



The Waterloo Wellington Palliative Care
Nursing Intraspinal Protocol

WATERLOO WELLINGTON HPC EDUCATION COMMITTEE;
INTRASPINAL EDUCATION TASK FORCE

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TABLE OF CONTENTS

SUBJECT	PAGE
Background _____	5
Recommendations and Guiding Principles _____	6
Key Safety and Risk Management for Implementation Considerations _____	6
Roles & Responsibilities _____	7
Nursing Education Requirements _____	8
Interventional Pain Physician _____	8
Local Palliative Care Clinical Team Roles and Responsibilities _____	8
Nursing Education Requirement-Recommendations _____	9
Patient Controlled Intrathecal Analgesia (PCIA) _____	9
References _____	10

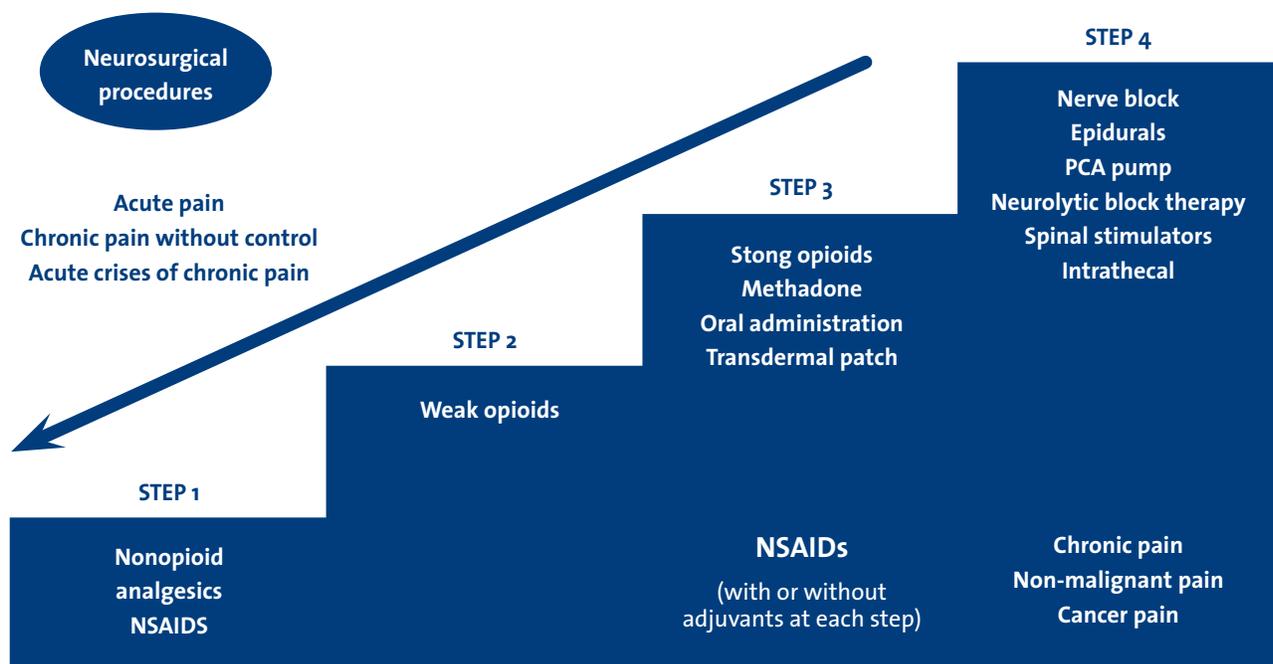
The Waterloo Wellington (WW) Palliative Care Nursing Intraspinal Protocol

Background

Pain is a common symptom in advanced stages of cancer. With appropriate assessment and management, pain can be managed 90-95% of the time using oral and parenteral opioids and adjuvant medications. Patients who do not respond to the usual pharmacological methods of pain control may be candidates for intraspinal (neuraxial) therapy where opioid and local anesthetics are delivered into the epidural or intrathecal space. (Hawley et al. 2009)

Indications for intraspinal analgesia include intractable severe pain despite aggressive pharmacological interventions as well as dose-limiting side effects experienced from conventional administration routes including oral, rectal, subcutaneous, and intravenous therapies.

