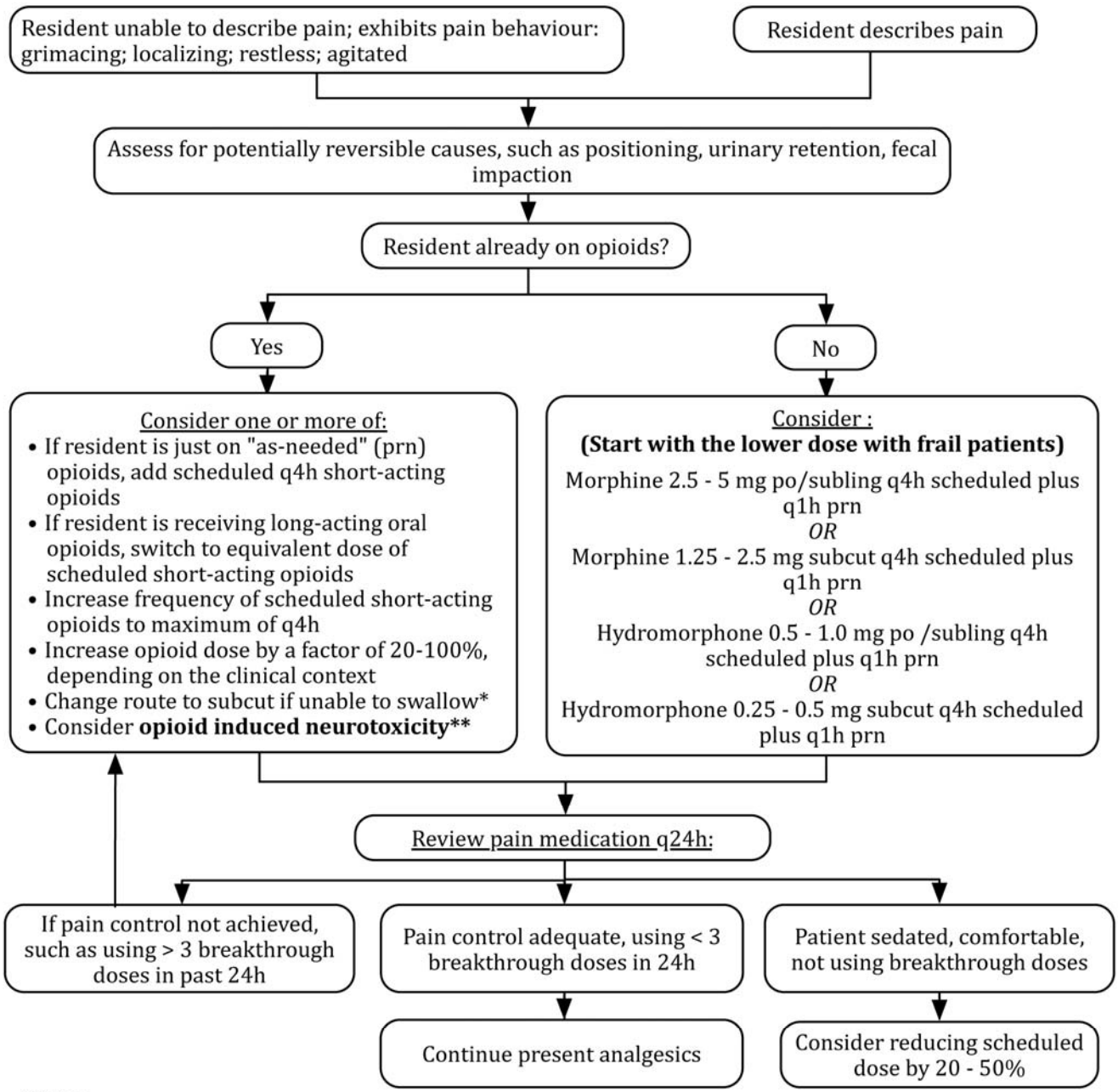
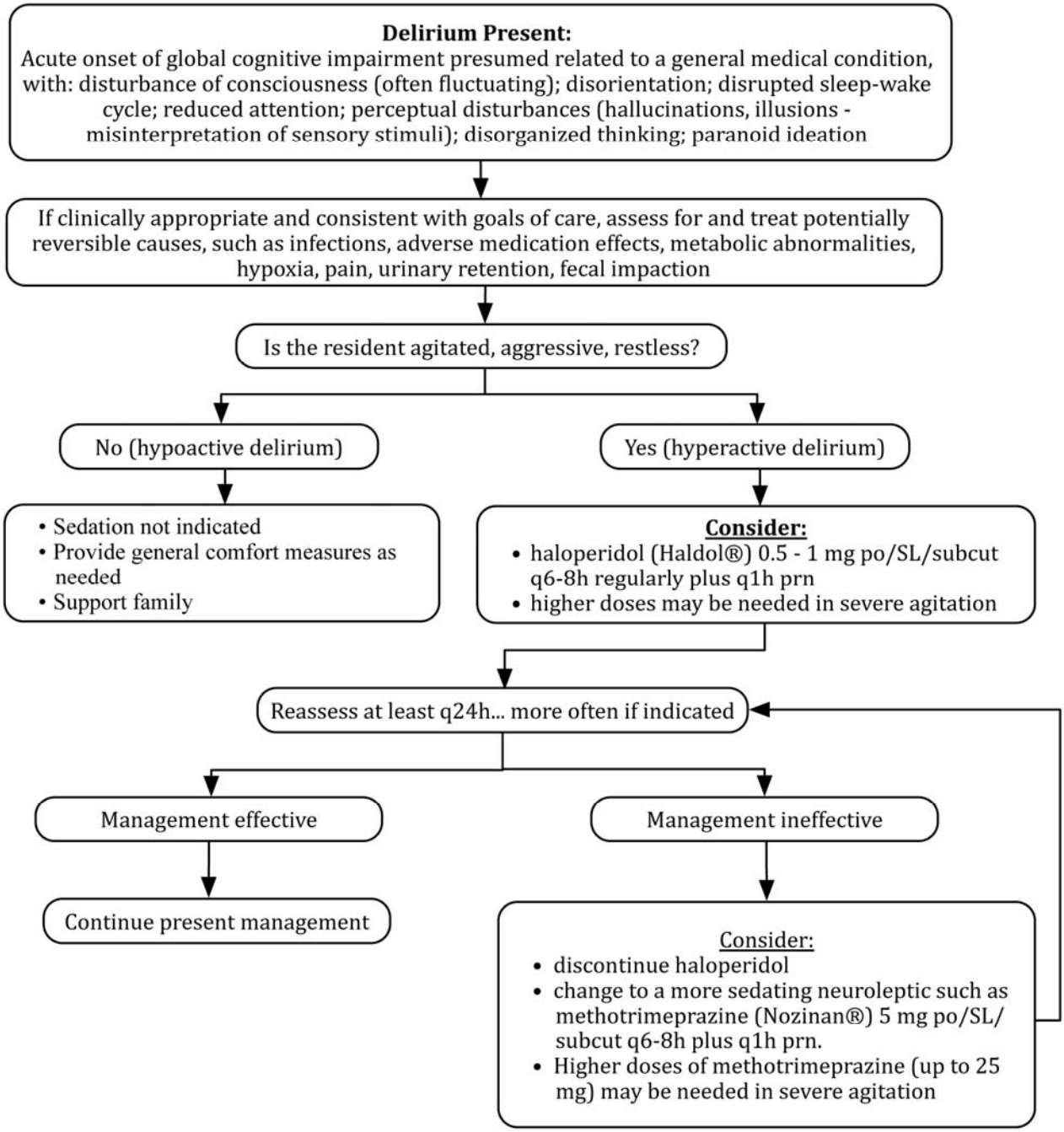
Pathway A
Pain Management In The Final Days Of Life



