

Determine the number of risk factors for PONV using simplified risk score from Apfel.

| RISK FACTORS | POINTS |
|------------------------------|--------|
| Female Gender | 1 |
| History PONV/Motion Sickness | 1 |
| Non-smoker | 1 |
| Post-operative Opioids | 1 |
| Risk Score = sum | 0...4 |

Base prophylaxis on risk score with combinations that have different mechanisms of action.

| RISK SCORE | PREVALENCE PONV | PROPHYLAXIS: # ANTIEMETICS | EXAMPLES |
|------------|-----------------|----------------------------|---|
| 0 | 10% | 0-1 | ± Ondansetron 4mg |
| 1 | 20% | 1 | Ondansetron 4mg ± Dexamethasone 4mg |
| 2 | 40% | 2 | Ondansetron 4mg + Dexamethasone 4mg ± TDS vs. Promethazine 6.25mg vs. Diphenhydramine 12.5mg |
| 3 | 60% | 3 | Ondansetron 4mg + Dexamethasone 4mg + TDS vs. Promethazine 6.25mg vs. Diphenhydramine 12.5mg ± Propofol infusion |
| 4 | 80% | 4 | Ondansetron 4mg + Dexamethasone 4mg + TDS vs. Promethazine 6.25mg vs. Diphenhydramine 12.5mg ± Propofol infusion |

NOTE: One medication may be given for each risk factor, but at least two medications should routinely be given if three or more risk factors and inhalational anesthesia.

Consider additional strategies to reduce PONV baseline risk including:

Regional anesthesia instead of general anesthesia

Adequate hydration

Propofol for induction and maintenance

Avoid/minimize use of nitrous oxide, volatile anesthetics, and postop opioids.

For treatment, choose medication with different MOA/therapeutic class than the prophylactic already given.

1. Haloperidol 0.5mg IV
2. Promethazine 6.25mg IV (if neither Promethazine nor Diphenhydramine given pre/intraoperative)
3. Propofol 20mg IV - PACU by anesthesia team member only (may be short-lived)

If PONV occurs within 6 hours postoperatively, patients should not receive a repeat dose of the prophylactic antiemetic. An emetic episode more than 6 hours postoperatively can be treated with any of the drugs used for prophylaxis except dexamethasone, transdermal scopolamine (TDS), or aprepitant.

Approximate cost to BS&W for anti-nausea medications (Patients may see bill up to 3x institutional cost):

| MEDICATION | DOSAGE FORM | COST (Mar 2015) |
|-------------------|-------------------------|-----------------|
| Aprepitant | 40mg tab | \$70.00 |
| Dexamethasone | (4mg/mL) – 5mL vial | \$0.69 |
| Diphenhydramine | (50mg/mL) – 1mL vial | \$0.55 |
| Haloperidol | (5mg/mL) – 1mL vial | \$0.75 |
| Ondansetron | (2mg/mL) – 2mL vial | \$0.35 |
| Propofol | (10mg/mL) – 20mL vial | \$2.20 |
| Propofol | (10mg/mL) – 50mL vial | \$5.51 |
| Promethazine | (25mg/mL) – 1mL vial | \$0.70 |
| Scopolamine (TDS) | 1.5mg transdermal patch | \$18.00 |