

Definition(s)

Nausea: Queasy sensation and/or urge to vomit

Vomiting: The forceful expulsion of the contents of the stomach, duodenum, or jejunum through the oral cavity.

Focused Health Assessment

| PHYSICAL ASSESSMENT | SYMPTOM ASSESSMENT |
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| <p>Vital Signs</p> <ul style="list-style-type: none"> Frequency – as clinically indicated <p>Weight</p> <ul style="list-style-type: none"> Take current weight and compare to pre – treatment or last recorded weight <p>Hydration Status</p> <ul style="list-style-type: none"> Assess skin turgor, capillary refill, mucous membranes Amount and character of urine (Is patient urinating less than 400-500 ml per day? Is urine dark?) Level of consciousness? <p>Abdominal Assessment</p> <ul style="list-style-type: none"> Auscultate abdomen - assess presence and quality of bowel sounds Assess for abdominal pain, tenderness, distention <p>Emesis Examination</p> <ul style="list-style-type: none"> Inspect emesis for colour, consistency, quantity, odour and blood <p>Functional Status</p> <ul style="list-style-type: none"> Activity level/ECOG or PPS | <p>*Consider contributing factors</p> <p>Normal</p> <ul style="list-style-type: none"> Did you have nausea/vomiting prior to your treatment? Are you aware of any medications that you are taking that could cause nausea and vomiting (e.g. antibiotics) <p>Onset</p> <ul style="list-style-type: none"> When did the nausea and/or vomiting begin? How many episodes of vomiting in the last 24 hours? <p>Provoking / Palliating</p> <ul style="list-style-type: none"> What brings on the nausea and/or vomiting? Is there anything that makes the nausea/vomiting better? Or worse? <p>Quality</p> <ul style="list-style-type: none"> Describe the emesis Colour: (Visible blood, coffee ground, bile) Volume: Large Amount; (2+ cups), moderate amount (½ - 2 cups) small amount; (½ cup or less). Odour <p>Region / Radiation - NA</p> <p>Severity / other Symptoms</p> <ul style="list-style-type: none"> How bothered are you by this symptom? (On a scale of 0 – 10, with 0 being not at all and 10 being the worst imaginable) Have you been able to eat in the past 24 hours? Have you be able to tolerate fluids in the past 24 hours Do you have nausea with or without vomiting? Projectile vomiting? Have you had any other symptoms such as: Abdominal pain? Headache? Pain elsewhere? Passing gas? Constipation? - When was your last bowel movement? Blood/mucous in stool? Fever? - possible infection Dehydration?: Dry mouth, thirst, dizziness, weakness, dark urine? <p>Treatment</p> <ul style="list-style-type: none"> What medications or treatments have you tried? Has this been effective? <p>Value</p> <ul style="list-style-type: none"> What do you believe is causing your nausea? |

NAUSEA AND VOMITING GRADING SCALE

NCI CTCAE (Version 4.03)

| | <u>GRADE 1</u> (Mild) | <u>GRADE 2</u> (Moderate) | <u>GRADE 3</u> (Severe) | <u>GRADE 4</u> (Life Threatening) | GRADE 5 |
|-----------------|--|--|---|--|---------|
| Nausea | Loss of appetite without alteration in eating habits | Oral intake decreased without significant weight loss, dehydration or malnutrition | Inadequate oral caloric or fluid intake; tube feedings, TPN or hospitalization may be indicated | — | — |
| Vomiting | 1-2 episodes (separated by 5 minutes) in 24 hours | 3-5 episodes (separated by 5 minutes) in 24 hrs | ≥ 6 episodes separated by 5 minutes) in 24 hrs; tube feeding, TPN or hospitalization indicated | Life-threatening consequences; urgent intervention indicated | Death |

***Step-Up Approach to Symptom Management:
Interventions Should Be Based On Current Grade Level and Include Lower Level Grade Interventions As Appropriate**