Notes:

- * Subcut opioids are twice as potent as oral; reduce by 50% dose switching from oral to subcut
- ****Opioid-induced neurotoxicity** typically results from accumulation of morphine or hydromorphone metabolites in the context of renal insufficiency. Symptoms include sedation, delirium, myoclonus (which may progress to seizures), and generalized hyperalgesia. There is often a context of rapid escalation of morphine or hydromorphone doses out of proportion to the previous pain history, in response to the hyperalgesia that the opioids themselves are causing. This is a life-threatening emergency, and a Palliative Care Physician should be immediately contacted through St. Boniface General Hospital paging (237-2053)
- Breakthrough doses are at least 10% of the total daily opioid dose, or equal to the regular q4h dose
- In renal insufficiency, consider hydromorphone rather than morphine in the short term (fentanyl or methadone long term)
- Adverse effects of opioids include sedation, constipation, delirium, and respiratory depression (rare when opioids titrated in proportion to distress)
- Contact Palliative Care Team (237-2400) if symptoms complex or persisting or if converting strong opioids
- See the *WRHA Pain Assessment And Management Clinical Practice Guideline* for further information

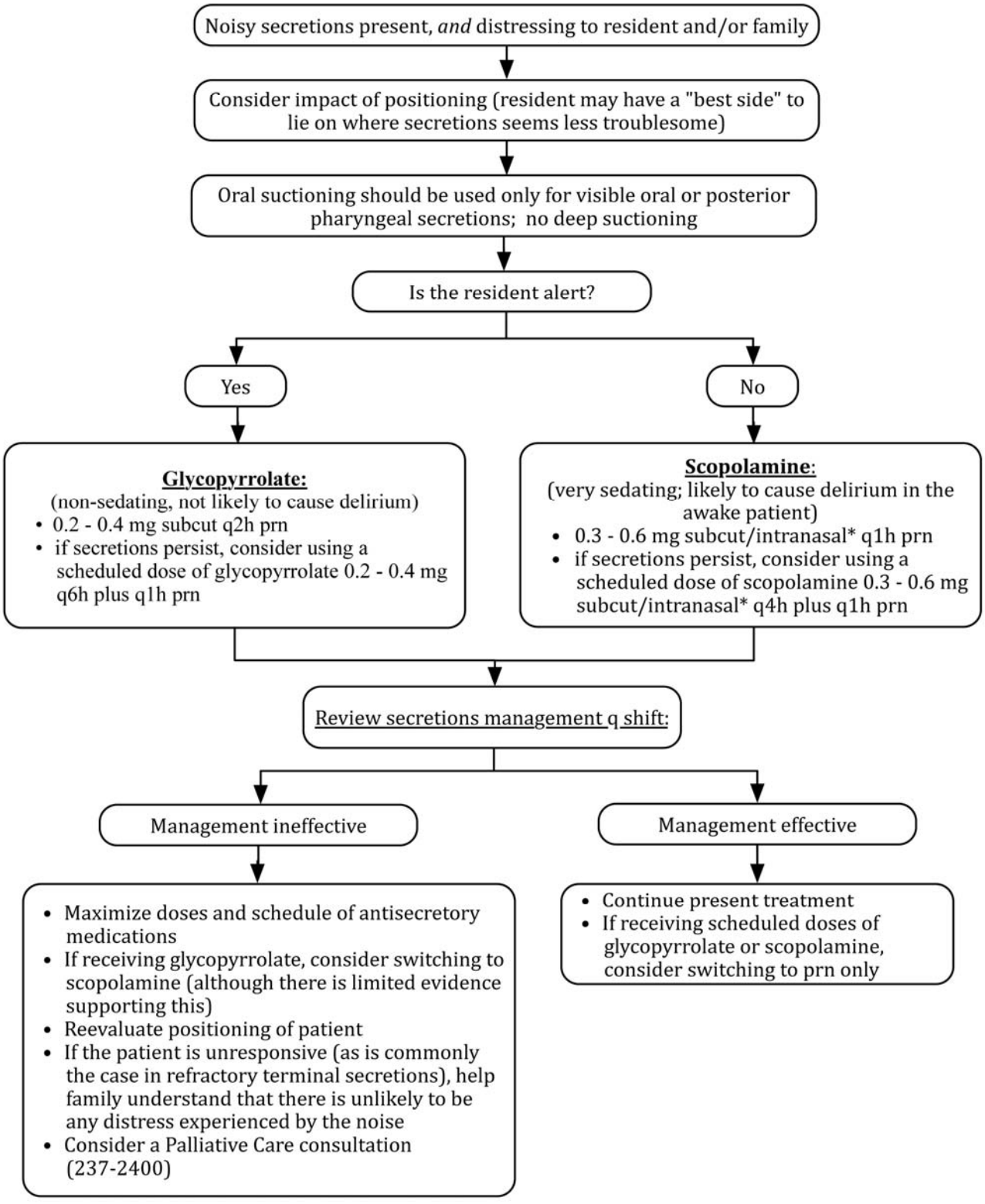
Pathway B
Management of Agitated Delirium In The Final Days Of Life



