

HPC agitation collaborative
hpcconnection.ca consensus best practice guidelines
family support end of life interdisciplinary dignity
criteria ethical decision making
sedation
suffering
documentation standards expert consultation
Palliative Sedation Therapy
quality of life refractory symptoms
Waterloo Wellington HPC Protocol clinical support

The Waterloo Wellington Palliative Sedation Protocol

WATERLOO WELLINGTON INTERDISCIPLINARY HPC EDUCATION COMMITTEE; PST TASK FORCE

Chair: Dr. Deborah Robinson MD CCFP(F), Focused practice in Oncology and Palliative Care

Co-chairs: Cathy Joy, Palliative Care Consultant, Waterloo Region
Chris Bigelow, Palliative Care Consultant, Wellington County

Revision due: November 2016

Last revised and activated: December 23, 2014

Committee responsible for revisions: WW Interdisciplinary HPC Education Committee

Printed in Canada, March 2015

TABLE OF CONTENTS

SUBJECT	PAGE
Purpose _____	5
Definitions _____	5
Indications for the use of PST _____	5
Criteria for Initiation of PST _____	6
Process _____	6
Documentation for Initiation of PST _____	7
Titration and Maintenance of Sedation _____	7
Medications _____	7
Medication Protocols for PST _____	8
1st Line (Initiating PST) _____	8
2nd Line (When 1st line approaches have failed or are suboptimal) _____	8
3rd Line (If 1st and 2nd line options have failed) _____	9
Titration and Maintenance of Sedation _____	9
Monitoring _____	9
How can family and the clinical team be supported? _____	11
 References _____	 12
Appendix A: The Richmond Agitation Sedation Scale (RASS) _____	13
Appendix B: Timeline: WW PST Protocol Consensus Process _____	14

Waterloo Wellington Palliative Sedation Therapy (PST) Protocol

PURPOSE:

The purpose of this protocol is to provide clinicians in the Waterloo Wellington LHIN with an approach to PST that has been reviewed by peers with experience in this area. It is meant as an aide to clinical practice and to clarify the process of PST for clinicians involved in its implementation.

The overall goal is to ensure effective, safe and appropriate use of PST in the Waterloo Wellington LHIN.

DEFINITIONS:

Palliative Sedation Therapy (PST): The intentional and continuous induction of a reduced level of consciousness in order to relieve a refractory symptom or symptoms in a patient who is at the end of life (i.e. last days and weeks). The intent is to relieve suffering and not to hasten death.

PST **IS NOT**, and should be distinguished from:

- Temporary use of sedation where the underlying causes of the symptom are reversible and attempts are being made to treat these causes.
- Respite temporary sedation.
- Sedation as an unintended adverse effect of treatment.
- Sedation by the temporary use of neuroleptic medications when managing delirium.
- Sedation intended to bring about death sooner than would occur in the natural course of their underlying disease.

Refractory symptom: A symptom is considered refractory if it cannot be adequately controlled without the intentional use of sedation (i.e. there is no appropriate treatment that would be effective within an acceptable time frame or with an acceptable risk benefit ratio to the patient).

Existential suffering: Also referred to as “Psychic” or “Spiritual” suffering, distress or anguish, describes the experience of patients facing terminal illness who may or may not have physical symptoms but report distress that is related to thoughts and/or fears of death or the unknown, and/or a sense of one or more of the following: meaninglessness in present life; hopelessness; being a burden on others; feeling emotionally irrelevant or isolated; being dependent; grieving; loss of dignity and purpose in life.¹ Experience of these symptoms is considered existential when it is unrelated to a psychiatric disorder or social isolation.

A psychiatric evaluation should only be requested if it is felt to be clinically indicated.

Interdisciplinary Team: Also referred to simply as team in the text of this protocol, will be defined based on patient location and resource availability. Team members may include but are not limited to palliative care physician, pharmacist, nurses (RN, RPN, and NP), social workers, allied health professionals, community care coordinators, spiritual care providers/chaplain, personal support workers, hospice volunteers and others.

