

Care Homes Acute Kidney Injury and Hydration Guide

A Learning Guide for Care Homes

Publication date January 2017

Reviewed March 2020

Review March 2022

Acute Kidney Injury and Hydration Guide

Publication date January 2017

Reviewed March 2020

Review March 2022

Table of Contents

Subject	Page No
1. Purpose	2
2. What is acute kidney injury?	2
3. Care Homes and AKI	3
Activity 1 – Visit the Think Kidneys website	4
Activity 2 – Increase your knowledge by working through the PowerPoint slides	5
Activity 3 – Watch the Acute Kidney Injury in Primary Care Video	6
Activity 4 – Complete the AKI National Institute for Health and Care Excellence (NICE) training module	7
Activity 6 - Fluid Challenge	10
Activity 7 – Identify residents at risk of AKI	14
Activity 8 - Download posters and print leaflets	15
Activity 9 – Test your knowledge by working through a case study	16

Disclaimer

To the best of our knowledge, the contents of this publication are in line with National Institute for Health and Care Excellence guidance relating to the management and treatment of acute kidney injury.

Professional advice should be sought before taking, or refraining from taking, any action on the basis of the content of this publication. We cannot be held responsible for any errors or omissions therein, nor for the consequences of these or for any loss or damage suffered by readers or any third party informed of its contents.

The UK Renal Registry disclaims all liability and responsibility arising from any reliance placed on the information contained in this publication by you or any third party who may be informed of its contents.

1. Purpose

This learning guide has been created for people who work in care homes (both nursing and residential homes) and it consists of activities to help you understand what acute kidney injury is, and what you can do to help prevent it. The guide has been designed for nurses and care home managers to learn more about acute kidney injury (AKI), and to enable you to share this learning with care home support workers, care home residents and their families. This guide can be used to support your hydration policy.

Think Kidneys' vision is a future in which health and care professionals think about kidney status in the same way that they do now about blood pressure and heart rates.

- How much do you know about AKI?
- Do you need to know more?
- Do you know where you can learn more about AKI?
- Do you know what causes AKI.....how it's detected.....how it's treated?
- Do you know what you can do to help prevent AKI?
- Do you know who is most at risk of AKI?

2. What is acute kidney injury?

'**Acute**' is a term used to describe something that has occurred over hours or days. '**Kidney injury**' describes evidence of damage to the kidneys usually with a change in the kidney function.

The best way to assess kidney function in the short term is to measure a waste product in the blood called creatinine and also to assess urine output.

AKI is common, serious and harmful.

We know quite a lot about AKI and about the havoc it wreaks on lives and the damage it does:

- in the UK, up to 100,000 deaths a year are associated with AKI
- up to a third of those deaths could be avoided
- 1 in 5 people admitted to hospital as an emergency has AKI
- over 60% of AKI starts in the community
- the additional cost of AKI to the NHS is estimated at £500m each year

The NHS is the first health system in the world to tackle AKI. It is recognised as a patient safety priority by NHS England. The Think Kidneys programme aim is to raise awareness of AKI among health and care professionals so that care for people with AKI is transformed and rates of AKI are reduced.

Cause and Risk

The causes of AKI are many and varied and occur most often in people living with long term conditions, although it can affect anyone. It can occur as a result of an infection causing stress on the

kidneys, dehydration reducing the flow of blood to the kidneys or the altered effect of medication caused by illness, surgical or radiological procedures.

The most common underlying risk factors for AKI include:

- pre-existing chronic kidney disease
- age – people aged 75 years or over
- heart failure
- vascular disease
- diabetes
- liver disease

AKI may then be triggered by:

- infection (sepsis)
- dehydration, bleeding (hypovolaemia)
- low blood pressure (hypotension) – for example after a serious heart attack
- certain medications or drugs – this includes prescribed and over the counter medicines

AKI is a challenge for us all. It is a cause of harm and death, yet in many instances we can stop it happening or improve outcomes by detecting it early.

3. Care Homes and AKI

You can make a huge difference to the health of residents by taking simple steps, beginning with building a section into your hydration policy on this topic.

