Somerset Partnership NHS
NHS Foundation Trust

# SUBCUTANEOUS FLUIDS (HYPODERMOCLYSIS) ADMINISTRATION POLICY

**To be read in conjunction with the Medicines Management Policy**

| | |
|---|---|
| Version: | 4 |
| Ratified by: | Senior Managers Operational Group |
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| Relevant Staff Group/s: | Registered Nurses in Community Hospitals, District Nursing Teams and Older Peoples Mental Health Services.<br><br>For information only within other Mental Health Services. |

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**DOCUMENT CONTROL**

| **Reference** | **Version** | **Status** | **Author** |
|---|---|---|---|
| NV/Nov14/SCFAP | 4 | Final | Senior Nurse for Clinical Practice |
| **Amendments** to reflect the acquisition of Somerset Community Health and changes to the Trusts governance structure. Further updated to comply with the Trusts revised policy guidance. Minor amendment July 2014 to include Older Peoples Mental Health Services and November 2014 t0 add a section on Capacity and Consent | | | |
| **Document objectives:** This document will ensure that Somerset Partnership NHS Foundation Trust staff complies with the standards set out in the document. To ensure a collaborative approach for nurses considering the administration of subcutaneous fluids. Also to explore the complexity for the medical and ethical issues in the decision making process, with the aim of improving nursing practice and patient outcomes. | | | |
| **Intended recipients:** Registered Nurses in Community Hospitals and District Nursing Teams including Older Peoples Mental Health Services. For information only within other Mental Health Services. | | | |
| **Committee/Group consulted:** Clinical Policy Review Group, Clinical Governance Group | | | |
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**CONTENT**

## 1. INTRODUCTION

1.1 This policy and procedure guidelines have been developed to highlight the need for a collaborative approach for nurses considering the administration of subcutaneous fluids. Also to explore the complexity for the medical and ethical issues in the decision making process with the aim of improving nursing practice and patient outcomes.

1.2 Due to the relative ease of setting up and administering subcutaneous fluids, the procedure can be carried out in a hospital setting and also in the patient's home.

1.3 Hypodermoclysis (subcutaneous infusion) is a relatively safe, simple and cost effective technique, suitable for use in the community with a range of client groups, to treat clients with mild–moderate dehydration. Its use in palliative care however can raise problems in terms of clinical evidence and ethical issues, which need to be addressed i.e. products not being licensed for this specific use, staff requests for clinical guidance and the anticipated increasing use of hypodermoclysis for rehydration

1.4 Subcutaneous hydration is not adequate to correct severe dehydration or electrolyte imbalance; such patients will continue to need inpatient services for thorough assessment and treatment.

## 2. PURPOSE AND SCOPE

2.1 This policy applies to all staff (including temporary and agency staff) employed by Somerset Partnership NHS Foundation Trust, who are deemed competent and confident to undertake this procedure.

2.2 The main aim of this document is to set standards in practice to ensure that Hypodermoclysis is carried out safely and effectively.

**This policy must be strictly adhered to and only the fluids stipulated can be administered.**

## 3. RATIONALE

Hypodermoclysis is a term for maintaining hydration. Over past years this method has been used increasingly for rehydration in care of the elderly settings where dehydration can be a common problem. The low technology nature of this method of rehydration means that it is well suited to less acute care settings. It also has great potential for use in people who have problems swallowing or other problems which make them prone to dehydration but do not necessarily mean they need to be cared for in hospital. For example, patients' recovering from a recent cerebro vascular accident, or those experiencing mild nausea and vomiting following chemotherapy and palliative care intervention

## 4. EXPLANATIONS OF TERMS USED

**Hypodermoclysis** is a technique used for the administration of large volumes of fluids and electrolytes in order to achieve fluid maintenance or replacement in mildly dehydrated patients for whom intravenous access is not possible or appropriate.