INDICATIONS FOR USE OF PST:

The existence of refractory/intractable symptom(s) is a necessary indication for the use of PST. As mentioned under definitions, a symptom(s) is considered refractory when “all possible treatment has failed, or it is estimated that no methods are available for palliation within a time frame and risk-benefit ratio that the patient can tolerate”.²

The patient must be the one suffering from refractory symptoms. It is not uncommon for families to request PST on behalf of their loved one, citing a perception of suffering, when in fact it is the family that is suffering.

To determine if the criteria are met for a refractory symptom, consider the following questions regarding possible interventions:

- Is the symptom considered intolerable by the patient?
- Are further interventions capable of providing adequate relief?
- Are interventions likely to provide relief within a tolerable time frame?
- Will the intervention itself increase physical or emotional suffering?

A useful framework for assessing whether or not PST should be considered is the Latimer Ethical Decision Making Model,³ which includes the following:

- Patient's Illness - extent of disease, prognosis, and nearness to death.
- Patient's Experience - symptom intensity, impact on quality of life, suffering, demoralization, and lack of dignity.
- Patient as a Person - goals, hopes, and plans in light of current symptom, and wishes as contained in an advance care plan (if one has been completed).

It is critical in the approach to explore other options and supports for the patient and family. Meaning based interventions, dignity-conserving therapy, and other spiritually based approaches have been useful to help patients and families find meaning in the dying process.

The treating physician should also assess the patient for any conditions which may benefit from psychiatric consultation.

It is important not to label difficult symptoms as refractory because of a lack of skill or knowledge on the part of the health care provider, or because of an unwillingness to request a consultation. Consultation is necessary in cases of refractory symptoms to ensure that all possible options have been explored. (i.e. consideration of interventional anesthesiology etc.). Such consultation may be with a more experienced colleague, the patient's family physician, or a local hospice palliative physician.

Non-controversial indications:

- Intractable Dyspnea
- Intractable Delirium
- Intractable Seizures
- Intractable Pain
- Intractable Nausea

Controversial indications:

- Existential/spiritual suffering
- Psychological suffering

It would be inappropriate to initiate PST when, in the absence of a refractory symptom, a patient requests it to avoid potential future suffering or wants it so that he/she can sleep through the time left. PST for purely existential symptoms might only be initiated in rare cases of severe existential distress and after skilled multidimensional management directed at the physical, psychological and existential dimensions have been attempted, preferably in consultation with relevant experts in this area i.e. psychologist or psychiatrist, spiritual care provider/chaplain, ethicist, palliative care physician etc.

An interdisciplinary specialist palliative team that includes specialist palliative care physicians and nurses, and a psychologist, spiritual care provider and social worker would need to assess whether or not a psychological, spiritual, existential or social source of suffering is deemed refractory. It is also recognized that the assessment and management of these sources of suffering take longer and are often more complex than that for physical symptoms.

CRITERIA FOR INITIATION OF PST:

The basic criteria for considering PST will include **all** of the following:

- A progressive, incurable illness is present with a limited life expectancy (i.e. last days and weeks).
- The presence of one or more refractory symptoms (Refer to Indications for the use of PST, page 5).
- Informed consent has been obtained from the capable patient or their substitute decision maker (SDM).
- A clear care plan exists including a Do Not Resuscitate (DNR) or No Cardiopulmonary Resuscitation (No CPR) order, and a plan for allowing natural death (AND) to occur.
- Input has been obtained from a physician experienced with PST and members of the patient's care team have been consulted.

Process:

- 1 In determination of symptom refractoriness, a consultation from a palliative physician, and where feasible or indicated an interdisciplinary palliative care team member, is required. In situations where time or the location is a barrier – a telephone consultation will suffice.
- 2 The patient must meet the refractory criteria as outlined in the Indications for the use of PST section of this protocol.
- 3 Clear documentation of the existence of a refractory symptom and where applicable, a review of the ethical consideration of the case, and consultation recommendations that demonstrate consensus regarding eligibility for PST is required in the patient's chart.
- 4 A family/team meeting should be held where the patient and the family can be provided with information about PST- namely the goal of the therapy, how it is implemented, the potential risks and benefits of the therapy, and other alternative therapeutic interventions. Members of the interdisciplinary team who will be involved in the initiation of PST and the ongoing monitoring process should be in attendance at these meetings.

