Guideline for the Subcutaneous Use of Clinically Assisted Hydration in Palliative Care (Adults)

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2	September 2017	Updated due to changes to the Community Care Teams	**September 2019**
3	September 2019	Reviewed and recommended fluid switched from 0.9% Sodium Chloride to 0.18% Sodium Chloride and 4% Glucose	**September 2021**
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	Consultants and Lead Nurses in Palliative Medicine at HDFT and York and Scarborough FT, Senior Pharmacists at HDFT and York and Scarborough FT	March 2026

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1. INTRODUCTION

Definition

Clinically assisted hydration (CAH) refers to the practice of providing fluids in the form of a drip, usually either intravenously or subcutaneously (a process known as hypodermoclysis) or via a nasogastric tube or gastrostomy. It does not include assisting a person to drink via the oral route. Synonymous terms within the medical literature include 'medically assisted hydration (MAH)' and 'artificial hydration'. Under current legislation CAH is regarded as a form of medical treatment.

In general CAH is used to manage dehydration/maintain hydration, and in many patients the decision about use of CAH is not difficult or contentious. However, the initiation, continuance or discontinuance of CAH can be more challenging in patients near the end of life. The challenges relate to the paucity of evidence, and the widespread perception of the benefits of giving these medical treatments, and the correlating negative effects of withholding/withdrawing them.

The Cochrane systematic review of MAH in patients receiving palliative care (2023) identified four randomized controlled trials (RCTs) involving a total of only 422 patients. Importantly three of these RCTs involved dehydrated patients and suboptimal fluid therapy i.e. insufficient quantities to reverse dehydration. It concluded that there was 'insufficient evidence to either support or refute the use of MAH for adults receiving palliative care in terms of improving QoL and survival'. There was also insufficient evidence on the risk of adverse events. The Palliative Care Study Group of the Multinational Association of Supportive Care in Cancer (MASCC) has produced clinical guidance on CAH in patients with advanced cancer, although the principles can be applied to other groups of patients with life-limiting conditions (2024). The guidance features 12 expert opinion statements, together with clinical considerations, and a treatment decision algorithm based on estimated prognosis. The MASCC guidance also includes several legal/ethical principles. It should be noted that the evidence to support these recommendations was somewhat limited (and generally of low quality).

The General Medical Council (GMC) guidance: Treatment and Care Towards the End of Life (2024) states all decisions about CAH should follow careful consideration of the individual circumstances of the patient. The decision must consider the patient (and carer) views and the patient-specific benefits, burdens and risks of CAH. If a patient is expected to die within hours or days and the burdens or risks of providing CAH outweigh the benefits they are likely to bring, it will not usually be appropriate to start or continue treatment.

2. AIM

This guideline covers Harrogate and District NHS Foundation Trust (HDFT) and York & Scarborough Teaching Hospitals NHS Foundation Trust (Y&STHFT) (both hospital and community settings). The aim is to support clinical decision making to ensure that patients who require CAH in palliative care in the form of subcutaneous fluid administration, receive safe and effective care.

3. PRE-REQUISITE QUALIFICATIONS/EXPERIENCE

Registered Nurses (RNs) are required to demonstrate competence to administer CAH via the subcutaneous route. An example of a competency checklist is included (Appendix 2). The assessor must be an RN who has completed training and is competent in the administration of subcutaneous fluids. The nurse should maintain evidence of their competence and practice in their own professional profile and ensure they attend refresher training when required.

RNs who have previously undertaken this role outside HDFT/Y&STHFT may continue to practice with the approval of their line manager, providing they have evidence of previously approved training and assessment and can submit evidence of continuing competence.