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| NORMAL – GRADE 1 | GRADE 2 OR Nausea and Vomiting NOT resolving after 24 hours |
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| NON – URGENT | URGENT: |
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| Prevention, support, teaching, & follow-up as clinically indicated | Requires medical attention within 24 hours |
| Patient Care and Assessment | <ul style="list-style-type: none"> Provide instructions on how to take antiemetics, including dose and schedule. Rule out other causes of nausea and vomiting |
| Dietary Management | <p>Encourage:</p> <ul style="list-style-type: none"> Eat small, bland meals served cool. ie rice, crackers, toast. Sip water and other fluids -Aim for 8-10 glasses/day (coconut water, diluted juice, sports drinks, broth. Suck on ice chips, frozen fruit) Maintain oral hygiene Restrict fluids with meals <p>Nausea: try tea/smoothie made with grated ginger root, lemon zest or mint leaves, ginger candies, flat ginger ale.</p> <p>Vomiting: Avoid solid food for 30-60 minutes after vomiting has passed. Start eating and drinking slowly in this order: 1. Clear liquids (water, ice chips, watered down juice, broth, popsicles) 2. Dry starchy food (crackers, dry toast) 3. Protein rich foods (chicken, fish, eggs) 4. Dairy foods (yogurt, milk, cheese)</p> <p>Avoid:</p> <ul style="list-style-type: none"> alcohol and tobacco Avoid lying down after eating-sit upright 30-60 minutes <p>NOTE: If patient unable to tolerate adequate daily fluid intake, IV hydration or hypodermoclysis to replace lost fluid and electrolytes may be required</p> <p><i>For further Dietary Management See Oncology Nutrition Services in Resource Section</i></p> |

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| Non-Pharmacological Management | Modify environment (control smells and noise) <ul style="list-style-type: none"> Take a walk outside or breathe in fresh air through an open window If anticipatory nausea, consider distraction strategies such as relaxation, music, imagery or hypnosis (referral to patient and family counselling may be helpful for these interventions) Consider acupuncture—patient administered or acupuncture bracelet. Link: https://www.mskcc.org/cancer-care/patient-education/acupuncture-nausea-and-vomiting |
| Pharmacological Management | <ul style="list-style-type: none"> Avoid or discontinue any medications that may cause or exacerbate nausea and vomiting (in consultation with physician and pharmacist) Refer to protocol specific algorithm if patient is on Immunotherapy Instruct patient to initiate or continue medications according to instructions given Allow 30-60 minutes post antiemetic before eating Antiemetic medications that may be prescribed: Ondansetron, dexamethasone, metoclopramide, prochlorperazine Arpetiant for highly emetogenic chemotherapy Haloperidol Nozinan Dimenhydrinate suppository if unable to take orally Lorazepam may be prescribed for anticipatory nausea <p>For further Pharmacological Management See Cancer Management Guidelines (Health Professional) and Cancer Drug Manual in Resource Section OR THIS: Provide instructions on how to take antiemetic, including dose and schedule Any unnecessary medications contributing to nausea and vomiting should be discontinued (in consultation with physician and pharmacist) Select anti-nausea medication based on the cause of the nausea and vomiting, See Appendix B</p> <p>Examples:</p> <ul style="list-style-type: none"> <i>High Risk Chemotherapy induced:</i> add Aprepitant. Cannabis for refractory <i>Opioid-induced nausea:</i> Metoclopramide/domperidone. May remit w tolerance after 5-7 days..Suggest narcotic rotation and route switching <i>Brain metastases:</i> Dexamethasone <i>Vestibular causes:</i> Scopolamine, Dimenhydrinate <i>Anticipatory:</i> Prevention best option. Lorazepam <p>Caution:</p> <ul style="list-style-type: none"> Ondansetron and Domperidone: may increase risk of arrhythmia Metoclopramide: monitor for neurological/extrapyramidal side effects Olanzapine: increased fall risk with sedation and elderly Dexamethasone: reflux and insomnia <p>For further Pharmacological Management See Cancer Management Guidelines (Health Professional) and Cancer Drug Manual in Resource Section</p> |
| Patient Education | <p>Reinforce importance of accurately recording and reporting the following information:</p> <ul style="list-style-type: none"> Onset and number of emesis occurrences per 24 hours Fluid intake per 24 hours <p>Reinforce with patients when to seek immediate medical attention:</p> <ul style="list-style-type: none"> Temperature greater than or equal to 38° C Blood (bright red or black) in emesis, coffee ground emesis Severe cramping, acute abdominal pain (+/- nausea & vomiting) Dizziness, weakness, confusion, excessive thirst, dark urine. Projectile vomiting. Nausea and vomiting not improving with recommended strategies <p>Inform patient that isolation precautions may be required if symptoms worsen or infection suspected, patient may need to be isolated as per infection control (available to internal PHSA staff)</p> <p>Review contact numbers and access to resources</p> |
| Follow-Up | <p>Reassess in 24 hours, if symptoms not resolved provide further recommended strategies and repeat follow-up assessment within 24 hours.</p> <p>Follow up options:</p> <ul style="list-style-type: none"> Instruct patient/family to call back |