NOTE:

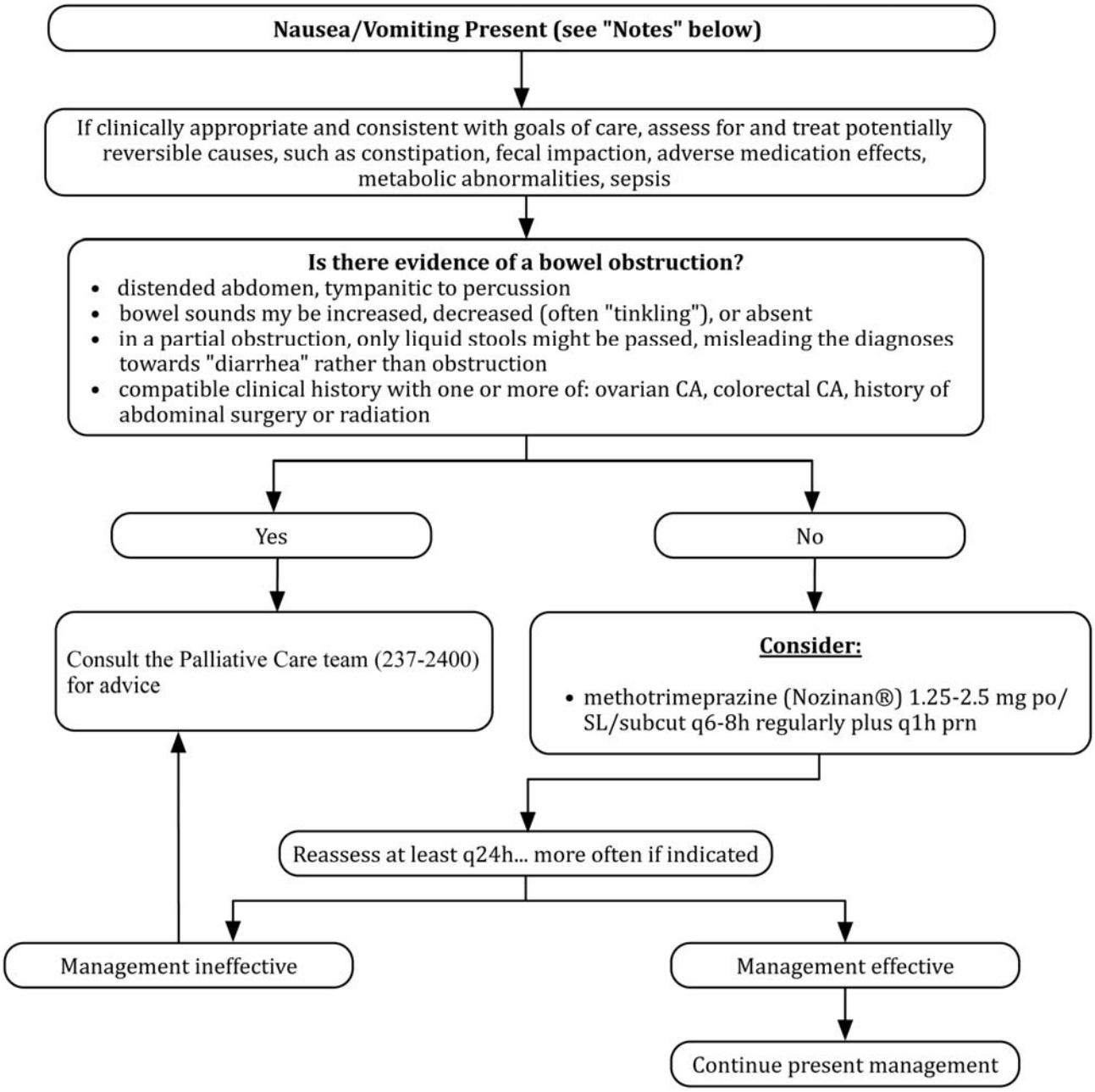
- If agitated delirium symptoms persist or with severe agitation, call the Palliative Care Program at 237-2400
- Sublingual (SL) administration uses small volumes (< 2ml) of concentrated preparations. Even in unconscious patients these small volumes are swallowed reflexively, and act as oral agents

