had staff entering PRO values into a central spreadsheet that lead to some date discrepancies related to date of tool administration. The other practice needed to collect the paper tools and enter into a spreadsheet later. This is not unusual for pilot testing in that MNCM would not want groups to incur significant EMR build expenses because the specifications may change after testing, however all recognized that wider implementation of these measure would benefit from technical support and EMR builds.
- Treatment intent, a field selected for potential risk adjustment, is not as easily captured as anticipated during the discussion of including this field as a potential risk adjustment variable to serve as a proxy for disease progression at diagnosis and intensity of treatment. Please see Appendix C for an example.
- Emetic risk, another field selected for potential risk adjustment requires translation of the patient's current regime based on the drugs or amount of radiation that they receive. It was understood during development that the categorization of emetic risk was not in and of itself existing in a discrete reportable field, however drug based translation can be burdensome. See Appendix D for definition.
- One practice noted that there could be duplication of the cycle dates within their EMR (e.g. two different date for C2D1 related delay in starting cycle 2 due to patient counts, the original order date staying in the system and then the real C2D1 date when Day 1 treatment initiated)
- It is possible to implement patient reported outcome tools into oncology practices as demonstrated by a 54.5% rate of PRO tool administration within a very narrow ten day window in which symptoms are most likely to occur within each cycle, be recalled accurately by the patient, and to provide value in adjusting the course of care to managing symptoms real time. PRO tool is located in Appendix A.

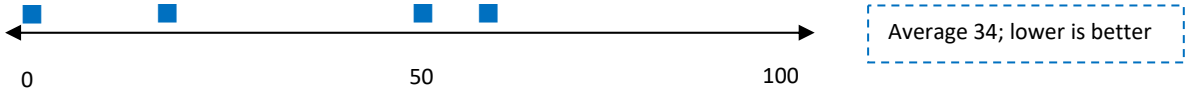
Resource Use and Data Burden

Survey fielded September 27 to October 27, 2017 and was sent to individuals participating in the pilot testing. 7 responses were received. Respondents included clinic administrator (1), data analyst (2), oncology nurse (3) and quality improvement (1)

Each ■ indicates one response.

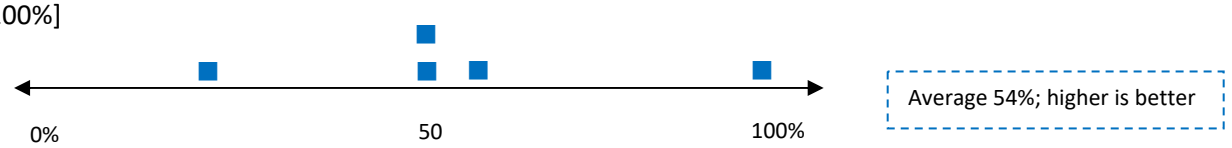
Patient Reported Outcome Tools:

Question: We understand that the NCI PRO-CTCAE tool is a new tool. In general, how easy/ difficult is it to administer PRO tools to your patients?
[Scale 0 = easy, 100 = extremely difficult]



Question: As compared to other tools implemented in your practice, how easy or difficult was it to implement the new NCI PRO-CTCAE tool into your practice's clinical work flows?
[Scale 0 = easy, 100 = extremely difficult]

Question: During the pilot, what percentage of the time was your staff successful in obtaining the NCI PRO-CTCAE tool from your newly diagnosed patients during the Day 5 to Day 15 window?
[Scale 0% to 100%]



Question: What best describes the MAJORITY (greater than 50%) of your patient's understanding and completion of the NCI PRO-CTCAE tool? (2 respondents)

- ■ DID NOT have questions and DID complete the survey tool.
- ■ DID have questions, and DID complete the survey tool.
- DID NOT have questions and DID NOT complete the survey tool (skipped or blank).
- DID have questions and DID NOT complete the survey tool (skipped or blank).

Question: How do you/ your providers perceive the NCI-PRO-CTCAE? Check all that apply.
(3 respondents, each item only received a single "✓")

- ■ Easy to administer to patients
- ■ Easy to score
- ■ Adds value to the decision making process for managing symptoms and treatment

- May not add value to decision making process but adds value to quantify symptoms
- Does not add value

Question: What has been you/ your group's experience with the NCI PRO-CTCAE tool? (2 respondents)
One respondent indicated that their experience was positive.
One respondent indicated a more negative experience and wonders why the tool needs to be completed every visit.

Data Extraction and Submission:

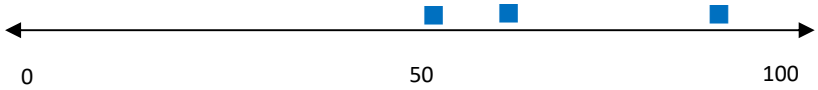
A hybrid method of data collection was used by both practices participating in the pilot, although one respondent indicated that all data was extracted. Some data, mostly demographic data and cycle day dates were queried from their electronic health systems, while a significant part of the data were manually abstracted or entered into a central spreadsheet.

