



County of Santa Cruz

HEALTH SERVICES AGENCY

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EMERGENCY MEDICAL
SERVICES PROGRAM

Protocol No. M4-P

April 1, 2012

Emergency Medical Services Program

Approved

Medical Director

Subject: MANAGEMENT OF NAUSEA AND VOMITING

I. BLS Treatment Protocol:

- A. Treat life threats. (See Policy 4000).
- B. Pay particular attention to maintaining a patent airway, and protecting the patient from aspiration.
- C. Consider underlying causes for nausea/vomiting, and treat as appropriate.¹
- D. Attempt non-invasive methods of reducing nausea/vomiting, including reducing environmental stimulation, providing fresh air, applying oxygen, reducing unpleasant odors, and using distracting techniques.
- E. Prepare for transport/transfer of care.

II. ALS Treatment Protocol:

- A. Treat life threats. (See Policy 4000).
- B. Pay particular attention to maintaining a patent airway, and protecting the patient from aspiration.
- C. Consider underlying causes for nausea/vomiting, and treat as appropriate.¹
- D. Ondansetron 0.1 mg/kg IV/IO/IM to a total of 4 mg, two years of age or more, or Orally Disintegrating Tablet (ODT) as follows:
 - 2 – 3 years of age – 2 mg ODT
 - 4 years and up – 4 mg ODT
- E. For patients > 40 kg, may repeat to a total of 8 mg IV/IO/IM/ODT.
- F. Transport.
- G. Contact Base Station as needed.

Notes:

- Ondansetron is safe for pregnancy
- Ondansetron rarely causes sedation, and is typically well tolerated by all ages of patients.
- Remember that nausea/vomiting is a symptom. Be aware of underlying causes.
- Zofran is contraindicated in patients with diagnosed Long QT Syndrome, and for those who are currently taking Amiodarone, Haldol, Methadone, Procainamide, or Seroquel.

¹ Common causes of nausea vomiting include administration of narcotics, car sickness, head injury, toxic ingestion, abdominal pain of varying etiologies, gastroenteritis, acute myocardial infarction, stroke. Consider co-administration of ondansetron with morphine sulfate, particularly in those patients with a history of nausea/vomiting with previous administrations.

Zofran (Ondansetron)

- Class:** Antiemetic (serotonin 5-HT₃ receptor antagonist)
- Action:** Reduces vagus nerve activity, diminishing activation of the vomiting center in the medulla. Blocks serotonin receptors in the chemoreceptor trigger zone.
- Indication:** Nausea/Vomiting
- How Supplied:** 2 mg/ml in 2 ml vial, or as 4 mg Orally Disintegrating Tablet (ODT)
- Dosing:** Adults: 4 mg IV/IO/IM or 4 mg ODT to a total dose of 16 mg.
Pediatrics: 0.1 mg/kg IV/IO/IM to a total of 4 mg, two years of age or more, or ODT as follows:
- 2 - 3 years of age – 2 mg ODT
- 4 years and up – 4 mg ODT
For pediatric patients > 40 kg, may repeat dosing to a total of 8 mg IV/IO/IM/ODT.
- Onset:** Three to five minutes IV/IO, 5 – 10 minutes ODT/IM.
- Duration:** Peak duration is 4 hours.
- Contra-Indications:**
- Patient less than 2 years of age ODT.
 - Patients with allergies to ondansetron, or other 5-HT₃ antagonists such as Granisetron
 - Patients with Long QT Syndrome, and for those taking Amiodarone, Methadone, Procainamide, Serequel, or Haldol.
- Adverse Reactions:**
- Tachycardia
 - Hypotension
 - Syncope (with rapid administration)
- Comments**
- Rarely causes sedation
 - Side effects/adverse reactions uncommon
 - IV/IO administration should occur slowly, over at least 1 minute

AMIODARONE

- Class-** Antidysrhythmic
- Action-** Prolongs refractory period, Blocks Na⁺, Ca⁺⁺ channels
Alpha & Beta (adrenergic) blocker.
- Indication-** Rapid ventricular rate in atrial arrhythmias (refractory PSVT, atrial tach, atrial fib), VF/ pulseless VT, Stable VT.
- Dose/ Route-**
 - Stable VT: 150mg over 10 min MR q 10 min followed by 1mg/ min infusion.
 - VF / Pulseless VT: 300mg rapid IVP MR 150mg in 3-5 min.
- Peds Dose-**
 - SVT / Stable VT: 5mg/kg over 20min.
 - VF / Pulseless VT: 5mg/kg IV / IO.
- Contra-** Hypersensitivity to the drug
2nd & 3rd degree heart blocks
Bradycardia
- Adverse-
Effects**
 - CV= bradycardia, hypotension, negative inotropy
 - RESP= pulmonary toxicity (pneumonitis, aveolitis)
 - SKIN= photosensitivity
- Precautions-**
 - Monitor EKG & VS
 - Slow or stop infusion if significant hypotension or bradycardia occurs
 - Ca channel blockers & beta blockers may potentiate sinus bradycardia, sinus arrest or AV block.
- Supplied-** 50mg/ml