

# Using Pain Pumps in the Home



Host and Moderator: Jeffrey Moat, CM  
Presenter: Melina Perron, RNCHPCN (c)  
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# Territorial Honouring



# The Palliative Care ECHO Project

The Palliative Care ECHO Project is a 5-year national initiative to cultivate communities of practice and establish continuous professional development among health care providers across Canada who care for patients with life-limiting illness.

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The Palliative Care ECHO Project is supported by a financial contribution from Health Canada. The views expressed herein do not necessarily represent the views of Health Canada.



# LEAP Core

- Interprofessional course that focuses on the essential competencies to provide a palliative care approach.
- Taught by local experts who are experienced palliative care clinicians and educators.
- Delivered online or in-person.
- Ideal for any health care professional (e.g., physician, nurse, pharmacist, social worker, etc.) who provides care for patients with life-threatening and progressive life-limiting illnesses.
- Accredited by CFPC and Royal College.



Learn more about the course and topics covered by visiting

[www.pallium.ca/course/leap-core](http://www.pallium.ca/course/leap-core)

# Introductions

## Host and Moderator

**Jeffrey Moat, CM**  
CEO, Pallium Canada

## Presenter

**Melina Perron, RN, CHPCN (c)**  
Clinical Director, Home and Community Care Support Services, Central East, Ontario

# Conflict of Interest

## Pallium Canada

- Non-profit
- Partially funded through a contribution by Health Canada
- Generates funds to support operations and R&D from course registration fees and sales of the Pallium Pocketbook

## Presenter

- Melina Perron, RN

# Welcome and Reminders

- Please introduce yourself in the chat!
- Your microphones are muted, but there will be time during this session for questions and discussion.
- You are also welcome to use the chat function to ask questions and add comments, but we also encourage you to raise your hand
- This session is being recorded and will be emailed to registrants within the next week.
- Please remember not to disclose any Personal Health Information (PHI) during the session

# Poll

Have you ever used a pain pump in the community for an end-of-life patient?  
Yes, No, Not Applicable



What is Pain?

# What is Pain?

- Pain is an unpleasant emotional and sensory experience
- Pain is whatever the experiencing person says it is, existing whenever the experiencing person says it does
- Pain can be psychological, physical, spiritual or a combination
- Pain is different for everyone
- Pain is common for people living with life limiting/or threatening illnesses, however some people won't have any pain at all
- Pain can fluctuate and become worse
- Not all pain is the same and requires assessment to determine treatment options

# Knowledge Check

True or False: The following are all characteristics of pain: Stabbing, cutting, stinging, burning, boring, splitting, colicky, crushing, gnawing, nagging, gripping, scalding, shooting or throbbing. It may be dull or sharp, localized or general, persistent, recurrent, chronic or radiating?

# Managing Pain

# Assessing and Screening Pain

## Managing pain begins with a careful assessment

Common tools used to screen and assess pain:

- Symptom Acronym: OPQRSTUV
- Brief Pain Inventory -short form (BPI-sf)
- Pain Assessment in Advanced Dementia Scale (PAINAD)
- Edmonton Symptom Assessment System (ESAS)
- Numerical rating scale (0-10)
- Abbey Pain Scale
- Spiritual Assessment Tool (FICA)
- Generalized Anxiety Disorder Assessment (GAD 7)

# Knowledge Check

Total Pain consists of the following factors:

1. Physical, Social, Spiritual, Psychological
2. Physical, Consolability, Crying, Spiritual
3. Spiritual, Social, Behavioural, Location
4. Patient needs to experience pain all over their body in order to experience total pain

What is a Pain Pump?

# What is a Pain Pump?

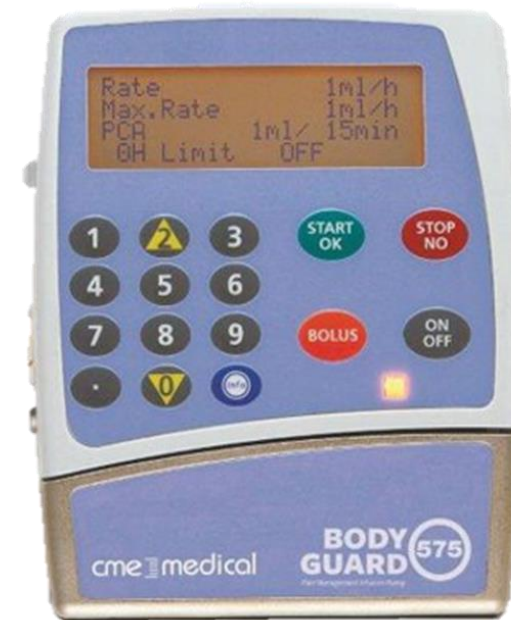
- A small, computerized device administered through the subcutaneous tissue which permits patients to receive a continuous infusion of pain medication
- It's used as the standard of care for managing moderate to severe pain or dyspnea when the oral/rectal route is unavailable and/or frequent dose adjustments are needed