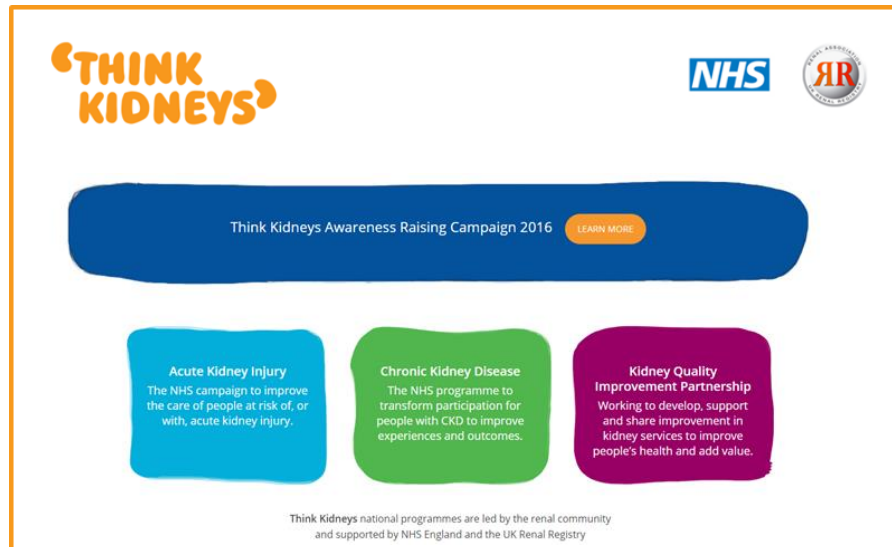
Wherever you work and whatever your role in health and/or care you should be aware of AKI. This will enable you to understand how to reduce the risk of AKI for residents in your home.

Health and care professionals need to be well informed and proactive, to understand who is at risk, take an active lead in prevention, learn how to recognise AKI and help the person to recover. Staff working in care and nursing homes can play a vital role in the early detection, treatment and management of people who may have had an episode of AKI or may be at risk of AKI.

The Think Kidneys team have worked closely with care homes to develop this guided learning for you and your team. It has been developed for use by nurses, care home owners and managers, and can be used as a “Train the Trainer” tool.

The following pages describe nine easy actions you and your team can take to raise awareness of AKI in your care home. After completing these actions you should be able to describe AKI, identify residents at risk and know what to do to prevent residents from acquiring AKI. You can then support the care home team to work through all or some of the sections of the guide in order to raise awareness and prevent AKI for the residents in your home. The guidance is in bite-sized chunks - there are nine activities you might do every week over a nine week period. At the end there is a check list against which you can mark your progress.

Activity 1 – Visit the Think Kidneys website



Aim of this activity

The aim of this activity is to familiarise yourself with acute kidney injury. There is a lot of information available on the Think Kidneys website. Team members should familiarise themselves with the Think Kidneys website <https://www.thinkkidneys.nhs.uk/aki/>

Areas which you might find especially useful include:

Care homes resources: <https://www.thinkkidneys.nhs.uk/aki/resources/care-homes/>

This area of the website has been created for you and includes lots of the information which will be referred to in this guide.

Information for the public <https://www.thinkkidneys.nhs.uk/aki/information-for-the-public/>

This area contains useful information for you to share with residents and families

Educational resources <https://www.thinkkidneys.nhs.uk/aki/resources/educational-resources/>

Contains some useful teaching packages for you and your team to look at

Information, Tools and Publications <https://www.thinkkidneys.nhs.uk/aki/resources/>

This area has lots of helpful material, guides, etc.

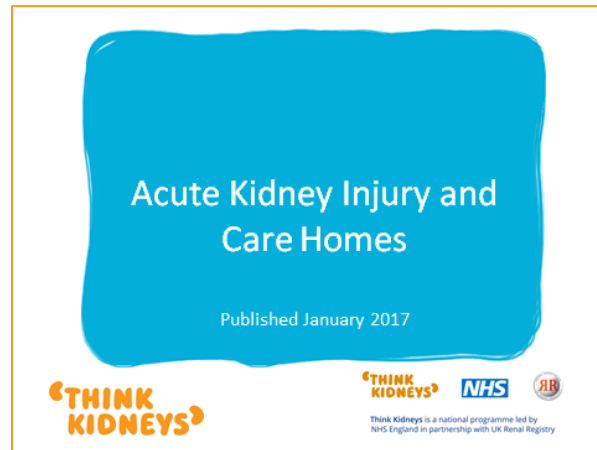
Key messages <https://www.thinkkidneys.nhs.uk/aki/category/key-messages/>

