Nausea and Vomiting Care Pathway

Prevention

Assessment

Treatment

Prevention

Use anti-emetics according to emetic potential of planned chemotherapy:

- Minimal Emetic Risk
- Low Emetic Risk
- Moderate Emetic Risk
- High Emetic Risk

Use anti-emetics according to emetic potential of planned radiotherapy:

- Moderate Emetic Risk
- High Emetic Risk

Review patient's past experience and adjust anti-emetic prophylaxis accordingly

Assessment

Assess routinely using SSPedi

- **Mild Bother** (SSPedi score = a little)
- **Moderate Bother** (SSPedi score = medium)
- **Severe Bother** (SSPedi score = a lot or extremely)

Allocate resources based on severity of bother and according to the preferences and capabilities of the patient

Treatment and Resources

Anticipatory CINV

- Optimize acute and delayed CINV control
- Consider psychological interventions such as hypnosis, relaxation techniques or systematic desensitization → Consult psychiatry, psychology, social work, art therapy, chaplaincy, child life services, music therapy or recreational therapy
- Consider using lorazepam for secondary prevention
- Suggest ginger not be routinely used for secondary prevention
- Do not use clonidine for secondary prevention

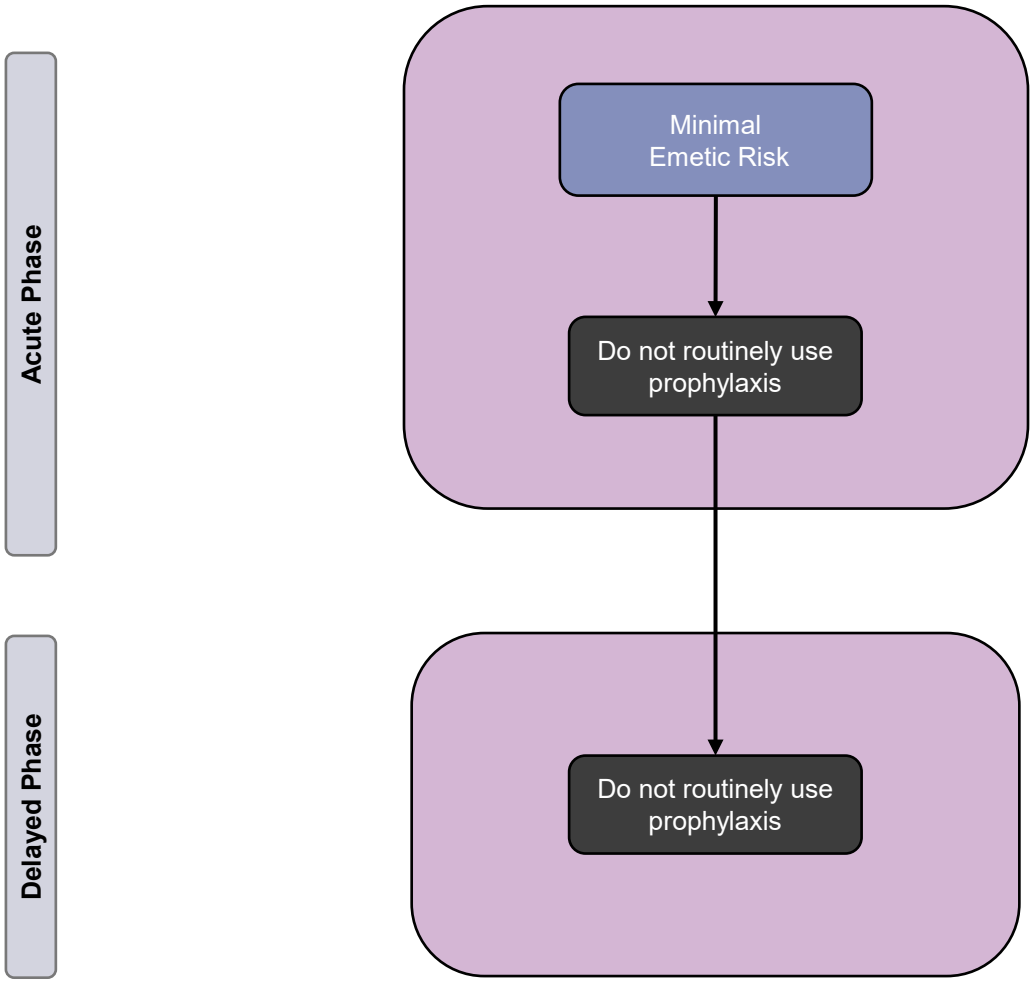
Breakthrough CINV

- Escalate prophylaxis to the next level of emetic risk (low, moderate, high)
- For patients receiving highly emetic chemotherapy, consider adding olanzapine
  If olanzapine not possible, consider methotrimeprazine or metoclopramide

Refractory CINV

- Escalate prophylaxis to the next level of emetic risk (low, moderate, high)
- Consider switching 5HT3s such as changing to granisetron or palonosetron
- Consider adding (fos)aprepitant regardless of concurrent chemotherapy
- Consider adding acupuncture or electroacupuncture

Nausea and Vomiting Care Pathway



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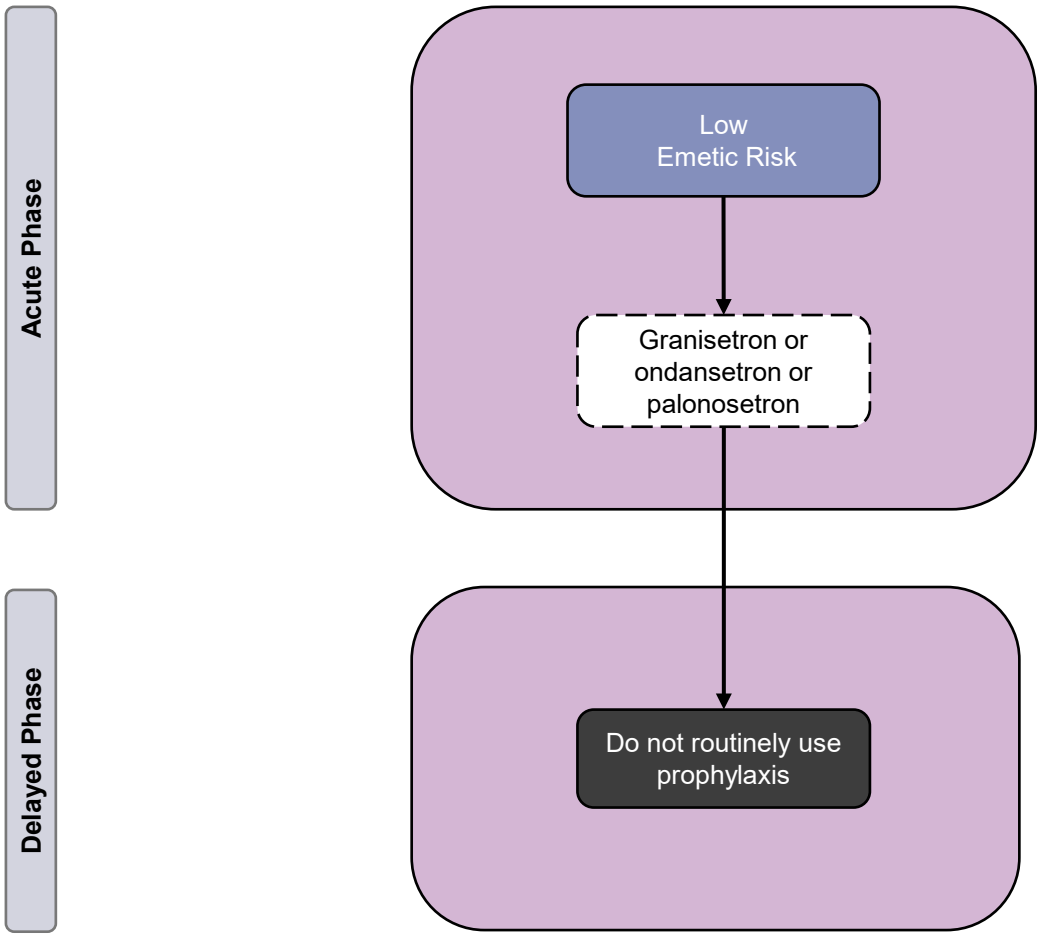

