**PST Palliative Sedation Therapy Sample Policy can be found at**

**http://www.palliativecareconsultation.ca/resources/uploads/FINAL%20PST%20Sample%20Policy_0.pdf**

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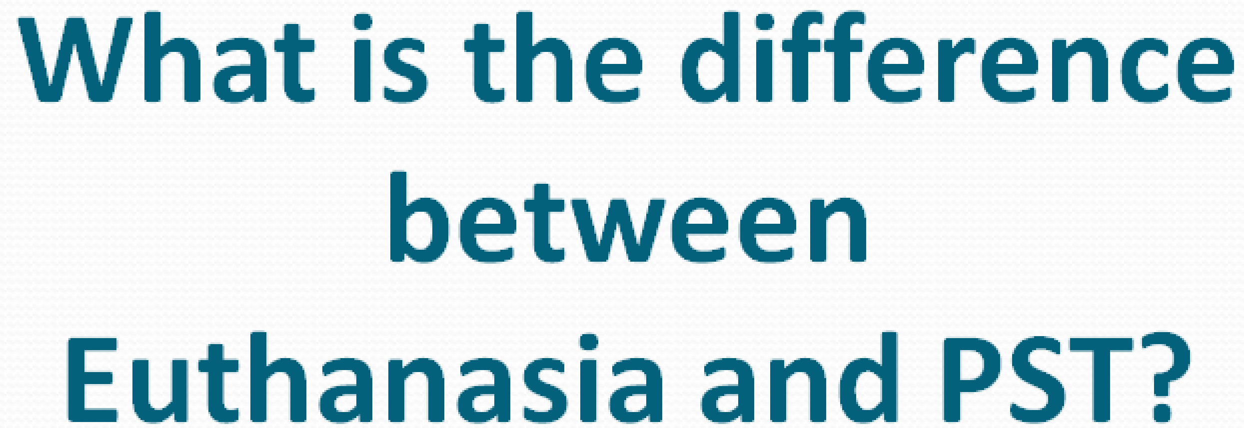
# Background

- Inconsistent terminology and definitions regarding the use of sedation to control intractable symptoms has been recognized in the literature since 1990
- Palliative Sedation Therapy (PST) has been known as:
  - terminal sedation
  - palliative sedation
  - PST is the most recognized terminology. For the remainder of this presentation Palliative Sedation Therapy will be referred to as PST

# PST is Distinct from the Following:

- Temporary use of sedation
- Sedation as an unintended adverse effect of treatment
- Procedure-related sedation
- Sedation intended to hasten death


What is the difference
between
Euthanasia and PST?

# Definitions

- **Euthanasia** is the intentional putting to death of a terminally-ill or severely debilitated individual by the commission of an act (active euthanasia) or intentionally withholding a life-saving medical procedure (passive euthanasia). This should not be confused with refusal of treatment which competent individuals have the right to do.
- **Palliative Sedation Therapy (PST)** is the intentional continuous induction of a reduced level of consciousness in order to relieve an intractable symptom or symptoms in an individual who is at the end of life (i.e. last days and hours). The intent is to relieve suffering and not to hasten death. *PST is therefore not euthanasia.*