Find out the latest from the programme team

Summary for Activity 1

- | | |
|--------|---------------------|
| Who? | All |
| What? | Look at the website |
| Where? | On line |
| Time? | One hour |

Activity 2 – Increase your knowledge by working through the PowerPoint slides



Aim of this activity

In order to help with more detailed understanding of AKI we have developed a self-directed study guide to introduce AKI in more detail. The guide is in PowerPoint format, and can be found [here](#).

This is for team members to go through so that they can familiarise themselves with AKI.

If you have any specific questions after going through the slides, you might like to start a conversation with other care homes using our Facebook or LinkedIn pages.

You can ask others working in similar settings about how they are working with the programme and share good ideas.

Summary of Activity 2

- | | |
|--------|---------------------|
| Who? | All |
| What? | Slide set |
| Where? | On line or download |
| Time? | One hour |

Activity 3 – Watch the Acute Kidney Injury in Primary Care Video



Aim of this activity

The aim of this activity is to show you that AKI is an issue for all healthcare workers. This [short film](https://www.thinkkidneys.nhs.uk/aki/videos/acute-kidney-injury-in-primary-care/) has been made by the Think Kidneys team to be shown in GP surgeries. After watching it you should have a better understanding of AKI. All team members should watch this video then discuss the implications for the team. After watching it you should understand the role we all have to play in preventing AKI.

Summary of Activity 3

- | | |
|--------|---------------------|
| Who? | Nurses and managers |
| What? | Watch GP video |
| Where? | On line |
| Time? | 10 minutes |

Activity 4 – Complete the AKI National Institute for Health and Care Excellence (NICE) training module



Aim of this activity

The aim of this learning programme is to support nurses and care home owners to learn how to prevent and identify AKI.

After completing this learning programme you will be able to contribute to the assessment of residents at risk of AKI by undertaking and recording urinalysis via dipstick, vital signs and physical observations, and to report results to the GP responsible for the resident's care.

<http://elearning.nice.org.uk/enrol/index.php?id=5>

Summary of week 4

- **Who?** Nurses and managers
- **What?** Complete learning module
- **Where?** On line
- **Time?** 45 minutes

Activity 5 – Learn about Fluid Balance



Aim of this activity

The aim of this activity is to start to assess fluid balance in residents. The members of the Think Kidneys team have developed a fluid balance chart – appendix 2 - to help you to assess hydration in residents. These can be adapted to meet local requirements. You can print off the chart and use it to record how much each resident is drinking. If your resident is at risk of AKI you can also record how much urine is being passed.

You could also refer to the urine colour chart which was in the PowerPoint slides from Activity 2.

How much fluid does an older person need?

This will of course vary from person to person, but on average, older people should aim to drink about 1500ml per day. This is taken from the Caroline Walker Trust 'Eating Well for Older People' (p38)

<http://www.cwt.org.uk/wp-content/uploads/2014/07/OlderPeople.pdf>

This is in addition to the fluid obtained from foods in an average diet (covered in Activity 6).

When less fluid might be needed: Please note, some residents with certain underlying medical conditions may be at risk of fluid overload and may need to be on a fluid restriction. Make sure you know which residents may be affected by this – ask the GP for advice if you are unsure. It may be necessary to consider the fluid provided from foods to avoid fluid overload in those people who are at risk.

When more fluid might be needed: Certain weather conditions can have an impact on the amount of fluid needed to remain healthy. During a heatwave your residents may be at a higher risk of dehydration. You could consider this advice from NHS Choices

<http://www.nhs.uk/Livewell/Summerhealth/Pages/Heatwave.aspx>

Heatwave advice:

An average temperature of 30°C by day and 15°C overnight would trigger a health alert (this figure varies slightly around the UK). These temperatures can have a significant effect on people's health if they last for at least two days and the night in between.

Dehydration is one of the main risks posed by a heatwave.