- Arrange for nurse initiated telephone follow-up or physician follow-up

GRADE 3 - GRADE 4



EMERGENCY:

Requires IMMEDIATE medical attention

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| Patient Assessment | <ul style="list-style-type: none"> • Patients with Grade 3 or 4 nausea and vomiting generally require admission to hospital – notify physician of assessment, facilitate arrangements as necessary • If patient is on Immunotherapy, remind them to present their Immunotherapy alert card. • Consult with physician • To rule out other causes or concomitant causes of nausea and vomiting • To hold chemotherapy until symptoms resolved • Lab tests that may be ordered: Complete blood count (CBC), electrolyte profile • Nursing Support • Monitor vital signs (as clinically indicated) • Physical assessment • Accurate intake and output record, include daily weight • Pain and symptom assessment and management as appropriate |
| Dietary Management | <ul style="list-style-type: none"> • IV hydration to replace lost fluids and electrolytes • Enteral or parenteral nutrition (TPN) may be indicated for some patients <p><i>For further Dietary Management See Oncology Nutrition Services in Resource Section</i></p> |
| Pharmacological Management | <ul style="list-style-type: none"> • Avoid/discontinue any medications that may cause or exacerbate nausea and vomiting (in consultation with physician and pharmacist) • Medications that may be prescribed intravenously: <ul style="list-style-type: none"> – Ondansetron (Zofran) – Metoclopramide – Prochlorperazine (Stemetil) – Haloperidol – Nozinan – Dexamethasone • Refer to protocol specific algorithm if patient is on Immunotherapy <p><i>For further Pharmacological Management See Cancer Management Guidelines (Health Professional) and Cancer Drug Manual in Resource Section</i></p> |
| Patient Education | <ul style="list-style-type: none"> • Provide support, reinforce to patients/family that nausea and vomiting can be effectively managed with prompt intervention • Continue to reinforce self care, review medications, lab /diagnostic testing with patients/family as appropriate • Discharge teaching as early as possible with patient/family |

RESOURCES & REFERRALS

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| Referrals | <ul style="list-style-type: none"> • Oncology Nutrition Services • Home Health Nursing • Patient Support Centre • Telephone Care for follow-up • Pain and Symptom Management/Palliative Care (PSMPC) |
| Health Professional Resources | <ul style="list-style-type: none"> • SCNAUSEA – Guidelines for preventing and treatment of Chemotherapy-Induced Nausea and Vomiting in Adults |
| Immunotherapy | <ul style="list-style-type: none"> • Immunotherapy Alert Card • Please refer to protocol specific algorithms to guide management of immune mediated side |

The information contained in these documents is a statement of consensus of BC Cancer professionals regarding their views of currently accepted approaches to treatment. Any clinician seeking to apply or consult these documents is expected to use independent medical judgement in the context of individual clinical circumstances to determine any patient's care or treatment. Use of these documents is at your own risk.

