

Hydration and Fluid Balance for Adult Inpatient Areas

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1. Overview (What is this document about?)

Standard: All adult inpatients within the Trust who have factors that influence promoting good hydration will have the correct level of monitoring as set out in the hydration and fluid balance policy.

Which patients require fluid balance monitoring?

- All adult inpatients will be assessed daily for the factors influencing hydration within six hours of admission and then a daily reassessment until discharge from hospital. This risk assessment will denote what level of monitoring is required: fluid balance chart or hydration chart or no fluid balance monitoring. There is a flow chart to highlight the Hydration Pathway Flow Chart (**appendix 1**)
- Daily hydration assessment and monitoring will be discontinued on patients who have a documented End of Life management plan.
- Formal hydration assessment will not be documented for maternity patients, but fluid balance charts will be used as required.
- Where wards /units (in-patient renal unit and Intestinal Failure Unit, IFU) make the clinical decision to use the 24hr fluid balance for all their patients, the hydration risk assessment will not be required.

Documentation:

Hydration Risk Assessment (see appendix 2)

- This will be completed daily before midnight for all patients
- If any factors influencing hydration which are in the red section are ticked on completion of the hydration risk assessment, the patient should be monitored using a **fluid balance chart (appendix 4)**.
- If any factors influencing hydration which are in the amber section (none in the red section) are ticked on completion of the hydration assessment, the patient should be monitored using a **hydration chart (appendix 3)**.
- If the patient has no factors influencing hydration identified, then **no monitoring** of input/output is required.
- All hydration assessment charts should be completed with the date, patient's name, hospital number, date of birth and ward.
- Each hydration risk assessment should be dated and signed by the Registered Nurse (RN) or a Nursing Associate (NA) undertaking the hydration assessment using the hydration assessment tool.

Hydration Chart document (see appendix 3)

- The hydration chart should be completed with the patient's name, hospital number, date of birth, ward and date.
- Each time a full vessel (e.g., cup, mug, glass of fluids) is consumed, tick the drink/fluid box. If the contents of a full vessel are not consumed or write "1" or fraction of amount drunk (e.g., 1/4, 1/2, 3/4) in drink/fluid box if applicable.

- A drink/fluid box should be ticked when the patient has consumed 200ml of fluids or the equivalent in high fluid content foods (e.g., soup, jelly, yogurt) to record that the patient has received the fluid.
- Each time urine is passed in the toilet tick the urine box. For patients who have a long-term catheter/convener/urostomy, one urine box should be ticked when emptied. For patients who require incontinence pads, one urine box should be ticked for each wet pad.
- The number of boxes displayed on the chart is the minimum daily fluid intake we would expect for a patient and the number of urine boxes is the minimum daily amount we would expect the patient to output.
- The chart should be reviewed at 08.00, 14:00 and 22:00 by RN or NA to ensure minimum intake/output has been achieved.
- The RN or NA should print name, sign, and record date and time on the assessment document and any comments should be written in the patient's notes.
- If the drink/fluid box is not ticked with intake amount or urine box is not ticked within the RN or NA review timeframe, this must be escalated to the nurse in charge or the medical team and documented in the nursing notes. A new hydration assessment must be undertaken to consider fluid balance monitoring.
- Patients and family members should be encouraged to complete the hydration chart when drink taken, or urine passed.

Fluid Balance Charts (see appendix 4)

- All fluid balance charts should be completed with the date, patient's name, hospital number, date of birth, ward, consultant, previous 24 hour fluid balance (if applicable), nurse on am, pm and night shift.
- The standard fluid balance 24-hour total times within the Trust are 00.00 – 23.59.
- Fluid balance charts must be completed 1-2 hourly, cumulative balance and running totals updated at this time.
- Special instructions, such as fluid restrictions, should be written in the allocated box (Documented in patient notes and on paper fluid balance chart if in use).
- Every 6 hours the cumulative balance should be reviewed by a RN or NA. This review should be signed with the review time documented on the paper chart if in use, or within patient's notes if electronic fluid balance.
- No use of abbreviations should be used on the chart such as "pu'd", "incont" or "+++". **All intake and output should be documented as a measured number.**
- Any concerns regarding a patient's fluid balance should be escalated to the medical team as appropriate and documented in the nursing notes.
- The daily fluid balance total must be entered clearly in the box provided on the paper fluid balance chart.
- The chart must be reviewed by a RN, NA, or doctor once the chart is complete at the end of the 24-hour period. This must be documented in the patient's notes.
- If the fluid balance starts or finishes at a specific time, then staff must draw a line through the timelines not used.
- If the patient has not had intake or output a line/ dash should be placed in the box. Where the full column is not in use a line can be added at the end of the day

No risk factors

- For patients that have no risk factors, no further action will be completed, and a further assessment will be repeated the following day. If a patient's condition changes within the 24-hour period, then the hydration assessment should be repeated to reflect this change and ensure the patient receives the correct level of fluid balance monitoring.

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Fluid balance recording:

- As much as possible oral fluids should not be estimated, recognised measuring containers must be used and an actual volume documented. Please see **appendix 7** for standard volumes posters.
- Include each saline flush given between bolus of IV drugs on the fluid chart
- Insensible loss (fluid loss through breathing, sweating etc.) must be considered when working out fluid balance as it is an essential component of working out accurate fluid balance.
- For patients who require incontinence pads these should be weighed.
- Clinical staff may have to estimate urine output in millilitres (mls) in cases of incontinence where pads are unable to be weighed or there is leaking / spillage. Care must be taken in the case of vomiting, diarrhoea and blood loss that attempts are made to arrive at a measurement of volume where possible. This is especially important in cases where this is the contributing cause of the patient's dehydration and can be documented as estimation.
- Weighing scales should be used where possible to give a more accurate volume.

Escalation:

- The fluid balance chart should have RN or NA signed review every 6 hours and 24-hour sign off by RN, NA or clinician, this should be recorded on paper fluid balance if in use, or in the patient's notes if fluid balance recorded electronically.
- For patients on a hydration chart, the chart should be reviewed at 08:00, 14:00 and 20:00 by RN or NA to ensure minimum intake/output has been achieved and any concerns should be escalated to the nurse in charge or medical team as appropriate.
- If **adult** patients produce **<2mls/kg over 4hrs or <0.5mls/kg/hr** (approximately <30 mls hour) (exemption in chronic renal failure patients who are anuric) then this is an **automatic trigger for referral** requiring a clinical review.

Practice:

- Where possible, all intravenous fluid and IV medication must be given through a mechanical pump, to ensure timely delivery of the fluid, except when urgent boluses are required, and this will be observed directly.
- All members of the multidisciplinary team (MDT) are encouraged to support the patient's hydration and support given were needed. The MDT members must document any input on the fluid charts
- For those not familiar with the #ButFirstADrink campaign, it's a behaviour change initiative to promote hydration care in any care setting by involving the whole MDT + carers + families and the patient with the simple act of offering a drink at the start or end of all patients contact (see **appendix 5**).
- For the link, training and support of care of the patients who are at risk from Acute Kidney Injury the website www.thinkkidneys.nhs.uk can be accessed

If you have any concerns about the content of this document, please contact the author or advise the Document Control Team.

