Fluid balance policy for adult in-patients

V2

June 2015
# Fluid Balance Policy for Adult In-Patients

## Table of Contents

1. Introduction .........................................................................................................................3
2. Purpose of this Policy/Procedure ......................................................................................3
3. Scope ..................................................................................................................................4
4. Ownership and Responsibilities .......................................................................................4
   4.1. Role of the Fluid Balance Working Group .................................................................4
   4.2. Role of the Strategic Nutrition Steering Group (SNSG) ...........................................4
   4.3. Role of Clinical Matrons and Ward Managers .........................................................4
   4.4. Role of Individual Staff ..............................................................................................5
5. Standards and Practice .......................................................................................................6
   5.1. Indications for commencing a Fluid balance chart .....................................................6
   5.2. Completing a Fluid Balance Chart .............................................................................6
   5.3. Requirements over 24 hours .......................................................................................6
6. Dissemination and Implementation ...................................................................................7
7. Monitoring compliance and effectiveness ..........................................................................7
8. Updating and Review .........................................................................................................7
9. Equality and Diversity .......................................................................................................8

Appendix 1: Correct Documentation ....................................................................................9
Appendix 2. Volume in a cup or jug ....................................................................................11
Appendix 3. Governance Information ................................................................................12
Appendix 4. Initial Equality Impact Assessment Form .......................................................15
1. **Introduction**

1.1. Fluid balance is an essential tool in determining hydration status. Recording intake and output tends to be one of the key activities undertaken at the bedside and is used in conjunction with the recording of vital signs and certain laboratory reports to set required fluid intake levels. Accuracy in recording fluid intake and output is vital to the overall management of certain patient groups and facilitates in the assessment and evaluating the patient’s condition. This ultimately enables correct prescribing of intravenous and subcutaneous fluids.

1.2. However assessment is frequently poorly observed and documentation often substandard.

1.3. Fluid balance monitoring in conjunction with monitoring of vital signs may prevent detrimental effects on patient health and outcomes including; delayed medical review, unexpected patient deterioration, over or under-prescribing of fluids, prolonged hospital stay, increased patient morbidity and mortality and in some cases death.

1.4. NICE (2008) cite fluid balance as a key requirement for staff to demonstrate skill and although vital signs can provide supporting data, they may not be abnormal until significant volume or water deficits occur.

1.5. All health care staff within this Trust has to assume responsibility to ensure that they are competent and that they are meeting national and local guidelines in fluid balance monitoring.

1.6. This version supersedes any previous versions of this document.

2. **Purpose of this Policy/Procedure**

2.1. The purpose of this policy is to raise staff awareness and provide clear standards in managing optimal hydration and maintaining effective fluid balance in the adult patient. The guidance aims to ensure that healthcare staff apply a safe and consistent approach to the assessment, recording and monitoring of an individual patient’s fluid intake and output which aims to:

- Prevent or reduce adverse consequences associated with patient dehydration by establishing an effective standard and management for optimal hydration.
- Create one set method for recording detailed and accurate fluid input and output.
- Support staff to determine a timely and appropriate rationale for starting and stopping a fluid balance chart.

2.2. This document applies to all health care professionals who provide patient care in an inpatient clinical environment and involved in patient monitoring.

2.3. This policy supports the competency framework associated with ‘acutely unwell adults’ NICE, (2008) CG50 and NICE (2014) CG 174. This policy supports the need for accurate monitoring of physiological status. In addition
staff should use this guideline in association with the RCHT policy for physiological observations and NEWS (2013)

3. **Scope**

3.1. This document applies to all clinical staff taking observations on adult patients. Registered Nurses, Midwives, Operating Department Practitioners (ODP’s), Doctors and competent Healthcare Support Workers (HCSW) have a pivotal role in the identification of patients at risk of deterioration through early and accurate assessment of all physiological parameters.

3.2. All health care staff within this Trust has to assume responsibility to ensure that they are competent and that they are meeting national and local guidelines in fluid balance monitoring.