Each ■ indicates one response.

Estimate the amount of time it took to PROGRAM and EXTRACT the pilot data	Estimate the number of hours spent MANUALLY abstracting data from the chart/ EMR
■ Less than 20 hours total	0 hours - all extracted from EHR
■■ 21-40 hours	1 to 10 hours
41-60 hours	■■ 11 to 20 hours
61-80 hours	21 to 30 hours
81-100 hours	31 to 40 hours
101 hours or more	41 to 50 hours
	■ 51+ hours

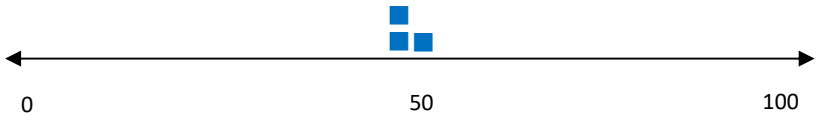
Additional time spent preparing for the data submission (e.g. file preparation, surveying, quality checks, submitting data file):	How many people in your medical group were involved in collecting and preparing the data for the pilot?
0 hours - all extracted from EHR	1
■ 1 to 10 hours	2
■■ 11 to 20 hours	■ 3
21 to 30 hours	■ 4
31 to 40 hours	■■ 5 or more
41 to 50 hours	
■ 51+ hours	

Question: Often during pilot testing, manual efforts are made to collect data without building in supportive technology to prompt the administration of PRO tools and electronic extraction of the information. Please rate the feasibility of this measure in your practices current environment:
[Scale 0 = easy/ feasible, 100 = extremely difficult/ not feasible]



Average 71; lower is better

Question: Thinking toward the future and possible electronic capabilities for your practice. Please rate the feasibility of this measure in your practices future environment:
[Scale 0 = easy/ feasible, 100 = extremely difficult/ not feasible]



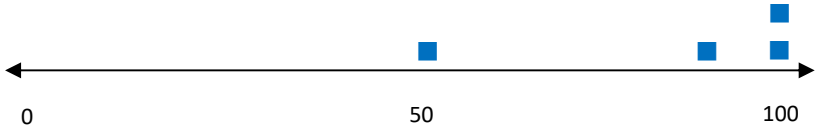
Average 49; lower is better

Individual Data Element Ratings
Very Easy = fully extractable data element, "as is"
Easy = extractable, but needs alteration
Difficult = in EMR, but not extractable, manual look-up
Very Difficult = manual abstraction, paper record

Data Element	Very Easy	Easy	Difficult	Very Difficult
Provider NPI Number	■■■■			
New Patient Visit Date	■■■		■	
Treatment Intent	■	■	■	
Emetic Risk	■			■■
Cycle 1 Day 1 Date	■■■		■	
Cycle 2 Day 1 Date	■■■		■	
Cycle 3 Day 1 Date	■■■		■	
Pain Frequency Values (tool)	■■		■	■
Pain Severity Values (tool)	■■		■	■
Pain Interfer Values (tool)	■■		■	■
Nausea Frequency Values (tool)	■■		■	■
Nausea Severity Values (tool)	■■		■	■
Constipation Severity Values (tool)	■■		■	■

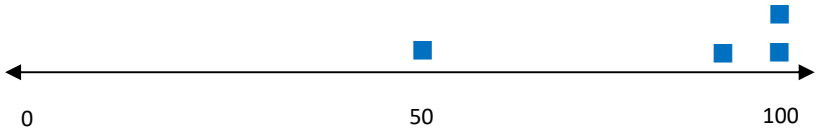
Measure Specifications and Assistance

Measure specifications are clear



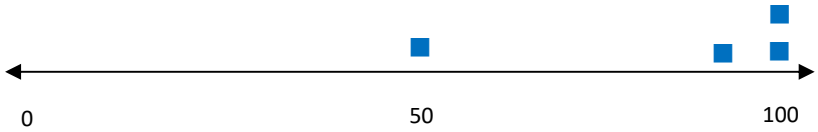
Average 84; higher is better

Field definitions are clear



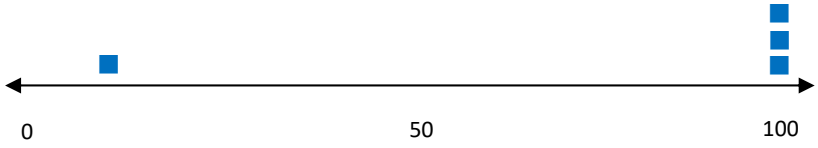
Average 85; higher is better

Data Collection Guide was helpful



Average 85; higher is better

MNCM Staff were helpful during the pilot testing and submission process



Average 85; higher is better