Neuropathic Pain Assessment and Management – Acute Care

Quicklinks

- Neuropathic Pain Treatment Guidelines
- Pain Assessment Record
- Neuropathic Pain - Patient Information Pamphlet
- Pain Assessment and Documentation [D-00-07-30269]

Site Applicability

VGH: T14E, T12, T9, T8, T7, T4, BPTU, CP9, CP10, PAC, Peri-Op, PAR

UBCH: CSI, Surgical Short Stay, PACU, Radiology

Site applicability to expand once implementation complete

Practice Level

RN

Policy Statement

The primary purpose of this guideline is to ensure that neuropathic pain is identified as early as possible in the acute care setting and is treated according to best available evidence. In order for this to occur:

- Neuropathic pain must be incorporated into the generic documentation of assessment (of patients) at VGH & UBC hospitals as per the Pain Assessment Record.
- Frequency of assessment for neuropathic pain must occur as per the Pain Assessment and Documentation [D-00—07-30269]
- The patient identified with neuropathic pain must also be referred to the 'appropriate' Pain Management Service i.e. Peri-operative Pain, Complex Pain, Palliative Care or Consult Psychiatry.

Need to Know

- Clinicians must be aware that neuropathic pain may be associated with surgery[1,2,3] trauma, cancer, stroke, spinal cord injury and ischemia. It is likely to persist and does not always decline with healing[4] meaning it can become chronic and disabling, and amongst the most challenging to treat[5] therefore clinicians must be prepared to implement timely and appropriate pharmacological intervention for neuropathic pain.
- Clinicians must be aware that neuropathic pain may also lead to the development of chronic pain sequelae[6,7] such as insomnia, depression and suicidal ideation, therefore secondary treatment goals include anxiety and depression[8]; improving sleep, ability to function and quality of life[8].
- Treatment goals of neuropathic pain must be realistic and the patient must be aware that the primary goal is to make pain tolerable, rather than to eliminate it[8].

Protocol

Clinically, neuropathic pain is associated with a number of sensory symptoms[9]. Several studies have attempted to quantify these symptoms as diagnostic criteria of neuropathic pain[10,11,12].

1. The Bouhassira et al[13] 7-item DN4 questionnaire, based on sensory pain descriptors and integrated into the Pain Assessment Sheet should be used to assist with the identification of neuropathic pain. Frequency of assessment for neuropathic pain should be as per the Pain Assessment and Documentation [D-00—07-30269].
2. If the neuropathic pain score is equal to or greater than 3 OR the patient has significant allodynia (hypersensitivity to touch + pain score > 4), contact physician:
    a. If patient is on a 'pain' specialist service notify this service
    b. If patient is not on a 'pain specialist service' notify the attending service for assessment and orders.
    c. For information regarding best treatment options, see the Vancouver Acute Neuropathic Pain Treatment Guidelines.
3. Ensure the patient understands the importance of assessment for neuropathic pain.
    - Click here for Pain Assessment Record
    - Click here for Pain Assessment and Documentation Standards within Pain Assessment and Documentation [D-00—07-30269]
    - Click here for Neuropathic Pain Treatment Guidelines
    - Click here for Neuropathic Pain Patient Information Pamphlet

Documentation

VGH is currently transitioning to the new Pain Assessment Record; thus units with the new Pain Assessment Record will assess for neuropathic pain as per the Pain Assessment and Documentation Standards.

If neuropathic pain is identified implement the Vancouver Acute Neuropathic Pain Treatment Guidelines and document in the Progress Notes.

