2025 Quality ID PIMSH16: Appropriate Antiemetic Therapy for High- and Moderate-Emetic-Risk Antineoplastic Agents in the Infusion Center

--**High Priority Type:** N/A
--**Measure Type**: Process

2025 COLLECTION TYPE:
QCDR-- Practice Insights by McKesson in Collaboration with The US Oncology Network

DATA SOURCE USED FOR THE MEASURE:
Practice Insights by McKesson in Collaboration with The US Oncology Network - QCDR - EHR: EHR (iKnowMed), including progress note and drug list.

DESCRIPTION:
Percentage of cancer patients aged 18 years and older treated with high- or moderate-emetic-risk antineoplastic agents in the infusion center who are administered appropriate pre-treatment antiemetic therapy

DENOMINATOR:
Denominator Criteria 1: All patients aged greater than or equal to 18 years diagnosed with cancer who receive their first ever high-emetic-risk antineoplastic agents during cycle 1 of any chemotherapy regimen

Denominator Criteria 2: All patients aged greater than or equal to 18 years diagnosed with cancer who receive their first ever moderate-emetic-risk antineoplastic agents during cycle 1 of any chemotherapy regimen

Denominator Guidance: For multi-drug regimens, select antiemetic therapy based on the drug with the highest emetic risk. For guidance on determining emetic risk, please refer to Table 1, Emetic Risk of Single Intravenous Antineoplastic Agents in Adults (Hesketh, et al., 2020, p. 2787).

DENOMINATOR EXCEPTION:
Denominator Exception Criteria 1: Patient allergy or intolerance to neurokinin 1 (NK1) receptor antagonist, serotonin (5-HT3) receptor antagonist, dexamethasone, or olanzapine

Denominator Exception Criteria 2: Patient allergy or intolerance to 5-HT3 receptor antagonist, or dexamethasone

DENOMINATOR EXCLUSION:
None

NUMERATOR:
Numerator Criteria 1: Patients who are administered prior to treatment a four-drug combination of a neurokinin 1 (NK1) receptor antagonist, a serotonin (5-HT3) receptor antagonist, dexamethasone, and olanzapine

Numerator Criteria 2: Patients who are administered prior to treatment a two-drug combination of a 5-HT3 receptor antagonist, and dexamethasone

Numerator Guidance: For the purposes of the measure, the following antiemetics would meet the measure:

- Antiemetics administered on the same day as cycle 1 day 1 of the therapy OR
- Any new or refill prescription order of antiemetics on the same day as cycle 1 day 1 of the therapy or within 89 days prior to cycle 1 day 1 of the therapy OR
- Any record of antiemetics as active on the medication list within 90 days prior to cycle 1 day 1 of the therapy

NUMERATOR EXCLUSION:

None

PERFORMANCE RATE DESCRIPTION:

The overall performance score submitted is a weighted average of: (Numerator 1 + Numerator 2)/(Denominator 1 + Denominator 2).

TELEHEALTH:

Not included

CLINICAL RECOMMENDATION STATEMENTS:

Recommendations for the use of high- and moderate-emetic-risk antineoplastic agents included in ASCO's 2020 antiemetic guideline are shown below (Hesketh et al., 2020, p. 2783).

High-emetic risk antineoplastic agents

- Adults treated with cisplatin and other high-emetic-risk single agents should be offered a 4-drug combination of an NK1 receptor antagonist, a serotonin (5-HT3) receptor antagonist, dexamethasone, and olanzapine (day 1). Dexamethasone and olanzapine should be continued on days 2 to 4 (Type: evidence based, benefits outweigh harms; Evidence quality: high; Strength of recommendation: strong).
- Adults treated with an anthracycline combined with cyclophosphamide should be offered a 4-drug combination of an NK1 receptor antagonist, a 5-HT3 receptor antagonist, dexamethasone, and olanzapine (day 1). Olanzapine should be discontinued on days 2 to 4 (Type: evidence-based, benefits outweigh harms; Evidence quality: high; Strength of recommendation: strong).

Moderate-emetic-risk antineoplastic agents

- Adults treated with carboplatin area under the curve (AUC) greater than or equal to 4 mg/mL/min should be offered a 3-drug combination of an NK1 receptor antagonist, a 5-HT3 receptor antagonist, and dexamethasone (day 1) (Type: evidence based; benefits outweigh harms; Evidence quality: high; Strength of recommendation: strong).
- Adults treated with moderate-emetic-risk antineoplastic agents (excluding carboplatin AUC greater than or equal to 4 mg/mL/min) should be offered a 2-drug combination of a 5-HT3 receptor antagonist and dexamethasone (day 1) (Type: evidence based, benefits outweigh harms; Evidence quality: high; Strength of recommendation: strong).

