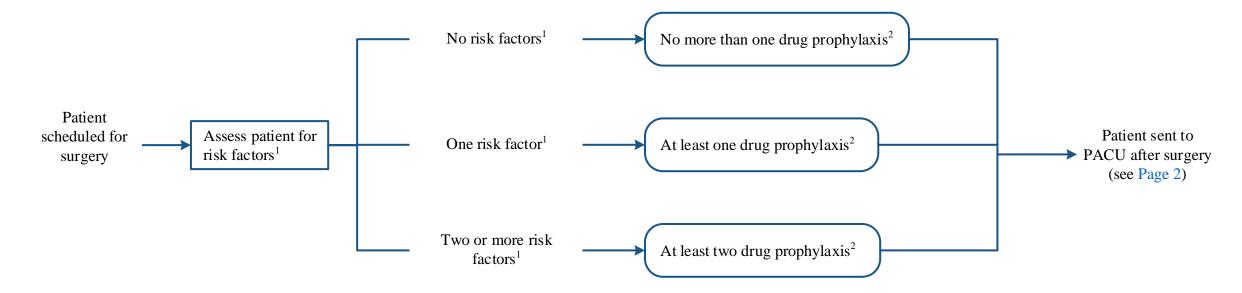
# Nausea/Vomiting Associated with Surgery - Adult

Page 1 of 6

Disclaimer: This algorithm has been developed for MD Anderson using a multidisciplinary approach considering circumstances particular to MD Anderson's specific patient population, services and structure, and clinical information. This is not intended to replace the independent medical or professional judgment of physicians or other health care providers in the context of individual clinical circumstances to determine a patient's care. This algorithm should not be used to treat pregnant women.

## PATIENT PRESENTATION

### **PROPHYLAXIS**



#### <sup>1</sup>MDACC risk factors

### • Patient specific risk factors:

- o Female gender
- o Non-smoking status
- $\circ$  History of post-operative nausea/vomiting (PONV) or motion sickness
- $\circ$  Age less than 50 years
- Anesthetic risk factors:
- o Use of volatile anesthetics
- o Post-operative opioids
- Surgical risk factors:
- o Duration of anesthesia greater than 3 hours
- o Type of surgery (abdominal, gynecologic, breast, head & neck surgery)

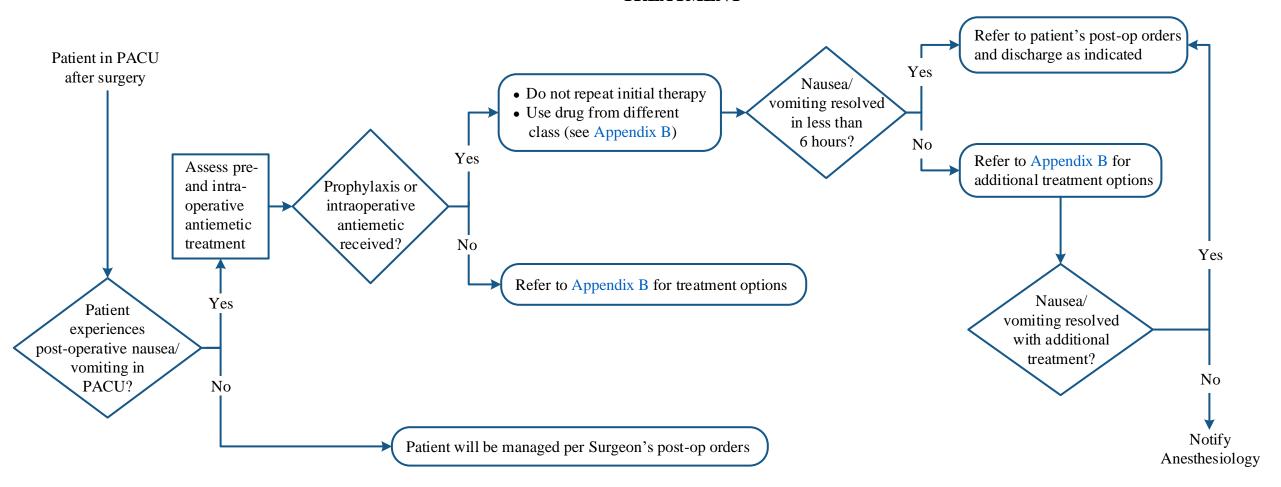
<sup>&</sup>lt;sup>2</sup> See Appendix A – Antiemetic Medication Options for Prophylaxis or Intraoperative Use