Pathway C
Management of Noisy Secretions In The Final Days Of Life



*NOTE: There is limited data on intranasal scopolamine use, however it is likely preferable for secretions to the transdermal scopolamine patch (Transderm-V®), which delivers a relatively small dose at a slow rate

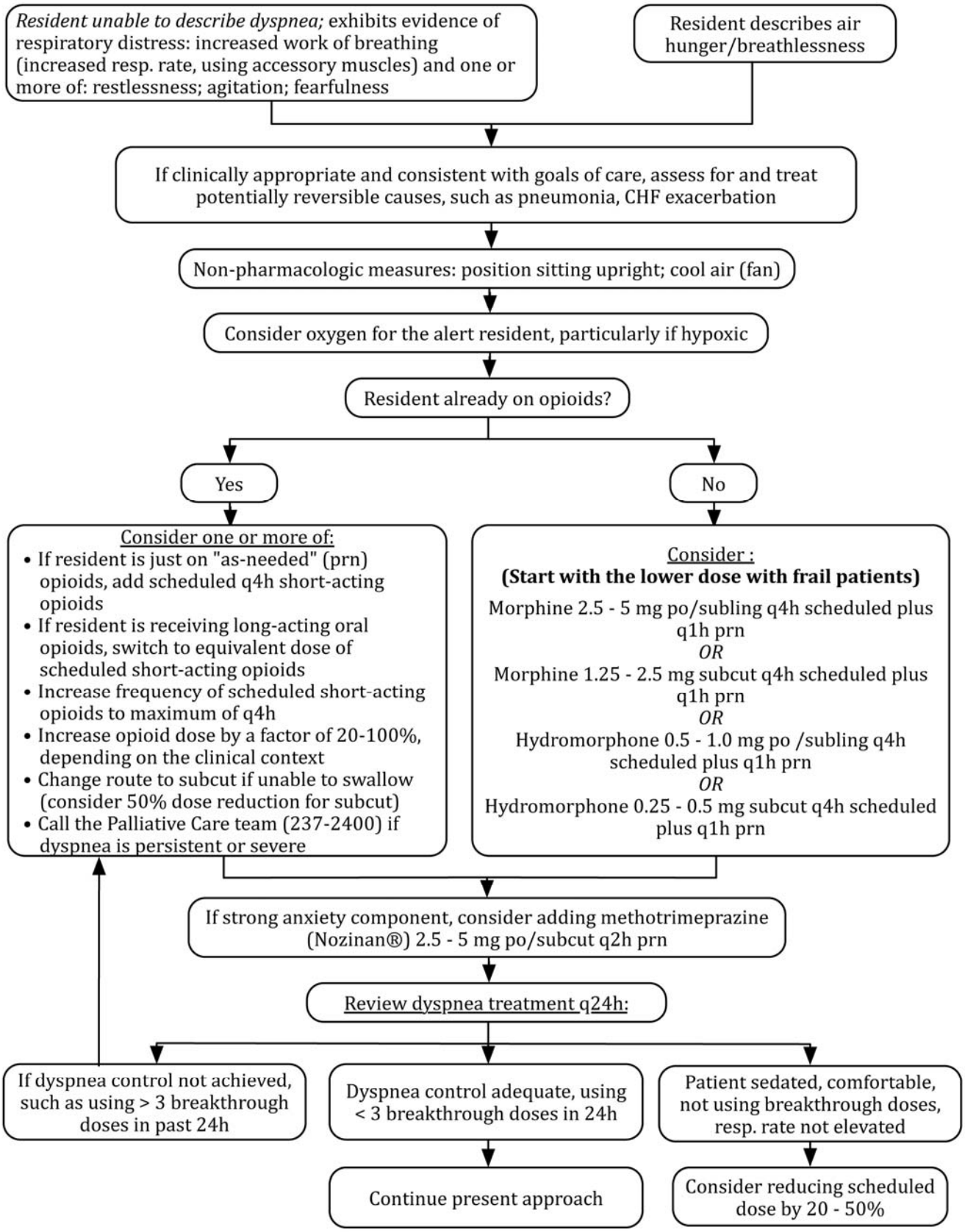
Pathway D
Management of Nausea and Vomiting In The Final Days Of Life