New adaptation of the analgesic ladder



NSAID – nonsteroidal anti-inflammatory drug, PCA – patient-controlled analgesia.

Figure 1 (Pasero & McCaffery 2011)

Planning for these few cases is critical to success, as lack of appropriate equipment, supplies, and clinical expertise to support nursing and medical personnel are potential barriers to providing a successful intraspinal program in the community. (Myers, Chan, Jarvis, Walker-Dilks & the Palliative Care Clinical Program, 2009b)

Registered Nurses are widely recognized as the patient's pain manager in the home, hospital, and other care settings. Pasero, Eksterowicz, Primeau, & Cowley 2007. The provision of comfort has long been considered a fundamental nursing responsibility. "For many years, nurses have played a critical role in ensuring the safe and effective administration of analgesia". (Pasero, Eksterowicz, Primeau and Cowley 2007, p. 53) Registered nurses who have proper education and additional training may manage and monitor any patient in any setting receiving analgesia by catheter technique .

Recommendations and Guiding Principles

PATIENT SELECTION AND ELIGIBILITY

Indications for intraspinal analgesia

- 1 Intractable severe pain despite aggressive pharmacologic interventions by conventional administration routes (oral, rectal, transdermal, subcutaneous, and intravenous) (See Figure 1)
- 2 Dose-limiting side effects experienced from conventional administration routes

Contraindications

- 1 Active systemic or local infection at the site of catheter insertion or pump implantation
- 2 Bleeding diathesis at the time of procedure
- 3 Increased intracranial pressure
- 4 Spinal pathology that may prevent successful placement (e.g., hardware) or lead to adverse effects (i.e., severe spinal stenosis)
- 5 Allergy
- 6 Failed trial

Additional Considerations

- 1 Careful consideration must be given to patient selection (social, geographical, as well as medical considerations)
- 2 The availability of appropriate equipment, supplies, expertise, and 24-hour coverage for clinical support
- 3 The expectation that intraspinal analgesia would improve a patient's quality of life and level of function
- 4 Informed consent has been given by patient or substitute decision maker
- 5 Availability of home care nursing and medical support for intraspinal catheter care
- 6 Patient general medical condition is amenable to intraspinal analgesia
- 7 For a fully implanted system, a screening trial is recommended; for intraspinal analgesia using an external pump, a trial is not necessary

Key Safety and Risk Management for Implementation Considerations:

- 1 Long-term intraspinal analgesic treatment can be provided by epidural analgesia or intrathecal (subarachnoid) analgesia. For both routes of administration, there are basically three types of intraspinal delivery systems: externalized system, partially externalized system, and totally internalized implanted system.
- 2 Planned length of use should be a determining factor for choosing the method of delivery. NB: Discussion re prognosis should be considered for use of other technology such as the implantable pump vs. using an ambulatory pump.
- 3 Medication must be preservative free.
- 4 Straight alcohol or acetone should never be used for site preparation or cleansing. Disinfectants containing alcohol may be used, but must be allowed to dry prior to use.
- 5 Patients require admission for intraspinal placement, and the facility must have health personnel who are competent in the care of patients with intraspinal analgesia and policy and procedures that are available and approved.
- 6 While in hospital post-procedure, routine monitoring of patients is required for all key clinical indicators including vital signs, pain, sensory and motor functioning, and complications and side effects. Routine monitoring of insertion site is also required.

