PROCEDURE FOR THE ADMINISTRATION OF "AS REQUIRED" MEDICATION VIA A SUBCUTANEOUS CANNULA IN ADULT PATIENTS IN ELFT COMMUNITY HEALTH SERVICES BEDFORDSHIRE

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1.0 INTRODUCTION

1.1. People with advanced life threatening illnesses and their families should expect good end of life care, whatever the cause of their condition (NICE QS 13 2017).

1.2. Subcutaneous therapy has increasingly been used in situations such as rehydration, palliative care, paediatric care and post-operative management. The benefits of using the device are the following:- patient comfort, reduced infection risks, less frequent device changes and safer environment for staff and patients.

1.3. People at the terminal phase of life experience multiple physical symptoms such as pain, respiratory secretions, nausea, anxiety and agitation all of which need prompt treatment with multiple medications to promote patient comfort. This may result in use of “as required” medication (PRN) to allow for targeted dosing for symptom control.

1.4. When the patient begins to experience difficulty when taking oral medication, multiple administration of “as required” may occur. This can be distressing for the patient/ carers if not delivered in timely manner. However, it may not be appropriate to commence the use of a syringe driver for symptom management at this stage.

1.5. A subcutaneous (SC) cannula could be used for the administration of PRN injectable medication within the health care setting to prevent invasive multiple injections and improve patient experience. Soft winged infusion sets (e.g. BD Saf-T IntimaTM and InsuflonTM) are the recommended soft catheter that can be used for this purpose.

2.0 PURPOSE AND SCOPE

2.1. This document aims to provide guidance on the safe and effective use of subcutaneous cannula in the administration of as required medications in adult palliative care patients to reduce multiple injection use and hence improve patient and family experience.

2.2. This document establishes situations in which subcutaneous cannulas should be used and covers the insertion & management of these devices for palliative care patients being cared for at home.

2.3. It does not cover the use of subcutaneous cannulas in syringe drivers or in children.

2.4. This procedure should be read in conjunction with:

- ELFT Syringe Drive Policy
- ELFT Injectable Medicines Policy
- ELFT Waste Disposal Policy

- ELFT Infection Prevention and Control Policy

3.0 RATIONALE FOR USING SUBCUTANEOUS CANNULA

3.1. All patients who have been clinically assessed as deteriorating and entering the terminal phase may be fitted with a subcutaneous cannula for administration of PRN medication for any of the reasons below:

- Patients who are unable to or have difficulty swallowing, making oral medication unsuitable.
- Patients who have required the administration of injectable medication for the management of acute symptoms.
- Patients requiring frequent doses of “as required” medication via the subcutaneous route to establish symptom control but are not yet suitable for a syringe driver in the clinical judgement of the palliative care team.
- Patients who request to take medication via the injectable route as opposed to oral
- Patients with a syringe driver in situ still experiencing breakthrough symptoms and needing additional PRN doses.

4.0 CAUTIONS

- Lymphodema- Choose site unaffected by lymphedema
- Seek advice if prescribed anticoagulants

5.0 CONTRAINDICATIONS

- Severe bleeding disorder

6.0. TRAINING AND COMPETENCE

Procedure can only be completed by Registered Nurses (not Nursing Assistants) who have successfully completed the Syringe Driver Training and Competence assesments.

7.0. INITIATION

Use of cannula can be initiated by:

- Registered Nurses competent in the procedure
- Specialist Palliative nurses

Initiation **must** be in liason with senior nurse on duty/ palliative specialist nurses/hospice.

8.0. EQUIPMENT REQUIRED

- Soft winged infusion set e.g. BD Saf-T Intima^{TM} cannula
- Bionector/bung

- 1ml luer lock syringe (if volumes of medications over 1ml maximum volume of injection must not exceed 2mls) Dead space is 0.25ml.
- Single use disposable apron
- Single use disposable non sterile gloves
- Sterile dressing pack
- Blunt drawing up needle
- Medicines administration Record (MAR) chart
- Sharps bins with YELLOW lids, must be used for disposal of sharps contaminated with medicinal products which are not cytotoxic or cytostatic (either residue or partially discharged syringes). Purple lidded bins should be used for cytotoxic or cytostatic medication.
- Prescribed medication
- 2% chlorhexidine and 70% alcohol impregnated swab/applicator (Chloraprep)
- Semi-permeable film dressing
- Solution for flushing (e.g. water for injection. 0.25ml dead space)
- Single use disposable sterile scissors

9.0. PROCEDURE

9.1. Pre-insertion Considerations:

- The recommended size for sub cutaneous medication and fluid administration is 24 gauge.
- Site selection is dependent upon the patient skin turgor, avoid sites where there is minimal subcutaneous tissue
- Choose a site unaffected by lymphedema/ lipoedema
- When re-siting a sub cutaneous cannula ensure adequate site rotation.

9.2.