## 5. DUTIES AND RESPONSIBILITIES

5.1 The **Trust Board, via the Chief Executive** is responsible for ensuring the Trust has a policy to promote safe and effective practice in relation to subcutaneous infusions and there are effective and adequately resourced arrangements for the fulfilment these policy requirements.

3.2 The **Director of Nursing and Patient Safety** is responsible for overseeing the local control of and the implementation of this policy

5.2 The **Clinical Practice Team** is responsible for ensuring there is defined process for training and competency assessment relating to this policy within the Trust.

5.3 The **Learning and Development Team** is responsible for provision of Trust training programmes and maintaining the electronic staff record of training.

5.4 **Ward Managers and Team Leaders** are responsible for ensuring that staff who undertake subcutaneous infusions are competent and compliant with the policy.

5.5 **All staff undertaking subcutaneous infusions** are required to adhere to this policy

## 6. HYPODERMOCLYSIS IN A PATIENT'S HOME

If the procedure is undertaken in the patient's home, the registered nurse must undertake a risk assessment and adhere to the procedural guidance in section 16 below.

**If the patient lives alone they will not be able to receive subcutaneous infusion unless they have a carer/relative who is able to be with them for the duration of the transfusion.**

## 7. INDICATIONS FOR THE USE OF HYPODERMOCLYSIS FOR MILD TO MODERATE HYDRATION

7.1 Hypodermoclysis is intended to correct mild to moderate dehydration. Clinical symptoms should always be considered before administration. Before treatment is considered blood sample should be analysed to establish an accurate urea level.

7.2 **Rise in urea of greater than 5mmol/L from patient's baseline**

- increase and supervise oral fluids (aim for 2 litres in 24hrs)
- review fluid intake daily

- if intake is less than 2 litres and no improvement in urea level, consider subcut fluids to supplement oral fluids

7.3 **Rise in urea of greater than 10mmol/L from patients baseline**

- increase and supervise oral fluids (aim for 2 litres in 24hrs)
- consider subcutaneous fluids to supplement oral intake
- review total intake daily
- monitor urea level daily (blood test)
- if fluid intake remains inadequate and no improvement in urea level, consider admission to acute hospital

7.4 **Rise in urea of greater than15mmol/L from patient's baseline**

- requires intravenous fluids in acute hospital.

## 8. INDICATIONS FOR THE ADMINISTRATION OF HYPODERMOCLYSIS IN PALLIATIVE CARE

8.1 Dehydration is a common problem with patients in the terminal phase of an illness and is associated with many symptoms, one of the most difficult and uncomfortable being thirst. Other symptoms associated with dehydration are shown in Table 1. Drug therapy and medication can also lead to an altered thirst sensation.

8.2

| Dehydration | Symptoms which may be associated with physical signs of dehydration |
|---|---|
| Thirst | Thirst |
| Dry mouth | Reduced skin turgor |
| Dysphagia | Reduced sweating |
| Nausea and vomiting | Postural hypotension |
| Muscle cramps | Tachycardia |
| Headache | Oliguria |
| Apathy | |
| Depression | |
| Vivid nightmares | |
| Disorientation – delirium, confusion and unexpected coma state | |

NB. It is worth noting that some of these signs are less reliable in advanced cancer patients and can be found without volume depletion.
**There should be a review of the patient's medication to determine if the medication regime is causing any of the above symptoms.**

8.3 The indications for rehydration for those in the terminal stage of an illness are the relief of symptoms that cannot be relieved in any other way. The primary symptom of dehydration is usually thirst although subcutaneous infusion can be used to relieve any of the symptoms thought to be causing distress to the patient (Table 1). Much of the literature indicates that in palliative care the use of subcutaneous hydration should be to palliate

symptoms experienced by patients rather than to rectify their biochemical balance. In the community setting indications for subcutaneous infusion should be symptom led, and this principle should also be applied when assessing whether rehydration should be continued. An assessment of the patient's clinical symptoms of dehydration should be undertaken to establish whether the hydration regime is assisting in relieving the symptoms. Some cancer patients experience reversible conditions such as hypercalcaemia, which may also cause dehydration.