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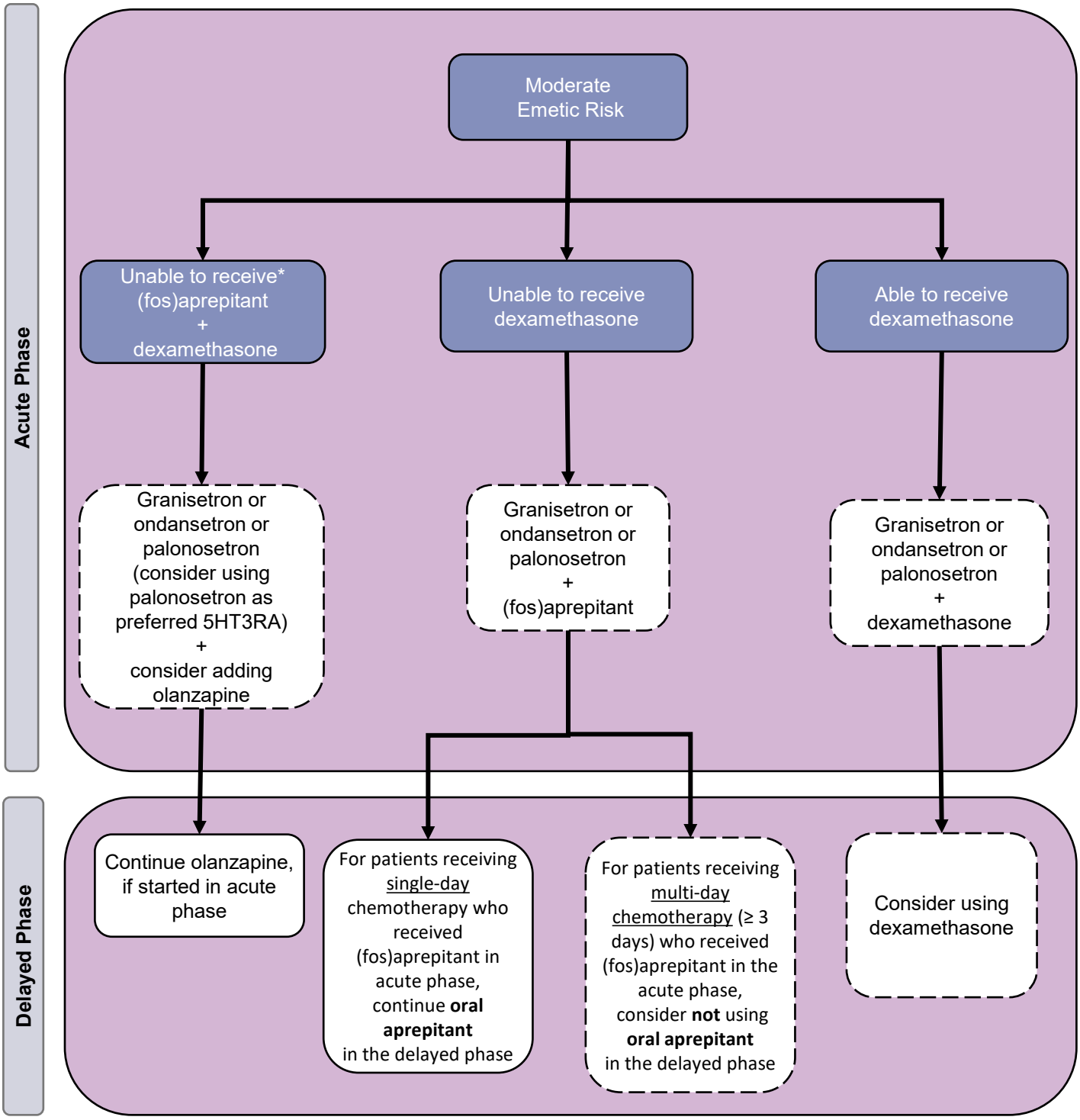