Procedure
• Decontaminate hands as per policy
• Gather equipment
• Open sterile dressing pack onto a clean area and place all sterile single use equipment required within aseptic field, to maintain key part protection at all times.
• Apply single use disposable apron
• Trim excess hair from selected site (if required)using single use disposable sterile scissors
• Choose an appropriate site in consultation with patient e.g. Thigh, upper arm, abdomen, sub-clavicular chest wall, scapula.
• Apply single use non sterile gloves
• Using an Aseptic Non Touch Technique, attach a bionector and prime cannula with prescribed flush
• Clean area of chosen site with 2% chlorhexidine and 70% alcohol impregnated swab/applicator (Chloraprep) or a minimum of 30 seconds and allow to dry
Insertion of cannula
• Grasp ridged yellow side wings of the cannula between thumb and index finger. Remove needle sheath from BD Saf-T Intima™ cannula making sure the eye of the needle is facing upwards at the sharpest point to enter the skin. • Using Aseptic Non Touch Technique Insert BD Saf-T Intima™ cannula at 30 - 45º angle into the subcutaneous tissue; cover the cannula and wings only with transparent dressing.

- Hold wings of cannula firmly and pull back on the introducer until you see four distinct parts (needle encasements, wire and white introducer)
- Grip "Y" connection with one hand and the yellow needle encasement with the other hand.
- With a gentle pulling action, pull the needle encasement away from the "Y" connection. This should leave a bung in place (this bung is not used for the administration of medicines), pull the needle encasement away and dispose in sharps container.

- Using 2% chlorhexidine and 70% alcohol impregnated swab (Chloraprep), thoroughly clean the end of bionector for at least 30 seconds and allow to dry.
- Administer the medication and flush via the bionector. **ALL MEDICATION MUST BE ADMINISTERED THROUGH THE BIONECTOR.**

- **Staff must use one ml luer syringe for calculating drugs less than one ml**
- Check compatibility of medicines with any required diluents and flushes via injectable medicines guide (MEDUSA)

- After administration of prescribed medication, flush the cannula with the appropriate flush compatible. Dead space is (0.25ml)

- Dispose of sharps directly into a sharps container

- On completion of procedure remove and dispose of Personal Protective Equipment (PPE) as per Trust infection control standard precautions policy

- Decontaminate hands (As per Trust policy)

- Document procedure, site location and medication administered

- Any related incidents arising from carrying out this procedure which may involve a clinical error or near miss must be reported following the Trust's Incident Reporting System i.e. Datix

- **REMOVAL OF A CANNULA**

- The cannula (e.g. BD Saf-T Intima^{TM}.) **must** be removed if no further medicines are required or if there are clinical signs of infection such as swelling, redness and pain at point of entry. Device can be left in situ for up to 7 days for PRN doses.

- Gather all equipment

- Clean tray using 2% chlorhexidine and 70% alcohol impregnated swab/applicator (Chloraprep or if indicated open sterile dressing pack)

- Decontaminate hands (As per Trust infection control policy)

- Use single use disposable apron

- Apply single use disposable non-sterile gloves, or if indicated single use sterile gloves(as per Trust infection control policy)

- When removing the cannula the device should be removed carefully using a slow, steady movement and pressure should be applied.

- The site should be inspected and the site covered with a sterile dressing

- The cannula integrity should be inspected to ensure the complete device has been removed

- Dispose of clinical waste as per Trust policy

- On completion of the procedure remove and dispose of Personal Protective Equipment (PPE)

- Decontaminate hands (As per Trust policy)

10.0 WHERE TO OBTAIN ADVICE

Contact appropriately trained Senior Nurses/ Palliative Specialist Nurses/ Hospice/ Palliative Care Hub for further guidance.

11.0 REFERENCES

- Palliative care Injectable medicines guidance- Bedfordshire Palliative care (2018)
- Palliative care formulary- 5th edit (2017)
- The Royal Marsden Hospital Manual of Clinical Nursing Procedures, 9th Edition, Wiley-Blackwell, Oxford Dougherty,Lisa, S (2016)
- National Institute of Clinical Excellence (NICE) 2004 Guideline on Cancer Services: Improving Supportive and Palliative Care for Adults with Cancer:
- National Institute of Clinical Excellence (NICE) Guideline End of life care for Adults QS 13 (2017)
- Nursing and Midwifery Council code of professional practice (NMC) (2015) (www.nmc-uk.org)
- Royal College Nursing (2016) Standards for Infusion therapy www.rcn.org.uk
- Wirral Guidelines for Care of the Dying Patient: Wirral Community NHS Trust. (Locally adapted version) of the Wirral End of Life Care Plan

Useful websites:

- British National Formulary (BNF) www.bnf.org.uk
- Current learning in palliative care
- http://learningzone.mariecurie.org.uk/endoflife/syringedrivers.htm
- Palliative Care Formulary textbook is available free online following registration with the website: www.palliativedrugs.com