8.4 A full medical assessment is needed to ensure that patients who require fluid replacement for correction of specific problems are identified. The assessment should be individualised, involve members of the multi-disciplinary team and include the views of the family. Such patients will require referral to specialist palliative care where the decision for treatment should be multi-disciplinary. The advantages must outweigh the disadvantages of the proposed treatment taking into account the ethical and medical considerations.

8.5 The prime goal of any treatment in terminal care should be the comfort of the patient. Subcutaneous fluid administration is used for the symptomatic relief of thirst and where blood tests indicate that mild dehydration may be contributing to confusion, for example, due to build-up of opioid metabolites.

## 9. FLUIDS FOR INFUSION

9.1 All fluids must be prescribed on a Fluid Prescription Chart by a competent prescriber.

9.2 Sodium chloride 0.9%
Sodium chloride 0.18% and glucose 4% (dextrose saline)

**THESE ARE THE ONLY FLUIDS TO BE INFUSED - THERE ARE NO EXCEPTIONS**.

9.3 Additives must NOT be added to the infusion.

9.4 A mechanical pump is not to be used, infusion is by gravity only.

9.5 All fluids administered must be recorded on the fluid prescription chart and on the fluid balance record in accordance with the Safe and Secure Handling of Medicines Policy and the Record Keeping Standards Policy.

## 10. VOLUME OF FLUID

10.1 A maximum of 2 litres in 24 hours can be administered

10.2 Rates of between 30ml/hr and 80ml/hr are recommended.

(See Appendix B for calculating drip flow rate

## 11. CHOICE OF SKIN INSERTION SITE

11.1 Choose a healthy, intact, clean, oedema free area

11.2 Choose a site for the patients' comfort and convenience

11.3 Best sites are lateral aspects of upper arms, lateral aspects of thighs, lower abdomen, anterior chest wall, and scapula region.

| SITES THAT SHOULD BE AVOIDED FOR SUBCUTANEOUS INFUSIONS | |
|---|---|
| **Sites to be avoided** | **Rationale** |
| Oedematous limbs | There would be insufficient absorption from the site. Increased risk of infection via broken skin at infusion needle site |
| Painful sites | Patient discomfort |
| Areas of induration (hard) tissue | Reduced site absorption and/or patient discomfort |
| Over bony areas | Reduced absorption due to lack of subcutaneous tissue |
| Near joints | Limb movement may dislodge infusion needle or cause patient discomfort |
| Irradiated skin area | Radiotherapy can reduce patency of small blood vessels, thereby affecting skin perfusion |
| Areas of broken skin and infection | Risk of infection developing or increasing |
| Bruised or scarred tissue | Reduced site absorption and /or patient discomfort |
| Areas near breast tissue | Infusate may drain into axillary lymph glands |
| Areas near the perineum | Infusate may drain into the scrotum or labia |

(See Appendix C for the procedural guidelines)

## 12. OBSERVATIONS OF THE PATIENT FOLLOWING COMMENCEMENT OF THE INFUSION

- Observe for signs of fluid overload
- Observe for oedema at the infusion site
- Observe for local irritation, infection, bruising and pain
- Change site and infusion needle regularly as recommended every 72 hours or when contraindications arise
- If complications arise stop infusion, remove infusion needle and contact the GP if appropriate
- The flow rate may be affected by the patients' position.

(See Appendix D for troubleshooting)

## 13. DOCUMENTATION

All care relating to the subcutaneous infusion including the site, rate, flow, start time and drugs, further assessments, any complications and onward communications must be documented in the patient's record.

## 14. CONSENT AND CAPACITY

Staff must ensure they have received informed consent from the patient at all times and that the patient is aware of the reason for request and subsequent actions. Information must be given to the patient in a language or format they can easily understand – this may need the use of a professional interpreter.