4. GUIDELINES FOR THE ADMINISTRATION OF CLINICALLY ASSISTED HYDRATION IN PALLIATIVE CARE

4.1 Indications for use of clinically assisted hydration

CAH is most likely to be given in the following circumstances in palliative care:

- Patients who are unable to take adequate fluids orally and are thirsty and/or have a persistent dry mouth despite review of medications and exemplary mouth care (see local Trust guidelines)
- Patients who have excessive fluid loss with acute dehydration from a reversible cause when felt to be clinically appropriate e.g. profuse infective diarrhoea in a patient who is not dying
- Patients who are mildly or moderately dehydrated, usually indicated by urea and electrolyte imbalance, or as part of the treatment of hypercalcaemia
- Patients who have capacity and make an informed choice for CAH

- Patients who want life prolonging treatment when swallowing is compromised due to a local cause whilst a more permanent route is explored
- Patients with delirium where dehydration or opioid toxicity is felt to be a cause
- In patients who are clearly dying, CAH is not routinely indicated. However, a time-limited trial of fluids may be considered at the request of the patient or carer if dehydration is thought to be causing significant distress, following discussion of the available evidence and provided it is not harmful to the patient. It should be emphasised that CAH is a medical treatment and, if judged to be futile, it cannot be demanded. It may be worth seeking a second opinion or suggesting MDT discussion if a family feel strongly that it should be offered.

4.2 Choice of route

Intravenous fluids when prescribed by the subcutaneous route are being prescribed 'off label' but the subcutaneous route may be preferable to intravenous for palliative indications, except in the following circumstances:

- The volume of fluid required is more than can be safely given subcutaneously (usually 1-2 litres in 24 hours)
- There is already intravenous access via a cannula/Hickman/PICC line or planned access by one of these routes to enable intravenous medication to be given
- Potassium replacement is required

The advantages of the subcutaneous route over the intravenous route in palliative care include:

- Subcutaneous fluids are less likely to cause fluid overload or pulmonary oedema
- Insertion of subcutaneous cannula may be less distressing to the patient
- Subcutaneous fluids do not cause thrombophlebitis
- Subcutaneous fluids have not been shown to cause systemic infection
- Subcutaneous fluids can be set up and administered by nurses in almost any setting

Subcutaneous fluids should not be considered in the following circumstances:

- Patients needing rapid administration of fluids e.g. shock, circulatory failure, severe dehydration
- Patients with clotting disorders
- Patients who have problems with fluid overload, e.g. congestive cardiac failure, marked oedema or renal failure
- Patients where precise control of fluid balance is clinically important
- Patients who require more than 2 litres of fluid in a 24-hour period
- Patients with severe electrolyte disturbance

4.3 Volume of fluid

Daily fluid volume requirements should be calculated using the guidance below

- 25-30 ml/kg/day normal population (for obese patients use ideal body weight)
- 20-25 ml/kg/day if older, frail, renal impairment, cardiac failure, malnourished

Palliative patients can be malnourished and frail. In addition, they often have low albumin levels and a tendency to retain water. Lesser volumes are acceptable if the aim of treatment is not simply replacing daily volume requirements e.g. treatment of a dry mouth, or if there are signs of fluid overload and a more cautious approach is required. Within research literature the volume of subcutaneous fluids given is often 1.5 – 2L/day using varying rates; however 1L/day is often felt adequate in clinical practice.

4.4 Choice of fluid

Parenteral fluids should be tailored to the clinical indication for which they are required, the route by which they will be given and the individual patient. The fluid given should be that which is nearest to meeting the patient's electrolyte requirements within the volume required.