PATIENT / CLIENT / RESIDENT EDUCATION:

The patient must be given adequate verbal and written information on neuropathic pain and its treatment. Lack of patient education is associated with greater risk for uncontrolled pain and critical incidents. The patient must receive the Neuropathic Pain Patient Information pamphlet and be informed of the following:

- Importance of identifying neuropathic pain
- Potential for persistent, chronic and disabling pain if neuropathic pain is not treated
- Potential for the development of chronic pain sequelae such as insomnia, depression and suicidal ideation if neuropathic pain is not treated
- Potential for adverse reactions to the medication

EXPECTED CLIENT / FAMILY OUTCOMES (Guidelines Only):

The patient will:

- Report that pain is within an acceptable level using a pain rating scale
- Verbalize an understanding of neuropathic pain management
- Demonstrate knowledge related to adverse reaction to medication

References

1. Shipton, E. 2008. Post-surgical neuropathic pain. ANZ Journal of Surgery. 78(7), pp548-555.
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7. McDermott, A.M., T.R. Toelle, D.J. Rowbotham, C.P. Scahfer, and E.M. Dukes. 2006. The burden of neuropathic pain: results from a cross-sectional survey. Eur J Pain. 10, pp127-35.
8. MdPASSPORT Neuropathic Pain Key Learning Points Canadian Pain Society www ?
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13. Bouhassira et al Pain 136, 380-387 (2008)

Revised By

PROGRAM/UNIT: Peri-operative Pain Service (POPS)

CPD Developer Lead: CNS, POPS

Other members:

- Medical Director, Peri-operative Pain Service
- Medical Director Complex Pain Service

Endorsed By

- Medical Director Peri-operative Pain Service
- Medical Director Complex Pain Service
- Medical Director Spine Unit Pain Program
- Medical Director, Liaison Psychiatry
- Sharepoint 2nd Reading – Final for Endorsement (PSMs and affected Council Chair)

Approved for Posting

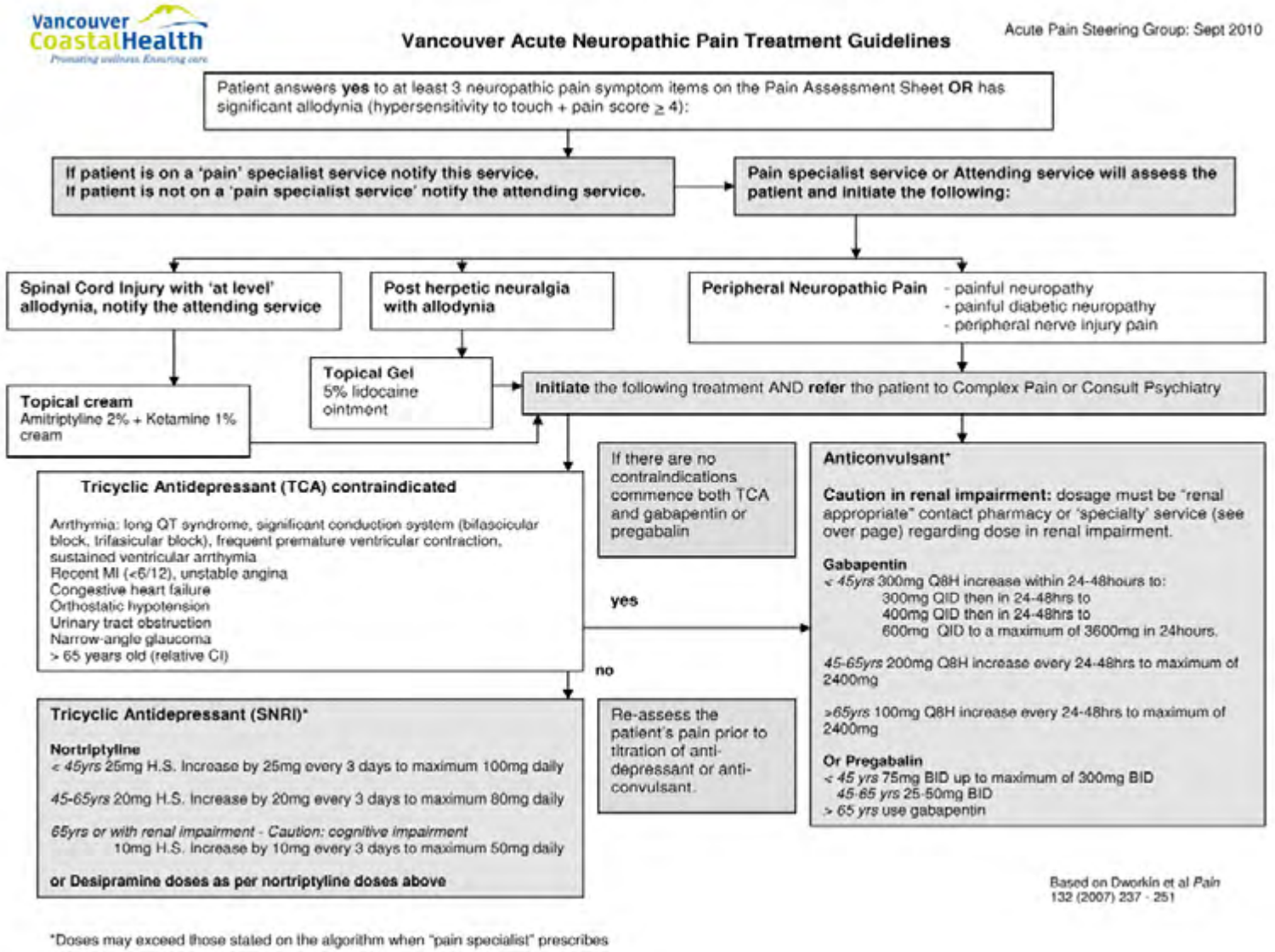
- Sharepoint Final Sign-Off by Operation Directors, Vancouver - Acute Services
- Acting Director Professional Practice Nursing, Vancouver – Acute Services

