Figure IV:
Management of Chemotherapy-induced Nausea and Vomiting (CINV) in Adults

Numerous and sometimes conflicting recommendations on the management of chemotherapy-induced nausea and vomiting (CINV) have been published. This is a summary of some published guidelines from CCO, ASCO, NCCN, MASCC, and ESMO.

1. Cancer Care Ontario (CCO) 2003, 2005
2. American Society of Clinical Oncology (ASCO) 2006
3. National Comprehensive Cancer Network (NCCN) 2010
4. Multinational Association for Supportive Care in Cancer (MASCC) 2008
5. European Society of Medical Oncology (ESMO) 2009

This summary is practical, but practitioners should be guided by their centre's current practice, clinical practice guidelines, manufacturers' guidelines as well as the needs of individual patients.

Hesketh Classification [a]

Hesketh et al originally classified chemotherapeutic agents into 5 levels of emetogenicity but this has recently been revised to include 4 levels. Although useful, it should be recognized that the classification is based on single agent intravenous therapy, and was not developed for chronically administered oral agents, high dose chemotherapy or combinations of emetogenic agents.

Refer to Emetogenic Potential of Individual Chemotherapeutic Agents

Summary Table

Hesketh Risk for regimen (1997)	Hesketh Risk (2008)	Risk of emesis		Pre chemotherapy				Post chemotherapy		
				Prochlorperazine or Metoclopramide	$5HT_3$ [6]	DEX[5]	APREP[4]	$5HT_3$ [6]	DEX[5]	APREP[4]
5	High [3]	>90%			√	20mg	√		8mg BID Days 2-4	Days 2-3
3-4	Moderate	31-90%	Anthracycline + Cyclophosphamide		√	8-12mg	√[2]		8mg QD Days 2-3[1]	Days 2-3[1]
			Other		√	√		Days 2-3[1]	8mg QD Days 2-3[1]	
2	Low	10-30%		√[1]		√[1] 4-8mg				
1	Minimal	<10%		-	-	-	-	-	-	-

1. Use <u>one</u> of the 2 indicated agents.
2. Data from 1 RCT but not all guidelines mandate.
3. Single day cisplatin based regimens (≥ 70mg/m^2 or refractory emesis with cisplatin)
4. The role of aprepitant in multiple day regimens with high emetic potential has not been defined. If used, must not be used for more than 3 days. Daily $5HT_3$ + dexamethasone may be appropriate.
5. Dexamethasone: Doses should be adjusted when given in combination with aprepitant, except when the corticosteroid is administered as an anticancer therapy (i.e. part of a chemotherapy regimen). Refer to **aprepitant** drug monograph.
6. $5HT_3$ antagonists available in Canada include dolasetron, granisetron and ondansetron.

<u>Note</u>: Treatment for anticipatory and breakthrough emesis is largely empirical. May consider benzodiazepines or dopamine receptor antagonists (i.e. domperidone, metoclopramide).

[a] J Clin Oncol 1997; 15: 103-109; Support Care Cancer 2005; 13: 80-4; NEJM 2008; 358(23): 2482-94.

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