2. Scope (Where will this document be used?)

This policy applies to:

- All clinical staff caring for patients in adult in-patient beds.

Clinical decision on hydration requirements should be made regarding day case patients. Excludes Women and Children's division, and Neonatal Unit.

Associated Documents

N/A

3. Background (Why is this document important?)

Nurses, midwives, and doctors have a pivotal role in the early identification of patients at risk of deterioration through early and accurate assessment of all physiological parameters. This document sets out good practice in the assessment and monitoring of fluid balance.

The need for accurate monitoring of physiological status is recommended strongly by both the National Patient Safety Agency (NPSA 2008) and the National Institute for Clinical Excellence (NICE 2017). The elements within this policy are therefore aimed at achieving this through the accurate measurement of fluid balance in conjunction with the Trusts EWS policy and Oxygen policy.

Timely and appropriate use of fluid balance observation and recording is an essential tool in determining adequate hydration. When patients are actually or potentially acutely ill, they may show early warning signs which can be detected through accurate fluid balance as well as an appropriate track and trigger observation chart. Without appropriate accurate fluid balance monitoring, these signs may go undetected which can contribute to increased length of stay/mortality. It is the requirement of all health care staff within the Trust to assume the relevant responsibility to ensure that this policy is met.

- Successful fluid balance is dependent upon:
 - Timely/appropriate recognition and response to at-risk patients.
 - Use of the assessment tool to identify factors that influence hydration.
 - Consideration of insensible loss.

This policy applies to adult inpatients at Northern Care Alliance (NCA). This policy does not apply to those patients who have a documented End of Life management plan in place or maternity patients as patients in maternity wards will be assessed using local guidance and the clinical discretion of the midwives to determine if a fluid balance chart is required.

4. What is new in this version?

28.02.24 Changes from V1.1 to V1.2 - Where wards /units (in-patient renal unit and Intestinal Failure Unit, IFU) make the clinical decision to use the 24hr fluid balance for all their patients, the hydration risk assessment will not be required.

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5. Policy

5.1 Risk Assessment to determine level of monitoring required

Each adult patient on admission to an in-patient area should have a risk assessment completed to determine the level of monitoring required (**appendix 2**) within 6 hours and following that a daily assessment must be completed. This allows the patient to be assessed for factors

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influencing hydration and ensures at risk patients are correctly identified and monitored accordingly.

An exception to this assessment would be patients who have a documented End of Life management plan in place or the maternity patients who would be excluded from this assessment. For patients cared for in the renal in-patient ward and IFU these patients are deemed to require fluid balance charts in every case so risk assessment would not be required

No risk factors (green)

For patients that have no risk factors, no further action will be completed, and a further assessment will be repeated the following day. If a patient’s condition changes within the 24-hour period, then the hydration assessment should be repeated to reflect this change and ensure the patient receives the correct level of fluid balance monitoring.

Amber only risk factor(s)

For the patients that have been deemed to have some risk factors, a hydration chart (**appendix 3**) will be commenced and reviewed and signed by a RN, NA or clinician at 08:00, 14:00 and 20:00 to ensure minimum intake/output has been achieved and escalated if appropriate each day. In discussion with the RN, NA or Doctor, if this chart indicates inadequate input or output, the nurse caring for the patient will discuss the use of a fluid balance chart with nurse in charge or medical team.

The following are the risk factors which will determine if the patient requires a hydration chart:

Dry mucous membranes, dry lips, decreased skin turgor, lack of axilla dampness, sunken eyes – All can be indicators of mild to moderate dehydration and require observation.
Decreased/restricted mobility - at risk of being unable to achieve minimum required intake of 1.6 litres a day to prevent dehydration.
Difficulty handling cups/cutlery, unable to pour their own drinks – at risk of being unable to achieve minimum required intake of 1.6 litres a day (or less if fluid restricted) to prevent dehydration.
Age over 75 - more susceptible to dehydration for several reasons: The body's ability to conserve water is reduced, thirst sense becomes less acute, and the older adult is less able to respond to changes in temperature. These problems are compounded by chronic illnesses such as diabetes, dementia and by the use of certain medications.
Patient meets criteria for ‘Red Tray’ assistance – The patient is requiring additional support for meeting their nutritional needs
Diuretics - Diuretics can lead to dehydration, generally because they cause increased urination or perspiration.
Diabetes - Patients with diabetes have an increased risk of dehydration as high blood glucose levels lead to decreased hydration in the body.
Cognitive impaired (CI) including dementia and acute delirium – Dehydration can lead to decreased blood volume to the brain which may cause confusion, impairing both cognitive function and coordination. Patients who are confused for reasons other than dehydration may be at risk of being unable to achieve minimum required intake of 1.6 litres a day to prevent dehydration. The risk of dehydration is even greater for those with dementia, and it becomes more concerning as the disease progresses. During the early stages of dementia, a person may simply forget to drink because they are less sensitive to thirst and/or cannot recall when they last took a drink. Those with moderate dementia often have difficulty remembering the mechanics of how to drink, such as turning on the tap, where the glasses are stored, or even how to get fluid into a glass. The risk of dehydration is most severe in the advanced stage of dementia due to not recognising one’s thirst, having a complete loss of thirst or being unable to express thirst to others.

Constipation – When the body is depleted of water, the colon's capacity for water reabsorption is enhanced. Normally, the colon removes about 90% of the fluid; however, this is increased further when dehydration ensues. This means that constipation can be an indicator of dehydration.

Febrile patients (Temp >38 C) - increases fluid losses (insensible loss) to > 500mls /24hrs.

Decreased appetite/ altered taste/ smell and/ or MUST score of 2 – At risk of being unable to achieve minimum required intake of 1.6 litres (8 cups of fluid a day) a day to ensure hydration.

To consider that physiological changes in observations outside of normal parameters - Can lead to insensible fluid loss e.g., Respiratory rate \geq 20bpm (25bpm in chronic respiratory conditions)- can lead to fluid loss > 500mls/24hrs. Also deteriorating trends in observations can indicate dehydration issues.

Consuming clear or free fluids only - At risk of being unable to achieve minimum required intake of 1.6 litres a day to prevent dehydration.

Long term catheter / urostomy – any patient with long term urinary catheter, convene, urostomy should be monitored to ensure they pass adequate amounts of urine.

Red risk factor(s)

For the patient that is deemed high risk, they will commence a fluid balance chart (**appendix 4**) which will be completed 1-2 hourly with accurate input and output.

Patients requiring a fluid balance chart following assessment should be reported to the nurse in charge and if appropriate a relevant member of the medical team.