4. **Ownership and Responsibilities**

4.1. **Role of the Fluid Balance Working Group**
The Fluid Balance Working Group is responsible for:

- Successful implementation of the NICE CG 174 through the Royal Cornwall Hospital (RCHT) Clinical Guideline for Intravenous Fluid Therapy for Adults in Hospital
- Compliance audit in conjunction with Critical Care Outreach
- Liaison with the Operational Nutrition Steering Group (ONSG) and dissemination of audit results to facilitate compliance and consistent improvement

4.2. **Role of the Strategic Nutrition Steering Group (SNSG)**
The SNSG is responsible for:

- Approval and implementation of actions identified in compliance audits.
- Monitoring of action plans.
- Escalation of unresolved concerns through the Senior Nurses Forum

4.3. **Role of Clinical Matrons and Ward Managers**
Line managers are responsible for:

- Ensuring this policy is disseminated to clinical staff in their areas of responsibility. They must ensure that prescribed medical treatment plans relating to hydration and fluid balance are instigated and closely monitored.
- Ensuring that non-medical healthcare staff receive appropriate training and competency assessment, according to their role, in the support and monitoring of hydration / fluid balance.
- Ensuring that non-medical clinical staff deemed accountable for the support of hydration and the recording/monitoring of fluid balance are aware of potential complications and familiar with the escalation procedure in order to address / relay their concerns.
• Ensuring that clinical staff have access to appropriate monitoring equipment such as weighing scales, jugs and drinking vessels with clearly defined measurement markers and fluid balance charts.

• Ensuring that senior clinical staff have overall clinical responsibility for patients. The Consultant must supervise junior medical staff and ensure they provide a documented fluid management plan.

• Ensuring ward/department compliance with the administration of prescribed fluid management plans and accurate documentation in relation to the recording of fluid input, output, totals and fluid balance.

4.4. Role of Individual Staff

Individual staff members are responsible for

• Ensuring they are competent, within their scope of professional practice, to accurately undertake the support of hydration and the recording / assessment of fluid balance in accordance with the individual fluid management plans and the Trust policy.

• Ensuring they document all fluid input and fluid output accurately in accordance with best evidence based practice and local Trust policy.

• Ensuring they acknowledge any limitations in their knowledge and competence and seek further training as appropriate to their role.

• Ensuring they report anomalies or concerns promptly to a senior nursing or medical colleagues, whichever is more appropriate.

• Ensuring they are competent in the use of all equipment necessary for the support of hydration and accurate monitoring of fluid balance and that they take appropriate actions where faulty equipment is identified.

• Ensuring they report any adverse incident relating to hydration and fluid balance

<table>
<thead>
<tr>
<th>Fluid Balance / Fluid Balance Charts</th>
<th>Delegation / Responsibility</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Designation</strong></td>
<td><strong>Fluid Balance / Fluid Balance Charts</strong></td>
</tr>
</tbody>
</table>
| Medical Doctor / Consultant          | ▪ Fluid management treatment plan. Prescription of Intravenous fluids  
▪ Consideration of positive/negative fluid balance to inform treatment plan |
| Registered Non-Medical Healthcare Professional (Nurse, Midwife, Operating Department Practitioner, Dietician) | ▪ Assessment of positive/negative fluid balance to inform fluid management  
▪ Accurate recording of all fluid input and fluid output |
| Non-Registered Health Care Support Worker | ▪ Accurate documentation of consumed oral fluids and output |
| House Keeper (if trained and assessed as competent) | ▪ Oral fluids only after definite consumption |
5. Standards and Practice

All inpatients within the Trust who meet the criteria for fluid balance measurement will have accurate and fully completed fluid balance charts as set out in this fluid balance policy.

The following standards of practice will apply to all staff involved in patient monitoring and recording of vital signs and fluid balance charts.

Successful fluid balance is dependent upon:

- Timely/appropriate rationale for commencement/discontinuation
- One system for detailed & accurate measurement of input/output
- Consideration of insensible loss.

5.1. Indications for commencing a Fluid balance chart

Fluid balance charts must be completed for the following patients unless a decision has been made otherwise by a medical practitioner or a senior registered nurse.

- NEWS score >3 and/or risk of level 2 or 3 care
- Patients with sepsis
- Patients discharged from Critical Care for a minimum of 48 hours post transfer or as indicated by outreach or medical/ surgical team.
- Temperature greater than 38.0 Centigrade.
- Excessive vomiting or nasogastric output
- Diarrhoea and excessive output stoma/ ileostomy
- Post-operative patients.
- Excessive fluid loss from surgical drains/ cavity drains, wounds /VAC therapy
- Intravenous Fluids and drugs / or parenteral nutrition
- Enteral feeding i.e. PEG, NG, PEG-J, NJ
- Fluid restricted i.e. cardiac failure, liver failure, AKI, CKD
- Patients with urinary catheters, excluding patients with long term catheters in the absence of acute onset of illness.
- Sickle cell disease
- NBM > 12 hours
- When any doubt exists over fluid status.

This is not an exhaustive list and other indications may be deemed necessary by the accountable healthcare professional.