Refer to the policy for consent and capacity for actions to be taken in relation to patients with incapacity. Staff must ensure the correct action and communication process is followed and documented at all times.

## 15. TRAINING REQUIREMENTS

15.1 The Trust will work towards all staff being appropriately trained in line with the organisation's Staff Mandatory Training Matrix (training needs analysis). All training documents referred to in this policy are accessible to staff within the Learning and Development Section of the Trust Intranet.

15.2 It is essential that both the correct equipment is used and the nurse is trained and competent in the administration of subcutaneous fluids.

15.3 All registered nurses are eligible to undertake hypodermoclysis training as part of their Medicines Management skills.

15.4 Specific training in hypodermoclysis can be accessed via the Clinical Practice Team and the District Nursing Team.

## 16. EQUALITY IMPACT ASSESSMENT

16.1 All relevant persons are required to comply with this document and must demonstrate sensitivity and competence in relation to the nine protected characteristics as defined by the Equality Act 2010. In addition, the Trust has identified Learning Disabilities as an additional tenth protected characteristic. If you, or any other groups, believe you are disadvantaged by anything contained in this document please contact the Equality and Diversity Lead who will then actively respond to the enquiry.

## 17. MONITORING COMPLIANCE AND EFFECTIVENESS

17.1 This clinical policy will be reviewed every three years or updated sooner following the release of new guidance.

Any incidents, patient complaints or feedback will be investigated by the clinical service providing the patients care, and reported via the appropriate best practice group.

## 18. COUNTER FRAUD

The Trust is committed to the NHS Protect Counter Fraud Policy – to reduce fraud in the NHS to a minimum, keep it at that level and put funds stolen by fraud back into patient care. Therefore, consideration has been given to the inclusion of guidance with regard to the potential for fraud and corruption to occur and what action should be taken in such circumstances during the development of this procedural document.

## 19. RELEVANT CARE QUALITY COMMISSION (CQC) REGISTRATION STANDARDS

19.1 Under the **Health and Social Care Act 2008 (Regulated Activities) Regulations 2014 (Part 3), the fundamental standards** which inform this procedural document, are set out in the following regulations:

| | |
|---|---|
| Regulation 9: | Person-centred care |
| Regulation 10: | Dignity and respect |
| Regulation 11: | Need for consent |
| Regulation 12: | Safe care and treatment |
| Regulation 14: | Meeting nutritional and hydration needs |
| Regulation 15: | Premises and equipment |
| Regulation 16: | Receiving and acting on complaints |
| Regulation 17: | Good governance |
| Regulation 18: | Staffing |
| Regulation 19: | Fit and proper persons employed |
| Regulation 20: | Duty of candour |

19.2 Under the **CQC (Registration) Regulations 2009 (Part 4)** the requirements which inform this procedural document are set out in the following regulations:

Regulation 18: Notification of other incidents

19.3 Detailed guidance on meeting the requirements can be found at http://www.cqc.org.uk/sites/default/files/20150311%20Guidance%20for%20providers%20on%20meeting%20the%20regulations%20FINAL%20FOR%20PUBLISHING.pdf

## 20 REFERENCES, ACKNOWLEDGEMENTS AND ASSOCIATED DOCUMENTS

### 20.1 References

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*Donnelly M* (1999) The Benefits of Hypodermoclysis. Nursing Standard, 13 (52) 44-45

*Dougherty L and Lister S* (2015) The Royal Marsden Hospital Manual of Clinical Nursing Procedures (Royal Marsden NHS Trust) 8th edition. Blackwell Publishing

*Hutton M., (1998) "Numeracy Skills for Intravenous calculations", Nursing Standard July 15/Vol 12/ No 43.*

*Khan M, Younger G* (2007) Promoting Safe Administration of Subcutaneous Infusions. Nursing Standard 21 (31) 50-56

*Nobel-Adam R (1995) "Dehydration. Subcutaneous Fluid Administration, British Journal of Nursing 4 p488-494*