Date of Revision

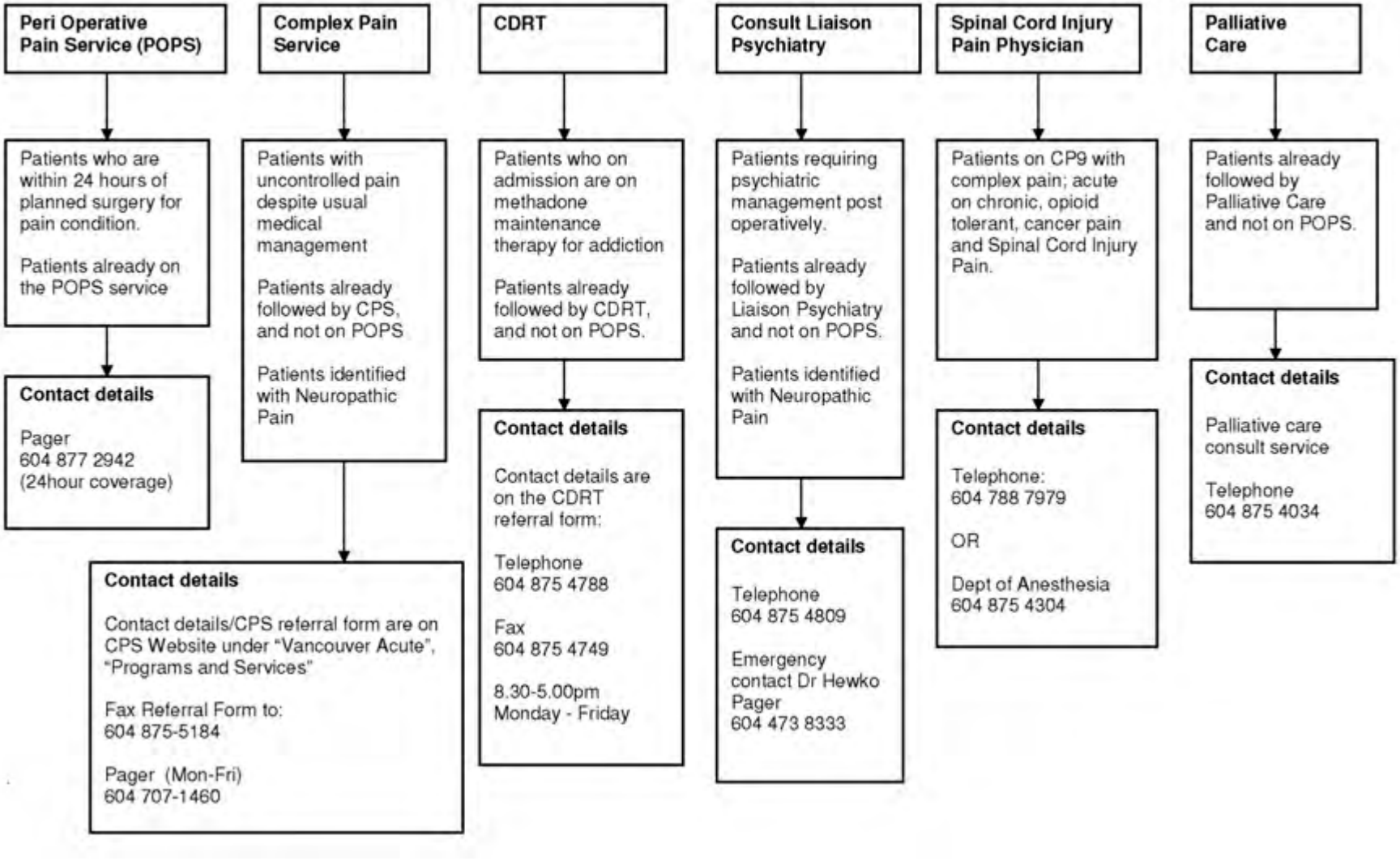
Original publication: Feb/2001

Review/Revision(s): Jan/2011

Appendix A



Who to call or refer your patient to when patients pain is uncontrolled



Appendix B

part of the Vancouver Coastal Health Authority

Pain Assessment Record

Year ____________ Site ____________________

PCIS LABEL

PUMP NUMBER
1. ____________ 2. ____________
1. ____________ 2. ____________

LOCATION OF PAIN
A ____________ B ____________
C ____________ D ____________

Section	Item		
Vital Signs	**Date** dd/mm		
	Time		
	Pain education given		
	Respirations		
	Sedation score		
Pain Assessment	Location of Pain		
	Pain Score At **rest** mark with **X** On **activity** mark with **O** When the patient is non-verbal use the behavioural pain score	10 / 8 / 6 / 4 / 2	10 / 8 / 6 / 4 / 2
	Functional Activity Score		
	Neuropathic pain symptoms	Score 1 point for each neuropathic symptom - If total score ≥ 3 OR patient has significant allodynia (hypersensitivity to touch and pain score ≥ 4) refer to the VA Neuropathic Pain Treatment Guidelines	
	Burning / painful cold / electric shocks		
	Tingling / pins & needles / numbness / itching		
	Total		
	Hypersensitivity to touch (allodynia)? (Y/N)		
Pain Management Modalities	**PCA check against orders**	Was intrathecal morphine / hydromorphone given? N/A Y Date: Time	
	Dose (mg)		
	Lockout (min)		
	4hr dose limit		