*** child <6 months old or receiving chemotherapy known or suspected to interact with (fos)aprepitant**

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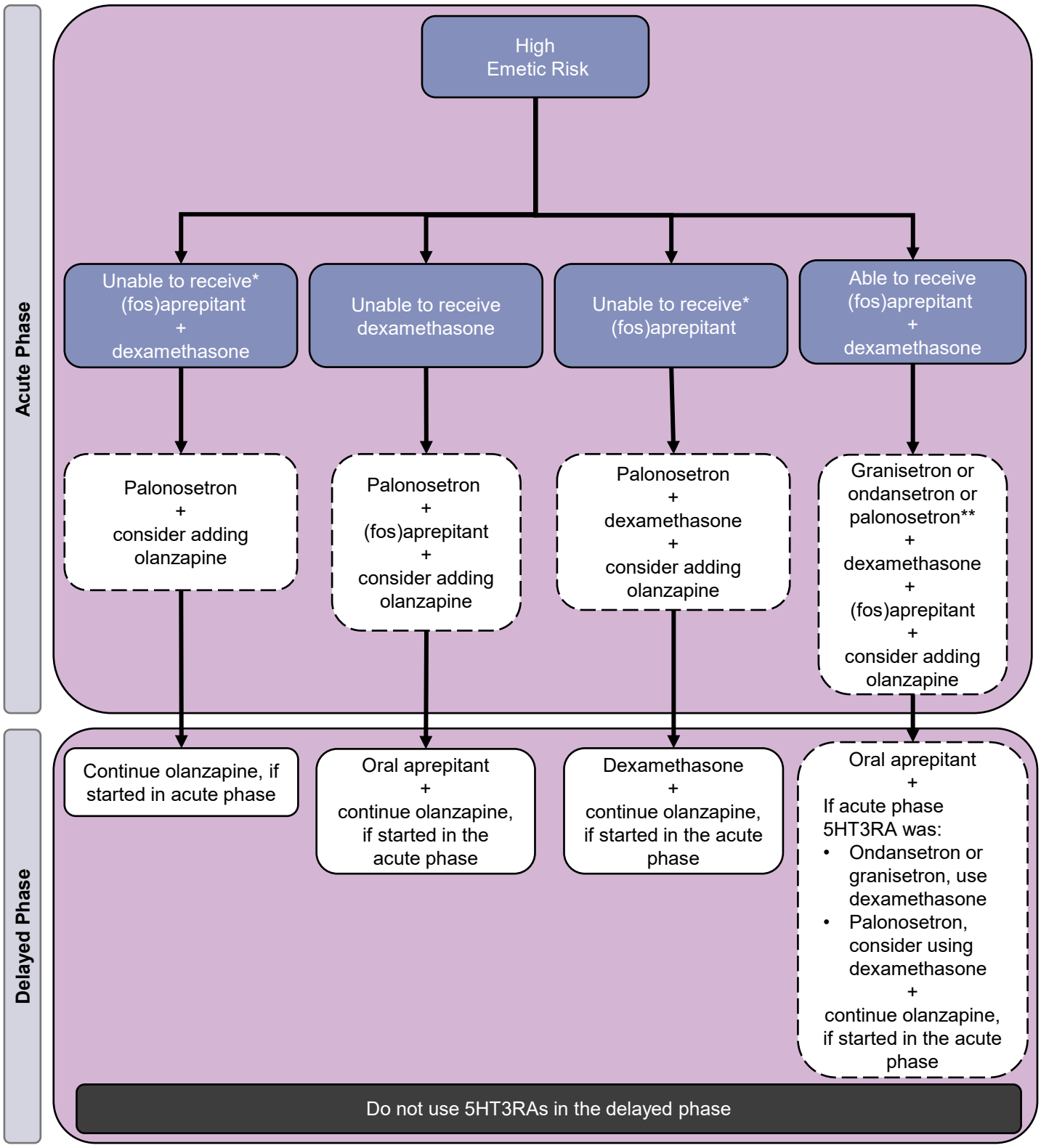

***child <6 months old or receiving chemotherapy known or suspected to interact with (fos)aprepitant**
****Use palonosetron in the acute phase as the preferred 5HT3RA in patients at high risk of delayed phase CINV**