5.2. Completing a Fluid Balance Chart

- See Appendix 1

5.3. Requirements over 24 hours

Clinicians are reliant on accurate 24 hour totals to inform clinical decisions in relation to fluid management including the prescription of intravenous fluids. This will prevent the serious complications associated with over or under hydration.

Incorrect or poorly completed fluid balance charts and ineffective monitoring can result in detrimental effects on patient outcomes.
5.4 When to review and/or stop a Fluid Balance Chart

- When patients are transferred to other wards / departments, a verbal and written handover must include whether the patient is on a fluid balance chart.

Fluid Balance Charts must be reviewed in line with the patients’ clinical condition. Frequency must be determined and recorded by the registered healthcare professional to ensure that fluid requirements are met and balance is maintained.

- Stopping fluid balance is the decision of an accountable clinician or registered nurse. Patients must be assessed thoroughly before making such a decision.

6. Dissemination and Implementation

6.1. The policy is available to all staff via the RCHT Documents Library
6.2. The policy is launched via Team Brief, Trust wide launch event and briefings from the Outreach and Acute Care Team to line managers at Divisional and Department meetings, also through drop in/ ad hoc sessions, ward meetings and the educators in each division.

7. Monitoring compliance and effectiveness

<table>
<thead>
<tr>
<th>Element to be monitored</th>
<th>Ward areas to be compliant 100% with completion of accurate fluid balance documentation Including input, output, totals and balance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lead</td>
<td>Fluid balance working group / Critical Care Outreach Team / Ward managers/matrons</td>
</tr>
<tr>
<td>Tool</td>
<td>Audit carried out by critical care outreach/ Fluid balance working group Datix incident reporting – review of related incidents</td>
</tr>
<tr>
<td>Frequency</td>
<td>Fluid Balance documentation audits yearly for those areas complying with standard those below standard will be monitored quarterly.</td>
</tr>
<tr>
<td>Reporting arrangements</td>
<td>Operational Nutrition steering group</td>
</tr>
<tr>
<td>Acting on recommendations and Lead(s)</td>
<td>Strategic Nutrition Steering Group bimonthly meetings. Fluid balance working group.</td>
</tr>
<tr>
<td>Change in practice and lessons to be shared</td>
<td>Required changes to practice will be identified and actioned through Matron/ Sister meetings</td>
</tr>
</tbody>
</table>

8. Updating and Review

This policy will be reviewed no less than every three years. Where appropriate, the author may set a shorter review date.
9. **Equality and Diversity**

9.1. This document complies with the Royal Cornwall Hospitals NHS Trust service Equality and Diversity statement which can be found in the 'Equality, Diversity & Human Rights Policy' or the Equality and Diversity website.

9.2. Equality Impact Assessment

The Initial Equality Impact Assessment Screening Form is at Appendix 4.
Appendix 1: Correct Documentation

If patients meet the criteria for fluid balance then they meet the criteria for accuracy!
- The Trust fluid balance chart should be used
- All fluid balance charts should be completed with the patients name, date, ward and hospital number.

Oral input:
- Fluid must only be recorded as input once it has been ingested.
- Encourage patients and/or relatives to chart fluid input and output where applicable and mental capacity has been established.
- Make sure everyone is aware of patients at risk of dehydration.
- Ensure everyone involved is aware of volume in a cup or jug (see appendix 2)
- Alert hostess and hosts to patients ‘of concern’ so they can tell you before removing or replenishing jugs
- Do not document ‘sips’. Document in mls - use a medicine pot which is 50mls and chart when empty

Intravenous Input:
- Whenever possible IV fluids to be administered via a volumetric pump and rate charted hourly
- Intravenous fluids not administered through a volumetric pump should be documented at the commencement of infusion with type of fluid
- include IV drug volume and 0.9% Normal Saline flushes are recorded as input as this can accumulate to a large volume in some patients

Detailed & Accurate Output:
- All forms of fluid loss must be accounted for with as much accuracy as is reasonably possible
- It is unacceptable to write ambiguous comments for urine output
- Patients must be encouraged to use receptacles for urine collection and measurement
- Acute staff must be able to estimate urine output in cases of incontinence
- Enter all stoma, nasogastric or drain output
- The amount of each vomit
- If there have been multiple episodes of diarrhoea or vomiting attempt to arrive at an estimated volume

Estimation of fluid balance:
- As much as possible oral fluids should not be estimated, recognised measuring containers must be used and an actual volume documented.
- Insensible loss should be considered when assessing the fluid balance
- Urine output should be estimated in cases of incontinence. i.e. weighing of pads
- Care must be taken in the case of vomiting, diarrhoea and blood loss that attempts are made to arrive at an estimate of volume

Escalation:
- Acute patients’ with a urinary catheter in situ must have their output monitored and measured hourly until the patient’s clinical condition has improved
- If adult patient’s produce <2mls/kg over 4hrs or < 0.5mls/kg/hr (exemption in chronic renal failure patients who are anuric) then this is an automatic trigger for referral requiring primary medical and nurse responder review.