NOTES:

- Not all people with nausea will vomit, and not all vomiting is accompanied by nausea.
- Central disorders (brain tumour, vestibular conditions) and systemic conditions (renal or liver failure, metabolic disturbances, medication side effects) tend to be accompanied by nausea with or without vomiting. Antinauseants are most effective in such circumstances
- Gastrointestinal obstruction may cause vomiting with minimal nausea... particularly in proximal obstruction. Antinauseants may be ineffective in such circumstances.

Pathway E
Dyspnea Management In The Final Days Of Life



Note: See *Pathway For Pain Management At End-Of-Life* for notes regarding opioid use

Resource Guide A

Medications For Symptom Management At End-Of-Life In Long Term Care

Comments, Disclaimers, Assumptions:

The suggestions below are not intended to be comprehensive advice applicable to all clinical scenarios; suggested medications and doses must be considered in the unique clinical context. The following specific assumptions apply:

- the prescribing clinician is aware of any medication allergies or intolerances
- the patient is assumed to be opioid-naïve in the doses suggested below; in a patient already on opioids their existing tolerance will need to be considered.
- the doses indicated below are ***conservative starting doses,*** as there may be some uncertainty about how a medication will be tolerated. These may very well need to be rapidly escalated, as guided by empirical effectiveness, particularly when using opioids to relieve dyspnea or sedatives in agitated delirium.
- the intramuscular and rectal routes are **not** well tolerated and can usually be replaced by subcutaneous or sublingual routes

Medication	Indications	Route	Starting Dose	prn ("as-needed") Interval	
Morphine	• Dyspnea • Pain	Enteral (oral; feeding tube) ***OR*** buccal/sublingual*	2.5 – 5 mg	q1h prn	***Note:*** if repeated prn doses needed, add a q4h scheduled dose, usually equal to the effective prn dose)
		Intravenous	1.25 – 2.5 mg	q 15 min. prn	
		Subcutaneous	1.25 – 2.5 mg	q 30 min prn	
		Nasal Transmucosal**	not recommended; poor bioavailability		
Hydromorphone	• Dyspnea • Pain	Enteral (oral; feeding tube) ***OR*** buccal/sublingual*	0.5 – 1 mg	q1h prn	***Note:*** if repeated prn doses needed, add a q4h scheduled dose, usually equal to the effective prn dose)
		Intravenous	0.25 – 0.5 mg	q 15 min. prn	
		Subcutaneous	0.25 – 0.5 mg	q 30 min prn	
		Nasal Transmucosal**	0.5 – 1 mg	q 15 min prn	
Methotrimeprazine (Nozinan®)	• Agitated delirium • Supplement opioids in dyspnea; lacks resp. depressant effects • Nausea	Enteral (oral; feeding tube) ***OR*** buccal/sublingual*	2.5 – 5 mg	q 1h prn	***Note:*** if repeated prn doses needed, add a q6-8h scheduled dose, usually equal to the effective prn dose)
		Intravenous	2.5 – 5 mg	q 15 min prn	
		Subcutaneous	2.5 – 5 mg	q 30 min prn	