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| | effects. |
| Patient Education Resources | <ul style="list-style-type: none"> • Nausea & Vomiting handout • Practical tips to help manage nausea handout • Nutritional Guidelines for Anorexia handout • Increasing Fluid Intake handout • Resources about managing anxiety, progressive muscle relaxation, positive thinking, etc http://www.bccancer.bc.ca/health-info/coping-with-cancer/emotional-support/resources |
| BC Inter-professional palliative symptom management guideline | <ul style="list-style-type: none"> • https://www.bc-cpc.ca/cpc/symptom-management-guidelines/ |
| Bibliography List | <ul style="list-style-type: none"> • http://www.bccancer.bc.ca/health-professionals/clinical-resources/nursing/symptom-management |

| Contributing Factors | |
|--------------------------|---|
| Cancer Treatments | Chemotherapy: <i>For emetogenicity of chemotherapeutic agent, See Appendix A and Cancer Drug Manual in Resources Section</i> Immunotherapy/Biotherapy Radiation Therapy: Surgery/Anesthesia |
| Medication | <ul style="list-style-type: none"> • Antibiotics • Opioids &/or Opioid withdrawal • NSAIDs • SSRI antidepressants • Iron supplements • Anticonvulsants • Bronchodilators |
| Cancer Related : | <ul style="list-style-type: none"> • Cancer of the GI tract • Brain metastases/Increased ICP • Reduced GI motility, Bowel Obstruction, Chemotherapy induced (e.g. Vincristine) • Constipation • Vestibular dysfunction • Anxiety, anticipatory nausea • Hypercalcemia, hyperglycemia, hyponatremia • Gastritis • Infections • Uremia • Pain/Headache |
| Risk Factors: | <ul style="list-style-type: none"> • Female • Less than 50 years of age • Decreased risk for patients with a high chronic alcohol intake Lack of regular alcohol use • History of motion/morning sickness, chemotherapy induced emesis. |

Appendix A: Emetic Risk of Intravenous Antineoplastic Agents

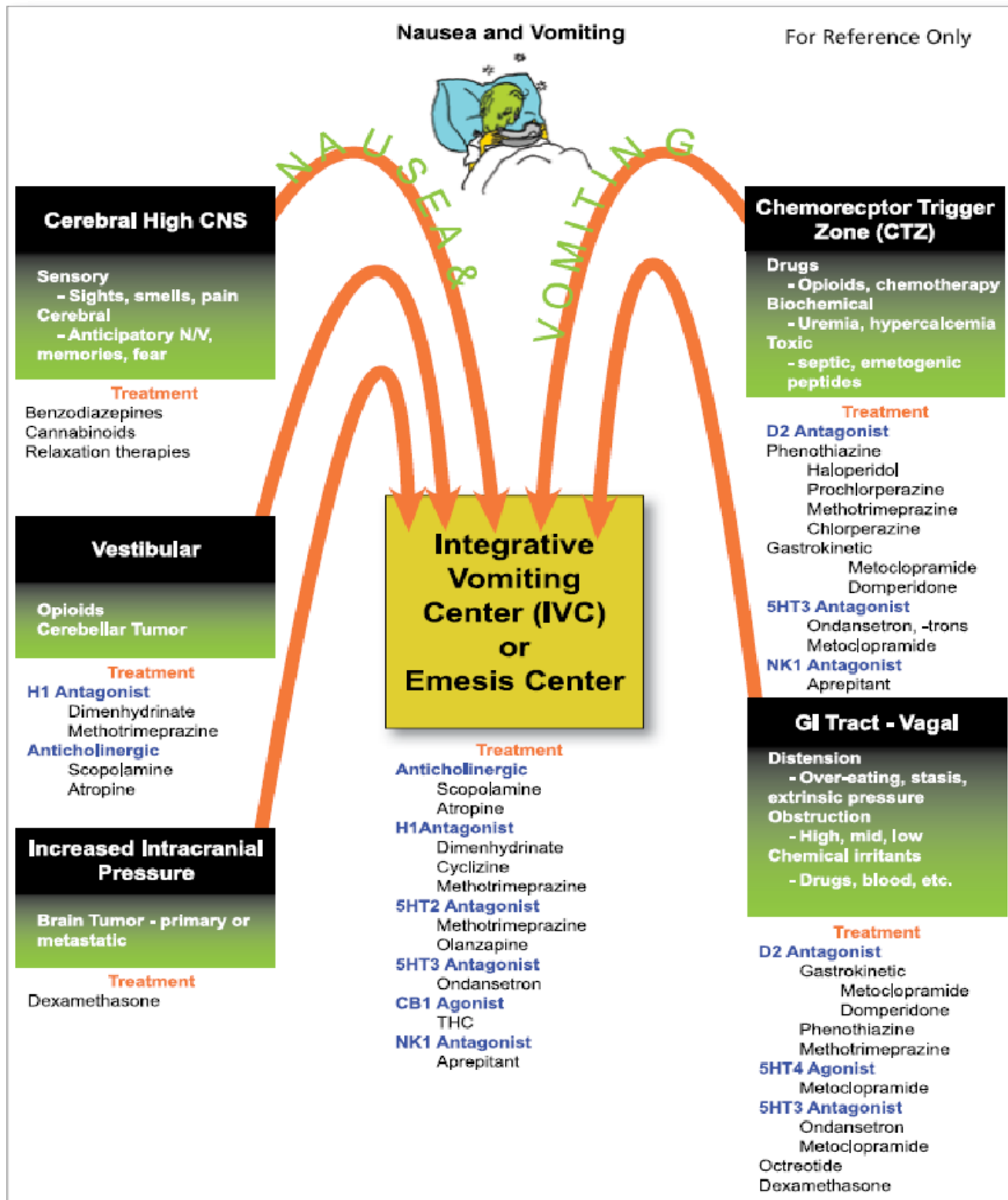
Adapted from ASCO Guidelines (2011)