# Types of Pain Pumps



**CADD®-Solis VIP**



# Supplies Required with a Pump

- Pain pump
- Pump Case and Carry bag
- Bolus cord (if needed)
- IV pole (if needed)
- Sharps container
- Pump Medication Administration Record
- Key for the pump
- Medication cassette or IV bag
- Filtered subcutaneous infusion line
- Subcutaneous infusion kit

# When is a Pain Pump Used?

Unable to take medications orally as a result of:

- Persistent nausea and/or vomiting;
- Dysphagia;
- Severe weakness;
- Unconsciousness;
- Poor absorption of oral medications;
- Unwilling to take medicines by mouth;
- Have a malignant bowel obstruction where surgical intervention is inappropriate;
- Have head and/or neck lesions;
- Pill burden is excessive;
- Unpredictable/escalating pain patterns

# Knowledge Check

True or False: Continuous Subcutaneous Infusion pumps can also be used to administer other medications to support other symptoms such as Nausea and Vomiting, agitation, seizures, etc.?

# Advantages of Using a Pain Pump

- Ensures a steady infusion of drugs- concentrations are maintained, giving constant therapeutic drug levels over a 24-hour period
- Reliable absorption
- Typically no need for an intravenous access
- Increased comfort as repeated injections are not required
- Control of multiple symptoms with a combination of drugs

## Practical advantages such as:

- Easily titrated
  - Facilitates patient control
  - Reliable records of PRN dosing
  - May reduce nursing burden
  - Reduce risk of drug diversion
- Mobility maintained because the device is lightweight and can be worn in a holster under or over clothes

# Disadvantages of Using a Pain Pump

- Limited number of opioid options
- Cost
- Burden of pump
- SC site irritation
- Possibility of frequent rotation of sites
- Staff training
- In emaciated/cachectic patients or those on long-term infusions skin, site availability may become a problem

# Typical Opioids Used with a Pain Pump

## Medication

- Hydromorphone
- Morphine
- Fentanyl

## Pharmacokinetics

Drug	Route	Onset	Peak	Duration
Morphine or Hydromorphone	PO	30 min	60 min	4 hr
	SC	20 min	30 min	4 hr
	IV	10 min	30 min	3 hr
Fentanyl	SL	5 min	20 min	40 min
	IV	1 min	10 min	30 min
	SC	15 min	30 min	60 min
	TD	8 hr	24 - 72hr	72 hr

# Prescribing a Pain Pump

Complete order requires:

- Drug
- Concentration
- Rate (mg/hr)
- Breakthrough doses
- Breakthrough intervals
- Cassette volume (if applicable)



# Titration the Pain Pump Dosing

- A patient's pain may increase, even though they're already taking opioids.
- Patients may experience acute episodes of pain superimposed on their constant or ongoing pain.
- Breakthrough pain can be predictable, or be spontaneous, it can happen from few to many times per day and can last seconds to hours.
- It is normal for patients with relatively good pain control to require 2-3 Breakthroughs per day.

# Knowledge Check

- True or False: Breakthrough pain can be predictable or spontaneous?

# Administering a Pain Pump

- Pain pumps are typically pre-programmed by the Pharmacies to deliver the medications as prescribed over continuous infusion
- An indwelling butterfly or subcutaneous needle is inserted in the subcutaneous tissue
- Can be left in place for several days
- Medication bags are monitored and changed when empty
- Subcutaneous line changes are done usually as per local policies
- Subcutaneous lines need to be clearly labelled, including medication name, concentration and date

# General Care of a Pain Pump

- Check the area around the cannula.
- Keep the area around the site clean.
- Check the line to make sure it's not twisted, trapped, or caught.
- Check there are no white particles along the tube.
- Place the pump in a safe and comfortable position.
- Use a carry bag to keep it safe and in a comfortable position, for mobile patients.
- Avoid getting the pump wet.
- Report immediately if the pump gets wet or is dropped.
- Do not position the pump in sunlight or anywhere it can get too hot

# Troubleshooting the Pain Pump

- Always refer to the manufacturing information
- Contact the direct supervisor, manager, vendor if unable to troubleshoot the issue

Common reasons for troubleshooting:

- Low Battery- usually requires the device to be plugged in or batteries changed
- Air in the line

# Conversations around the Pain Pump

- It's important to discuss why the pain pump is being considered with the patient/caregivers
- Pain pumps will not hasten a patients death
- Patients should always be involved in the decision making process
- Pain pumps are a safe and effective way to manage symptoms
- Opioids and other medicines are safe and effective when prescribed appropriately and administered correctly

# Multidisciplinary Approach

A multidisciplinary team is simply the group of healthcare professionals of varied disciplines and roles, working together towards a common goal of providing optimal care for a patient and their caregivers

Examples:

- Care Coordinator – Support with service planning and system navigation
- Physiotherapy and Occupational Therapy – Provide non-pharmacological interventions for pain management
- Radiation Oncology – Can assist with pain relief and preserve function
- Social Worker - Can manage some social and psychological issues
- Personal Support Workers - Support with daily care (light massages, monitoring of pain and reporting appropriately)

Questions?



# Session Wrap Up

- Please fill out the feedback survey following the session! Link has been added into the chat
- A recording of this session will be emailed to registrants within the next week

# Thank You



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