Routine maintenance requirements of electrolytes are 1mmol/kg/day of each of sodium, potassium and chloride. e.g. a 60kg patient requires 60mmol sodium/day. The electrolyte composition of various fluids is contained in the table below. With the volumes usually required in palliative care, and a reduced range of fluids with evidence for prescribing subcutaneously it is rarely possible to use an exact match. **In most situations the use of 0.18% sodium chloride and 4% glucose will provide a reasonable choice.**

Composition of commonly used crystalloids

Content	Plasma	Sodium chloride 0.9%*	Sodium chloride 0.18%/ 4% glucose[a]	0.45% NaCl/ 4% glucose[a]	5% glucose[a]	Hartmann's	Lactated Ringer's (USP)	Ringer's acetate	Alternative balanced solutions for resuscitation**	Alternative balanced solutions for maintenance**
Na^+ (mmol/l)	135–145	154	31	77	0	131	130	130	140	40
Cl^- (mmol/l)	95–105	154	31	77	0	111	109	112	98	40
$[Na^+]:[Cl^-]$ ratio	1.28–1.45:1	1:1	1:1	1:1	-	1.18:1	1.19:1	1.16:1	1.43:1	1:1
K^+ (mmol/l)	3.5–5.3	*	*	*	*	5	4	5	5	13
HCO_3^- / Bicarbonate	24–32	0	0	0	0	29 (lactate)	28 (lactate)	27 (acetate)	27 (acetate) 23 (gluconate)	16 (acetate)
Ca^{2+} (mmol/l)	2.2–2.6	0	0	0	0	2	1.4	1	0	0
Mg^{2+} (mmol/l)	0.8–1.2	0		0		0	0	1	1.5	1.5
Glucose (mmol/ l)	3.5–5.5	0	222 (40 g)	222 (40 g)	278 (50 g)	0	0	0	0	222 (40 g)
pH	7.35–7.45	4.5–7.0	4.5		3.5–5.5	5.0–7.0	6–7.5	6–8	4.0–8.0	4.5–7.0
Osmolarity (mOsm/l)	275–295	308	284		278	278	273	276	295	389

* These solutions are available with differing quantities of potassium already added, and the potassium-containing versions are usually more appropriate for meeting maintenance needs.
** Alternative balanced solutions are available commercially under different brand names and composition may vary by preparation.
[a] The term dextrose refers to the dextro-rotatory isomer of glucose that can be metabolised and is the only form used in IV fluids. However IV fluid bags are often labelled as glucose so only this term should be used. Traditionally hospitals bought a small range of fluids combining saline (0.18-0.9%) with glucose but several recent NICE/NPSA documents have recommended specific combinations, which are now purchased to enable guidelines to be followed. Glucose–saline combinations now come in 5 different concentrations, and the addition of variable potassium content expands the pre-mixed range to 13 different products. Prescribers must therefore specify the concentration of each component; the term dextrose-saline (or abbreviation D/S) is meaningless without these details. What is specified also impacts significantly on the cost of the product.
Note: Weight-based potassium prescriptions should be rounded to the nearest common fluids available (for example, a 67 kg person should have fluids containing 20 mmol and 40 mmol of potassium in a 24-hour period). Potassium should not be added to intravenous fluid bags as this is dangerous.

Source: This table was drafted based on the consensus decision of the members of the Guideline Development Group.

'Intravenous fluid therapy in adults in hospital', NICE clinical guideline 174 (December 2013. Last update December 2016)

Fluids that should not be given by subcutaneous infusion include:

- Colloids
- Blood or blood products
- Total parenteral nutrition (TPN)
- Solutions with added medication e.g. zoledronic acid
- Glucose solutions > 5%
- Solutions containing potassium, due to limited safety information. If potassium supplementation is required, the intravenous route is preferable. Ready-mixed infusion solutions containing potassium are not licensed for subcutaneous administration

4.5 Prescribing

1. An appropriately qualified medical practitioner or registered independent prescriber must be responsible for prescribing the fluids. A multi-disciplinary discussion (e.g. GP, medical consultant, Specialist Palliative Care Team member, Community Nursing Team) with agreement that CAH is in the patient's best interests should be held prior to these being commenced.
2. A recent urea and electrolytes result may aid decision making for CAH and whether intravenous fluids may be more appropriate. If urea and electrolytes are normal and the patient is not clinically dehydrated, then explanations about

the use and limitations of CAH may avoid false expectations for patients and families.