Certain patient groups, such as those with impaired renal function or cardiac failure, are at an increased risk of both dehydration and fluid overload and require regular assessments by an experienced clinician. Patients with chronic kidney disease are prone to fluid overload due to water and salt retention, but may become dehydrated if, for instance, they are septic or have diarrhoea and vomiting. Care is required during rehydration to avoid fluid overload and pulmonary oedema (fluid in the tissues).

Patients recovering from an Acute Kidney Injury (AKI) often experience a polyuric stage when they pass unusually large/excessive amounts of urine. In this situation intravenous fluid replacement is always indicated and an experienced clinician should be available to advise on a suitable regime.

Patients in maternity wards will be assessed using local guidance and the clinical discretion of the midwives to determine if a fluid balance chart is required.

The following are the risk factors that will determine if the patient requires a fluid balance chart and close fluid status monitoring.

Acute kidney injury and/or sudden decrease in urine output (<0.5mls/kg/hr) - is a sign of acute renal impairment in adults that may be caused by dehydration and requires urgent medical review – NB this is not applicable in end stage renal failure. In most cases, Acute Kidney Injury can be reversed, so early recognition is vital.

Sepsis – causes a decrease in circulatory volume leading to reduction in perfusion of vital organs and cells. Patient requires strict fluid balance monitoring for early recognition of deterioration and may need rapid fluid resuscitation.

IV fluids / high frequency IV meds / enteral feeding or TPN - any patient prescribed fluids or medication via any route other than oral. A fluid balance chart is essential to keep a record of intake to ensure adequate hydration is met.

Diarrhoea - defined as a history in the last 24hrs of loose stool (Bristol stool chart 5+), of increased frequency/ history >1 litre/24hrs via stoma, leaving the patient at risk of dehydration, electrolyte and acid base imbalance and malnutrition
Post Op < 48 hrs (Excluding Day case) - any patient who has undergone surgery under general anaesthetic requires fluid balance to be kept for 48 hours or as instructed by surgical team to ensure early detection of post-operative risks, such as renal dysfunction and haemorrhage. Patients undergoing surgery under local anaesthetic may also require monitoring as instructed by surgical team.
Nil by Mouth status – any patient who has a Nil by Mouth order (fasting or difficulties in swallowing) is dependent on supplementary fluid therapy by other routes to maintain hydration. Exclude pre op (4-6 hourly), unless otherwise indicated. An accurate fluid balance chart is essential to keep a record of intake and output.
Fluid restriction (Exclude long term restrictions after medical advice e.g., Dialysis) - any patients with cardiac, liver, or renal failure that are fluid restricted should ideally be weighed daily to assist in the accurate assessment of fluid status. Special instructions of the fluid restriction should be documented on the fluid balance chart (if electronic fluid balance in use, document in patient's notes).
Chemotherapy - Dehydration is a serious concern for patients undergoing chemotherapy because many of the side effects of chemotherapy treatment can affect the fluid and electrolyte balance. The body uses water throughout the day that needs to be replaced, and during chemotherapy, this loss of water is often sped up for a number of reasons, for example, side effects such as vomiting, fever, sweating and diarrhoea are very common.
High drainage wounds / drains - all output must be accounted for as patients can lose large fluid volumes through an open wound. If possible, dressings should be weighed in order to determine accurate fluid loss.
Increased vomiting / high NG output / high output stoma / formed stoma <14 days / high output urostomy - Increased vomiting/ high nasogastric output- particularly if output >500 ml / day can cause dehydration, electrolyte and acid-base imbalance and malnutrition.
Short term catheter/Catheter removed <24 hours - any patient with short term urinary catheter or bladder irrigation should have urine volumes measured. Once catheter is removed a period of observation is required to ensure urine retention is diagnosed and treated in a timely manner.
Discussion with clinical team - all patients can be put on strict fluid balance monitoring after discussion with the clinical team independent of factors influencing hydration assessment.
NEWS2 >5

5.2 Detail of Procedural Documents

The Trust Hydration Assessment documentation should be used in all adult inpatient clinical areas.

The standard fluid balance 24-hour total times within the Trust are start time 00.00 – 23.59 finish time.

All documentation should be completed with the date, patient's name, hospital number, date of birth and ward.

All documentation relevant to this policy will be available to order from the Clinical Audit department.

Hydration Assessment (see appendix 2)

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If any factors influencing hydration which are in the red section are ticked on completion of the hydration assessment, the patient should be monitored on a fluid balance chart.

If any factors influencing hydration which are in the amber section (none in the red section) are ticked on completion of the hydration assessment, the patient should be monitored on a hydration chart.

If the patient has no factors influencing hydration identified, then no monitoring of input/output is required.

All hydration assessment charts should be completed with the date, patient's name, hospital number, date of birth and ward.

Each assessment should be dated and signed by the RN or NA undertaking the assessment alternatively this will automatically be logged on EPR.

Hydration Chart (see appendix 3)

Each time a full vessel (e.g., cup, mug, glass of fluids) is consumed, tick the drink/fluid box or write "1". If the contents of a full vessel if not drunk, write fraction of amount drunk (e.g., 1/4, 1/2, 3/4) in drink/fluid box if applicable. A full glass should be ticked in when the patient has consumed 200ml of fluids or the equivalent in high fluid content foods to record that the patient has received the fluid. If minimal amounts consumed on each occasion, consider moving to fluid balance chart

For example: Minimum intake = 8 vessels of fluid and/or high-water food (e.g., 4 glasses of water, 1 cup of tea, soup, yoghurt and or jelly)

The number of glasses displayed on the chart is the minimum we would expect for patients daily = approx. 1600mls

Each time urine is passed in the toilet tick the urine box. For patients who have a long-term catheter/convene/urostomy, one urine box should be ticked when emptied. For patients who require incontinence pads, one urine box should be ticked for each wet pad. Review number of ticks/ passing urine and consider escalation if concerned inadequate volumes or frequency.

Fluid Balance Chart (see appendix 4)

The reason for commencing a fluid balance chart should be recorded in the patient's notes if commenced for any other reason than indicated by daily hydration assessment chart.

The standard fluid balance 24-hour total times within the Trust are start time 00.00 – 23.59 finish time.

Fluid balance charts must be completed 1-2 hourly. If there is no input/output for a particular hour, write 0 or nil or strike (-) in box.

Special instructions, such as fluid restrictions, should be written in the patient's notes.

Every 6 hours the cumulative balance should be reviewed by RN or NA. This review should be signed with the review time documented.

Any concerns regarding fluid balance should be escalated to the medical team.

The daily fluid balance total must be entered clearly in the box provided on the paper fluid balance chart

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The chart must be reviewed by a RN, NA or doctor once the chart is complete at the end of the 24-hour period.

If the fluid balance starts or finishes at a specific time, then staff must draw a line through the timelines not used.