*Moriarty D and Hudson E* (2001) Hypodermoclysis for Rehydration in the Community. Journal of Community Nursing, Volume 6 (9) 437-443

*O'Keefe S and Geoghegan M* (2000) Subcutaneous Hydration in the Elderly**.** Irish Medical Journal, 93 (7) October

*Pachett M* (1998) Providing Hydration for the Terminally Ill Patient. International Journal of Palliative Nursing. Volume 4, no 3

*Sasson M and Shvartzman P* (2001) Hypodermoclysis: an alternative infusion technique. American Family Physician 64 (9) 1575-1578

*Steiner N and Bruera E* (1998) Methods of Hydration in Palliative Care Patients. Journal of Intravenous Nursing 20 (4) 193-200

20.2 **Cross reference to other procedural documents**:

- Consent and Capacity to Consent to Treatment Policy
- Healthcare (Clinical) Waste Policy
- Infection Control Policy
- Medical Device Policy
- Medicines and Clinical Tasks Policy
- Medicines Management Policy
- Non Medical Prescribing Policy
- Patient Group Directions
- Professional Interpreters and Translation Services Policy
- Record Keeping and Record Management Policy

All current policies and procedures are accessible in the policy section of the public website (on the home page, click on 'Policies and Procedures'). Trust Guidance is accessible to staff on the Trust Intranet.

**APPENDIX A:**

# ADVANTAGES AND DISADVANTAGES OF HYPODERMOCLYSIS

## ADVANTAGES AND DISADVANTAGES OF HYPODERMOCLYSIS

- easy to set up
- can be used intermittently
- few risks of complications
- little risk of fluid overload
- easy to site butterfly infusion needle

### DISADVANTAGES OF HYPODERMOCLYSIS

- local pooling of infused fluid
- leakage at insertion site
- localised pain at insertion site
- poor absorption of fluids in some patients
- bruising at insertion site
- infection at insertion site

## CONTRADICTIONS AND LIMITATIONS FOR USE OF HYPODERMOCLYSIS

- patients with coagulation defects
- patient refusal
- should not be used in patients requiring rapid fluid replacement, i.e. not more than 2 litres in 24 hours
- only electrolyte solutions can be used
- cannot be used as a route for hypertonic solutions
- severe dehydration, shock or poor tissue perfusion
- cannot be used where precise control of volume and rate of infusion is essential

## INDICATIONS FOR THE USE OF HYPODERMOCLYSIS FOR MILD TO MODERATE HYDRATION

Hypodermoclysis is intended to correct mild to moderate dehydration. Clinical symptoms should always be considered before administration. Before treatment is considered blood sample should be analysed to establish an accurate urea level.

### Rise in urea of greater than 5mmol/L from patient's baseline

- increase and supervise oral fluids (aim for 2 litres in 24hrs)
- review fluid intake daily
- if intake is less than 2 litres and no improvement in urea level, consider subcut fluids to supplement oral fluids

### Rise in urea of greater than 10mmol/L from patients baseline

- increase and supervise oral fluids (aim for 2 litres in 24hrs)
- consider subcutaneous fluids to supplement oral intake
- review total intake daily
- monitor urea level daily (blood test)

- if fluid intake remains inadequate and no improvement in urea level, consider admission to acute hospital

**Rise in urea of greater than15mmol/L from patient's baseline**

- requires intravenous fluids in an in-patient setting.
- review total intake daily
- monitor urea level daily (blood test)
- if no improvement in urea level, consider admission to acute hospital

**APPENDIX B**

## CALCULATING DRIP FLOW RATE

As the fluid is infused by gravity, an electronic pump to regulate the flow/rate of administration is not required.

To set up a manually controlled drip accurately by eye, the number of drops per minute need to be counted, then applied to the formula below.
The usual formula for calculating drip flow rate (unless otherwise indicated) is as follows:

$$\frac{\text{Volume of solution x drops/ml}}{\text{Divided by time in minutes}}$$

For example: 1 litre of normal saline to be infused over 12 hours

$$\frac{\text{1000mls x 20 drops per ml}}{\text{720 minutes}} = \text{27 drops per minute}$$

To calculate the volume in drops, it is necessary to know how many drops are contained within one millilitre (ml). This information should be available on the packaging of the administration set.