It's important to drink plenty of fluids during the warmer weather and here are the reasons why:

- If you don't drink plenty of fluids you can become dehydrated.
- Dehydration can cause headaches, lethargy, dizziness, confusion, and in some cases can lead people ending up in hospital. Vulnerable people are at a higher risk of dehydration, babies, children, pregnant women and elderly people.
- Unless there is specific medical advice against it, everybody can benefit from practising good hydration.
- Drinking water and keeping hydrated can help medicines work more effectively, and with the older population, can reduce the number of falls and related illnesses and accidents.
- Keep a check on your urine. As a general guide to hydration, it should be plentiful, pale in colour and odourless.

Room heating set at a high level can also increase the amount of fluid that an individual requires. Certain medical conditions that cause a person to lose fluid will also need to be managed carefully to reduce the risk of dehydration eg diarrhoea, vomiting, high output stoma. Please seek medical advice if in any doubt.

Summary of Activity 5

- | | |
|--------|--------------------------------|
| Who? | All |
| What? | Print off and complete charts |
| Where? | On line |
| Time? | Depends on number of residents |

Activity 6 - Fluid Challenge



Aim of this Activity

The aim of this activity is to start to think about other ways of getting residents to take more fluid and how this can be achieved.

Fluid from foods:

Never underestimate the amount of fluid food can provide – your support with informed choices is vital.

On average about 20% of our fluid comes from food, the other 80% from drinks. For people who do not drink well, but who might be more willing to eat, the aim is to increase the amount of fluid they get from food.

Encouraging high fluid foods needs some thought. If your resident generally eats well and is not at risk of malnutrition, then low calorie foods such as jellies, fruit (whole fruit, fruit salads, cooked and stewed fruit), low fat yoghurts and soups can be offered, either as snacks or as part of meal times. Jellies have been used very successfully to improve hydration in residents of Essex care homes as part of the ‘Prosper’ project (further information can be found here:

<http://www.health.org.uk/programmes/closing-gap-patient-safety/projects/prosper-promoting-safer-provision-care-elderly>)

If your resident is underweight, not eating well and/or at risk of malnutrition, then it is more appropriate to encourage high calorie, high fluid foods such as full fat yoghurts, milk jellies, mousses/whips, fortified soups, or fruit accompanied by fortified custard or cream, again either as snacks or part of meals.

Sauces and gravy can also be a good source of fluid, and these can be fortified for those that need the extra calories.

Encourage High Fluid Intake Early in the Day:

Really encourage fluids in the morning as many older people are more alert, relaxed and more willing to take food and drink at this time. Encourage before, during and after breakfast, aiming for 700-800ml as drinks plus 200ml as milk on cereals.

Case Study

Alexandra House, a dementia care home in Great Yarmouth, has taken part in the Dehydration Recognition In our Elders (DRIE) study. As part of their hydration strategy, staff aim to ensure every resident drinks at least a litre of fluid by the end of breakfast (700-800ml in the form of drinks, with a further 200-300ml added to cereals or porridge). They do this by encouraging drinking before and after the morning bath, and during breakfast, and ensuring that a variety of drinks are available. It is also a sociable time, where staff and residents interact, and staff undertake talking therapy. A nurse and two other members of staff (usually a carer and a member of domestic staff) work in the dining room every morning to support nutrition and hydration. This has resulted in many improvements including:

- Doses of medications are generally lower as improved hydration means drugs are utilised better by the body
- More controlled and successful urination as hydration helps to maintain the urinary sensation which can be lost in dementia
- Improved sleep - being thirsty can cause restlessness, disrupted sleep pattern and bad dreams. If someone doesn't sleep well at night, they will sleep during the day, miss out on vital fluids and the cycle continues.

You can read more about the case study here: <http://www.nursingtimes.net/download?ac=1308028> and www.scie.org.uk/publications: Hydration and Older People in the UK: Addressing the Problem, Understanding the Solutions

Other Tips to Improve Fluid Intake:

Here are some tips to improve the fluid intake for the people in your care: (adapted from <http://www.scie.org.uk/publications/guides/guide15/factors/nutrition/>)

- Have fluids readily available – jugs filled and ready for meal times especially
- Explain that decreasing fluid intake does not decrease incontinence risk, it's the opposite