- 5 Clear documentation that informed consent to proceed with PST has been obtained from the capable patient or the SDM in cases of incapacity is required in the patient's chart.
 - 6 If informed consent is obtained for PST clear documentation is required in the patient's chart demonstrating discussion with the capable patient or SDM regarding appropriate timing of initiation and management of nutrition and hydration.
 - 7 If informed consent is obtained for PST, the most responsible physician and team will arrange for palliative sedation and appropriate monitoring of the patient as outlined in this protocol.
 - 8 Evaluation of the patient's medication list by the most responsible physician, in consultation with a pharmacist or palliative physician must occur prior to initiation of PST to determine which medications, such as opiates and Haloperidol, can be safely continued or stopped.
- A summary of a holistic care plan for the unconscious patient must be documented. Items to be considered include:
 - Timing of initiation
 - Hydration/nutrition
 - Bladder/bowel management
 - Management of current medications
 - Skin care
 - Ongoing monitoring plan
 - Initiation of the RASS Sedation Agitation Scale (Appendix A)

Documentation for Initiation of PST:

When the criteria have been met and a decision has been made to initiate PST, the following should be clearly evidenced in the patient's chart:

- A statement clearly identifying this to be: "Palliative Sedation Therapy".
- Details outlining the process leading up to the determination of refractory symptom(s).
- Clear and detailed documentation that the criteria for initiation of PST have been met.
- Detailed documentation of the decision making process.
- Notation that informed consent has been obtained.
- Document any ongoing questions and concerns by the family/team, and how they were resolved.
- Documentation of palliative care specialist referral.
- Documentation of all interdisciplinary and/or family/team meetings.
- Name and doses of medications to be administered.
- Identify the sedation/ agitation scale for use in monitoring and the target goals of the sedation.
- No CPR/DNR/Allow Natural Death to Occur orders are in place.

MEDICATIONS: ⁴

Midazolam (Versed™) is the drug of choice for PST because of its potency, short half-life and the ability to titrate the dose up or down fairly rapidly. It also has amnesic properties. The subcutaneous route (subcut) is usually preferred, although the intravenous (IV) route may be considered if a patient already has a central /PICC line. For PST, Midazolam is usually administered by a continuous subcutaneous or intravenous infusion (CSCI or CIVI), particularly if sedation is expected to continue for more than one or two days. However, it is recognized that in some settings, such as a patient's home where access to a pump for CSCI is not readily available, Midazolam may be administered regularly on an hourly basis.

Methotrimeprazine (Nozinan™) is another medication that is often used for PST. It may either be used as the first line agent at high doses (see medication protocols, page 8) or as an adjuvant added to Midazolam if Midazolam alone is not optimally effective.

Phenobarbital is usually not considered a first line medication for initiating PST. However, in certain circumstances, it may be considered as first line, particularly if the patient has been experiencing seizures or the patient is in a setting where there is no access to a pump for continuous infusion of Midazolam or there is no access to Methotrimeprazine. It may also be considered first line if there is no access to Midazolam and the patient has a history of extra pyramidal side effects to Methotrimeprazine. Otherwise, Phenobarbital may be considered as a second line, added to Midazolam, if Midazolam is not effective.

Opioids should not be used for PST therapy.

They are ineffective and dangerous in this treatment. However, opioids being used up to this point for pain and symptom management should not be discontinued. In cases where Haloperidol is being used prior to initiation of PST, the expert clinician will discern the ongoing utility of this medication. There exists a high risk of neurotoxicity and/or respiratory depression if these medications are titrated too rapidly, which may be required in PST.