3. Ideally a patient who requires subcutaneous fluids in their own home would have a carer to support with administration (e.g. additional moving and handling needs). In cases where this is not possible, the individual patient's needs and circumstances must be carefully considered.
4. Up to two litres of fluid a day may be administered subcutaneously i.e. maximum rate is 1 litre over 12 hrs. If the patient is able to take oral fluids, then one litre subcutaneously over 24 hours may be sufficient.
5. Subcutaneous fluids should be administered using gravity only; mechanical devices should not be used. (Royal College of Nursing RCN 2005).
6. Subcutaneous fluids can be administered continuously or over smaller periods of time if more convenient for the patient e.g. given overnight over 12 hours.

4.6 Equipment required for the administration of subcutaneous fluids in a community setting

1. Fluid must be prescribed on a fluid replacement therapy chart
   - **The HDFT Fluid Replacement Therapy Chart** (WHZ066) is available via the Community Care Team (CCT) or will be supplied with patient if discharged from HDFT on CAH
2. Prescribed infusion fluid (e.g. 0.18% sodium chloride and 4% glucose) available from the following sources:
   - **HDFT** inpatient pharmacy department. Call in advance to order and they will ensure the fluid is available to collect. If the patient is being discharged from HDFT a box of fluid will be supplied on discharge containing 12 bags of fluid
   - **Y&STHFT:** First line of supply for patients initiated in community should be FP10 dispensed by a community pharmacy. Y&STHFT inpatient pharmacy department can however be contacted to provide an interim supply against an FP10 prescription if fluid is initially unavailable and needs starting urgently. Call in advance to discuss supply. If the patient is being discharged from Y&STHFT on CAH a box of fluid will be supplied on discharge containing 10 or 12 bags of fluid (dependent upon brand)
3. Saf-T-Intima subcutaneous cannula
4. Standard intravenous administration giving set
5. A semi-permeable transparent adhesive film dressing
6. Sharps container

4.7 Preparing the patient and family

Explain the procedure, indications and aims of CAH to the patient and/or carers. The discussion and reasoning should be clearly documented in the patient electronic record along with any plan to review and monitor e.g. blood tests if required.

4.8 Skin site selection for insertion of Saf-T-Intima

The best sites to use for subcutaneous infusion of fluids are the lateral aspects of the upper arms and thighs, the anterior chest below the clavicle and occasionally, the back or abdomen (Graham 2006). Sites should be rotated and sets changed every 7 days or before if there are any signs of site reaction, to minimise tissue damage. Areas which should **not** be used are:

- Lymphoedematous limbs e.g. avoid arms on the same side as previous breast/axillary surgery. A cannula breaches skin integrity, thus increasing the risk of infection in a limb which is already susceptible
- The abdomen when distended by ascites or abdominal disease
- Sites over bony prominences. The amount of subcutaneous tissue will be diminished, impairing the rate of absorption
- Previously irradiated skin. Radiotherapy can cause sclerosis of small blood vessels, thus reducing skin perfusion
- Sites near a joint; excessive movement may cause cannula displacement and patient discomfort

4.9 Practical considerations for setting up the subcutaneous fluid infusion

- CAH should ideally be prescribed and commenced in normal working hours. The on-call team or Out of Hours (OOH) service should not be expected to make a decision to commence subcutaneous fluids. OOH teams should only prescribe CAH if this decision cannot wait until the next working day

- If CAH is in place overnight, then the OOH Nursing Service should be informed to ensure continuity of care

- If the fluids are likely to be administered for a period of time in the community setting, a family member can be taught how to monitor and discontinue the infusion especially if this is not going to occur in normal working hours

- The patient may be in hospital and need to continue subcutaneous fluids following discharge or may start subcutaneous fluids to address their needs in their ‘home’ setting. This could be a residential or nursing home, or the patient’s

own home. If this is required adequate communication and preparation time should be arranged with the GP and community nursing teams or care home to support a safe, effective discharge. This is especially necessary if training of community staff involved in care is required