All intravenous access devices should be assessed as per hospital policy utilising the Venous Access Insertion and visual patency phlebitis score record.

Where possible, it is advised that patients at high risk of dehydration/fluid overload are weighed daily.

Patients who require irrigation fluid to run via a three-way urethral catheter would require an irrigation chart to work alongside the patient fluid chart to ensure a correct fluid balance

Intake

Misunderstandings with documentation can cause inaccuracies with intake.

Infusion of fluids must be documented at the hourly rate or upon completion of infusion and not entered prospectively and must match the prescribed timings

Intravenous Intake

Staff must record the **actual amount infused** each hour, (e.g., 1 litre over 8 hours would be 125ml/hr). This is the only accepted method for documenting input of intravenous fluids.

Where possible all intravenous fluid must be given through a mechanical pump to ensure timely delivery of the fluid, except when urgent boluses are required, and this will be observed directly.

Non-intravenous intake

If the patient is receiving oral or parenteral input or any other type of fluid intake, then this must be accurately documented.

Each hour should be completed with either an intake volume or 0.0 (zero)

Oral input must be documented clearly and should not be a matter of guesswork. Input based on what is missing from the patient's jug is prone to error as there are too many variables for why the fluid may be missing.

Use a glass, cup or other vessel that have known or clearly marked volumes. See **Appendix 8** for standard volumes of mugs/cups/jugs in use.

If possible/relevant, ask the patient/relatives to support their recording of input.

It is **not acceptable** to write 'sips'. If an accurate measure is not possible an estimate of intake must be given on any fluid that has been given.

Running totals (cumulative) must be completed hourly throughout the day.

Output

All forms of fluid loss should be accounted for with as much accuracy as possible. Robust and contemporaneous documentation is essential. If there is no input/output for a particular hour, write 0 or nil or strike (-) in box.

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Insensible loss

Insensible loss is the mechanism whereby patients lose fluid through processes such as sweating and respiration.

Insensible loss must be considered when working out fluid balance in all acute areas as it is an essential component of working out accurate fluid balance.

Accurate insensible loss is calculated from patient's weight. However, this presents some practical challenges in that patient's weight may be unknown and that the calculation takes time. A routine baseline of 500mls is acceptable for use in calculation of insensible loss for patients in non-critical care areas.

Running output totals (cumulative) must be completed hourly throughout the day. Weighing scales can be used to measure volumes within swabs or sheets if estimation cannot be made.

Urine Output

It is unacceptable to document urine output ambiguously, (exceptions include the patient accidentally passing urine in the toilet). If patients meet the criteria for fluid balance, then they must meet the criteria for accuracy.

Patients must be encouraged to use receptacles for urine collection.

Clinical staff should estimate urine output in cases of incontinence where unable to weigh pads or sheets due to spillage/leakage. Where available, weighing scales should be used to convert weight of the incontinence pad to volume of urine in mls.

Acutely unwell patients with a urinary catheter in situ must have their output monitored and measured hourly until the patient's clinical condition has improved and observations are required 4 hourly or less. If such patient's produce less than 2mls/kg over 4hrs or <0.5mls/kg/hr (approximately <30mls /hr) (exemption in chronic renal failure patients who are anuric) then this is an automatic trigger for referral requiring medical review.

If urine output is less than 0.5mls/kg/hr the patient should be escalated

If a patient is catheterised then mechanical obstruction must be ruled out, seek specialist medical advice (urology) if concerned.

Other forms of output

Any drain or stoma output must be entered accurately.

One or more of the columns on paper fluid balance charts may be used to chart volume within chest drains/abdominal drains. The column must then be labelled clearly (e.g., 'chest drain'/'abdominal drain')

Care must be taken in the case of vomiting or diarrhoea that attempts are made to arrive at an estimate of volume. This is especially important in cases where this is the contributing cause of the patient's dehydration.

The clinician may be able to advise on an estimated volume of overt blood loss in the case of trauma, peri-operative or post-operative patients.

In patients with severe leaking oedema /excessive wound exudates it is possible to arrive at an estimate by weighing dressings/bandages. A Wound Care Assessment and Management Plan must be used.

But first a drink poster

To encourage good hydration #ButFirstADrink action poster is attached (see appendix 5).

Acute Kidney Injury

For the link, training and support of care of the patients who are at risk from Acute Kidney Injury the website www.thinkkidneys.nhs.uk can be accessed

Patient Information

All patients must have a full explanation of the documentation and assessment given. Patients and relatives who are able to support the completion of their fluid balance charts and hydration charts should be encouraged to support the process

6. Roles & responsibilities

Directors of Nursing – to ensure the policy is available to Divisional Directors of Nursing for dissemination.

Divisional Directors of Nursing - to ensure that policy is disseminated and to ensure that there is adherence to the policy and all relevant staff groups are educated to the level required, whilst keeping up to date with current practice. To review and respond to issues highlighted by the policy.

Assistant Director of Nursing / Lead Nurses - to ensure that delivery of care to all patients within the Division adheres to the policy and all relevant staff groups are educated to the level required, whilst keeping up to date with current practice.

Ward Managers - to ensure that delivery of care to all patients within the ward adheres to the policy and all relevant staff groups are educated to the required level, whilst keeping up to date with current practice.

Nursing ward teams - to ensure that delivery of care to all patients within the ward/department adheres to the policy and keeps up to date with current practice. RN assesses and evaluates care and ensures delegated tasks are overseen.

Clinicians - to ensure that all in-patients under their care have full adherence to the policy and all staff groups are educated to the level required, whilst keeping up to date with current practice. This would include reviewing hydration and fluid balance charts, prescribing fluids as required and to review and respond to issues highlighted by the policy.

7. Monitoring document effectiveness

The table below details the implementation strategy for this policy.

Objective	Action	Responsibility	Date to be completed
Cascade and briefing	Cascade via Trust Communications channels, e.g., Weekly Update, Team Brief, screen savers, display as feature intranet home page. Share across division via direct email	Communication team	Prior to launch
	Resource packs to be prepared for Ward Managers with policy documents for sharing with their team	Diane Hickford	Prior to launch
Training and development	Key trainers from clinical teams to be identified to assist with intensive training and raising awareness campaign prior to launch and week following launch in each clinical area.	Diane Hickford	Prior to launch
	Learning and Development team to train ward and clinical areas	Diane Hickford	Prior to launch
	Policy to be available on Trust Intranet for staff to view	Sarah Ingleby	Prior to launch
	Fluid balance policy to be introduced to new staff at Trust local induction	Diane Hickford	Prior to launch

The table below details the monitoring strategy for this policy.

Any deviation from this policy leading to deterioration of the patient requires completion of an incident report at the level of which will be determined on a patient specific basis.

The policy document will be formally reviewed every five years. In the event of any transfer related incidents, the document will be reviewed, and addendums added in response to the learning that arises from such events.