MEDICATION PROTOCOLS FOR PST:

Goal: To identify the lowest possible dose of medication and lightest level of sedation that achieves comfort. In some cases comfort may be achieved with light to moderate sedation while others will require deeper levels of sedation. The doses required to achieve these various levels of sedation may vary considerably between individuals. A patient may achieve a light level of sedation with a small dose of Midazolam, while another may become deeply sedated with a small dose of the same drug.

1st LINE (Initiating PST)

Option 1: (Midazolam by continuous infusion).

This is the preferred option.

- 1 Administer a loading dose of Midazolam: 2.5mg or 5mg subcut or IV stat.
- 2 Then start a continuous infusion of Midazolam at 0.5 or 1 mg/hour subcut or IV infusion via an infusion pump.
 - Titrate up (or down) by 1 mg/hour every 30 minutes if needed until the goal is achieved. The usual dose required to achieve PST is between 1mg/hour and 6mg/q hour.
 - The initial titration may need to be rapid i.e. dose adjusted by 1mg/hour every 30 minutes until the patient is comfortable. The short half-life of a few minutes allows this. However, with long term continuous administration, the half-life may increase.

Note: titration is influenced by the availability of clinical staff, Midazolam infusions may be titrated every 30 minutes with the appropriate monitoring (see Monitoring, page 9). This rapid titration may not be possible in a home setting if there is no experienced nurse or physician available.

- 3 Once the goal is achieved, the dose is maintained.
- 4 Over time (usually many hours to days) the dose may need to be increased by titration (as above) to achieve an appropriate level of comfort as some patients may develop some tolerance to the Midazolam.
 - A very small group of patients may experience a paradoxical effect to Midazolam (i.e. agitation) to a maximum of 6mg per hour until goal is achieved.
- 5 If crises occur, may give a bolus dose of Midazolam 2.5mg or 5mg q 30 minutes PRN.
- 6 If doses of greater than 10mg /hour are required, then consider adding Methotrimeprazine or Phenobarbital (preferred) (see doses, right).

Option 2 (Methotrimeprazine or Nozinan™)

- 1 Administer a stat dose of Methotrimeprazine 25mg subcut (12.5 mg in a very small, frail individual).
- 2 Then follow up with Methotrimeprazine 12.5 - 25mg subcut q 8 hours and Methotrimeprazine 12.5 - 25mg subcut q 1 hour 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 subcut q 6 hours to achieve the goal of PST.
 - If higher doses than this are required, consider switching to Midazolam (option 1; preferred) or adding Phenobarbital (see option 3)

Option 3 (Phenobarbital)

- 1 Administer Phenobarbital 60 mg, 90mg or 120 mg subcut or IV stat (the higher dose in a situation of extreme suffering where sedation is required more rapidly).
- 2 Then start Phenobarbital 60 mg subcut BID.
 - May increase Phenobarbital to 120 mg subcut TID until goal reached.
 - The maximum daily dose is 720mg in 24 hours.
 - Note that the half-life of Phenobarbital is very long (53 - 118 hours). This makes it difficult to titrate rapidly and several days need to pass (to achieve steady state) before the full impact of a specific dosing regimen can be adequately assessed.

Option 4 (Midazolam subcut PRN)

- 1 Consider this option as a short term solution if Midazolam is preferred but a pump is not available for continuous infusion.
 - Administer Midazolam 2.5mg to 5mg subcut q 30 to 60 minutes PRN.
 - This is a temporary solution (12 to 24 hours).
 - The problem with this approach is that the half-life of Midazolam is only a few minutes (9 to 13) and the duration of action is short.

2nd LINE (When 1st line approaches have failed or are suboptimal)

- In the case of failure or suboptimal PST with Midazolam (Option 1), add Phenobarbital.
- In the case of failure or suboptimal PST with Methotrimeprazine (Option 2), switch to Midazolam.
- In the case of failure or suboptimal PST with Phenobarbital at optimal doses (Option 3), add Midazolam.

