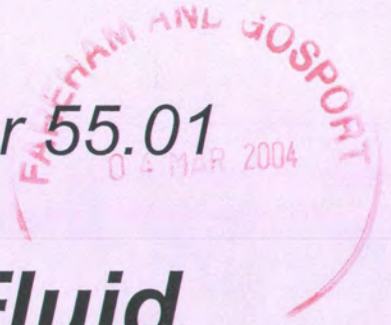


Justina Jeff's.

**12.12.03**

Clinical Guideline Number **55.01**  
November 2003



# Subcutaneous Fluid Replacement

This guideline will take effect from  
December 12<sup>th</sup> 2003

Please destroy all former  
copies

For **DRYAS WARD**

To be read by	Name (printed)	Signature	Date
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Please return the completed form to Hazel Bagshaw or Justina Jeffs at Fareham and Gosport PCT, Unit 180 Fareham Reach, 166, Fareham Road, Gosport PO13 0FH

## Subcutaneous Fluid Replacement

### Introduction

Subcutaneous fluids can be a useful method to correct **mild** dehydration, eg:

- to maintain adequate fluid intake after a stroke until swallowing improves.
- in palliative care.

Studies have shown that there are no differences in the abilities of subcutaneous and intravenous fluids to restore biochemical hydration in elderly patients.

Advantages of subcutaneous fluid administration are:

- Does not require venous access
- Little patient discomfort
- Can be used in a restless patient (site beyond the patient's reach)
- Useful for overnight rehydration
- Can be re-sited by nursing staff

The objective of this guideline is to ensure the safe administration of subcutaneous fluids.

This guideline applies to adult patients with mild dehydration where adequate oral fluid intake and intravenous access are not possible.

### Recommendations

#### Administration

Clean site with a mediswab using a spiral motion from the puncture site outwards and allow to dry.

Needle - 19-gauge butterfly.

Site - chest, abdominal wall, sub-scapular, axillary, thigh.

Site and needle must be changed every 48 hours.

Maximum rate of administration - 2 litres in 24 hours.

Hyaluronidase should not routinely be used (see problems below)

#### Fluids

Sodium chloride 0.9%.

Sodium chloride 0.18% with dextrose 4%.

Dextrose 5% has been used, but is best avoided as it can be irritant.

The above solutions containing Potassium Chloride may be used, but no more than the 20mmol/l concentration should be used.

#### Adverse Reactions

Local oedema at administration site.

Local infection.

Bruising.

Pain.

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## Contra-Indications

Severe dehydration where larger volumes of fluid are required  
 Bleeding diathesis  
 Generalised oedema  
 Skin sepsis  
 Coagulation defects

## Monitoring

- Inspect infusion site three times a day, record inspection in notes.
- Monitor rate, ensure correct rate.
- Monitor for complications eg
  - Swelling at infusion site
  - Inflammation
  - Pain

Monitor for return of adequate hydration and necessity of parenteral fluids.

## Problems

Fluid not absorbed after the first 24 hours. Hyaluronidase 1500 units injected s.c. at the site (or added to a litre of saline) may help, but it can be painful and is often ineffective. Hyaluronidase must **not** be used routinely.

## Evidence Base

No large randomised controlled trials on the administration of subcutaneous fluids were available therefore this guideline's recommendations are based on evidence, showing the safe administration of subcutaneous fluids, taken from small clinical studies. Recommendations have also been based on points of good practice taken from other published guidelines on subcutaneous fluid administration.

Produced by:

Althea Lord, Elderly Care Consultant,

Helen McHale and Jane Marshall, Pharmacists, manage this guideline (ext 6636)

See Trust Policy for the Production of Drug Therapy Guidelines

Approved by:

Portsmouth & South East Hampshire Guidelines and Medicines Management Group

November 2003

Review date:

November 2005