

# Ondansetron

*Zofran*

Nausea/Vomiting Protocol

NorCal EMS

# Training Program

- The training program for paramedics on this module will include:
- Overview and description of the nausea/vomiting protocol
- Description, use, indications and contraindications of the medication.
- Medication safety
- ALS Protocol
- CQI Process
- Written Evaluation

# The History of Zofran

- Zofran was developed around 1984 by scientists working at Glaxo's laboratories in London.
- The FDA approved of its use in the USA in 1991.

# What is ondansetron?

- Trade name is Zofran.
- Zofran is used to prevent and treat nausea and vomiting.
- Zofran has been primarily used to prevent N/V in cancer patients.

# How does it work?



- Zofran blocks the actions of chemicals in the body that can trigger nausea and vomiting.
- Zofran is a serotonin 5-HT<sub>3</sub>receptor antagonist.
- One part is to reduce the activity of the vagus nerve.
- The vagus nerve activates the vomiting center in the medulla oblongata.
- Zofran does NOT have an effect on the dopamine or muscarinicreceptors.

# Zofran's Effects on Diseases

- Schizophrenia: A 2006 trial indicated that Zofran may have value in the treatment of schizophrenia, as an adjunct to haloperidol.
- Parkinson's: Studies have indicated that Zofran may be a possible treatment for psychosis resulting from advanced Parkinson's disease.
- Alcoholism: Zofran has been found to lower the cravings for alcohol, especially in early onset alcoholics.

# Zofran Protocol

## Indications:

- Treat intractable vomiting
- Prevent and control nausea and vomiting in adults and pediatrics:
  1. resulting from motion sickness
  2. from pain medication

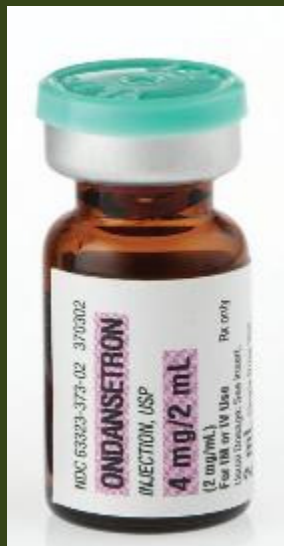
# Adverse Effects

- Zofran is a well tolerated drug with few side effects.
- Headache, constipation and dizziness are the most common.
- There have been no significant drug interactions reported with Zofran.
- Unusual but possible side effects include: fatigue, diarrhea and blurred vision.
- May cause syncope if given rapidly IV.
- Prolonged QT segment has been reported, observe patient on cardiac monitor.



# How Supplied?

- 4mg sublingual wafer
- 2mg/ml in 2 ml vial (total = 4mg)



# Dosages

- Adult Dose: 4mg increments, may give up to 12 mg
- Route: IV/IO, IM, ODT
- When giving IV, give slowly over 30 seconds
- Contact base hospital physician if additional doses are needed
- Consider other treatable causes.
- Pediatric Dose: 4mg
- Route: IV/IO, IM, ODT
- Pediatric Max dose is 4mg, contact base hospital physician if additional doses are needed

## Other info:

- Unlike other antiemetics, Zofran typically doesn't cause sedation.
- Peak plasma concentrations of the drug occur 10 minutes after IV doses, and 40 minutes after IM injection.
- Positive reactions should occur within 3-5 minutes with both routes.
- All routes have the same mean elimination half-life of four hours.

# Treat suspected causes of nausea/vomiting:

- Nausea/vomiting may be a symptom of coronary artery syndrome and a 12 lead EKG is indicated.
- Prolonged vomiting may cause severe dehydration especially in pediatrics or compromised adults.
- Treat for signs of shock according to shock protocol as indicated.
- Rule out ingestion or poisoning as a cause of Nausea/vomiting.

# Medication safety

## Five rights

- 1. Right patient
- 2. Right drug
- 3. Right route
- 4. Right dose
- 5. Right time



# Documentation:

- Complete a skills/meds usage form and forward to NorCal EMS within 7 calendar days.

# Questions???