The volume in mls is then multiplied by the number of drops per ml to give the volume in drops. Similarly to find the rate in minutes, change the hours into minutes by multiplying by 60 (Hutton 1990)

**APPENDIX C**

## PROCEDURAL GUIDELINES

### EQUIPMENT REQUIRED

- Signed prescription
- Prescribed solution for administration
- 24G to 25G cannula - It is now recommended that subcutaneous infusions be given via a plastic cannula such as the Sof-set infusion needle.
- Standard Intravenous giving sets (20 drops per millilitre)
- 2ml syringe
- Skin cleansing agent; 2% w/v Chlorhexidine Gluconate in 70% Isopropyl Alcohol
- Occlusive dressing
- Gloves and apron
- Prescribed solution for infusion; usually sodium chloride 0.9%
- Sharps disposal container
- Drip stand

| GUIDELINES FOR INSERTION OF SUBCUTANEOUS INFUSIONS | |
|---|---|
| **Action** | **Rationale** |
| Undertake a risk assessment. | Risk assess the suitability of the patient for subcutaneous infusion. If the patient is at home, ensure that control measures are put in place to provide appropriate levels of monitoring. If the patient lives alone they must have a carer or relative available to be there for the duration of the transfusion. |
| Wash hands. | To minimise the risk of cross infection and contamination. |
| Gather all equipment and perform the following checks:<br><br>• Check the fluid to be administered with the signed prescription sheet. The prescription sheet must be signed together with the dose infusion rate and route of administration<br><br>• Ensure the correct fluid for infusion has been obtained and that this is either normal saline 0.9% or dextrose saline. Ensure the fluid to be infused is within expiry date and in sealed packaging. | <br><br>To ensure the prescribed type of fluid and the quantity is administered at correct rate and via the prescribed route<br><br>To ensure patient safety. |

| GUIDELINES FOR INSERTION OF SUBCUTANEOUS INFUSIONS | |
|---|---|
| **Action** | **Rationale** |
| Record lot number and expiry date on record chart.<br><br>• Ensure the needle infusion set or sof-set infusion set and giving sets are available, in sealed packaging and within expiry date. Record lot numbers and expiry dates for each on record chart.<br><br>• Ensure a sharps disposal container is available.<br><br>• Prime needle infusion set / sof-set infusion set with syringe of water for injections<br><br>• Prime the giving set with prescribed fluid to be infused. | To ensure infusion needle is sterile and within expiry date.<br><br>To reduce the risk of needlestick injury and cross infection.<br><br>To ensure air is not being administered via the needle.<br><br>To ensure air is not being administered via the giving set. |
| Explain the procedure to the patient. Obtain consent from the patient and document this in the patient notes. If the patient lacks capacity to make an informed decision a consent and capacity assessment will be completed, including a best interest's checklist. The patient's doctor and the patient's family may also be consulted in this assessment in relation to whether this procedure should go ahead. When considering this procedure in a mental health inpatient unit, a risk assessment will also be completed to ensure the safety of both the patients and others on the ward. | The patient should be aware of the procedure in order to allay some of his/her anxieties. Consent should be obtained in accordance with the Consent and Capacity to Consent to Treatment Policy. |
| Ask the patient to sit or lie down. | To ensure the patient's safety as some patients may feel faint when the procedure begins. |
| Wash hands and apply gloves. | To minimise risk of cross infection and contamination. |
| Clean the chosen site with 2% chlorhexadine swab | To reduce the risk of infection. |
| Grasp the skin firmly and insert the infusion needle in the selected site at a 45 degree angle. | Grasp the skin to elevate the subcutaneous tissue to aid optimum delivery and absorption of fluid. Positioning the infusion needle shallower than 45 degrees may shorten the life of the infusion site. |
| Observe for blood flashback. If present, remove infusion needle and start again. | To ensure infusion needle has not entered a capillary or vein. |