	Continuous rate (mg)		
	Totals – Completed		
	Totals – Denied		
	Totals – 12 hour total (mg)		
	I.V. Ketamine continuous rate (mg/hr)		
	I.V. Ketorolac continuous rate (mg/hr)		
	I.V. __________ continuous rate ____		
	Epidural / PNB / PVB / LAWI		
	Epidural – Continuous rate (mL)		
	Epidural – Bolus given (mL)		
	PNB ☐ – Continuous rate (mL)		
	PVB ☐ – Given		
	LAWI ☐ – Attempts		
	Sensory dermatome level R		
	Sensory dermatome level L		
	Motor Score R		
	Motor Score L		
Side Effects	Local anaesthetic toxicity (Y/N)		
	Nausea/vomiting score		
	Pruritus score		
	Bowel movement (Y/N)		
	Initials		

Appendix: C

What is neuropathic pain?

Neuropathic (nerve) pain is pain caused by damage or injury to nerves. It is different to the normal (nociceptive) pain we experience which is caused by damage to bones, skin or soft tissues.

Injury to nerves can occur at the level of the brain, spinal cord or in the hands, arms, feet, legs, soft tissue and body organs and may be due to trauma, surgery or disease including infection and cancer. Common examples include phantom limb pain (for instance the pain that a person with an amputated leg continues to feel even though the leg is gone), diabetic neuropathy (when diabetes has damaged the nerves) or shingles infection (post-herpetic neuralgia). In many chronic pain conditions there may also be a mixture of both neuropathic and nociceptive pain.