# Ethical Validity of PST

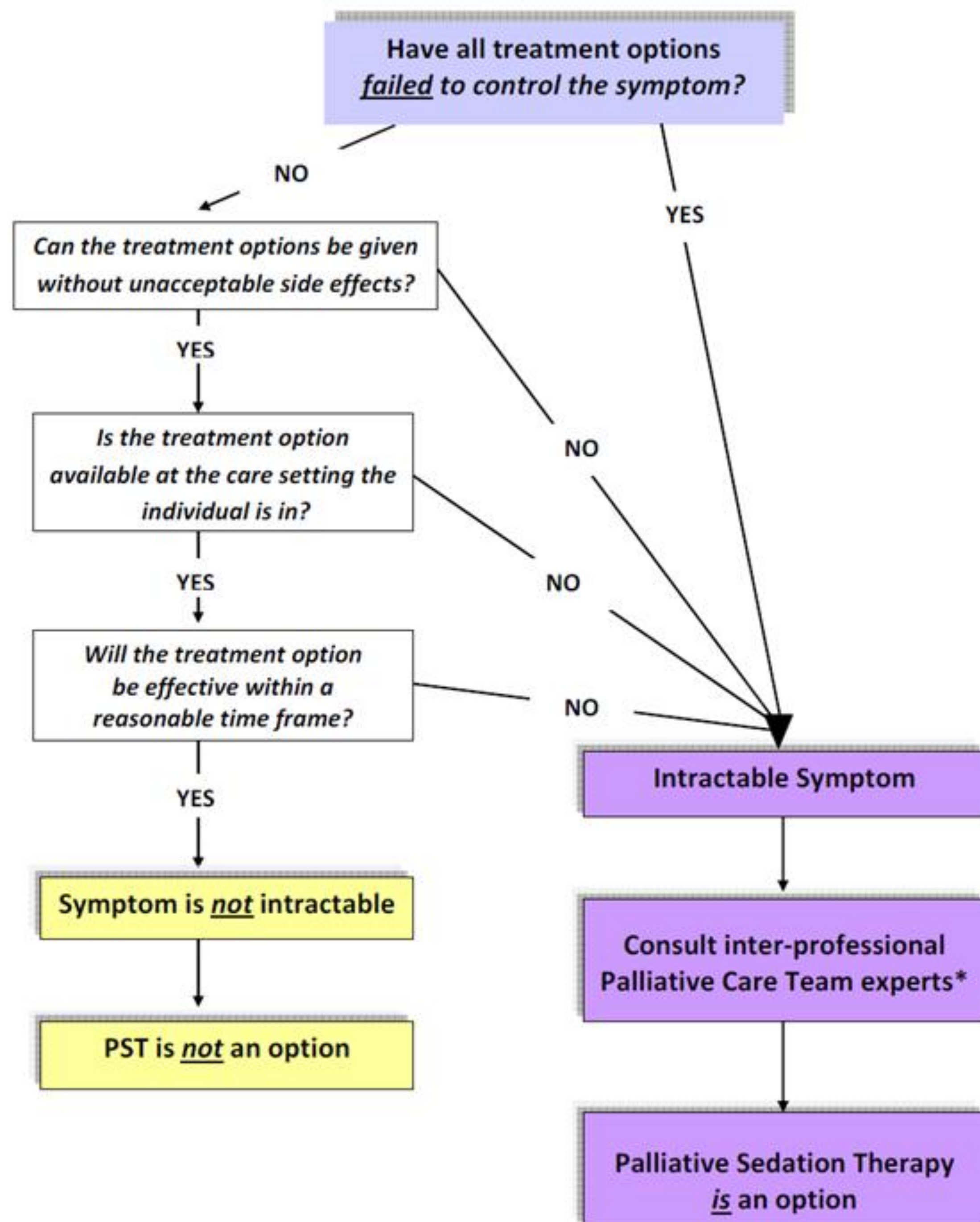
- The intent of PST is to alleviate the suffering caused by an intractable symptom(s) in the last days and hours of life
- Studies show that PST does not shorten life
- PST will not suspend the disease progression or the natural process of dying.

What is an intractable
symptom?

What is existential distress?

What is psychological
distress?

# Intractable Symptom / PST Decision Making Process



# Criteria for implementing PST

1. A progressive, incurable illness is present with a limited life expectancy. Death must be imminent within days to hours.
2. Intractable symptom(s) are present. PST is not a means to alleviate psychological or existential distress at end of life.
3. All attempts have been made and documented to control symptoms including accessing external resources.
4. Informed consent of the individual or Substitute Decision Maker (SDM) must be obtained and documented.
5. A treatment plan that does not include CPR.

# Process

1. All criteria are met.
2. Consult a palliative care specialist to ensure all interventions have been considered. Explore team member comfort and concerns about providing PST.
3. Document the criteria and rationale for considering and/or initiating PST in the health record.
4. Discuss hydration and nutrition with the person or SDM.
5. Explore family member expectations, comfort and concerns with PST. This may involve collaboration with the primary team and a palliative specialist team.