3rd LINE (If 1st and 2nd line options have failed)

Propofol may be considered. However, Propofol is a powerful anesthetic agent and should only be considered as an absolutely last resort. As special close monitoring of patients is required, its use is limited to acute hospital settings. The hospital's guidelines on the use of Propofol need to be adhered to.

Titration and Maintenance of Sedation

Titrate the medications to achieve the desired goal. This is the lowest dose possible that achieves the lightest level of sedation that has the patient comfortable. Over time, doses may need to be titrated up because of progression of the disease and its complications, or the development of tolerance to the sedative. Sometimes doses may need to be titrated down, particularly when it is apparent that the level of sedation is excessive for the goal desired (e.g. light sedation is sufficient to control the symptom).

When the dose is found that achieves the desired goal (i.e. comfort), maintain the sedative at that dose for a day or two, unless further titration is required (see paragraph above). Then consider reducing the dose slightly to try and find the lowest dose that will achieve the goals. If the symptoms worsen, return to the previous effective dose of the sedative.

It is understood that some situations constitute a major crisis, requiring very rapid titration (i.e. intractable delirium in which the patient may harm himself or others, or stridor secondary to tracheal obstruction).

Note too that titration is also influenced by the availability of clinical staff. For example in an in-patient palliative unit, titration may be possible every 30 minutes whereas this might not be possible in a home setting.

MONITORING:

The frequency of patient monitoring and the parameters to be monitored is often influenced by the setting, circumstances and the availability of clinical staff.

Some parameters should be monitored routinely, while others are on a case by case basis. The parameters being assessed may also change over time.

Parameters that should be assessed using a valid tool include:

1 Level of sedation

- Various clinical assessment instruments to assess the level of sedation are used in palliative care programs across the world. The use of such a clinical instrument standardizes the assessment method and provides physicians and nurses a standardized method of communicating about PST, assessing the effectiveness of treatments, and setting treatment goals.
- The WW PST Committee recommends each organization modify their existing documentation to include the Richmond Agitation Sedation Scale (RASS) scoring (see Appendix A). Each organization should modify existing documentation records to include RASS scoring on the intravenous medication administration record and/or flow sheet linked to medications administered to induce and maintain PST.

2 Level of comfort or discomfort

- Assess the degree to which the patient reports (if he/she is able to) comfort or discomfort. If the patient is unable to do so, the clinician or nurse must assess what they perceive the patient's level of comfort or discomfort to be.

3 Airway patency and air entry (if sedation is not being done for irreversible airway obstruction)

- This is to avoid airway obstruction because of poor positioning of the patient or from vomiting. Reposition the patient and pull the jaw forward if there appears to be airway obstruction.

4 Parameters that may be monitored on a case-by-case basis include: respiratory rate, oxygen saturation and bladder fullness (in patients who are not catheterized).

It is important to note that changes in respiratory rates and patterns, as well as reductions in oxygen saturation are normal end of life changes and will occur whether or not the patient is receiving PST. To titrate PST according to these parameters would therefore be inappropriate when death is imminent.

Any parameters that are assessed should be documented in the patient chart.

The proposed standard frequency for monitoring and documentation of patients given PST will be as follows:⁵