CQC Regulated Activities	Process for monitoring e.g., audit	Responsible individual/group/committee	Frequency of monitoring	Responsible individual/group/committee for review of results	Responsible individual/group/committee for development of action plan	Responsible individual/group/committee for monitoring action plan and implementation
	Audit of compliance to policy (see appendix 6 for audit tool)	Clinical Audit Nutrition and Hydration Steering Group (NHSG)	3 months post launch of policy then 6 monthly then to be agreed for onward cycles	Nutrition and Hydration Steering Group Divisional Governance meetings and escalation for non-compliance	Division Lead Nurse	Senior Nursing team within Division Nutrition and Hydration Steering Group
	Assessment of Hydration and Fluid Balance to be added to NAAS	Helen Carter	AS per NAAS assessment	QPE	Ward manager Division Lead Nurse	Senior Nursing team within Division

8. Abbreviations and definitions

List all **abbreviations or acronyms** in alphabetical order (even if they are explained within the document as well), for example:

NCA Northern Care Alliance
NICE National Institute for Health and Care Excellence

Technical terms must be explained.

Definitions of terms with a specific meaning should be provided.

9. References

Insert list of references here.

If you are aware of any **legislation or other standards** that are relevant to this document, please specify here. For example, Legal Acts (e.g. Mental Capacity Act), NICE guidance, NHS England Patient Safety Alerts, Local (Trust) strategic plans, etc. Inclusion here serves to emphasise the importance of the document.

Acknowledgement of sources

Insert here or delete this section if not applicable. If you have used or paraphrased content, such as ideas, text, images, or flowcharts, from other people's/organisation's work please acknowledge this here.

You must check copyright permissions as some organisations will not permit use of their work without express permission. Library Services can advise.

10. Document Control Information

Part 1: Lead Author, Consultation Details, Communication Plan

Must be fully completed by the author prior to submission for approval.

Name of lead author	Sarah Ingleby
Job title	Divisional Director of Nursing, Tertiary Medicine
Contact number	0161 206 0264
Email address	sarah.ingleby@nca.nhs.uk

Consultation: List persons/group included in consultation. Include Pharmacy/Medicine Optimisation Group (MOG) for documents containing drugs. Indicate whether feedback used/ received and no suggested changes (FU), not used (FNU) or not received (NR).

Name/s of person or group	State which Care Organisations/ corporate services/staff groups the person or group represents	Date	Response: FU/FNU/NR
	Equality and Inclusion Officer		FU
Richard Bulman	Divisional Director of Nursing Medicine, BCO	Feb 23	FU
Adele Hughes	Lead Nurse, BCO	Feb 23	FU
Naheed Shabir	Assistant Director of Nursing, BCO	Feb 23	FU
Rachel Fenton	Ward Manager, BCO	Feb 23	FU
Andrea Shenton	Lead Nurse, RCO	Feb 23	FU
Claire Turner	Quality Improvement Lead	Feb 23	FU
Nicole Vourliotis	Dietician, SCO	Feb 23	FU
Rebecca Jones	Lead Nurse, SCO	Feb 23	FU
Janet Baker	Practice Trainer, SCO	Feb 23	FU
Thom Luxon	Non-Medical Consultant/ Stroke Service	Feb 23	FU
Sam Adamson	Divisional Director of Nursing Medicine, OCO	Feb 23	FU
Clare Stott	Divisional Director of Nursing Medicine	Feb 23	FU

Equality Impact Assessment sign off: See Section 11.

Name (Lead from EDI team)	Yasmin Bukhari
Date	08/03/2023

Communication plan: State in the box below how practice in this document will be rolled out across the organisation and embedded. A communication plan may be requested for review by the approving committee – if applicable, add owner details.

- An alert to the updated policy will be distributed via Divisional Leads for dissemination, with a link to the document on the Trust Policies Hub.
- The policy update will be promoted via the screensaver alerts and on the Trust Policies Hub homepage.

Part 2: Committee Approval

Must be fully completed by the author following committee approval. Failure to complete fully will potentially delay publication of the document. Submit to the Document Control Team at document.control@nca.nhs.uk for publication.

Approval date	28/04/2023		
Method of approval	Formal Committee decision		
Name of approving Committee	SCO Clinical Standards and Policies Meeting		
Title: Hydration and Fluid Balance for Adult Inpatients Area	Reference Number: NCAME016(23)	Version: 1.2	Issue Date: 06/03/2024
			Page 17 of 30

Chairperson Name / Role	Janet Hegarty
Amendments approval: Name of approver, version number and date. Do not amend above details	Dr Sarah Rose, v1.1 26/06/2023 Sarah Ingleby, v1.2 04/03/2024

Part 3: Search Terms and Review Arrangements

Must be fully completed by the author prior to publication.

Keywords & phrases	Fluid balance, Adult, in patient, hydration
Document review arrangements	Review will occur by the author, or a nominated person, within five years or earlier should a change in legislation, best practice, or other change in circumstance dictate.
Special requests	n/a

11. Equality Impact Assessment (EqIA) tool

- The below tool must be completed at the start of any new or existing policy, procedure, or guideline development or review. For ease, all documents will be referred to as 'policy'. The EqIA should be used to inform the design of the new policy and reviewed right up until the policy is approved and not completed simply as an audit of the final policy itself.
- All sections of the tool will expand as required.
- EqIAs must be sent for review prior to the policy being sent to committee for approval. Any changes made at committee after an EqIA has been signed off must result in the EqIA being updated to reflect these changes. Policies will not be published without a completed and quality reviewed EqIA.

Help and guidance available:

- [Equality Impact Assessment Help Resource](#)
- Email the EDI Team: eqia@nca.nhs.uk for advice or training information.
- Submit documents requiring EqIA sign off to: eqia@nca.nhs.uk. Allow an initial four-week turnaround.
- Where there is a statutory or significant risk, requests to expedite the review process can be made by exception to the Group Equality & Inclusion Programme Managers: Yasmin.bukhari@nca.nhs.uk or stephanie.chadwick@nca.nhs.uk