QCDR MEASURE RATIONALE:

Adherence to antiemetic guidelines has been linked to improved control of nausea and vomiting. In their prospective, observational, multicenter study, Aapro et al. (2012) note that the clinical uptake of antiemetic guidelines remains suboptimal, despite the availability of several updated evidence-based consensus guidelines for preventing chemotherapy-induced nausea and vomiting. Chemotherapy-induced nausea and vomiting may

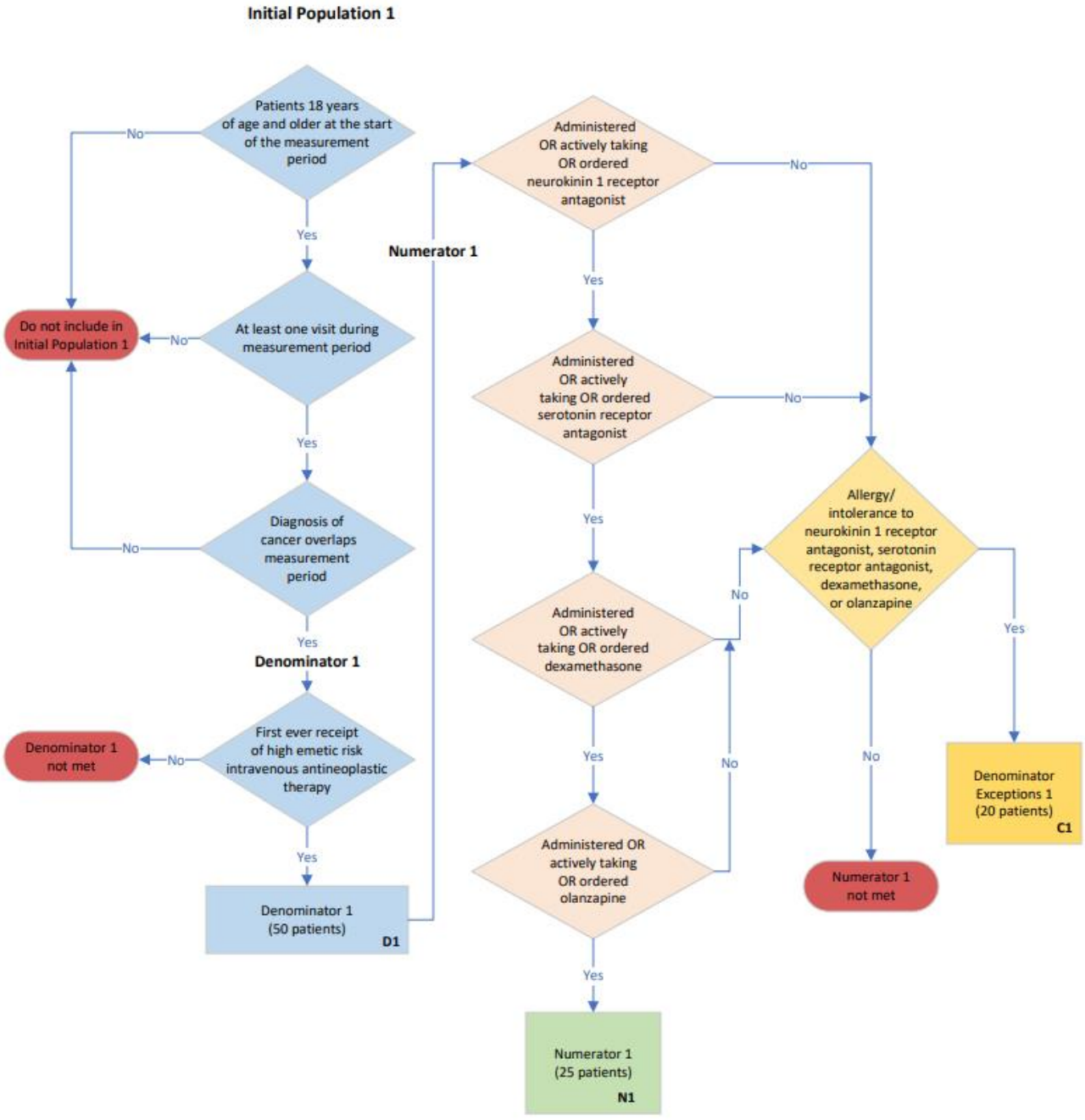
discourage patients from completing a chemotherapy regimen, adversely impacts quality of life and a patient's ability to carry out daily activities, and may require emergency care or hospitalization, adding to the economic burden of healthcare (Aapro et al., 2012).