	In Patient Settings and Hospices	Home, Residential or Long Term Care Home Setting	
	Midazolam, Methotrimeprazine and/or Phenobarbital	Midazolam	Methotrimeprazine* and/or Phenobarbital*
When initiating PST	<p>Monitor every 15 minutes (and titrate the medication doses as required) until the goal of PST is achieved (comfort).</p> <p>Continue monitoring every 15 minutes until 1 hour has passed and the patient remains comfortable without requiring additional PRN doses or dose titrations up or down.</p> <p>Monitor q 4 hours.</p>	<p>Monitor every 15 minutes (and titrate the medication doses as required) until the goal of PST is achieved (comfort).</p> <p>Continue monitoring every 15 minutes until 1 hour has passed and the patient remains comfortable without requiring additional PRN doses or dose titrations up or down.</p> <p>Then monitor q 8 hours.</p> <p>It is recommended that patients receiving this therapy have a sitter present to alert team members if patient becomes uncomfortable. Individuals acting as patient sitters should be informed about the signs of impending death.</p>	<p>Monitor every hour (and titrate the medication doses as required) until the goal of PST is achieved (comfort).</p> <p>Then monitor q 8 hours.</p> <p>It is recommended that patients receiving this therapy have a sitter present to alert team members if patient becomes uncomfortable. Individuals acting as patient sitters should be informed about the signs of impending death.</p>
Maintaining PST	Monitor q 4 hours.	<p>Monitor q 8 hours. However, a team member must be available to respond immediately to any requests for reassessment by the patient sitter.</p> <p>Individuals acting as patient sitters should be informed about the signs of impending death.</p>	<p>Monitor q 8 hours. However, a team member must be available to respond immediately to any requests for reassessment by the patient sitter.</p> <p>Individuals acting as patient sitters should be informed about the signs of impending death.</p>
Any dose adjustments made or additional bolus/PRN doses given	Restart monitoring q 15 minutes as above until the patient is comfortable and then q 4 hours thereafter.	<p>Restart monitoring q 15 minutes as above until the patient is comfortable and then q 8 hours thereafter. It is recommended that patients receiving this therapy have a sitter present to alert team members.</p> <p>Individuals acting as patient sitters should be informed about the signs of impending death.</p>	<p>Restart monitoring q 1 hour as above until the patient is comfortable and then q 8 hours thereafter. It is recommended that patients receiving this therapy have a sitter present to alert team members.</p> <p>Individuals acting as patient sitters should be informed about the signs of impending death.</p>

* If these medications are used in conjunction with Midazolam, then the monitoring suggested by the “Midazolam” column applies.

HOW CAN FAMILY AND THE CLINICAL TEAM BE SUPPORTED?

A. Supporting the Family

Palliative care includes comforting and supporting the patient's family and friends, who play an important role both when palliative sedation is being considered and while it is being carried out. Supporting a decision to initiate PST may also include feelings of doubt, guilt, fear, sorrow, and mourning. They may also feel relief that the suffering of their loved one has come to an end. Information, explanation, cooperation and ongoing evaluation of the situation are essential if PST is to work to good advantage and those involved can bid a meaningful farewell. The health care team should communicate with the patient's family using language they can understand.

Family members can be an important source of information about the wellbeing of the patient. It is helpful to meet with them at set times for periodic updates or to discuss new circumstances that may arise. It also allows the health care providers to watch for signs of stress or burnout in the family, and encourage them to care for themselves with adequate rest and nutrition.

Ascertain the level of involvement that the family wants in the process. Provide an opportunity for the patient, if possible, to express what s/he may want from their loved ones, or would find comforting, during the time they are sedated. Obtain information on anything that the patient would want or need before sedation is initiated, i.e., rituals, spiritual or religious rites, saying good-byes or expressing their feelings to family or team members. Conversely, is there anything that a family member or loved one needs to say to the patient prior to the initiation of PST?

B. Supporting the clinical team

In cases where PST is being initiated, a profound empathy for the patient's suffering is common. To bear witness and still be professionally present and supportive for a patient and family can be an emotionally exhausting experience. Therefore, it is recommended that the team members caring for a patient and family discussing and possibly initiating PST be offered opportunities to discuss their own personal feelings. This may include formal or informal debriefings before or during the initiation of PST or after the death of the patient or individual meetings with team members.⁶