**Running totals** must be completed during the day as per fluid chart.
## Appendix 2. Volume in a cup or jug

<table>
<thead>
<tr>
<th>Vessel (when filled)</th>
<th>Approximate Volume</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1.png" alt="Cup" /></td>
<td>200mls</td>
</tr>
<tr>
<td><img src="image2.png" alt="Cup" /></td>
<td>200mls</td>
</tr>
<tr>
<td><img src="image3.png" alt="Cup" /></td>
<td>200mls</td>
</tr>
<tr>
<td><img src="image4.png" alt="Cup" /></td>
<td>200mls</td>
</tr>
<tr>
<td><img src="image5.png" alt="Cup" /></td>
<td>200mls</td>
</tr>
<tr>
<td><img src="image6.png" alt="Cup" /></td>
<td>150mls</td>
</tr>
<tr>
<td><img src="image7.png" alt="Cup" /></td>
<td>150mls</td>
</tr>
</tbody>
</table>
### Appendix 3. Governance Information

<table>
<thead>
<tr>
<th>Document Title</th>
<th>Fluid balance policy for adult in-patients</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date Issued/Approved:</td>
<td>June 2015</td>
</tr>
<tr>
<td>Date Valid From:</td>
<td>June 2015</td>
</tr>
<tr>
<td>Date Valid To:</td>
<td>June 2018</td>
</tr>
<tr>
<td>Directorate / Department responsible (author/owner):</td>
<td>Tracy Lee, Nutrition Nurse Specialist Nutrition Support Team Amanda Thompson, Learning &amp; Development</td>
</tr>
<tr>
<td>Contact details:</td>
<td>01872 252409</td>
</tr>
<tr>
<td>Brief summary of contents</td>
<td>This document provides the framework for clinical staff in the management of patient hydration and monitoring of fluid balance. The document ensures that staff are guided by the expected standard set by the organisation</td>
</tr>
<tr>
<td>Suggested Keywords:</td>
<td>Hydration / Fluid Balance/ Patient Observations</td>
</tr>
<tr>
<td>Target Audience</td>
<td>RCHT</td>
</tr>
<tr>
<td>Executive Director responsible for Policy:</td>
<td>Nurse Executive</td>
</tr>
<tr>
<td>Date revised:</td>
<td>February 2015</td>
</tr>
<tr>
<td>This document replaces (exact title of previous version):</td>
<td>Fluid balance guidelines: supporting optimal hydration in adults during hospital stay V1.0</td>
</tr>
<tr>
<td>Approval route (names of committees)/consultation:</td>
<td>Strategic Nutrition Steering Group Fluid balance working group (10.06.15) CSSC Governance DMB (16.06.15)</td>
</tr>
<tr>
<td>Divisional Manager confirming approval processes</td>
<td>Sally Rowe, Divisional Director CSSC</td>
</tr>
<tr>
<td>Name and Post Title of additional signatories</td>
<td>Janet Gardner, Governance Lead CSSC</td>
</tr>
<tr>
<td>Signature of Executive Director giving approval</td>
<td>{Original Copy Signed}</td>
</tr>
<tr>
<td>Publication Location (refer to Policy on Policies – Approvals and Ratification):</td>
<td>Internet &amp; Intranet</td>
</tr>
<tr>
<td>Document Library Folder/Sub Folder</td>
<td>Clinical / Dietetics</td>
</tr>
</tbody>
</table>
| Links to key external standards | National Institute for Clinical Excellence (2007) – Acutely Ill patients in hospital: Recognition of and response to acute illness in

Fluid balance policy for adult in-patients. London.

Related Documents:
- RCHT Nutrition and Hydration Policy for Adults
- RCHT Guidelines for pre-operative fasting for Adults undergoing elective surgery
- RCHT policy for physiological observations and MEWS in Adults
- Department of Health (2008) - Competencies for Recognising and Responding to Acutely Ill patients in Hospital.
- Central Manchester University Hospitals NHS Foundation Trust 2010 Fluid Balance Policy for adult in-patient areas
- Western Health and social care Trust 2010 policy for the recording of fluid balance and intake.