# Documentation

Documentation includes:

- indications for initiating PST
- assessments
- consultations by a palliative care specialist (see Appendix B- page 11 in PST Sample Policy)
- medication and treatment changes
- discussions with the individual or SDM

# Monitoring

- Level of sedation
- Airway patency and air entry
- Respiratory rate
- Bladder fullness

# Midazolam Monitoring

PST initiation:

- Monitor q15 min. during dose titration to PST goal is achieved (comfort)
- Once individual remains comfortable without requiring additional bolus/ PRN dose titrations up or down continue monitoring q 15 min x 1 hour
- Then Monitor q 4 hours

Maintaining PST:

- monitor q 4 hours

Restart monitoring when dosage adjustment or bolus/PRN doses given as above for initiation through to maintaining PST

# Methotrimeprazine Monitoring

PST initiation:

- Monitor every hour during dose titration until PST goal is achieved (comfort)
- Then monitor q 4 hours

Maintaining PST:

- Monitor every 4 hours

Restart monitoring when dosage adjustment or bolus/PRN doses given as above for initiation through to maintaining PST

# Other Considerations

- Medications
- Drug Interactions
- Hydration and Nutrition
- Bladder catheterization

# Medication Protocols

Goal:

- To use the lowest dose of medication that achieves comfort and the lightest level of sedation
- The dosage required to achieve the optimal level of sedation may vary considerably between individuals

# MEDICATION PROTOCOLS Continued

1. Midazolam (Versed™) by continuous infusion

   (Intermittent Midazolam subcutaneous injection may be used until continuous infusion pump is available.)
2. Methotrimeprazine (Nozinan™)

# Medications Used for PST

- **Midazolam** (Versed™)
  - drug of choice
  - short half-life and the ability to titrate rapidly
  - amnesic properties
  - parenteral administration

- **Methotrimeprazine** (Nozinan™)
  - may be used as the first line agent or as an adjuvant if midazolam alone is ineffective

Phenobarbital is only considered a first-line medication if intractable seizures are present

- Opioids should <u>never</u> be used for palliative sedation therapy
- Opioids pose a high risk of neurotoxicity potentially causing more discomfort such as:

  - myoclonus
  - delirium
  - agitation
  - respiratory depression

Option 1:

# Midazolam (Versed™) by continuous infusion

1. Administer a loading dose of midazolam: 2.5 mg or 5mg subcutaneously or IV.
2. Initiate a continuous infusion of midazolam at 0.5 or 1 mg/hour subcutaneously or IV infusion via an infusion pump. Titrate by 1 mg/hr every 30 minutes if needed. The usual dose required to achieve PST is between 1 - 6mg/hr.
3. Titrate dose as needed to maintain sedation
4. Maintain the hourly dose.
5. Consider adding methotrimeprazine where doses greater than 10mg/hr are required.

# Intermittent Midazolam Subcutaneous Injection

1. Intermittent injections are to be considered only as a temporary solution while waiting for infusion pump delivery. The expectation is for the infusion pump to arrive within 24 hours. A continuous infusion is the preferred delivery method to maintain the desired level of sedation. Administer midazolam 2.5 -5mg subcutaneously q30-60 min.
2. Titrate dose as needed to maintain sedation.

Option 2:

# Methotrimeprazine (Nozinan™)

1. Administer a stat dose of methotrimeprazine 25 mg s/c (12.5 mg in a very small, frail individual).
2. Follow up with methotrimeprazine 12.5-25 mg s/c q 8hrs and methotrimeprazine 12.5-25 mg s/c q1hr PRN - in most cases, the higher dose (25mg) is required if PST is the intent.
3. The dose may be increased to a maximum of 25mg s/c q6 hrs to achieve the goal of PST.