Why does nerve injury cause pain?

Nerves are part of the body's communication system; they carry messages from one part of the body to another by way of both electrical and chemical pathways.

However human nerves are very different to the electrical wiring that connects a light switch to a light bulb. If electrical wiring is cut, the system simply stops and there is no light. When human nerves are damaged however, the injured nerves often become over-excited or over-sensitive. This means the messages become slightly warped and the brain interprets them as pain. Keeping to the analogy of the light bulb, this is more like the light flickering on and off haphazardly.

Because humans are complex many things are involved in how much pain a person feels. There may be genetic elements (in other words, some people have nerves that are more likely to become over-excited after injury than others) and for others it may be quantity: picture a "pain gate" in the nerve system. If the gate is shut, not many pain messages get to the brain but if it's open, then pain messages can rush through. The 'pain gate' is affected by mental/ psychological as well as physical factors – and emotions such as fear and anxiety. Lack of physical activity can also play a part. Often, feeling peaceful emotionally coupled with moderate physical activity may reduce pain.

How do nerves work?

The sympathetic nervous system is that part of the body that reacts in a "fight or flight" response. This means the sympathetic nervous system responds to some types of stress by 'turning up' activity in the sympathetic nerves coming from the brain and spinal cord. This results in a hormone, adrenaline, coursing through the body which in turn makes the heart beat faster and the blood flow more quickly. Individuals may find themselves sweating or feeling nervous as a result.

Usually, the nerves that carry 'normal' (nociceptive) pain messages are quite separate from sympathetic nerves. However when nerve injury occurs, the sympathetic nerves can change their behaviour. First, small sympathetic nerve 'branches' can grow towards the injured 'normal' pain nerve and release adrenaline, which increases the electrical excitability of the injured nerve (and therefore increases pain). Second, there can be a 'reflexive' change in the messages occurring in the spinal cord which can bring about changes in skin colour, temperature and sweating in the region of the injury as well as cause swelling.

Features suggestive of neuropathic pain

Nerve (neuropathic) pain can sometimes be difficult to identify, but there are various features are often present:

- There is a history of nerve injury or damage
- There may be a delay in onset of pain after (nerve) injury
- There may be pain even if it is not visible in skin, bones or tissue

- There may be numbness
- The description of the pain includes terms like "burning", "shooting", "stabbing" or "pulsing"
- There may be spontaneous bursts of pain
- A light touch can produce pain – and even a pin-prick feels enormous.
- The pain of a touch or pin-prick often persists even when the 'cause' stops and repeating the stimulus makes the pain worse.
- There are unpleasant feelings such as pins and needles, numbness, something crawling on the skin (or the feeling of water running over the skin); even a sensation of feeling shards of glass on the skin.
- There may be other changes such as swelling, change in color, temperature or perspiring

What can be done for nerve pain?

With nerve pain that lasts less than 3 to 6 months the focus is on early treatment to prevent it becoming constant or chronic. Chronic nerve pain is much more difficult to treat and the focus is on managing the condition with various adaptational strategies as well as medication. These may include:

- improving your understanding of the situation
- improving the level of physical activity even though there may be ongoing pain
- learning coping skills for managing chronic pain and distress

In terms of medication, there are various options such as antidepressants, anti-convulsants (drugs that treat epilepsy) as well as opioids (morphine-like). Nevertheless, each person is different and with time a combination of these therapies can often be effective.

For people who have had pain for six months or more a number of 'self-management' approaches can be tried to maintain or improve quality of life even with pain. How one thinks and feels has a major impact on pain perception and often physical activity and fitness (even when it hurts at first) can help. It is also important to learn to pace your activities and to set realistic goals.

Other resources are available on these web sites:

http://www.canadianpaincoalition.ca/

http://www.painexplained.ca/content.asp?node=98&lang=en

http://shop.abc.net.au/browse/product.asp?productid=163925

Reference

www.calgaryhealthregion.ca/cpc