Resource Guide A

Medications For Symptom Management At End-Of-Life In Long Term Care

Medication	Indications	Route	Starting Dose	prn ("as-needed") Interval	
Lorazepam	• Anxiety • Sedation, often added to metho-trimeprazine	Sublingual (consider dropping into a 1 ml syringe, then drawing up approx 0.5 ml water to dissolve & administer)	0.5 – 1 mg	q1h prn	***Note:*** if repeated prn doses needed, add a q6-8h scheduled dose, usually equal to the effective prn dose)
Scopolamine (0.6 mg/ml injectable)	Resp. secretions at end-of-life	Subcutaneous	0.3– 0.6 mg	q1h prn (may initially need 2 or 3 back-to-back doses)	
		Nasal Transmucosal ***	0.3– 0.6 mg (0.5 – 1 ml)	q1h prn	
Glycopyrrolate¥	• Resp. secretions • In contrast to scopolamine, less likely to cause sedation or confusion. Can be used in awake patients	Subcutaneous	0.2 – 0.4 mg	q2h prn	
		Enteral (oral; feeding tube)	1 – 3 mg	q4h prn	***Note:*** enteral glycopyrrolate does not peak until 3 hours
		Nasal, sublingual, buccal	Not recommended; expected to cross mucosal membranes poorly. Dose would likely be effective only after swallowing, so if this route is attempted, doses similar to the enteral route (listed above) should likely be used.		

* buccal/sublingual involves administering up to 1-2 ml of the parenteral preparation of medication into the mouth. These small volumes tend to be swallowed reflexively in unresponsive patients, and their bioavailability are similar to the oral route. High concentrations of the drug may be needed in order minimize volume (e.g. morphine 50 mg/ml; hydromorphone 10 mg/ml)

**
- small volumes of high concentration
- if dose > 1 ml then divide equally between nostrils
- Bioavailability ranges from 50 – 80 % and onset of effect ranges from 5 – 20 minutes, depending on the drug
- May use a 1 ml syringe as a dropper, or an M.A.D. atomizer as outlined in WRHA Palliative Care Program's guideline on Medication Administration By Mucosal Atomization Device
- see also http://www.intranasal.net

*** There is limited data on intranasal scopolamine use, however it is likely preferable for secretions to the transdermal scopolamine patch (Transderm-V®), which delivers a relatively small dose at a slow rate

¥ The quaternary ammonium group of glycopyrrolate limits its passage across lipid membranes, such as the blood-brain barrier (hence fewer CNS adverse effects) and mucosal membranes. In contrast, scopolamine is a highly non-polar tertiary amine which penetrates lipid barriers easily. Glycopyrrolate doses administered orally or by feeding tube need to be approximately 10 times higher than intravenous doses, due to low and highly variable oral bioavailability. One reference indicates an oral bioavailability of 3% (Cada, D. J., Levien, T. L., & Baker, D. E. (2010). *Formulary drug reviews-glycopyrrolate oral solution*. Hospital Pharmacy, 45(12), 939-943). Nasal, buccal, and sublingual glycopyrrolate would be expected to be poorly absorbed through the nasal or oral mucosa, and are not recommended.

Resource Guide B

Nutritional Needs Of Individuals at End of Life

Many people at end of life become weaker, increasingly drowsy, and lose their ability to swallow. They typically have a decline in appetite and drink less *without experiencing hunger or thirst.*

The body undergoes certain changes at the end of life. In fact, the digestive system becomes disabled to the point where food simply cannot be digested. This is the body's way of showing that food is no longer necessary and is a normal part of dying.

Enteral feeding (tube feeding) is sometimes suggested as an option. Studies have shown that enteral feeding at the end of life does not provide benefit in weight gain, functional improvement (daily living routines such as getting dressed), survival, or quality of life. There are risks with enteral feeding such as aspiration, leakage into other body cavities, tube displacement, tube site infection and bleeding. As well, individuals who are confused may pull out the tube and cause serious injury.

There are advantages of consuming little food or fluid at this time. These advantages include:

- ☐ Less fluid in the lungs and less congestion making breathing easier
- ☐ Less nausea and vomiting, upset stomach and bloating
- ☐ Less pain and discomfort
- ☐ Less urine output and therefore less energy spent going to the bathroom and less incontinence

Recommendations:

- ☐ Smaller quantities of favorite foods as desired (less emphasis on type and amount of food eaten)
- ☐ Sips of water, other fluids as desired or ice chips
- ☐ Good mouth care

Although aggressive nutritional interventions have not been shown to improve survival, families may still struggle with the fear of their loved one suffering from starvation or dehydration. There are also strong cultural values related to food. Thus, it is important to be sensitive to the family's concerns.