Training Need Identified? Yes

Version Control Table

<table>
<thead>
<tr>
<th>Date</th>
<th>Version No</th>
<th>Summary of Changes</th>
<th>Changes Made by (Name and Job Title)</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 Jun 10</td>
<td>V1.0</td>
<td>Fluid balance guidelines: supporting optimal hydration in adults during hospital stay.</td>
<td>Sandra Arnold Matron for practice development.</td>
</tr>
<tr>
<td>Feb 2015</td>
<td>V2.0</td>
<td>Guidelines replaced by policy for adult in-patients</td>
<td>Tracy Lee Nutrition Specialist Nurse</td>
</tr>
</tbody>
</table>
Appendix 4. Initial Equality Impact Assessment Form

<table>
<thead>
<tr>
<th>Name of the strategy / policy / proposal / service function to be assessed (hereafter referred to as policy)</th>
<th>Fluid balance policy for adult in-patients</th>
</tr>
</thead>
<tbody>
<tr>
<td>Directorate and service area:</td>
<td>Nutrition Support Team</td>
</tr>
<tr>
<td>Name of individual completing assessment:</td>
<td>Tracy Lee</td>
</tr>
<tr>
<td>Telephone:</td>
<td>018722 252409</td>
</tr>
<tr>
<td>1. Policy Aim*</td>
<td>To provide the framework for clinical staff in the overall management of maintaining patient hydration and accurate monitoring of fluid balance. The document ensures that staff will be guided by the expected standard set by the organisation.</td>
</tr>
</tbody>
</table>
| 2. Policy Objectives*                                    | - Create one set method for recording detailed and accurate fluid input and output.  
|                                                           | - Support staff to determine a timely and appropriate rationale for starting and stopping a fluid balance chart.  
|                                                           | - Support person centred planning         |
| 3. Policy – intended Outcomes*                           | Prevent or reduce adverse consequences associated with patient dehydration or fluid overload by establishing an effective standard and management. |
| 4. *How will you measure the outcome?                    | Adverse events associated with clinical care are captured through Mortality Review and Serious Incidence. Any issues relating to hydration and fluid balance will be identified through these processes |
| 5. Who is intended to benefit from the policy?           | All adult in patients and clinical staff  |
| 6a) Is consultation required with the workforce, equality groups, local interest groups etc. around this policy? | Yes                                      |
| b) If yes, have these *groups been consulted?           | Yes                                      |
| C). Please list any groups who have been consulted about this procedure.                                | RCHT Strategic Nutrition steering group   
|                                                           | Senior matrons                           
|                                                           | Ward managers                            
|                                                           | Critical care outreach                   
|                                                           | Fluid balance working group              |

7. The Impact
Please complete the following table.
Are there concerns that the policy could have differential impact on:

<table>
<thead>
<tr>
<th>Equality Strands:</th>
<th>Yes</th>
<th>No</th>
<th>Rationale for Assessment / Existing Evidence</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age</strong></td>
<td>√</td>
<td></td>
<td>This guideline relates only to adult patients.</td>
</tr>
<tr>
<td><strong>Sex</strong> (male, female, transgender / gender reassignment)</td>
<td>√</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Race / Ethnic communities /groups</strong></td>
<td>√</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Disability</strong> - Learning disability, physical disability, sensory impairment and mental health problems</td>
<td>√</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Religion / other beliefs</strong></td>
<td>√</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Marriage and civil partnership</strong></td>
<td>√</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Pregnancy and maternity</strong></td>
<td>√</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Sexual Orientation, Bisexual, Gay, heterosexual, Lesbian</strong></td>
<td>√</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

You will need to continue to a full Equality Impact Assessment if the following have been highlighted:
- You have ticked “Yes” in any column above and
- No consultation or evidence of there being consultation - this excludes any policies which have been identified as not requiring consultation. or
- Major service redesign or development

8. Please indicate if a full equality analysis is recommended. | Yes | No |
9. If you are not recommending a Full Impact assessment please explain why. |

No differential impact identified

Signature of policy developer / lead manager / director | Date of completion and submission |

Names and signatures of members carrying out the Screening Assessment

1. Tracy Lee
2. 

Keep one copy and send a copy to the Human Rights, Equality and Inclusion Lead, c/o Royal Cornwall Hospitals NHS Trust, Human Resources Department, Knowledge Spa, Truro, Cornwall, TR1 3HD

A summary of the results will be published on the Trust’s web site.

Signed ____________________________

Date _____________________________

Fluid balance policy for adult in-patients