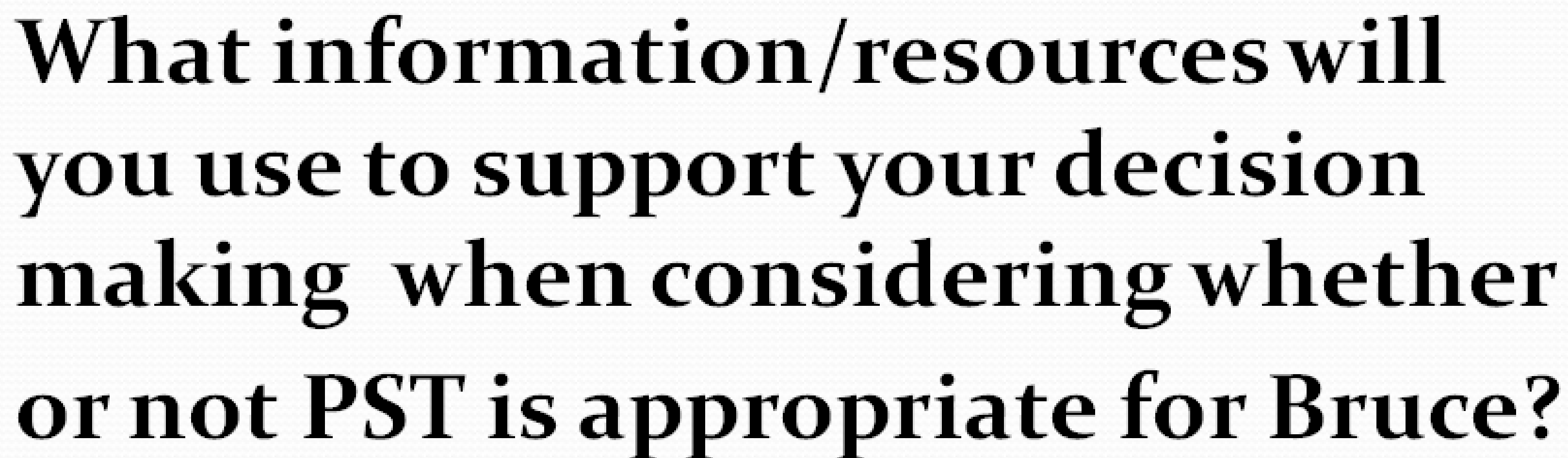
   - If higher doses than 25 mg s/c q6 hrs are required, consider switching to midazolam.

# Bruce's Story

Bruce is a 53 year old retired engineer with advanced stage ALS. He has just been admitted to the hospital with acute dyspnea secondary to possible aspiration pneumonia. He has difficulty speaking and increased anxiety. In the emergency department he stated that he just wants to die because he "can't stand living like this any longer". He was offered intubation but Bruce declines this option. At home Bruce is on Bi-Pap via mask at night and receives G-tube feeds.

# Bruce's Story Continued

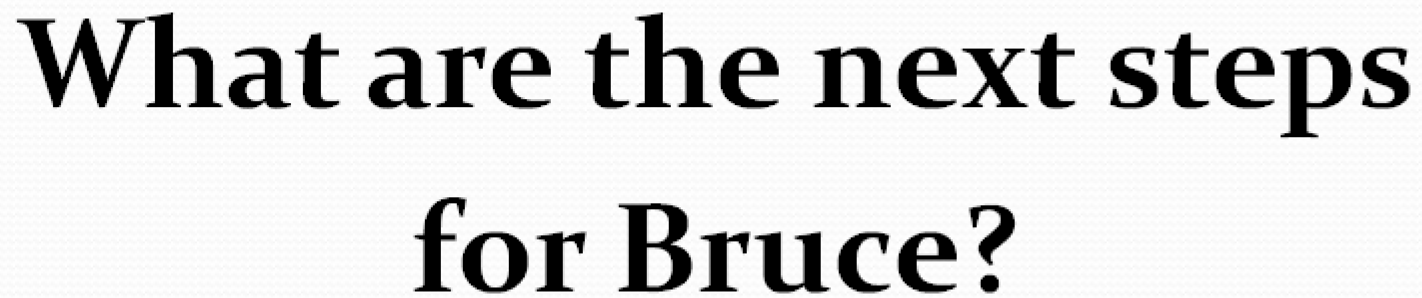
Bruce's partner Ron is his Power of Attorney for Personal Care and together they have 2 daughters ages 8 and 10. Bruce is a member of First Nations Community, living off the reserve. He has not previously discussed an end-of-life care plan with Ron or his health care team.


What information/resources will you use to support your decision making when considering whether or not PST is appropriate for Bruce?

# Is PST appropriate for Bruce?

- Is a progressive, incurable illness present?
- Is death is expected within days to hours?
- Is there a presence of intractable symptom(s)?
- Have all interventions to control symptoms been exhausted?
- Is psycho-existential distress the solitary intractable symptom?
- Have the patient wishes been documented?
- Has informed consent been obtained and documented from the individual/substitute decision maker(SDM) for PST?
- Is there a "Do Not Resuscitate" (DNR) order in effect and been clearly documented?

Is PST an appropriate
Intervention for Bruce?


What are the next steps
for Bruce?