1. Possible Negative Impacts

Protected Characteristic	Possible Impact	Action/Mitigation
Age	Increasing age often results in increased morbidity, impaired functional/cognitive status, all of which may impact on the patients to maintain their hydration and fluid status	All reasonable steps should be taken facilitate the safe and timely assessment, monitoring and response to a patient's hydration status and fluid balance in accordance with Trust policies and procedures. This will ensure that patient safety and timely treatment is delivered. Patients should always be asked how much assistance they require, and this support be appropriately given in relation to hydration and toileting. Communication aids should be used as required.
Disability	Impaired functional and cognitive status can have varying degrees of impact on the	

	maintenance of fluid balance	
Ethnicity	Language barriers could have varying degrees of impact on the patient's ability to maintain their own safe fluid status	The use of interpreters and communication aids should support care.
Gender	Staff members may not always appropriately reference a patient's chosen gender during care, which could cause offence and result in a negative patient experience.	Staff members should confirm how patients wish to be identified and addressed.
Marriage/Civil Partnership	No impact anticipated.	
Pregnancy/Maternity	This policy will not apply to maternity areas, however if a pregnant patient is within an adult inpatient area (not maternity) this would be utilised	Appropriate support should be offered as required
Religion & Belief	There may be limitations in relation to fasting, however this is usually limited within hospital settings, should be considered.	Ensure the safety of the patients' needs whilst inpatients are discussed with the patient is fasting
Sexual Orientation	No impact anticipated.	
Trans	Staff members may not always appropriately reference a patient's chosen gender care which could cause offence and result in a negative patient experience.	Patients should always be addressed/referred to by their chosen gender.
Other Under Served Communities (Including Carers, Low Income, Veterans)	Carers should be encouraged to support hydration of the patients for example the parents of adults with learning difficulties.	Where appropriate, carers should be allowed to participate in the hydration and support for toileting, as they have the potential to make the process easier, safer and less distressing for the patient being transferred.

2. Possible Opportunity for Positive Impacts

Protected Characteristic	Possible Impact	Action/Mitigation
Age	Having a comprehensive fluid balance policy that is applied to all in patients irrespective of their protected characteristic(s) will improve the patient experience, quality, and safety of the care they receive. It also facilitates staff by providing structure and guidance for the safe and appropriate transfer of patients.	
Disability	As above	
Ethnicity	As above	
Gender	As above	
Marriage/Civil Partnership	As above	
Pregnancy/Maternity	As above	
Religion & Belief	As above	
Sexual Orientation	As above	
Trans	As above	
Other Under Served Communities (Including Carers, Low Income, Veterans)	As above	

3. Combined Action Plan

Action <i>(List all actions & mitigation below)</i>	Due Date	Lead <i>(Name & Job Role)</i>	From Negative or Positive Impact?

4. Information Consulted and Evidence Base *(Including any consultation)*

Protected Characteristic	Name of Source	Summary of Areas Covered	Web link/contact info

Age			
Disability			
Ethnicity			
Gender			
Marriage/Civil Partnership			
Pregnancy/Maternity			
Religion & Belief			
Sexual Orientation			
Trans			
Other Under Served Communities (Including Carers, Low Income, Veterans)			

5. EqIA Update Log
(Detail any changes made to EqIA as policy has developed and any additional impacts included)

Date of Update	Author of Update	Change Made

6. Have all of the negative impacts you have considered been fully mitigated or resolved? *(If the answer is no, please explain how these don't constitute a breach of the Equality Act 2010 or the Human Rights Act 1998)*

Impact has been mitigated as described above in sections 1 & 2

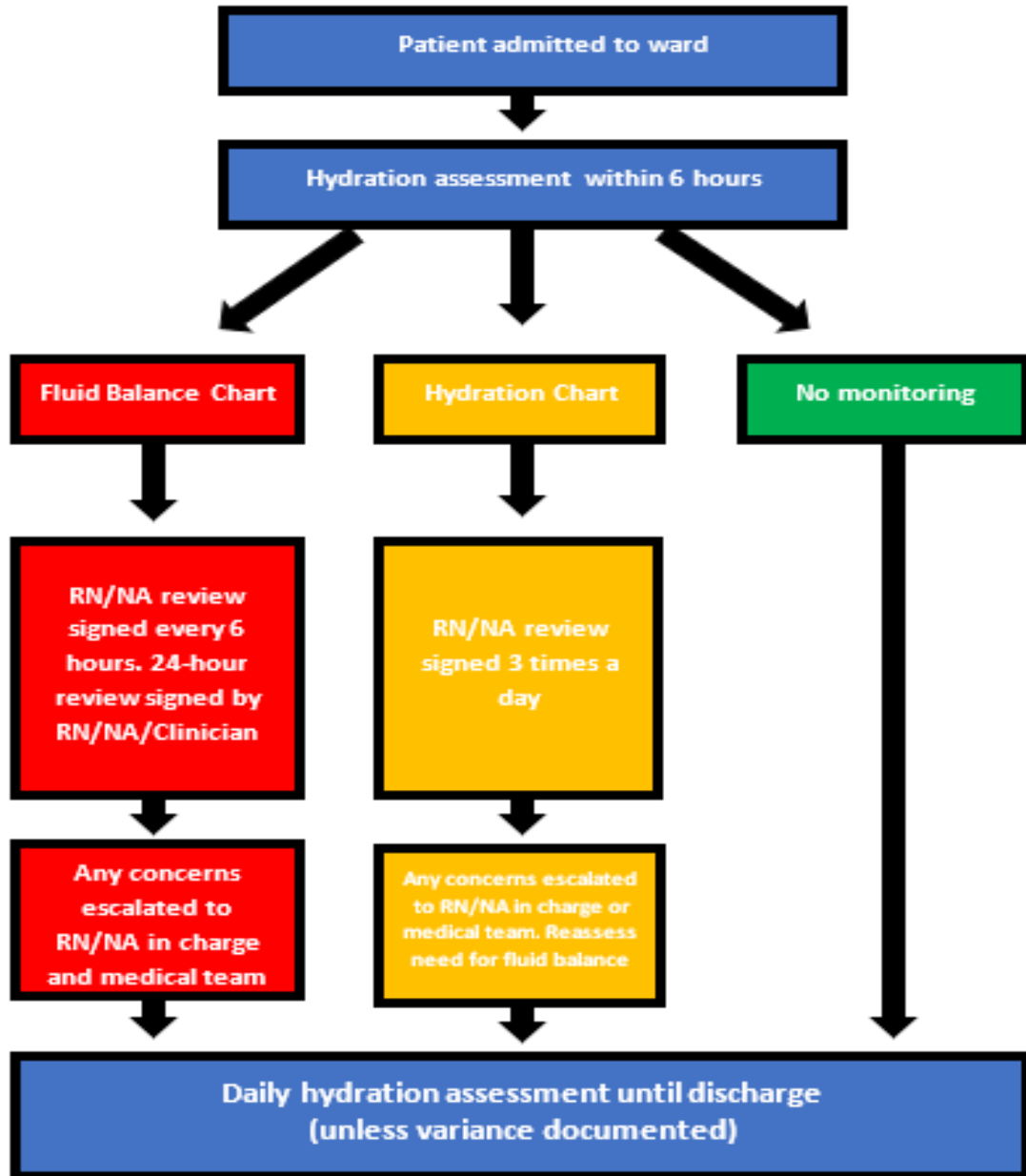
7. Please explain how you have considered the duties under the accessible information standard if your document relates to patients?

As stated in section 1. The policy will be available to staff in different formats, including large print, enlarged on computer screen and/or on different colour paper, and via Read & Write software. This would also include all Appendices.