- 7 Criteria for admission to community care is dependent on CCAC Client Service Manager's review and approval. This is required as defined by protocols, that includes roles and responsibilities of care providers to ensure timely response should complications arise and appropriate patient follow-up by members of the team. Rationale: In WW, patients receiving intraspinal analgesia likely will have had their catheters or devices inserted in a tertiary care centre (London, Hamilton, Toronto). At this time, WW does not provide interventional pain services and anesthesia support will come from a tertiary centre. To support local nursing teams, the involvement of a local palliative care physician is optimal to facilitate patient care locally should the patient become too unstable to travel and require local hospitalization.
- 8 The care team should consist of interventional pain physicians, nurses, palliative care physicians, pharmacists, and primary care providers.
- 9 All members of the team should have appropriate and specialized training in accordance with professional college/ association standards and certification. Additionally, community nurses should successfully complete the **Waterloo Wellington Palliative Care Intraspinal (Neuraxial) Analgesia Community Self-Learning Package**.
- 10 Patients and family members should be fully informed in all aspects of intrathecal pain management care. This includes knowing whom and when to call for support, should complications arise.
- 11 Strict aseptic conditions must be maintained in all aspects of intraspinal analgesia administration.
- 12 All equipment should be compatible with epidural and intrathecal use (pump, tubing, catheter, solution bag, dressing, etc), must be appropriately labeled, and should be dated at time of equipment change.
- 13 Patients should have a Medic Alert emblem that alerts healthcare professionals to the presence of an intraspinal device in emergency situations.

This Protocol follows the recommendations put forth from the Guideline supported by Cancer Care Ontario: Intraspinal techniques for pain management in cancer patients: a systematic review (Myers, Chan, Jarvis) in 2010. Further, the modified WHO Ladder, adapted to reflect a Step 4 for interventional pain management is foundational to this protocol and interventional pain management in general.

The WW Palliative Care Intraspinal (Neuraxial) Protocol is targeted for:

- 1 Nurses involved in the delivery of intraspinal analgesia for cancer patients.
- 2 Nurses involved in the care of cancer patients who are eligible for intraspinal analgesic intervention and who would make referrals to the appropriate care team.

Roles & Responsibilities

There are a range of key clinical activities in the administration of intraspinal analgesia. Outside of catheter insertion by the interventional pain physician, and medication preparation by the pharmacist, the role and responsibilities of each team member must be clarified and agreed upon, preferably prior to catheter insertion. The roles and responsibilities include but are not limited to:

- Patient selection
- Inpatient admission and discharge planning
- Ongoing assessment and medication management
- Monitoring for side effects and complications
- Care of the catheter site
- Equipment maintenance
- Patient and family education
- A plan for ongoing mentorship and communication between tertiary palliative care and the local palliative care providers.

[as recommended in the Intraspinal Techniques for Pain Management in Cancer Patients: Guidelines and Recommendations.] (Myers et al. 2009)

Nursing Education Requirements

It is recommended that each nurse have verified their competency related to managing intraspinal medication administration.

Competency can be verified through the completion of the WW Palliative Care Intraspinal (Neuraxial) Analgesia Community Self-Learning Package. Organizations are responsible for ensuring each nurse has reviewed this protocol prior to caring for a client receiving intraspinal pain management and has successfully completed the Self Learning Package.

Institution Recommendations (American Society for Pain Management Nursing):

- Ensure implementation of multidisciplinary policies and procedures related to administration of analgesia by catheter techniques.
 - Ensure the registered nurse's (RN's) role is consistent with provincial nurse practice laws and established institutional policies and procedures.
 - Ensure practitioner has access to a formulary containing documented safe drugs for delivery by catheter techniques.
- Provide a means for documentation of all aspects of therapy.
 - Provide initial and ongoing RN education related to administration of analgesia by catheter techniques to ensure competency.
- Systematically evaluate safety and effectiveness of the administration of analgesia by catheter techniques.