# Bruce Conclusion

- Morphine and midazolam were effective to control Bruce's acute dyspnea and anxiety
- CT and Chest x-ray were negative for pneumonia and pulmonary embolism
- Dyspnea was attributed to disease progression
- Health care team clarified Bruce's ongoing care wishes
- Team helped Bruce share his wishes with his family and encouraged further discussion with elder/spiritual advisor

# Bruce Conclusion Continued

- Bruce is discharged back to his primary care team with continued Bi-PAP and the addition of around the clock opioids, PRN benzodiazepine
- The community nurse and hospice care coordinator worked with Bruce and his family to ensure ongoing monitoring and support until he died at home 4 months later

# Tim's Story

Tim is a 42 year old man with bulky metastatic colon cancer living at home with his wife and 3 children ages 12, 16 and 18. Despite admissions to hospital for symptom control, multiple interventions, pharmacological and non-pharmacological approaches; his pain remains 9/10. Tim's wife is very distraught and his children are having difficulty witnessing their dad's distress.

# Tim’s Story Continued

The community nurse and family physician (Most Responsible Physician) have been in consultation with the Advanced Practice Nurse. The tumor is erupting through the peritoneal wall. There is new delirium and agitation that is likely secondary to sepsis and his PPS is now 20%. His prognosis is anticipated to be days and Tim’s wish to die at home has been noted in his health record.

The nurse and physician are discussing palliative sedation as an option to manage Tim’s symptoms.

# What information/resources will you use to support your decision making  when considering whether or not PST is appropriate for Tim?

# Is PST appropriate for Tim?

- Is a progressive, incurable illness present?
- Is death is expected within days to hours?
- Is there a presence of intractable symptom(s)?
- Have all interventions to control symptoms been exhausted?
- Is psycho-existential distress the solitary intractable symptom?
- Have  the patient wishes been documented?
- Has informed consent been obtained and documented from the individual/substitute decision maker(SDM)  for PST?
- Is there a "Do Not Resuscitate" (DNR) order in effect and been clearly documented?

Is PST an appropriate intervention
for Tim ?

What else needs to be considered prior to initiating PST for Tim?

# Process

1. All criteria have been met
2. Consultation with interprofessional palliative care team expert(s) completed
3. Criteria and rationale for initiating PST are documented in the health care record
4. Discussion with patient/SDM regarding hydration and nutrition
5. Explore family member expectations, comfort and concerns re PST

# Plan of Treatment

The goals of care have been established and are documented in the health care record.

- Assess the need for:
  - Indwelling bladder catheter
  - Oral, eye, skin care
  - Special bed surfaces

# Communication & Documentation

Discussions with the individual/SDM and care team, have been communicated and documented in the health care record including:

- Expected changes in level of consciousness
- Expected changes in oral intake and hydration
- Expected respiratory patterns and sounds changes
- Artificial hydration burden/benefit ratio
- Artificial nutrition burden/benefit ratio
- Medications used in PST

# Communication & Documentation Continued

- Subcutaneous medication administration
- Continuous infusion medication delivery
- Rationale for discontinuing non-essential medication
- Alternate route of administration for essential medications
- Continuation of pain management
- Ongoing monitoring of: Pain, Sedation/LOC, Agitation
- Signs of imminent death communicated with family