- If continuing overnight in community, medical and nursing advice can be sought if required from the OOH GP service, OOH Nursing Service or Hospice inpatient unit

4.10 Recommended subcutaneous infusion rates and calculating drop rate

Subcutaneous fluid is infused by gravity and there is no need for a pump to regulate administration. To set up a manually controlled drip accurately by eye, you need to be able to count the number of drops per minute, which will equate to the amount prescribed. The formula for calculation is:

$$\textbf{RATE} = \frac{\textbf{VOLUME (IN DROPS)}}{\textbf{TIME (IN MINUTES)}}$$

To calculate the volume in drops, you need to know how many drops of the fluid ordered are contained in one millilitre (ml). You should find this information on the packaging of the administration set.

The volume in mls per bag is then multiplied by the number of drops per ml to give the volume in drops. This is then divided by 12 (for an infusion over 12 hours) to get the rate in drops per hour. Similarly, to find the rate in minutes, you need to change the hours into minutes, by multiplying by 60 (Hutton 1998).

Two common sizes are 20 drops per ml and 15 drops per ml.

Examples:

$$\frac{\text{1000mls (volume of infusion) x } \mathbf{20\ (drops)}}{\text{12 (hrs) x 60 (mins)}} = \frac{20{,}000}{720} = 28\ \textbf{drops}$$

$$\frac{\text{1000mls (volume of infusion) x } \mathbf{15\ (drops)}}{\text{12 (hrs) x 60 (mins)}} = \frac{15{,}000}{720} = 21\ \textbf{drops}$$

NB. Since we are trying to work out a number of drops, it is sensible to round up to a whole number.

4.11 Commencing the subcutaneous infusion

1. Prepare the patient and give full explanations to gain informed consent where possible
2. Establish that the patient has no known allergies prohibiting the administration of the specific CAH or the use of the associated equipment. Check in the patient's records and ask the patient/family
3. Ensure the patient is comfortable and maintain privacy and dignity
4. Check the prescription is for the correct patient and clearly states the patient's full demographic details
5. Check the name, strength and volume of the infusion fluid against the prescription chart
6. Check the expiry date of the infusion bag
7. Check the packaging is intact and inspect the container and contents in a good light for cracks or punctures
8. Inspect the fluid for discoloration, haziness and crystalline or precipitate matters
9. Calculate the correct drip rate setting using the drop calculation formula
10. Decontaminate hands
11. Apply single use disposable apron and gloves
12. Prime the administration set with the infusion fluid and connect to the Saf-T-Intima via the Bionector
13. Commence the infusion and adjust the drops per minute to the correct length of time for the infusion as per prescribed rate of infusion
14. Label the administration set with the date and time of commencement and document in the patient notes, recording batch number and expiry date on the fluid replacement therapy chart
15. Clear away all equipment and dispose of clinical waste as per trust policy
16. Decontaminate hands

4.12 Monitoring

Community - the infusion will be monitored at each nurse visit. This should be a minimum of once daily. Patients and carers will be given help and support on how to monitor the infusion. They will be encouraged to discuss with an RN if they have any comments or concerns.

Hospital - In hospital, the infusion should be monitored 2 - 4 hourly.

Side effects of administration of subcutaneous fluids

These can include:

- Pain/tenderness
- Bruising/bleeding
- Local oedema
- Erythema
- Local inflammation or infection
- Signs of fluid overload i.e. dyspnoea, peripheral oedema
- Leakage at site
- Abscess formation

If any of these occur, stop the infusion and discuss the appropriateness for continuing the infusion with the consultant, GP or Palliative Care Team. If the infusion is to continue, re-site the Saf-T-Intima.

CAH should be reduced or stopped as soon as sufficient rehydration has been achieved or if there are signs of fluid overload. It should also be stopped if there is multidisciplinary agreement that it is no longer of benefit, or the patient expresses a wish for it to be discontinued.