| Emetic Risk of Antineoplastic Agents Administered Intravenously | | | |
|---|--|---|--|
| High | Moderate | Low | Minimal |
| <ul style="list-style-type: none"> • Carmustine • Cisplatin • Cyclophosphamide - greater than or equal to 1500mg/m² • Dacarbazine • Dactinomycin • Mechlorethamine • Streptozotocin | <ul style="list-style-type: none"> • Azacitidine • Alemtuzumab • Bendamustine • Carboplatin • Clofarabine • Cyclophosphamide less than 1500mg/m² • Cytarabine greater than 1000mg/m² • Daunorubicin* • Doxorubicin* • Epirubicin* • Idarubicin* • Ifosfamide • Irinotecan | <ul style="list-style-type: none"> • Fluorouracil • Panitumumab • Bortezomib • Pemetrexed • Cabazitaxel • Temsirolimus • Cytarabine greater than or equal to 1000mg/m² • Topotecan • Docetaxel • Doxorubicin-Liposomal • Etoposide • Gemcitabine • Ixabepilone • Methotrexate • Mitomycin • Mitoxantrone | <ul style="list-style-type: none"> • Cladribine • Bevacizumab • Bleomycin • Busulfan • Cetuximab • Fludarabine • Pralatrexate • Rituximab • Vinblastine • Vincristine • Vinorelbine |

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*** These anthracyclines when combined with cyclophosphamide, are now designated as high emetic risk**



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Contributing Authors:

Revised by: Jagbir Kaur, RN, MN (2018), Sara Gough, RN, MSN, CON(c) (2018), Ava Hatcher, RN BN (2014), Laura Rosene, RN (2020)
Created by: Vanessa Buduhan, RN MN; Rosemary Cashman, RN MSc(A), MA (ACNP); Elizabeth Cooper, RN BScN, CON(c); Karen Levy, RN MSN; Ann Syme RN PhD(C)

Reviewed by: Karen Huebert, RN BSN CON(c) (2014); Lindsay Van der Meer, BSc RD (2014)