# Tim Conclusion

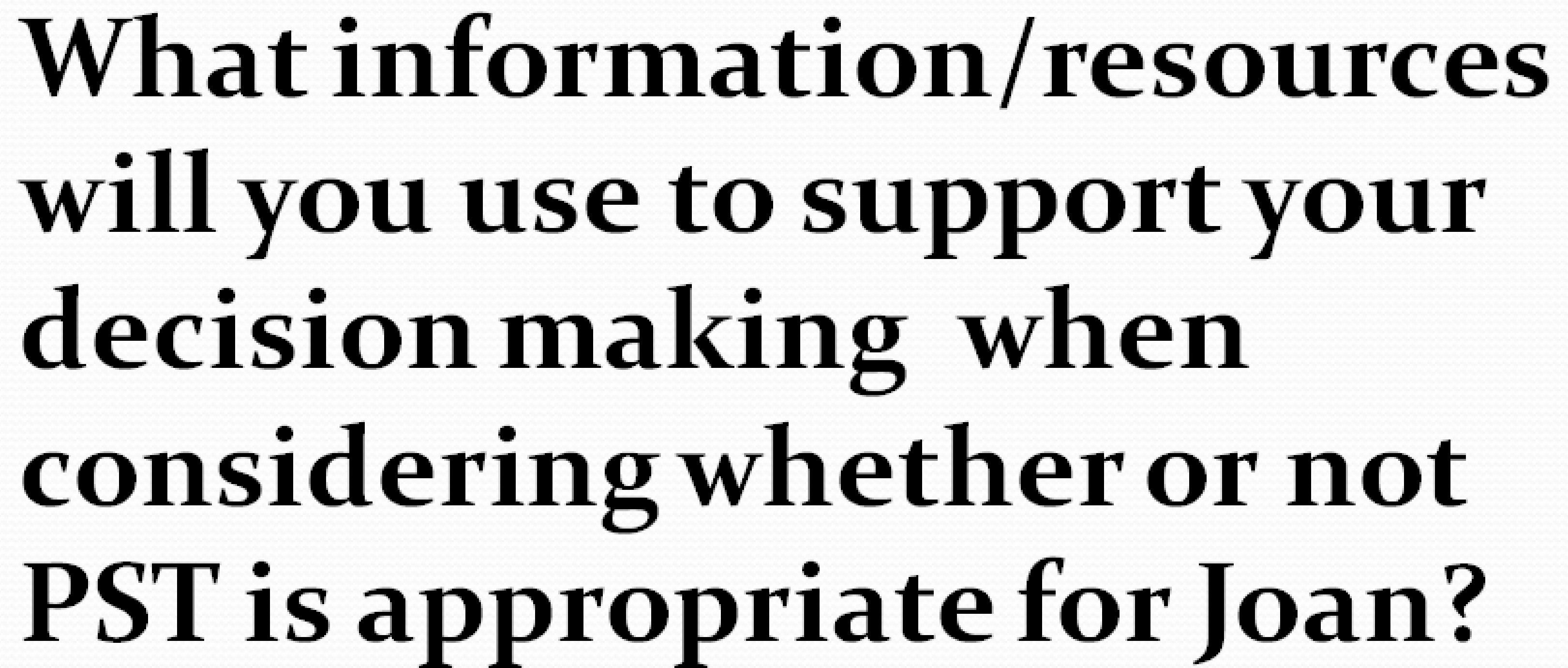
- Discussion took place with the client and family about goals of care and the option of PST to alleviate intractable symptoms
- The health care providers documented the content of the discussion in Tim's health record
- Tim died peacefully 48 hours after initiating PST

# Joan's Story

Joan was diagnosed with early onset Alzheimer's Disease five years ago. She has severe osteoarthritis and x-rays show several compression fractures in her spinal column. Joan resides in a long term care home. Lately Joan has become extremely agitated and frequently strikes out and threatens the staff. Joan is no longer eating or drinking. She often screams and the staff think her behaviour is related to pain.

# Joan's Story Continued

Several different pain medications including opioids have been used to try to alleviate the pain. She experienced severe opioid toxicity with some of them.  Her agitation has been increasing. Joan's family are extremely distressed watching her and hearing her screams. Her family have requested that something be done.  The staff have approached the MD about initiating palliative sedation.


What information/resources will you use to support your decision making when considering whether or not PST is appropriate for Joan?

# Is PST appropriate for Joan?

- Is a progressive, incurable illness present?
- Is death is expected within days to hours?
- Is there a presence of intractable symptom(s)?
- Have all interventions to control symptoms been exhausted?
- Is psycho-existential distress the solitary intractable symptom?
- Have the patient wishes been documented?
- Has informed consent been obtained and documented from the individual/substitute decision maker(SDM) for PST?
- Is there a "Do Not Resuscitate" (DNR) order in effect and been clearly documented?

Is PST an appropriate intervention for Joan?

# Next Steps

- In depth assessment to determine the cause(s) of Joan's behaviour and treat as appropriate
- Consider referral to secondary experts such as Psycho-geriatric Resource Team and Palliative Care Consultant
- Consider family conference to address concerns, develop a plan of care and offer support

# Joan Conclusion

- Chart review and detailed assessment determined that Joan's behaviour was caused by osteoarthritis progression, compression fracture and dehydration
- Pain regime was titrated inappropriately resulting in delirium
- Pain, dehydration and opioid toxicity increased responsive behaviours

# Joan Conclusion continued

- Opioid analgesia was appropriately titrated
- Joan was rehydrated with hypodermocylsis
- Agitation and behaviours returned to her baseline
- She began to eat and drink normally
- Family were supported by the interdisciplinary team and were satisfied with the outcome

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