



Policy Name:  CONTINUOUS SUBCUTANEOUS INFUSION	Policy Number: <b>0220</b>
	Effective Date: MAY 9, 1996
Approved By:  Executive Team	Date Revised: September 9, 2022
Reason for Revision:  Click on Item below and select Item from list.  CONTENT- Enter BELOW Reason for change Ex: Combined Policy ## and ##.  Updated content	Next Date for Review: September 9, 2025
Section: Section 02 - Pain and Symptom Management	Page No: Page 1 of 6

# **Policy**

The purpose of continuous subcutaneous infusions is to administer pain and/or symptom control medications when other first line methods have been exhausted. To ensure safe administer of medication via this route, careful attention to detail is required.

# **APPLICABILITY**

Registered Nurse (RN), Grad Nurse, Physicians

### **POLICY ELEMENTS**

- **1.** A physician's order is required to initiate medication administration via continuous infusion. The Physician's orders must include:
  - Drug name
  - Date and time of commencement
  - Frequency of dosage of medication to be administered per hour
  - PRN or Breakthrough dose and frequency
  - Route of administration
  - Reason for medication
  - Instructions on how to titrate medication (discretion of doctor)
  - Physicians name or signature
- **2.** PRN/breakthrough medication doses will be administered through the continuous infusion pump.
- 3. Orders must be faxed to the pharmacy before the medication can be sent. The pharmacy should be contacted to discuss the concentration of the medication and be given as much time as possible to prepare the medication. NOTE: the larger the concentration, the least amount of fluid is infused into the site.
- **4.** When the medication arrives from pharmacy, the 8 rights of medication administration must be checked carefully before programming the pump.





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- **5.** Program the pump according to the manufacturer's instructions. The pump should be programmed to administer the least amount of solution per hour to avoid fluid accumulation at the site.
- 6. A complete independent double check of all aspects of the medication delivery process must be performed by a second RN. Along with the 8 rights of medication administration, it also includes checking infusion pump and bags for:
  - Drug concentration
  - Infusion tubing connections and site of line insertion
- **7.** A Pump Infusion Record form must be initiated to record the commencement of the medication. The pump record form should be updated minimally every 4 hours.
- **8.** Informed consent must be obtained from the resident and/or family/health advocate before initiating the infusion. Document accordingly in the progress note section of the resident's health record.
- **9.** Site selection for subcutaneous infusions should include areas with intact skin, such as the upper arms, sub clavicular chest wall, abdomen, upper back, and thighs. Avoid skin folds, or line of clothes (i.e. waist line), avoid scars, and avoid two inches around the umbilicus.
- **10.** Subcutaneous sites may be left in place indefinitely unless symptomatic or fluid accumulates at the site. Assess the site minimally every 4 hours (Q4H) for signs of irritation, edema, inflammation or dislodgement of the cannula.
- **11.** Pump tubing and medication bags need to be changed every 72 hours (Q72H. every 7 days. All tubing will be labelled with the date and time it was initiated, and initials of the nurse. Date for tubing/bag change will be kept in the MAR.
- **12.** Document in the resident's health record:
  - Date and time of commencement of infusion.
  - Resident's response and education provided.
  - Regular assessment of symptom management.
- **13.** Staff education and competency assessment will be done every year in conjunction with Charge Nurse Training, and just-in-time training, as needed.





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# **DEFINITIONS**

**Continuous subcutaneous infusion:** A continuous infusion of medication into the

subcutaneous space to provide symptom control such as pain or nausea. This infusion is usually programmed to administer at rates

of less than 3 ml /hour.

## **REQUIRED FORMS AND EQUIPMENT REFERENCES**

Electronic forms location – FORMS Hardcopy forms location – Nursing Station file cabinet.

- 1. Pump Infusion Record
- Winged needless infusion set (Saf-T-Intima)
- Correct pump tubing
- Transparent dressing
- Alcohol swabs
- Infusion Pump

### **REFERENCES**

AHS. (2016) Guiding Principle for Adults For Subcutaneous Therapy: Intermittent and Continuous. Edmonton Zone

Alberta Health. (2016). Continuing Care Health Service Standards Information Guide. January 2016.