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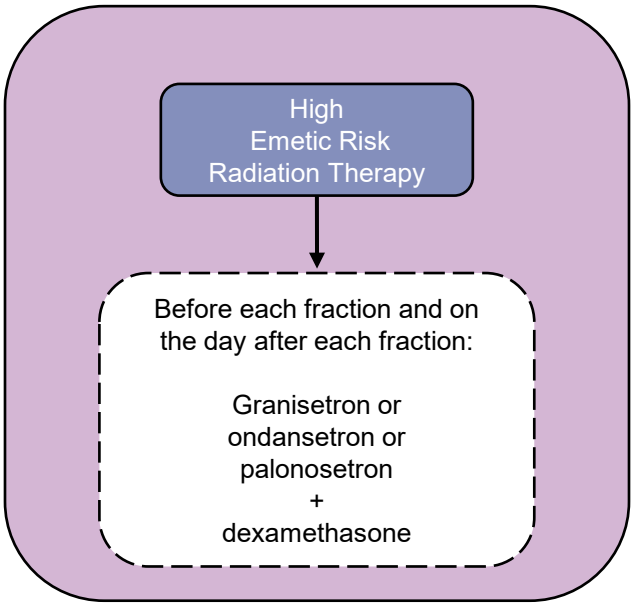

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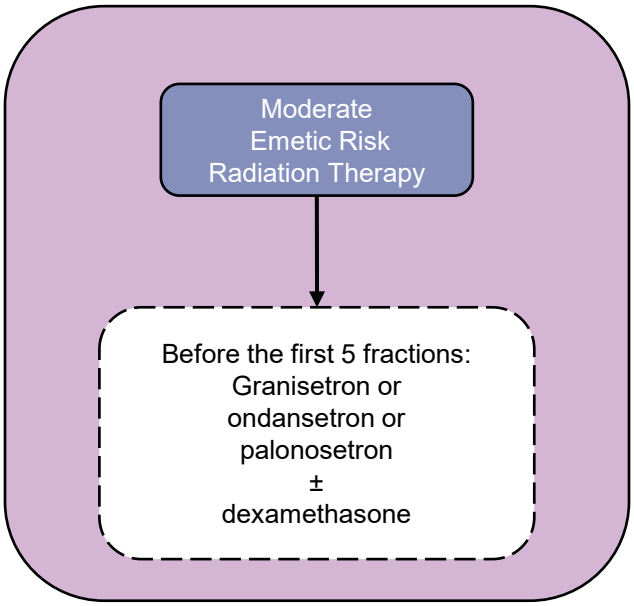

Nausea and Vomiting Care Pathway

Minimal Emetic Risk

Single-agent regimens:

- Asparaginase (E. *coli*) IM ≤ 6000 IU/m^2/dose
- Asparaginase (*Erwinia*) IM ≤ 25 000 IU/m^2/dose
- Chlorambucil ≤ 0.2mg/kg/day PO
- Doxorubicin IV 10 mg/m^2/dose
- Liposomal doxorubicin IV ≤ 50 mg/m^2/dose
- Mercaptopurine PO ≤ 4.2mg/kg/dose
- Methotrexate PO/SC ≤ 10 mg/m^2/dose
- Pracinostat PO 25–45 mg/m^2/dose
- Vincristine IV ≤ 1.5mg/m^2/dose

Multiple-agent regimens:

- Cisplatin ≤ 60 mg/m^2/dose intra-arterially + doxorubicin ≤ 30 mg/m^2/dose intra-arterially
- Cisplatin ≤ 60 mg/m^2/dose intra-arterially + pirarubicin ≤ 30 mg/m^2/dose intra-arterially
- Mercaptopurine PO ≤ 2.5mg/kg/dose + methotrexate PO ≤ 0.1mg/kg/day

Low Emetic Risk

Single-agent regimens:

- Cyclophosphamide IV 500 mg/m^2/dose
- Cyclophosphamide PO2–3 mg/kg/dose
- Dasatinib PO 60–120 mg/m^2/dose
- Erlotinib PO 35–150 mg/m^2/day
- Everolimus PO 0.8–9mg/m^2/day
- Gefitinib PO 150–500 mg/m^2/day
- Imatinib PO 260 mg/m^2/day
- Mafosfamide IT 1–6.5 mg/dose
- Melphalan PO 0.2 mg/kg/dose
- Mercaptopurine PO ≤ 4.2mg/kg/dose
- Methotrexate 38–83 mg/m^2/dose IV
- Mitoxantrone IV ≤ 33 mg/m^2/dose
- Procarbazine PO 50–100 mg/m^2/day
- Ruxolitinib PO 15–21 mg/m^2/dose
- Selumetinib PO 20–30 mg/m^2/dose
- Sorafenib PO 150–325 mg/m^2/dose
- Temozolomide PO 200 mg/m^2/dose

Multiple-agent regimens:

- Cytarabine IV 60 mg/m^2/dose + methotrexate IV 90 mg/m^2/dose

Moderate Emetic Risk

Single-agent regimens:

- Cyclophosphamide IV 1000 mg/m^2/dose
- Cytarabine IV 75 mg/m^2/dose
- Dactinomycin IV 10 µg/kg/dose
- Doxorubicin IV 25 mg/m^2/dose
- Gemtuzumab IV 3–9mg/m^2/dose
- Imatinib PO > 260 mg/m^2/day
- Interferon alpha IV 15–30 million U/m^2/day
- Ixabepilone IV 3–10 mg/m^2/dose
- Methotrexate IV 5 g/m^2/dose
- Methotrexate IT
- Topotecan PO 0.4–2.3 mg/m^2/day

Multiple-agent regimens:

- Cytarabine IV 100 mg/m^2/dose + daunorubicin IV 45 mg/m^2/dose + etoposide IV 100 mg/m^2/dose + prednisolone PO + thioguanine PO 80mg/m^2/dose
- Cytarabine 60 or 90 mg/m^2/dose + methotrexate 120 mg/m^2/dose
- Liposomal doxorubicin IV 20–50 mg/m^2/dose + topotecan PO 0.6mg/m^2/day

High Emetic Risk

Single-agent regimens:

- Asparaginase (*Erwinia*) IV ≥ 20,000 IU/m^2/dose
- Busulfan IV ≥ 0.8mg/kg/dose
- Busulfan PO ≥ 1mg/kg/dose
- Carboplatin IV ≥ 175 mg/m^2/dose
- Cisplatin IV ≥ 12 mg/m2/dose
- Cyclophosphamide IV ≥ 1,200 mg/m^2/dose
- Cytarabine IV ≥ 3g/m^2/day
- Dactinomycin IV ≥ 1.35 mg/m^2/dose
- Doxorubicin IV ≥ 30 mg/m^2/dose
- Idarubicin PO ≥ 30 mg/m^2/dose
- Melphalan IV
- Methotrexate IV ≥ 12 g/m^2/dose

Multiple-agent regimens:

- Cyclophosphamide ≥ 600 mg/m^2/dose + dactinomycin ≥ 1 mg/m^2/dose
- Cyclophosphamide ≥ 400 mg/m^2/dose + doxorubicin ≥ 40 mg/m^2/dose
- Cytarabine IV ≥ 90 mg/m^2/dose + methotrexate IV ≥ 150 mg/m^2/dose
- Cytarabine IV + teniposide IV
- Dacarbazine IV ≥ 250 mg/m^2/dose + doxorubicin IV ≥ 60 mg/m^2/dose
- Dactinomycin IV ≥ 900 µg/m^2/dose + ifosfamide IV ≥ 3 g/m^2/dose
- Etoposide IV ≥ 60 mg/m^2/dose + ifosfamide IV ≥ 1.2 g/m^2/dose
- Etoposide IV ≥ 250 mg/m^2/dose + thiotepa IV ≥ 300 mg/m^2/dose

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Emetic Risk of Planned Radiotherapy

Risk Level	Site
High (> 90%)	Total body irradiation
Moderate (30%-90%)	Upper abdomen, craniospinal irradiation
Low (10%-30%)	Brain, head and neck, thorax, pelvis
Minimal (< 10%)	Extremities, breast