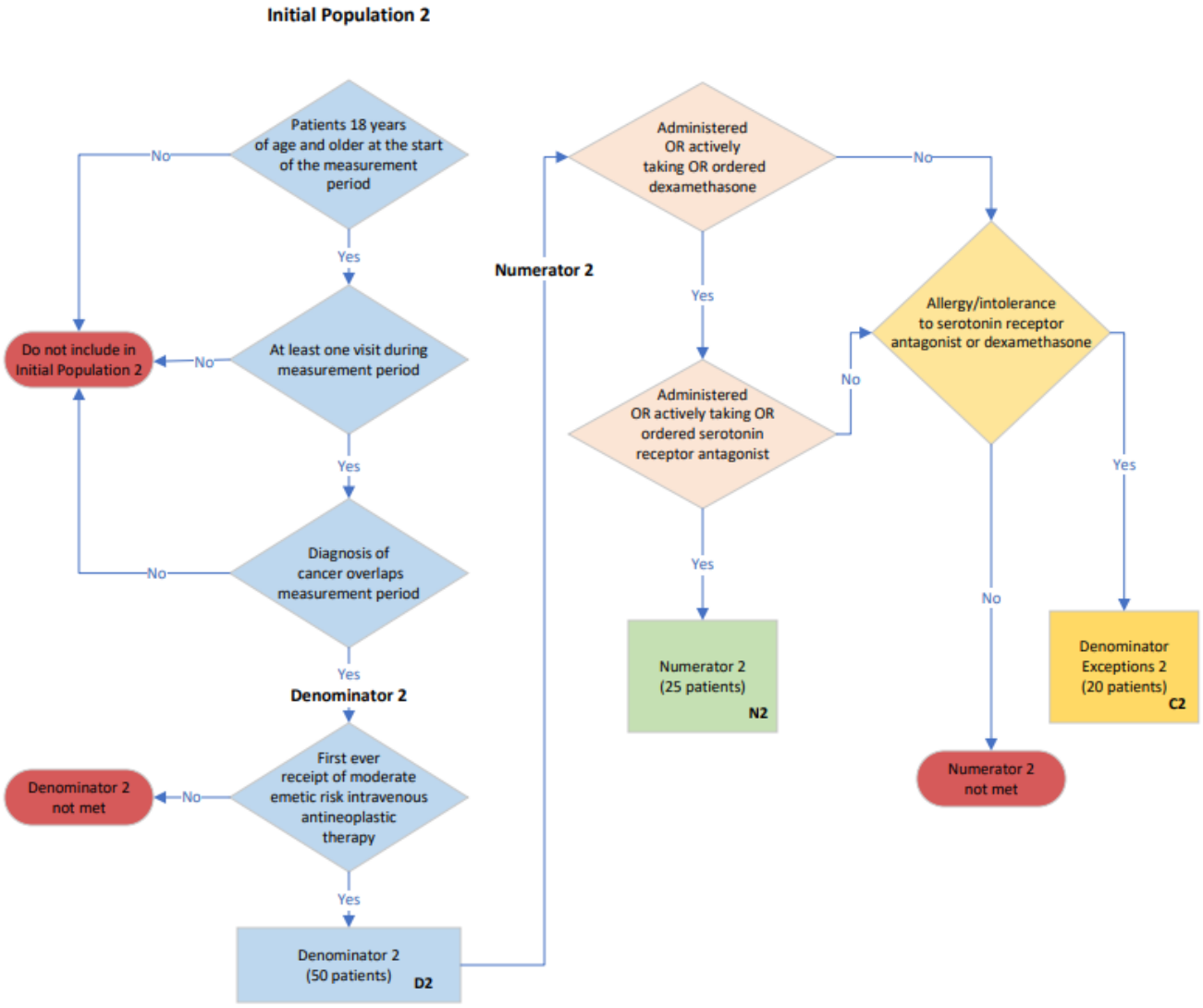
Additionally, chemotherapy-induced nausea and vomiting (CINV) carries an economic impact as a result of unplanned office visits, calls to the office, hydration therapy, and hospitalizations (Gilmore, et al., 2014). Preventing CINV from the start of chemotherapy is critical, as successful control in the acute phase (0-24 hours after chemotherapy) is associated with reduced incidence of CINV in the delayed phase (day 2 onward), control in cycle 1 is associated with reduced incidence in subsequent chemotherapy cycles, and patients who experience CINV may go on to develop anticipatory nausea and vomiting in later cycles (Gilmore et al., 2014).

The first ASCO guideline for antiemetics was published in 1999, with updates in 2006, 2011, 2015, 2017, and 2020. Recommendations for adults in the 2020 guideline update are unchanged with the exception of the option of adding olanzapine in the setting of hematopoietic stem cell transplantation. Evidence for the remaining recommendations is discussed in the 2017 guideline (Hesketh et al., 2020)

These performance measures are not clinical guidelines and do not establish a standard of medical care and have not been tested for all potential applications.

THE MEASURES AND SPECIFICATIONS ARE PROVIDED "AS IS" WITHOUT WARRANTY OF ANY KIND.





Sample Calculation

Performance Rate * (Population 1 and 2) =

$$\frac{\text{Numerator (N1 + N2= 50 patients)}}{\text{Denominator (D1 + D2= 100 patients) – Denominator Exceptions (C1 + C2 = 40 patients)}} = \frac{50}{60} = 83\%$$

*This eCQM is intended to have one performance rate.