8. Equality Impact Assessment completed and signed off? *(Insert named lead from EDI Team below). Please also add this information to Section 10 Part 1.*

Name: Yasmin Bukhari
Date: 08/03/2023

Hydration Pathway Flow Chart



Daily Hydration Risk Assessment

Date:

Name: Hospital No: Date of Birth: Ward:

- All patients should be assessed by a Registered Nurse, Nursing Associate or Clinician within 6 hours of admission.
- All patients should be reviewed at least once a day before midnight, or when condition changes, to assess if a fluid balance chart, hydration chart or no monitoring is required.
- Please only tick appropriate factors. If patient has factors in both red and yellow sections, please commence a fluid balance chart

Factors influencing hydration - Please <input checked="" type="checkbox"/> tick all relevant factors	Date: Time:	Date: Time:	Date: Time:	Date: Time:	Date: Time:	Date: Time:	Date: Time:
Commence a 24-hour fluid balance chart	Acute kidney injury and/or sudden decrease in urine output (<0.5mls/kg/hr)						
	Sepsis						
	IV fluids / high frequency IV meds / enteral feeding or TPN						
	Diarrhoea						
	Post op <48 hours (excluding day case)						
	Nil by Mouth status						
	Fluid restriction (excluding long term restrictions e.g., dialysis or cardiac failure.)						
	Current chemotherapy						
	High drainage wound / drains						
	Increased vomiting / high NG output / high output stoma / formed stoma <14 days / high output urostomy						
	Short term catheter / TWOC <24hrs						
	Discussion with clinical team						
	NEWS2 >5						
Commence hydration chart	Dry mucous membranes, dry lips, increased skin turgor, sunken eyes						
	Decreased/restricted mobility						
	Difficult handling cups / cutlery, unable to pour own drinks						
	Age over 75						
	Patient meets criteria for 'Red Tray' assistance						
	Diuretic therapy						
	Diabetes						
	Delirium and / or dementia or other cognitive impairment						
	Constipation						
	Febrile patient >38C						
	Decreased appetite						
	To consider that physiological changes in observations outside of normal parameters can lead to insensible fluid loss						
	Restricted to clear fluids / free fluids only / thickened fluids						
Long term catheter/urostomy							
No monitoring required	None of the above risk factors						
	Medically optimised patients awaiting transfer						
	Daily weights deemed appropriate for monitoring hydration						
	Monitoring not required after discussion with medical and/or nurse in charge						
Signature							
Print name							

Hydration Chart



Name: _____ Hospital number: _____ Date of Birth: _____ Ward: _____

- Each time a full vessel (e.g. cup, mug, glass of fluids) is consumed TICK (✓) drink/fluid box or write "1" or fraction of amount consumed (e.g. 1/4, 1/2, 3/4) in drink/fluid box if applicable
- Each time urine is passed in the toilet TICK (✓) urine box
- When catheter / urostomy is emptied or when incontinence pads changed TICK (✓) one urine box
- Registered nurse or nursing associate to review hydration chart 3 times a day and escalate if appropriate

STAFF - increased frequency of micturition may indicate infection / continence issues. Please cascade any issues or if intake / output is not achieved to nurse in charge or clinician / doctor.

- Ensure you have checked the thickness of the fluid given, if recommendation by Speech and language therapist is in place

Date:	Morning/Early			Afternoon/Late			Evening/Night			Review	Signed	Print
										08:00		
Drink/Fluid										14:00		
Urine										22:00		

Date:	Morning/Early			Afternoon/Late			Evening/Night			Review	Signed	Print
										08:00		
Drink/Fluid										14:00		
Urine										22:00		

Date:	Morning/Early			Afternoon/Late			Evening/Night			Review	Signed	Print
										08:00		
Drink/Fluid										14:00		
Urine										22:00		

Date:	Morning/Early			Afternoon/Late			Evening/Night			Review	Signed	Print
										08:00		
Drink/Fluid										14:00		
Urine										22:00		

Date:	Morning/Early			Afternoon/Late			Evening/Night			Review	Signed	Print
										08:00		
Drink/Fluid										14:00		
Urine										22:00		

Date:	Morning/Early			Afternoon/Late			Evening/Night			Review	Signed	Print
										08:00		
Drink/Fluid										14:00		
Urine										22:00		

Date:	Morning/Early			Afternoon/Late			Evening/Night			Review	Signed	Print
										08:00		
Drink/Fluid										14:00		
Urine										22:00		

Appendix 4 Fluid Balance Monitoring Chart



24 hour Fluid Balance Chart

Date:

Name: Hospital number: Date of Birth: Ward: Consultant:

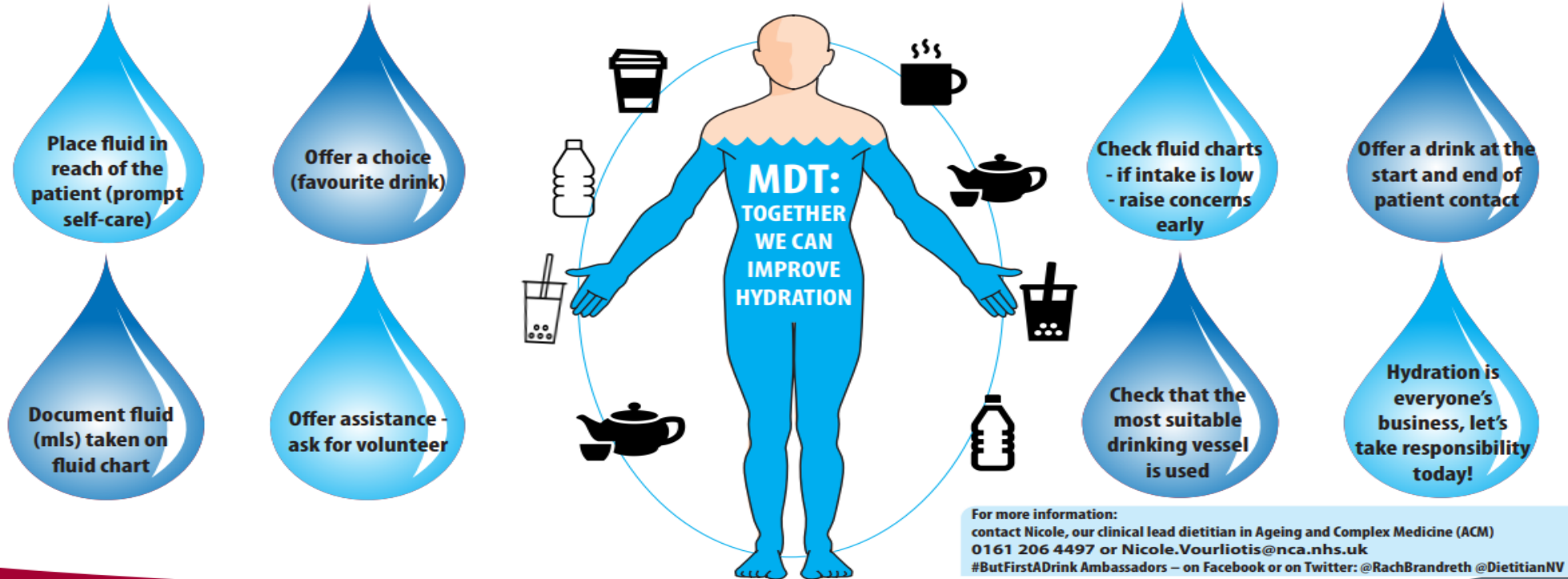
Previous 24 hours fluid balance: mls + / - (circle as appropriate) Nurse (am): Nurse (pm): Nurse (night):

Please ensure you have checked the thickness of the fluid given, if recommendation by Speech and Language Therapist is in place.