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### TREATMENT





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## APPENDIX A: Antiemetic Medication Options for Prophylaxis or Intraoperative Use

Drug	Dosage	Comments	
Anticholinergics Scopolamine Patch (Transderm Scop®)	1.5 mg disc placed behind ear at least 2 - 4 hours before surgery	<ul> <li>Caution in patients greater than 60 years old</li> <li>Patch may be applied the night prior to surgery</li> <li>If not discontinued prior to hospital discharge, patients should be instructed in the safe removal and disposal of the patch</li> </ul>	
Benzodiazepines Midazolam (Versed®)	35 - 75 mcg/kg IV	May be given pre-operatively or intra-operatively	
Butyrophenones Droperidol (Inapsine®) <sup>1</sup>	0.625 mg IV	<ul> <li>Most effective if given at the end of surgery</li> <li>Requires 2 - 3 hours of EKG monitoring</li> <li>Avoid in patients with prolonged QTc interval</li> </ul>	
Haloperidol (Haldol®)	1 mg IV	<ul> <li>Risk of QTc prolongation precludes its use as a first-line agent</li> <li>Alternative to droperidol</li> </ul>	
Corticosteroids Dexamethasone	4 mg IV	Give shortly after <b>induction</b> Avoid in labile diabetic patients	
Neurokinin-1 Receptor Antagonists Aprepitant (Emend®)	40 mg PO	Give within 3 hours before the induction of anesthesia	
Phenothiazines  Promethazine (Phenergan®)	6.25 mg IV	<ul> <li>Give shortly after induction</li> <li>6.25 mg dose may require a second dose after 15 minutes; may repeat up to 3 times for a maximum dose of 25 mg</li> <li>Should not be used in children less than or equal to 2 years old</li> <li>Risk of QTc prolongation</li> </ul>	
Prochlorperazine (Compazine®)	5 - 10 mg IV	<ul> <li>Give at the end of surgery</li> <li>Risk of QTc prolongation</li> </ul>	
Serotonin Antagonists Ondansetron (Zofran®)	4 mg IV	<ul> <li>Give at the end of surgery</li> <li>Risk of QTc prolongation increases with increasing dose</li> </ul>	
Granisetron	0.35 - 3 mg IV	<ul> <li>Give at the end of surgery</li> <li>For patients with history of delayed (post-discharge) post-operative nausea and vomiting</li> <li>Risk of QTc prolongation</li> </ul>	

<sup>&</sup>lt;sup>1</sup> Availability varies based on supply Copyright 2020 The University of Texas MD Anderson Cancer Center



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### **APPENDIX B: Antiemetic Medication Options for Treatment or Rescue**

Drug	Dosage	Comments
Serotonin Antagonists Ondansetron (Zofran®)	First Line Agent 2 mg IV	• Risk of QTc prolongation increases with increasing dose
Phenothiazines Promethazine (Phenergan®)	Second Line Agents 6.25 mg IV	<ul> <li>6.25 mg dose may require a second dose after</li> <li>15 minutes; may repeat up to 3 times for a maximum dose of 25 mg</li> <li>Risk of QTc prolongation</li> </ul>
Prochlorperazine (Compazine®)	5 - 10 mg IV	• Risk of QTc prolongation
Butyrophenones  Droperidol (Inapsine®) <sup>1</sup>	<b>Third Line Agents</b> 0.625 mg IV	<ul> <li>Requires 2 - 3 hours of EKG monitoring</li> <li>Avoid in patients with prolonged QTc interval</li> </ul>
Haloperidol (Haldol®)	1 mg IV	<ul> <li>Risk of QTc prolongation precludes its use as a first-line agent</li> <li>Alternative to droperidol</li> </ul>
<b>Prokinetic</b> Metoclopramide (Reglan®)	<b>Rescue</b> 10 mg IV	

#### **Notes:**

- When nausea and vomiting occur post-operatively, treatment should be administered with an antiemetic from a DIFFERENT pharmacologic class than the drug given for prophylaxis initially
- Re-dosing should only occur if greater than or equal to 6 hours has elapsed since the last dose from that class was given

<sup>&</sup>lt;sup>1</sup> Availability varies based on supply



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Page 6 of 6

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### **DEVELOPMENT CREDITS**

This practice consensus statement is based on majority expert opinion of the Nausea and Vomiting experts at the University of Texas MD Anderson Cancer Center for the patient population. These experts included:

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