

Charting a New Course: The Impact of EHR Optimization on the Administration of PONV Prophylaxis
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Disclosures

No conflicts of interest to disclose

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Background

- The Apfel score is a clinically useful predictor of PONV risk

Risk Factors	Points
Female Gender	1
Non-Smoker	1
History of PONV and/or Motion Sickness	1
Postoperative Opioids	1
Sum of points	0-4

Gan, Tj et al. Fourth Consensus Guidelines for the Management of Postoperative Nausea and Vomiting. *Anesthesia & Analgesia* 131(2):p 411-448, August 2020.

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Apfel score auto-calculated from discreet demographic and preop assessment fields

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Responsible Provider: (none)

Important (1)

Patient has 3 or more risk factors for PONV

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PONV risk score: Total Score: 4

1 Y AN PONV PATIENT SEX FEMALE
1 Y AN PONV SMOKING STATUS
1 Y AN PONV HISTORY OR MOTION SICKNESS
1 ALL-INT JUDGED OPIOID ADMINISTRATION

Base prophylaxis on risk score:
• No risk factors: at least 1 antiemetic agent
• 1-2 risk factors: at least 2 antiemetic agents
• 3-4 risk factors: at least 3-4 antiemetic agents

Antiemetic Options: 5HT₃ receptor antagonists, dexmedetomidine, diphenhydramine, anticholinergics, total intravenous anesthesia, anticholinergics, NK-1 receptor antagonists

Address Site List of Fourth Consensus Guidelines for the Management of Postoperative Nausea and Vomiting. *Anesth Analg*. 2020

Administer antiemetics

Acknowledge Reason (Required)

Dismiss

Screenshot of Intraoperative Reminder triggered for patients at moderate or high risk of PONV (Apfel score >1)

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PONV Prophylaxis Before and After BPA Introduction

Number of Prophylactic Antiemetics Administered

Pre-h intervention (blue bars), Post-h intervention (grey bars)


Low Risk (Apfel Score 0) Moderate Risk (Apfel Score 1-2) High Risk (Apfel Score 3-4)

Mean # prophylactic antiemetics administered before & after introduction of EHR reminder triggered by Apfel score. Error bars represents SEM.

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PONV Prophylaxis Before and After Introduction of Apfel-score based EHR Alert



	Pre-intervention Number of Prophylactic Antiemetics Administered (STDEV)	Post-intervention Number of Prophylactic Antiemetics Administered (STDEV)	P-value
Moderate Risk (Apfel Score 1-2)	1.79 (0.71)	1.84 (0.9)	p < 0.001
High Risk (Apfel Score 3-4)	2.1 (0.89)	2.46 (1.07)	p < 0.0001

Mean # prophylactic antiemetics administered pre-intervention and post-intervention

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Thank you!



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