If the patient is having CAH for longer than 5 days, they should be reviewed by their Consultant/ GP/ Palliative Care Team who may arrange to check urea and electrolytes to avoid over hydration.

5. DISSEMINATION AND IMPLEMENTATION

This procedure has been circulated to the consultation group as listed in Appendix 1. Following approval and ratification it will be available on the intranet and internet for staff to view.

6. MONITORING COMPLIANCE AND EFFECTIVENESS

Competency assessments will be completed for each individual registered nurse who will carry out this procedure.

Practice may be compared to the standards within this procedure using clinical audit.

Incidents and complaints relating to CAH should be reported on Datix and be reviewed to determine areas for learning.

7. REFERENCES

Association for Palliative Medicine (APM) Position Statement on the Provision of Clinically Assisted Hydration at the End of Life (2018): https://apmonline.org/news-events/apm-position-statements/

British Medical Association (BMA) (2019): Clinically assisted nutrition and hydration guidance: https://www.bma.org.uk/advice/employment/ethics/mental-capacity/clinically-assisted-nutrition-and-hydration/clinically-assisted-nutrition-and-hydration-canh-guidance

Buchan EJ, Haywood A, Syrmis W, Good P. Medically assisted hydration for adults receiving palliative care. Cochrane Database of Systematic Reviews 2023, Issue 12. Art. No.: CD006273.

DoH (2013) More Care, Less Pathway. A Review of the Liverpool Care Pathway https://www.gov.uk/government/publications/review-of-liverpool-care-pathway-for-dying-patients

DoH (2014) One Chance to get it Right; Improving people's experience of care in the last few days and hours of life Leadership Alliance for the Care of Dying People https://www.gov.uk/government/publications/liverpool-care-pathway-review-response-to-recommendations

General Medical Council (2024). Treatment and care towards the end of life: good practice in decision making. Clinically assisted nutrition and hydration. https://www.gmc-uk.org/professional-standards/the-professional-standards/treatment-and-care-towards-the-end-of-life/clinically-assisted-nutrition-and-hydration

Hayes J, Bruera E, Crawford G et al. Multinational Association of Supportive Care in Cancer (MASCC) expert opinion/guidance on the use of clinically associated hydration in patients with advanced cancer. Support Care Cancer. 2024;32:288

NICE (2015) Care of dying adults in the last days of life. NICE Clinical Guideline 31 https://www.nice.org.uk/guidance/ng31

NICE (2017) Intravenous Fluid Therapy in Adults in Hospital. NICE Clinical Guideline 174 https://www.nice.org.uk/guidance/cg174

NICE (2017) Care of dying adults in the last days of life. NICE Quality Standard 144 https://www.nice.org.uk/guidance/qs144

NMC (2015) The Code Professional standards of practice and behaviour for nurses and midwives. Published 29 January 2015 (Updated October 2018) https://www.nmc.org.uk/globalassets/sitedocuments/nmc-publications/nmc-code.pdf

Royal College of Nursing (2016) Infusion therapy standards. www.rcn.org.uk

UK Medicines Information Q&A 45.7 Can potassium be given by subcutaneous infusion? https://www.evidence.nhs.uk/search?om=[{"srn":["Specialist Pharmacy Service"]}]&q=potassium+by+subcutaneous+infusion&sp=on

8. APPENDIX 1: CONSULTATION SUMMARY

	Groups and/or individuals consulted
Those listed opposite have been consulted and comments/actions incorporated as required	Harrogate Specialist Palliative Care Team
	HDFT Community Services Matron
	Community Care Team Leaders
	NY&Y Palliative and End of Life Care Group
	Area Prescribing Committee
	York and Scarborough Hospitals Trust Specialist Palliative Care Team
	Jane Crewe, Principal Pharmacist Medicines Information, Formulary, Interface and Palliative Care, York Hospital
	HDFT Pharmacy Team including Kate Shelton

9. APPENDIX 2: ASSESSMENT OF COMPETENCY DOCUMENT

Competency Statement: Can maintain patients' safety while administering subcutaneous fluids (Competency is: *the skills and ability to practice safely and effectively without the need for direct supervision. NMC)*

Name:		Job Title:
Department:		Ext Number:
Trained By:	Date:	Signature:

Method of Assessment: Self-assessment of competency in the use of medical device in relation to defined key elements and countersigned by appropriate member of staff (Key Trainer, Manager, Educator, Mentor etc).

