Guidelines for the

Administration of Subcutaneous Fluids

(Hypodermoclyosis)

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<tr>
<th>Date of publication</th>
<th>November 2013</th>
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<td>Date of review</td>
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                      | On Behalf of the NHS Lanarkshire Care  
                      | Home Liaison group |
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INTRODUCTION

Hypodermoclyosis is the term used for the administration of subcutaneous fluid. The low technology nature of the method is well suited to less acute settings. It also has great potential for use with people who have difficulty swallowing or other problems that make them prone to dehydration but do not need hospital care.

A care home protocol group was set up to look at the administration of subcutaneous fluids for elderly within care homes.

It was identified that there was the potential for care home staff to be put in a position where they would be caring for residents receiving subcutaneous fluids.

However it was also identified that there was a need to produce guidelines that would ensure safe practice and standardise an approach that would ensure the most appropriate and timely care was given to residents identified as needing this type of intervention.

STATUS

This document was produced by NHSL clinical protocols group.
The Group membership includes General Practitioner’s, Geriatricians, Pharmacists, Care Home Liaison staff (Adult, Adult Mental Health and Physiotherapist) Social Work Management and Care Home Managers.

SCOPE OF DOCUMENT
This document relates to Registered Nursing staff working in Care Homes for the older adult, within the catchment area covered by NHS Lanarkshire. It can also be utilised by Community Nursing staff for residents within care homes who do not employ nurses.

DEFINITIONS
Subcutaneous fluid administration or Hypodermoclysis can be defined as the infusion of a solution into the subcutaneous tissue to supply the patient with continuous and sufficient amount of fluid and/or electrolytes.

STAFF AUTHORISED TO ADMINISTER
Registered Nurse: Adult/Mental health
Doctor

ROLE OF THE PRACTITIONER
Registered nurses must be familiar with and demonstrate an understanding of the following documents:

NMC (2008) Guidelines for Records and Record Keeping
RCN Standards for Infusion Therapy, London (2005)
NHSL Infection Control Policy/ Care Commission Infection Control Policy.
NMC Standards for medicines management

INDICATIONS FOR USE
To correct mild dehydration in those who are unable to take adequate fluids to fully rehydrate.
To prevent dehydration in those who have excessive fluid loss from vomiting and/or diarrhoea.

Where short term use can prevent an unnecessary and distressing admission to hospital, when oral intake is a concern.

In palliative care where distressing symptoms may be present – please refer to Palliative Care Guideline

**NOTE: The decision to start fluids will ultimately be based on the clinical judgement of the GP and taking into account views of patient, relatives and the wider multidisciplinary team.**

**CONTRAINDICATIONS**

Severe dehydration e.g. those requiring > than 3 litres over a 24 hour period.
Where precise control of volume and rate of infusion is essential and fluid balance is clinically important.
For patients with coagulation defects.
For patients with severe and unstable cardiac failure or who are fluid restricted.
For patients with severe renal failure or on haemodialysis.
As a treatment for hypercalcaemia.
Patients with fluid overload or marked oedema.

**EQUIPMENT** (Guidelines for accessing equipment see appendix 1&2)

Fluid regime / prescription chart signed by a GP  (see appendix 3)
Fluid balance chart
25 gauge winged butterfly needle
Standard giving set (single chamber – 20 drops per ml)
Clear occlusive dressing
Alcohol swab
Gloves
Infusion solution
Drip stand or hook on wall if no drip stand available
SITES OF INFUSION

*Rotate sites to minimize tissue damage*

Abdomen
Chest
Lateral aspect of the upper arm or thigh
Scapula (especially with confused patients)

SITES TO AVOID

Lymphoedematous tissue
Skin recently irradiated
Area with a rash of any type
Sites over bony prominences
Sites near joints
Sites over tumours
Areas of broken, infected or inflamed skin

Recommendations for infusion

Alternate Sodium chloride 0.9% and Dextrose 5%
Duration of infusion 8-12 hourly per 500ml bag
8hrly = 20 drops per minute
12hrly = 13 drops per minute
Recommended no more than 3 days of treatment without GP review.
GP should review patient before end of treatment to assess effectiveness and allow time to re stock supplies if further treatment needed.

For guidance on calculation of drip rate (see appendix 4)
Monitoring site

The needle should be re sited if any of the following occur.

- Patient complains of pain at the administration site.
- Skin is red and/or inflamed.
- Skin is white and/or hard.
- Blood is present in the giving set or Butterfly.
- Needle becomes dislodged

Occasionally local oedema can occur at the site. Gentle massage of the area can increase absorption but if condition persists re site.

Monitoring should be carried out 4 hrly. In community carers should be advised on what to look for and contact numbers given should a problem arise before the nurses next visit.
### PROCUREMENT OF SUBCUTANEOUS INFUSION

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<tr>
<th>PROCEDURE</th>
<th>RATIONALE</th>
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<tr>
<td>1. Explain procedure to patient and relevant others. Ensure valid consent for procedure. Record consent / compliance in care plan.</td>
<td>Explanation provides reassurance and facilitates co-operation.</td>
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<td>2. Ensure patient comfort.</td>
<td>To facilitate the procedure and reduce anxiety.</td>
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<td>3. Wash hands as per infection control policy and apply gloves.</td>
<td>To reduce risk of cross infection.</td>
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<td>4. Cleanse chosen site with alcohol and allow to dry.</td>
<td>To reduce infection from skin bacteria.</td>
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<td>5. Attach infusion set to bag of fluid and prime. Note: Saf-t-Intima needle does not require priming, however butterfly needles do. See Appendix 5.</td>
<td>To ensure no air enters the infusion set or the patient.</td>
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<td>6. Grasp the skin firmly.</td>
<td>To elevate subcutaneous tissue and ensure ease of insertion.</td>
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<tr>
<td>7. Insert needle at 45° angle in chosen site. For Saf-t-Intima see additional sheet.</td>
<td>To increase absorption into subcutaneous tissues.</td>
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<tr>
<td>8. Cover butterfly with transparent occlusive dressing.</td>
<td>To reduce risk of infection and allow observation.</td>
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<tr>
<td>9. Set rate using clamp as per prescription, using formula on prescription chart.</td>
<td>To ensure fluid is delivered according to prescription.</td>
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<tr>
<td>10. Dispose of sharps and waste as per infection control guidelines, remove</td>
<td>To reduce the risk of needlestick injury and infection.</td>
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<tr>
<td>Gloves &amp; Wash Hands</td>
<td>To Assist Effective Communication. To Comply with Record Keeping Policy.</td>
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<td>11. Document Accurately.</td>
<td>To Observe for Inflammation and Ensure Correct Rate of Administration.</td>
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<td>12. Infusion Site and Rate of Administration Should Be Checked 4 Hourly.</td>
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**Care Home Liaison Nurses December 2008**

Review date December 2010