- Offer fluids after providing care
- Offer the type/temperature of fluids people like and make sure it is noted in the care plan on the person’s drink preferences. Variety can be really important
- Involve family members, especially grandchildren for older people
- Offer small amounts of fluid frequently
- When it’s warmer weather offer small ice cubes (ice cubes, ice lollies and ice cream should not be offered to residents who are on thickened fluids)
- Ensure the person has good oral hygiene regime. Have they seen a dentist in the last 12 months?
- Encourage people to drink all fluids offered with meals and medication; offer a full cup
- Use lightweight water/squash jug and cup – this enables the person to have independence wherever possible
- Use assistive drinking devices – know which devices and cups are suitable for the person, do they need an assessment?
- Offer assistance if needed, remember to watch the person swallowing the fluid
- Use verbal prompts when needed – there is nothing better than asking “Would you like a drink?”
- Position the person properly so that they can drink, make sure they are sitting up
- For more mobile people provide drink bottles to carry around
- Include a beverage break in all activities or when you have a meeting with a resident

Swallowing Problems (Dysphagia)

Special consideration should be given to residents who have difficulty swallowing because these residents may need to have their fluids thickened to prevent aspiration (choking). This might mean that they may not enjoy drinking and therefore not drink enough to remain well hydrated. A lot of residents in care homes have swallowing problems. Have a look for your local Speech and Language Guidelines. Some of these residents will be at higher risk of AKI.

Key things to consider:

- It is just as important not to over-thicken fluids as it is to not under-thicken them, if it means the drink becomes unpalatable. A drink that looks, feels and tastes unappealing is unlikely to be drunk, therefore increasing the risk of dehydration. Make sure that you are aware of the speech therapist’s recommendations for each resident.
- Did you know that thickened fluids taste stronger? This is because a thickened drink moves more slowly in the mouth and so stays on the tongue for longer. If your resident dislikes their thickened tea / coffee / squash, it could be that it needs to be made weaker than they might normally have had it.

The International Dysphagia Diet Standardisation Initiative Detailed Descriptors, Testing Methods and Evidence, has resources which describe the international standards for thickened fluids, and can

be found here: <http://iddsi.org/> Speak to your speech and language therapist to find out what policy is being used in your area.

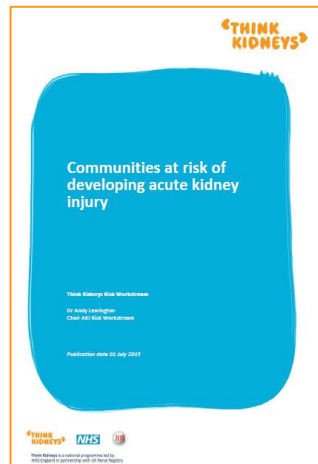
Posters

You could make a poster to show what drinks are available in your home. Don't forget high calorie hot and cold milky drinks, fruit juices, full sugar squash, fizzy drinks as well as tea, coffee, sugar-free squash etc. Examples of posters developed by other organisations can be found <https://www.thinkkidneys.nhs.uk/aki/resources/care-homes/>

Summary of activity 6

- | | |
|--------|--------------------------------|
| Who? | All |
| What? | Read examples of good practice |
| Where? | Above and using link above |
| Time? | Thirty minutes |

Activity 7 – Identify residents at risk of AKI



Aim of this activity

The aim of this activity is to identify residents in your care home who may be at risk of AKI. Now you have learnt more about AKI, and understand how to spot dehydration, visit the “Communities at Risk” document found in this section of the Think Kidneys website to find who might be at risk: <https://www.thinkkidneys.nhs.uk/aki/think-kidney-publications/>

Relevant sections for care homes are: 1, 2, 5, 6, 7, 8, 10 and 13.

When you have identified residents who are at risk of AKI it is important to ensure that your care home support workers are aware and make use of the fluid balance chart to assess hydration. Appendix 2 contains some examples of care plans which you could use or adapt to help to reduce the risk for these residents.

The nurse in charge/clinical lead should also inform the person and their family of the risk and let them know what they can do to prevent AKI. You can give them the [patient information leaflet](#) for those at risk of AKI.

You could also read the case study at the end of this guide to help you think about how to care for patients who have had an episode of AKI.