	Competency	Achieved
1	State the clinical indications for subcutaneous fluid administration	
2	Show awareness of procedure	
3	Explain safety check prior to use	
4	Identify appropriate equipment needed for set up	
5	Demonstrate understanding of infusion rate calculation and ability to check this	
6	Demonstrate the correct procedure for initial set-up, initiating and commencing an infusion safely. Including as follows: • Prepare the fluid, attach the giving set and manually prime the line. • Review, confirm and calculate the drip rate • Connect line to patient • Start infusion • Check the infusion is running • Continual monitoring of infusion	
7	Demonstrate the awareness and understanding of infusion monitoring and documentation:	
8	Demonstrate ability to dismantle the infusion correctly on completion of infusion	
9	Is aware of the need for decontamination as per Trust's procedure	
10	Demonstrate awareness of effects and side effects of subcutaneous fluids and site reactions to check for during monitoring	

11	Will ensure correct storage and safe-keeping of equipment	

Disclaimer:

(i) Having answered YES to the above key statements and taken into account my personal assessment of my competence in the use of the medical device, I declare that I am competent to use the device safely as per the Trusts' guidelines.

OR

(ii) I require further training in the use of this equipment in order to reach a competent level of practice and will discuss these needs with my Mentor/Ward Manager/ Trainer/Equipment Controller.

I certify that ……. ……. **is competent in the administration of subcutaneous fluids**

Signed: …….. **Position:** …… **Date:** ……

10. APPENDIX 3: SUBCUTANEOUS FLUID SITE MONITORING CHART

SUBCUTANEOUS FLUID SITE MONITORING CHART

Allergies and Adverse Drug Reactions – (write NKDA if none)			
Medicines must NOT be administered until this section has been completed			
Medicines/Substance	Reaction	Sign (NAME)	Date
Allergy status unconfirmed. Authority to administer medicines Ceases after 24 hours		Sign (NAME)	Time & Date

Name

Address

NHS NUMBER

GP

Initial set-up **Date**…….……..**Time**…….…..… **By**…….……

Signature……

Fluid prescribed ……..…… **Volume**…… **Rate** ……

Saf-t-intima Site…… **Date of last site change**……

Date								
Time								
Site Position								
Site Condition: red, tender, bruised, leakage, bleeding, pain, oedema, inflammation, swelling,								

If any of above consider site change.								
Respiratory tract secretions? **Absent, minimal, moderate, severe** **If RTS present review Fluid**								
Signature								

Date								
Time								
Site Position								
Site Condition: red, tender, bruised, leakage, bleeding, pain, oedema, inflammation, swelling, **If any of above consider site change.**								
Respiratory tract secretions? **Absent, minimal, moderate, severe** **If RTS present review Fluid**								
Signature								

When considering appearance please use the following guideline.

Site appears intact with no pain on palpation, redness, swelling or oozing	Continue infusion

Slight pain on palpation and/or redness, swelling or oozing to a diameter of less than 0.5cm	Continue infusion. Check site more frequently
Pain on palpation and or redness, swelling or oozing to a diameter of between 0.5cm and 2cm	Discontinue infusion. Resite if appropriate and monitor frequently until symptoms diminish
Pain on palpation and/or redness, swelling or oozing to a diameter of greater than 2cm	Discontinue infusion. Resite if appropriate and monitor frequently until symptoms diminish and apply dressing if required.