

Guiding Principle: Treat the patient's nausea/vomiting if it is affecting their quality of life.

Step 1: Consider the underlying causes of nausea, and address as appropriate:

- Metabolic disturbances (eg. uremia)
- Medications (eg. opioids, SSRI antidepressants)
- Gastrointestinal disturbances (eg. constipation, delayed gastric emptying)
- See: Constipation Guideline

Step 2: Consider non-pharmacological management:

- Manage/avoid constipation (See: Constipation Patient Handout)
- Encourage good oral hygiene
- Offer smaller amounts of food more frequently and adjust timing of meals as necessary. Eat slowly
- Do not drink alcohol. Try to drink fluids 30-60 minutes before or after meals instead of with meals
- Minimize aromas (cooking odours, perfumes, smoke, etc.)
- Avoid foods that are greasy, spicy, or excessively sweet
- Encourage patient to relax in an upright position after eating to facilitate digestion
- Apply a cool damp cloth to forehead or nape of neck
- Suggest loose fitting clothing
- Consider complementary therapies such as relaxation, imagery, acupressure, or acupuncture, and the use of ginger
- See: Nausea & Vomiting Patient Handout

Step 3: If the patient continues to report nausea +/- vomiting, consider pharmacological options:

The below suggestions have been dose-adjusted for the ESKD patient and some of the medications are being used off-label for nausea.

The choice of an anti-emetic should take the following into consideration:

- 1. Severity of nausea/vomiting
- 2. Degree of kidney failure and patient's overall condition

Stable Disease | Mild/Moderate Nausea | GFR > 5

The primary goal is to balance the control of nausea and vomiting with the careful protection of function and cognition.

• **Ondansetron (Zofran)** 4 mg PO TID (Can titrate to 8 mg PO TID). Ondansetron (Zofran) can be constipating and there are challenges with giving it SC due to availability of injectable concentrations and injection volumes.

NOTE: If nausea is due to gastroparesis, consider Metoclopramide as first choice before using Ondansetron.

IF ineffective:

- o consider replacing with:
 - Metoclopramide (Metonia) 2.5 mg PO/SC q4h ATC and/or PRN*

Metoclopramide (Metonia) crosses the blood-brain barrier and stimulates the CTZ. Extrapyramidal symptoms are possible.

IF nausea persists:

- o Consider replacing with:
 - Haloperidol (Haldol) 0.5 mg PO/SC q8h ATC and q4h PRN* Haloperidol (Haldol) has a higher risk of extrapyramidal symptoms than metoclopramide (Metonia) and Olanzapine (Zyrexa).
 - Olanzapine (Zyprexa) 2.5 mg PO q8h ATC and q4h PRN* It is available in an orally disintegrating formulation but still needs to be absorbed via the lower GI tract.

Deteriorating and/or Pre-Terminal| Severe, Persistent Nausea | GFR < 5

Symptom control may start to take precedence over the risks to function and cognition. This should be discussed with the patient and family.

IF previous options were ineffective:

Consider increasing: Haloperidol (Haldol) to 1 mg PO/SC q8h ATC and q1h PRN (to a maximum 5 mg in 24 hours)

IF previous options were ineffective:

• Consider adding or replacing with: **methotrimeprazine (Nozinan)** 6.25 mg SC q8h ATC (5 mg PO)



• **NOTE**: Increasing the dose of methotrimeprazine (Nozinan) may lead to levels of drowsiness that the patient may find unacceptable. This should be discussed with the patient before the dose is increased.

Haloperidol (Haldol), metoclopramide (Metonia), and olanzapine (Zyprexa) are all dopamine antagonists – avoid prescribing them together. They can also exacerbate Restless Legs Syndrome (See: Restless Legs Syndrome Guideline)

There are special considerations at End of Life (See: End of Life Nausea and Vomiting Guideline).

Conservative Kidney Management Acronym Legend

Acronym:	Intended Meaning:
ATC	Around the Clock
BID	Twice Daily
CKD	Chronic Kidney Disease
СКМ	Conservative Kidney
	Management
COPD	Chronic Obstructive
	Pulmonary Disease
CO2	Carbon Dioxide
EOL	End of Life
ESA	Erythropoietin Stimulating
	Agent
ESKD	End Stage Kidney Disease
GFR	Glomerular Filtration Rate
GI	Gastrointestinal
g/L	Grams per litre
HgB	Hemoglobin
IN	Intranasal
IU	International Units
IV	Intravenous
kg	Kilogram
mcg	Microgram
mg	Milligram
mL	Millilitre

Acronym:	Intended Meaning:
mmol/L	Millimole per Litre
OTC	Over the Counter
PO	By Mouth
PRN	As Needed
NSAID	Non-steroidal Anti-
	inflammatory Drugs
q(1-8)d	Every (Time Eg, 2) Days
q(1-8)h	Every (Time Eg, 4) Hours
q(1-8)weeks	Every (Time Eg. 2) Weeks
QHS	At Bedtime
RLS	Restless Leg Syndrome
SC	Subcutaneous
SL	Sublingual
SNRI	Serotonin and
	Norepinephrine Reuptake
	Inhibitors
SSRI	Selective Serotonin
	Reuptake Inhibitors
TCA	Tricyclic Antidepressant
TID	Three Times a Day
>	Greater Than
≥	Greater Than or Equal To
<	Less Than
≤	Less Than or Equal To