REFERENCES

- Alberta Health Services, Calgary Zone. (2009). *Clinical Practice Guideline for: Palliative Sedation*. Calgary, Alberta: Author.
- Arevalo, J.J. et al. (2012). Palliative Sedation: Reliability and Validity of Sedation Scales. *Journal of Pain and Symptom Management*. 44(5) p. 704-714.
- ¹ Canadian Society of Palliative Care Physicians (CSPCP) Taskforce: Dean, M.M., Cellarius, V., Henry, B., Oneschuk, D. & Librach, L. (2012). Framework for Continuous Palliative Sedation Therapy (CPST) in Canada. *Journal of Palliative Medicine*, 15(8), 1-10.
- ^{4, 5} Adapted with permission from The Champlain Region Palliative Sedation Therapy Clinical Practice Guidelines and Protocols (2010). [Internet] Available from: <http://www.palliativecareconsultation.ca/resources/Palliative%20Sedation%20Protocol%20for%20Champlain%20Region%20June%202010.pdf>
- De Graeff, A. & Dean, M. (2007). Palliative sedation therapy in the last weeks of life: A literature review and recommendations for standards. *Journal of Palliative Medicine*, 10(1), 67-85.
- ⁶ Fraser Health Hospice Palliative Care Program. Refractory Symptoms and Palliative Sedation Therapy Guideline. Approved by: End of Life Care, Practice Advisory Council, May 9, 2011. [Internet] Available from: http://www.fraserhealth.ca/media/RefractorySymptomsandPalliativeSedationTherapyRevised_Sept%2009.pdf
- Khan, B. A. et al. (2012). Comparison and Agreement between the Richmond Agitation-Sedation Scale and the Riker Sedation-Agitation Scale in Evaluating Patients' Eligibility for Delirium Assessment in the ICU. *Chest*. 142(2), p. 48-54.
- Latimer, E.J. (1998). Ethical Care at the end of life. *CMAJ*, 158(13); 1741-47.
- ³ Latimer, E.J. (1991). Ethical decision-making in the care of the dying and its applications to clinical practice. *J Pain Symptom Management*, 6(5):329-36.
- ² Levy MH. Cohen SD. Sedation for the relief of refractory symptoms in the imminently dying: a fine intentional line. *Seminars in Oncology*. 2005; 32(2):237-46.
- Sessler, C.N., Gosnell, M., Grap, M.J., Brophy, G.T., O'Neal, P.V., Keane, K.A. et al. (2002). The Richmond Agitation-Sedation Scale: validity and reliability in adult intensive care patients. *Am J Respir Crit Care Med*, 166(10), 1338-1344.

APPENDIX A

Richmond Agitation Sedation Scale (RASS)*

SCORE	TERM	DESCRIPTION	
+4	Combative	Overtly combative, violent, immediate danger to staff	
+3	Very agitated	Pulls or removes tube(s) or catheter(s); aggressive	
+2	Agitated	Frequent non-purposeful movement, fights ventilator	
+1	Restless	Anxious but movements not aggressive vigorous	
0	Alert and calm		
-1	Drowsy	Not fully alert, but has sustained awakening (eye-opening/eye contact) to <i>voice</i> (>10 seconds)	} Verbal Stimulation
-2	Light sedation	Briefly awakens with eye contact to <i>voice</i> (<10 seconds)	
-3	Moderate sedation	Movement or eye opening to <i>voice</i> (but no eye contact)	
-4	Deep sedation	No response to voice, but movement or eye opening to <i>physical</i> stimulation	} Physical Stimulation
-5	Unarousable	No response to <i>voice</i> or <i>physical</i> stimulation	

Procedure for RASS Assessment

1	Observe patient	
	a. Patient is alert, restless, or agitated.	(score 0 to +4)
2	If not alert, state patient's name and say to open eyes and look at speaker.	
	b. Patient awakens with sustained eye opening and eye contact.	(score -1)
	c. Patient awakens with eye opening and eye contact, but not sustained.	(score -2)
	d. Patient has any movement in response to voice but no eye contact.	(score -3)
3	When no response to verbal stimulation, physically stimulate patient by shaking shoulder and/or rubbing sternum.	
	e. Patient has any movement to physical stimulation.	(score -4)
	f. Patient has no response to any stimulation.	(score -5)

* Sessler CN, Gosnell M, Grap MJ, Brophy GT, O'Neal PV, Keane KA et al. The Richmond Agitation-Sedation Scale: validity and reliability in adult intensive care patients. Am J Respir Crit Care Med 2002;166:1338-1344.