| GUIDELINES FOR INSERTION OF SUBCUTANEOUS INFUSIONS | |
|---|---|
| **Action** | **Rationale** |
| When using the sof-set needle remove the introducer needle (twist 90 degrees and remove) and dispose of in a sharps disposal container. | To prevent needlestick injury. |
| Secure infusion needle with a clear dressing, e.g., opsite or tegaderm. | To allow for observation of the infusion site and monitor vapour permeability. |
| Attach the giving set which is connected to the fluid to be infused. | |
| Set the flow rate as prescribed. | To ensure timely and effective delivery of prescribed medication. |
| Complete fluid record chart and fluid bag labels detailing date, time of insertion and insertion site and device used. | To comply with Record Keeping Policy. |
| Inspect the site regularly. If after one hour there is no pooling, redness or pain, continue with the infusion. | To ensure adequate amount of fluid is infused. |
| Monitor the patient closely for signs of circulatory overload or breathing problems. (link with skin bundle monitoring where appropriate).<br><br>Check the infusion site at 15 minutes and then one hour after commencing and then every 4 hourly for the next 24 hours<br><br>At each visit, check the site for:<br><br>Local irritation<br><br>Redness<br><br>Tenderness<br><br>Swelling<br><br>Inflammation<br><br>Fluid monitoring chart to be used.<br><br>Resite as necessary | To ensure circulatory overload does not occur.<br><br>To ensure that any problems are identified quickly and dealt with promptly.<br>To maintain patient comfort and dignity.<br>Ensure the adequate and safe absorption of the fluid(s) |
| Remove the infusion needle when required or if fluid is not infusing, redness or pooling occurs,<br><br>The site should be changed at least every | To prevent localised infection from occurring and to ensure the safe administration of fluids |

| GUIDELINES FOR INSERTION OF SUBCUTANEOUS INFUSIONS | |
|---|---|
| **Action** | **Rationale** |
| 48 and or when complications occur<br><br>The site change and reason for re-siting must be recorded in the patients record | |
| Giving sets must be changed at least every (48 hourly) hours and the change recorded in the patients record | To minimise the risk of infection, |
| Ensure accurate completion of fluid balance chart. Continue to encourage oral fluids if the patient is able to take them. | To ensure input and output are closely monitored |
| Ensure that the patient/carer has contact details for day, evening and night community nursing services.<br><br>Ensure that the patient is comfortable.<br><br>Inform the patient/carer what actions to take should any problems arise with either the infusion or the site. | To maintain patients dignity and safety. |
| Ensure u&es are taken every 24 hours. | To monitor improvement, decline or overload. |

**APPENDIX D**

## TROUBLESHOOTING

| Problem | Action |
|---|---|
| Site is red and inflamed | • needle may have been sited intradermally<br>• resite in new area<br>• swab site if signs of infection |
| Pooling of fluid at insertion site | • reduce flow rate<br>• resite if problem persists |
| Infusion running too slowly | • check roller clamp / line regulator<br>• adjust height of infusion bag<br>• resite if problem persists |
| Persistent reddened, localised pain, swelling or unexplained fever | • stop infusion<br>• notify doctor.<br>• swab insertion site is any exudate and send for culture and sensitivity |
| Large white, flat area at insertion site | • this is a common occurrence and does not require intervention. Note size and tension and feel of the skin. |
| Local oedema | • resite if uncomfortable<br>• adjust rate (slower) |
| Bruising | • resite |
| Signs of fluid overload for example wheezing or breathlessness | • unlikely if fluid rate less than 80ml per hour.<br>• if suspected, stop fluids and notify doctor |
| Leaking from site after removal of infusion needle | • cover with sterile dressing and observe site<br>• this will usually resolve spontaneously |