Alberta Health Service, Calgary Zone.(1998). I-4 Regional Nursing Policy and Procedure Manual. Continuous Subcutaneous Infusion/Hypodermoclysis. Revised March 2006. Covenant Heath. (2015) VII-B-315. Hypodermoclysis (HDC) Administration. October 9, 2015

Guiding Principle for Adults for Subcutaneous Therapy: Intermittent and Continuous, Alberta Health Services, Edmonton Zone Palliative Care Program, (2016)





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# **Procedure**

The purpose of continuous subcutaneous infusions is to administer pain and/or symptom control medications when less invasive routes have been exhausted or more aggressive treatment is required to control the symptoms. To ensure safe administration of medication via this route, careful attention to detail is required.

#### STANDARD OPERATING PROCEDURE:

### 1. Prior to Starting Continuous Subcutaneous Infusion:

- 1.1 Fax orders to pharmacy as soon as possible to allow as much time possible for pharmacy to prepare the medication. Discuss with pharmacy the concentration of the medication that should be used. NOTE: The larger the concentration, the least amount of fluid is infused into the site.
- 1.2 When medication arrives from Pharmacy conduct the 8 rights of medication administration before programming the pump. (Right Medication, Dose, Route, Time, Reason, Documentation and be aware of the Right to Refuse).

#### 2. Preparing Medication and Starting Infusion:

- **2.1** Program the pump. See *Just in Time training* instructions located in the nursing station, trouble shooting guide, and manual for more information.
- 2.2 Obtain an Independent Double Check

Select a new infusion site.

- **2.3** Select the infusion site See point 9 in policy above.
- **2.4** Cleanse the area with alcohol. Allow area to dry.
- 2.5 Grasp the skin with thumb and forefinger to form a bulge. Grasp the wings of the infusion set (i.e. Saf-T Intima by the pebbled bumpy side) and insert the needle with bevel up at 30-45 degrees. The pebbled side will end up as the side against the resident's skin. There should be no backflow of blood in the tubing. If blood return is noted, remove the cannula and restart at a different site with a new winged needless infusion set.
- 2.6 To activate the safety mechanism, grasp the white safety shield and pull in a straight continuous motion while stabilizing the device in place with the other hand. The shield will come off, exposing the injection cap. Dispose of shield in sharps container. Secure the cannula with a transparent dressing that is labeled with the date, medication, concentration, and your initials. Make sure that writing is not covering the insertion site.





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- **2.7** Prime winged needless infusion set with 0.35mL of solution, withdrawn from solution bag using aseptic technique.
- **2.8** Prime line. Note that the line must not be attached to the resident.
- 2.9 Connect line to Subcutaneous needless infusion set.
- **2.10** A complete independent double check of all aspects of the medication delivery process must be performed by a second RN. Along with the 8 rights of medication administration, it also includes checking infusion pump and bags for:
  - a) Drug concentration
  - b) Infusion tubing connections and site of line insertion
- **2.11** Initiate the infusion
- **2.12** Complete the Pump Infusion Record Form, and update it every 4 hours.
- **2.13** Document in the resident's health record:
  - Date and time of commencement of infusion.
  - **b)** Resident's response and education provided.
  - c) Regular assessment of symptom management.

### 3. Ongoing Maintenance:

- 3.1 Subcutaneous sites may be left in place indefinitely unless symptomatic or fluid accumulates at the site.
- **3.2** Assess the site minimally every 4 hours for signs of irritation, edema, inflammation, or dislodgement of the cannula.
- **3.3** Manage complications in the following manner:

a) **Dislodgement:** If the cannula becomes displaced, Stop pump

and remove the cannula completely, dress if required, and restart infusion at a new site.

b) **Edema:** It is normal for site to feel slightly "boggy." If

there is a large amount of edema and hardness can be felt, the infusion should be

restarted at a new site.

c) Redness/Irritation/ Heat: If redness persists for more than an hour after

insertion or heat/warmth can be felt at site.

restart the infusion at a new site.

**3.4** Pump tubing and medication bags will be changed every 7 days.





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3.5 All tubing will be labelled with the date and time it was initiated, and initials of the nurse. Date for tubing/bag change will be kept in the MAR.