APPENDIX B

Timeline

Waterloo Wellington Palliative Sedation Therapy protocol consensus process

Early 2012

The Waterloo Wellington Palliative Physician Education Committee endeavored to create a process to actualize our shared goal of developing and adopting by consensus a Waterloo Wellington Protocol for Palliative Sedation Therapy (PST). Invitations to attend a Palliative Sedation Therapy Clinical Forum were sent to a broad cross section of health care professionals from across our LHIN region ensuring a wide perspective.

Thursday March 29, 2012

A Palliative Sedation Therapy Clinical Forum was held and hosted by Dr. Katherine Whitehead.

In preparation for the forum all participants were sent 3 Canadian PST guidelines (see below) for their review.

- 1 The Ottawa Palliative Sedation Guideline
- 2 The Calgary Palliative Sedation Guideline
- 3 The Fraser Health Refractory Symptoms and Palliative Sedation Guideline

Participation facilitated an increased awareness and understanding of the issues relevant to the practice of palliative sedation and practice issues about the same. The Facilitator prepared a consensus document based on the collaborative discussions from the forum.

Profession/Specialty represented included:

- GPO (1)
- Spiritual Care (2)
- RN (15)
- Medicine (1)
- Physician (7)
- Palliative Care MD (3)
- Family Med/Palliative (1)

Fall 2012

Invitations were extended to the original clinical expert participants from the March 29, 2012 forum to engage in a final consensus meeting to finalize the Waterloo Wellington Palliative Sedation Therapy (WW PST) Protocol. The final consensus process was facilitated by Blair Henry, Ethicist, from Sunnybrook Hospital. Prior to the final meeting Blair created a consensus survey that was emailed out to the 37 content experts and key stakeholders in the Waterloo-Wellington area. The Canadian Framework for Continuous Palliative Sedation Therapy (2012) was likewise brought forward to inform the developing protocol.

Survey details:

- The survey was launched on October 4, 2012
- 3 reminders were issued
- The survey closed on Nov 6, 2012
- A total of 20 responses were received
- Response Rate= 54%

November 14, 2012

A final meeting involving the content experts took place prior to an evening lecture event. Blair Henry reviewed the survey results. It was understood that a total amounting to > 80% for responses indicating either neutral, agree, and strongly agree would stand as a marker of consensus. Individual PST Protocol survey element consensus scoring follows:

- Purpose 99%
- Definitions 99%
- Indications and conditions for use of PST 100%
- Criteria for initiation of PST 100%
- Process 100%
- Documentation for initiation of PST 100%
- Medications
- Intro section 80%
- Medication protocol Goal 85%
- First line recommendations (option 1) 80%
- First line recommendations (option 2) 75%
- First line recommendations (option 3) 70%
- First line recommendations (option 4) 75%
- Second line recommendations 70%
- Third line recommendations 70%
- Titration and Maintenance of Sedation 89%
- Monitoring 84%
- Supporting the family 100%
- Supporting the clinical team 100%

The outcome of the final forum meeting was to strike two working groups who would meet to engage in further exploration of the medications recommendations as well as the monitoring component of the PST protocol.

Early 2013

Recommendations from Monitoring Working Group included:

- 1 We endorse the monitoring and documentation section as written within the Waterloo Wellington Palliative Sedation Therapy Protocol. (page 9 – 10)
- 2 Following a comprehensive review of the literature as well as conducting an informal environmental scan of currently used sedation scales, we recommend the use of the Richmond Agitation-Sedation Scale (RASS)
- 3 When utilizing the RASS in the context of palliative sedation therapy (PST), we recommend each organization modify their existing documentation to include the RASS scoring. Each organization should modify existing documentation records to include RASS scoring on the IV medication administration record and/or flow sheet linked to medications administered to induce and maintain PST.
- 4 Timing for administration of the RASS: as per the Waterloo Wellington PST protocol recommendations.

Recommendations from the Medication review working group were waived after further discussion and clarification of identified issues.