(Pasero et al. 2007)

Interventional Pain Physician

Upon identification of a patient appropriate for intraspinal analgesia returning to a home community, the interventional pain physician has likely been communicating with the local palliative care team in planning for a discharge back to either community or hospital, depending on each individual case.

In discharge back to home community (WW), the following considerations should be addressed and documented:

- Local policies and procedures for intraspinal analgesia including documentation of catheter position, procedures, and administration of initial dosing and outcome;
 - The individual medication plan, including analgesic dosage parameters and mechanisms for monitoring side effects and toxicity;
- Communication and contact information, clarification of shared care with tertiary site, and transfer of care.

Local Palliative Care Clinical Team Roles and Responsibilities

PALLIATIVE CARE PHYSICIAN

Upon receiving a patient with intraspinal analgesia, the palliative care physician should be communicating with the interventional pain physician in planning discharge back to either community or hospital, depending on each individual case.

In discharge back to home community (WW), the following considerations should be addressed and documented:

- The individual medication plan, including analgesic dosage parameters and mechanisms for monitoring side effects and toxicity;
- On call support from the referring tertiary site, and
- Confirmation with local team of current orders and care plan.

CARE COORDINATOR

Coordination and resource allocation to support this WW Intraspinal Protocol.

(Myers J, Chan V, Jarvis V & Walker-Dilks C. 2010)

PHARMACIST

- Ensure all medication labels prominently identify the route of administration.
- Use dedicated infusion pumps for intraspinal infusion. Pre-programme the pump with hard and soft limits.
- Establish parameters and drug libraries with anesthesiology.
- Collaborate with the team re: issues around discharge planning and continuity of care.
- Patient and family teaching.
- Support the nursing teams in management of drug delivery.
- Coordination of medication and supply orders and prescription changes in the community.
- Consult with the anesthesiologist and palliative care physician prior to initiating any anticoagulant therapy.

(ISMP 2005 and 2008)

REGISTERED NURSE

- Prior to discharge from the acute care setting, create a home environment that promotes the recommendations for safe medication handling.
 - Complete initial and ongoing institution-established educational requirements related to administration of analgesia by catheter techniques.
- Follow institutional policies and procedures related to administration of analgesia by catheter techniques (including patient assessment, care of the catheter site, dressing changes, equipment maintenance, management of complications, and the ability of problem solve and trouble shoot).
 - Implement Independent double checks of medications.
 - Ensure that the pharmacist has consulted with the anesthesiologist and palliative care physician prior to initiating any anticoagulant therapy.
 - Coordination of medication and supply orders and prescription changes in the community.
- Communicate regarding patient status.
- Document therapies according to institutional policies and procedures.
 - Establish system safeguards that reduce potential risk for substitution errors with other look alike premixed solution(separate room dedicated to Intraspinal care).
- Participate in quality improvement activities related to administration of analgesia by catheter techniques as required by institution.
- Ensure back up plan in place for pump failure in the home.

(Myers J, Chan V, Jarvis V and Walker-Dilks C. 2010, ISMP 2005 and 2008, Pasero et al. 2007)

Nursing Education Requirement-Recommendations

Nursing Education for care and maintenance of intraspinal analgesia should include:

- Institutional policies and procedures
- Related anatomy and physiology
- Related pharmacology
- Comprehensive patient assessment
- Use and interpretation of monitoring modalities
- Use and troubleshooting of infusion devices
- Side-effect management
- Complications and emergency situation recognition and management
- Patient/family education

(Pasero et al. 2007)

Patient Controlled Intrathecal Analgesia (PCIA)

PCIA cannot be fully addressed in this protocol, except to suggest managing uncontrolled pain should be ordered in consultation with the interventional pain physician and palliative care physician using an individual approach to patient/proxy controlled bolusing. The proposed PCIA dose is often administered in clinic with close monitoring for toxicity such as weakness, over sedation, hypotension or nausea. Close follow up is recommended to assess for effect and tolerability.

(Brogan et al. 2011)

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