References: Deer Lodge Center "Nutritional Needs of Individuals at End of Life"
WRHA PCH Speech-Language Pathology Program "Feeding and Swallowing Issues Related to End of Life"
Riverview Health Center (2011). "End stage dementia care" DRAFT

Resource Guide C

Faith Based Considerations Related to Death and Dying

The following are very general statements and considerations for care of the dying. It is important to discuss individual preferences with the resident and family.

Christian

- The variety of beliefs among Christians is extensive, and discussion with the resident and family around personal preferences is needed.
- Many Christians will request items such as a Bible, prayer book, rosary and cross or crucifix. The playing of recorded religious music, particularly hymns, may be comforting.
- For Roman and Ukrainian Catholic residents, the Sacrament of the Sick (previously referred to as "Last Rites") may be offered as a resident is dying.
- The Sacrament of the Sick cannot be administered after death, but Prayers for the Dead may be offered for the deceased.
- In the Protestant tradition there are fewer formally observed last rites.

Jewish

- Contact the family's own rabbi as appropriate. It is important to know whether the individual is Orthodox, Conservative or Reform.
- Family and friends may wish to accompany the resident during the dying process. The dying person is not to be left alone. A staff person should be present until family or friends arrive.
- Psalms may be read at the bedside.
- Life is seen as sacred, so that hope for a recovery may persist, even up to the point of death.
- The body is treated as sacred and should never be left alone until removed from the room. A family member or another Jew may close the eyes and straighten the arms of the deceased.
- For Orthodox Jews, washing of the body is completed by a member of the "chevra kaddisha", who carry out ritual purification of the dead. Traditional Jewish Law does not permit autopsies.
- Traditionally, Jews are commanded to bury their dead as quickly as possible. A death occurring on Friday afternoon will create an urgency for the removal of the body due to Sabbath requirements.

Aboriginal

- Consult with family as traditions vary between the First Nations peoples.
- Autopsies are not permitted in the Traditional Belief System.
- Out of respect for the dying person, as many members of the extended family as possible may wish to be present to keep vigil as the person dies, and to pay their respects after death.
- Contact Aboriginal Health Services of the WRHA if an elder is requested.
- Families may wish to partake in a smudge or sweetgrass or sage, especially after the point of death.

Buddhist

- Two beliefs predominate – relief of pain and suffering, and the importance of 'mindfulness' (remaining alert and aware). Analgesia may be titrated so that the resident is comfortable but remains aware, or the resident may refuse analgesic.
- The resident may wish to be alone in order to meditate.
- A monk or nun may be notified to offer prayer. The monk or nun may recite prayers for up to one hour after death, although prayers may not have to be recited in the presence of the body.
- The body is treated as being very precious, and frequently wrapped in a plain sheet after death.
- The body is usually cremated.

Hindu

- As Hindu practices vary widely, it is import to talk to appropriate family members, who will give guidance to staff.
- The family may ask for a Guru to come and read Scriptures and offer rituals.
- At death, offer the family the opportunity to wash and care for the body.
- Do not touch the body until the family has given permission.
- If family is not available, wrap the body in a clean sheet. The body should not be left alone.

Muslim

- While an Imam may be present at death, the family, if at all possible, should be with the resident.
- As death approaches, it would be appropriate for there to be readings from the Qu'ran.
- The dying person may wish to sit or lie facing Mecca (East or Southeast)
- After death, offer the family the opportunity to wash and prepare the body. Washing of the body will generally be done by those of the same gender as the deceased, except in the case of a husband and wife.
- Ideally, the body should not be touched by non-Muslims. If touching is necessary, non-Muslims should wear gloves.

Sikh

- There are five symbols of faith which should remain with the resident at all times, even at death, as the family wish:
    - Keshas – uncut hair
    - Kangha – wooden comb
    - Kara – a metal bangle or bracelet worn on the wrist
    - Kaccha – underwear
    - Kirpan – a short sword or dagger (may be represented by a pendant, brooch, etc.)
- Normal practice is for the family to and dress the body, but staff may prepare the body, after consultation with the family, by closing the eyes, straightening out the limbs and wrapping the body in a plain sheet.
- Cremation occurs as soon as possible after death.

Adapted from Deer Lodge Center: Death and Dying: Spiritual Care Aspects, Clinical Nursing Guidelines (2008)