Daily Instructions (include nil by mouth):														
Time	Oral intake	IV intake -1	IV intake -2	Parenteral / enteral intake	Enteral flushes + medications	Hourly running total input	Urine output	Vomit / aspirate / stoma	Drain -1	Drain -2 or drain other	Hourly Running Total Output	Cumulative Balance (+/-)	Completed by (initials)	Reviewed by RN/NA (signed)
00:00														
01:00														
02:00														
03:00														
04:00														
05:00														
06:00														
07:00														
08:00														
09:00														
10:00														
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15:00														
16:00														
17:00														
18:00														
19:00														
20:00														
21:00														
22:00														
23:00														
Total														
Total Intake							Total Output							
Negative (mls)							Positive (mls)							

Let's implement: #ButFirstADrink

A social movement founded by
Rachael Brandeth



Appendix 6 Audit Tool



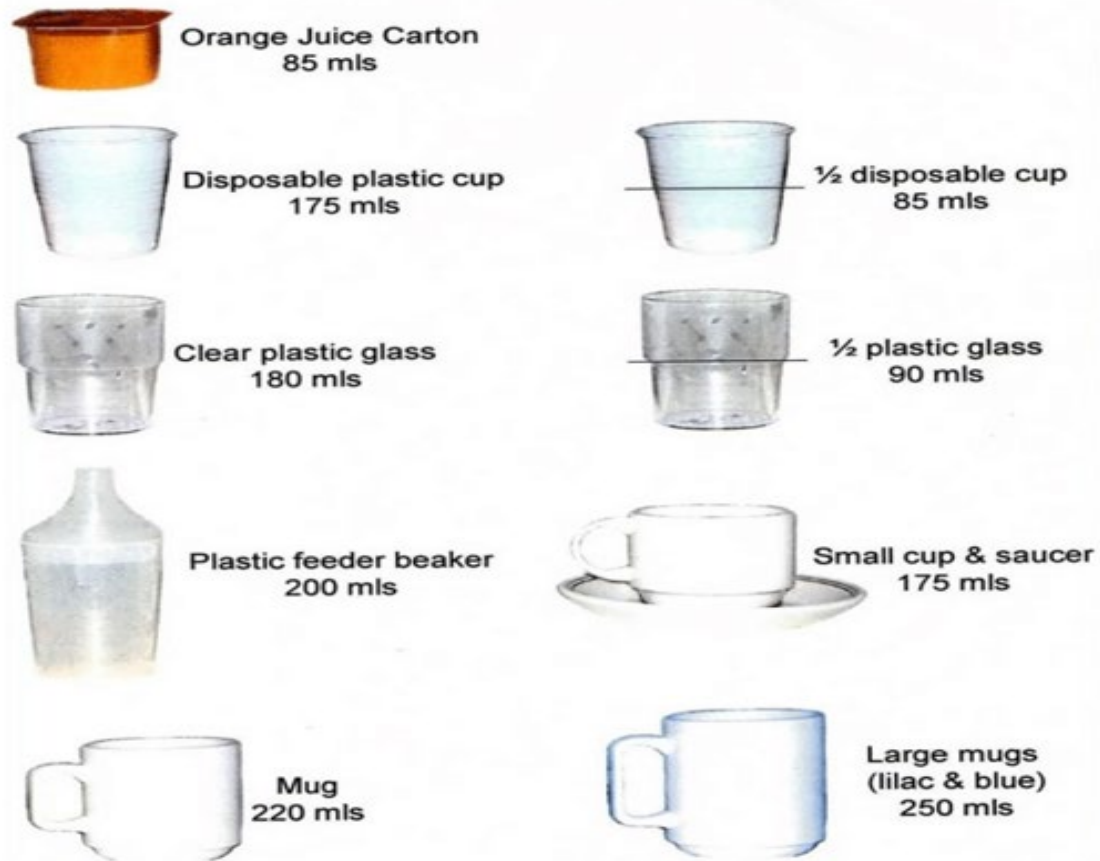
NCA Fluid Balance Audit



Date:	Ward:	Auditor:
Part 1	Is a Daily Hydration Assessment completed?	Y / N
	What level of hydration monitoring has been selected:	Fluid Balance Chart / Hydration Chart / No Monitoring Required
	Is patient on correct level of hydration monitoring according to clinical condition /	Y / N
If Fluid Balance in use continue to part 2 or if Hydration Chart in use continue to part 3		
Part 2 If Fluid Balance Monitoring in use:	Does the chart have accurate volumes (in mls) recorded hourly for intake?	Y / N
	Has the hourly running total intake been recorded?	Y / N
	Does the chart have accurate volumes (in mls) recorded hourly for output?	Y / N
	Has the hourly running total output been recorded?	Y / N
	Has a positive or negative balance identified?	Y / N
	Is there a documented review of the chart 6 hourly by a RN?	Y / N
Part 3 If Hydration Chart in use:	Is there a documented review of the chart at 24 hours by a RN or Doctor?	Y / N
	Oral intake indicated by number of drinks ticked?	Y / N
	Urine output indicated by number of urine boxes ticked	Y / N
	Documenteted review of Hydration Chart x3 times daily by RN	Y / N
Performance Indicator	Number of correct (Y) elements divided by total number of applicable elements	
	Number of appliable elements	
	Fluid Balance Chart = 6	
	Hydration Chart = 3	
≥90% Green		
80-89% Amber		
≤79% Red		

Fluid Balance Chart

Liquid measures (mls)

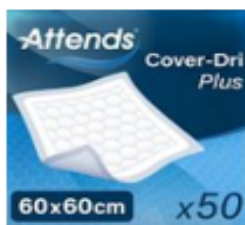


Fluid Balance Chart **SLUICE**



70g*

Deduct amount
in *asterisk from
your total weight
of the scale



20g*

**White Bedsheet –
602g***



38g*

Grams equals the
same amount in
mls
E.g. 70g =70mls



48g*



27g*

* best practice is to weigh an empty item first to ensure accuracy – don't forget to weigh bedsheets/pads/clothing if incontinent.

Rachel Fenton Practice Based Trainer FGH