Summary of Activity 7

Who?	Nurses and managers
What?	Read guide and complete care plans
Where?	On line
Time?	Depends on number of residents

Activity 8 - Download posters, watch the video and print leaflets



Aim of this activity

The aim of this activity is to raise awareness of AKI with everyone in your care home, including residents and visitors. You can use this link: <https://www.thinkkidneys.nhs.uk/campaign/> to watch the public campaign video and order the posters for free which you can display in your home to let residents and families and visiting healthcare professionals know more about AKI and that you are taking it seriously.

Think Kidneys has worked with the British Kidney Patient Association (BKPA) to produce leaflets for those at risk of AKI and those who have experienced an episode of AKI which you can also print.

https://www.thinkkidneys.nhs.uk/aki/wp-content/uploads/sites/2/2015/11/BKPA-RCGP-A4-Printout-Leaflet_v4.pdf

https://www.thinkkidneys.nhs.uk/aki/wp-content/uploads/sites/2/2016/02/BKPA-Patient-at-Risk-Leaflet_Web.pdf

You can visit this [website https://betterlivesleeds.wordpress.com/2015/06/22/lets-raise-a-cup-to-leeds-hydration-week/](https://betterlivesleeds.wordpress.com/2015/06/22/lets-raise-a-cup-to-leeds-hydration-week/) where you can find additional information on hydration from colleagues at Better Lives Leeds.

In addition to our posters above, you may also like the posters developed by other colleagues. We have some in the Care Homes resources section on the Think Kidneys website:

<https://www.thinkkidneys.nhs.uk/aki/resources/care-homes/> These can be displayed in public areas or in the bedroom of those at risk of AKI.

Summary of activity 8

- 🍷 **Who?** All
- 🍷 **What?** Print posters and put on display. Print BKPA leaflets and give to residents & families
- 🍷 **Where?** Online
- 🍷 **Time?** Will vary depending on how many posters you print for display or sharing

Activity 9 – Test your knowledge by working through a case study



Aim of this activity

The aim of the final activity is to see how much you have learned by working through a case study which can be found in appendix 4. This is an opportunity for you to refresh your knowledge and to test yourself. Can you recognise “Marjory” in your home?

Summary of activity 9

- | | |
|--------|------------------------------------|
| Who? | All |
| What? | Read guide and complete case study |
| Where? | Appendix 4 |
| Time? | 30 minutes |

Next Steps

The next steps are to agree the specific changes you will make to ensure that all the hard work and learning you have done will lead to an improvement in care for your residents. Now you have completed the guidance, you could write a case study to show how you have been able to raise awareness of AKI in your care home. If you are interested in doing this, contact julie.slevin@renalregistry.nhs.uk

Alternatively, you could share your experience on the Facebook page or by Twitter or LinkedIn

Have a look at the check list – have you completed all the activities?

Print your certificate for all staff members who have completed the activities. Add your name and file it with your other training certificates.

Appendix One Checklist

Use the following checklist to mark your progress. You can print of one for each team member.

Name

Item	Item	Complete
For the manager	Brief the whole team about the programme	
Activity 1	Get to know the Think Kidneys website	
	Information for the public	
	Educational resources	
	Information, Tools and Publications	
	Key messages	
Activity 2	Watch the PowerPoint slideshow	
Activity 3	Watch the Video	
Activity 4	Complete NICE training	
Activity 5	Fluid Balance	
	Print the fluid intake chart	
	Print the fluid balance chart	
	Refer to fluid intake guide	
Activity 6	Work through Fluid Challenge	
Activity 7	Identify Residents at risk of AKI	
Activity 8	Watch video and download posters and leaflets to display and share	
Activity 9	Work through the case study	
Next steps	Print off certificate	

Appendix Two Example of a fluid balance chart

Name		Date	
Weight	Goal Fluid intake	Half =	75% =

Time	Fluid offered	Amount taken	Fluid food taken (Type and amount)	= together	Running total intake	Output + description Catheter mls/
00: _						
01: _						
02: _						
03: _						
04: _						
05: _						
06: _						
07: _						
CHECK! Has your resident had a drink before shift changeover?						
08: _						
09: _						
10: _						
11: _						
12: _						
13: _						
14: _						
15: _						
CHECK! Has your resident received half of their goal fluid balance yet? If not – please give an extra drink, soup or						
Extra fluid						
16: _						
17: _						
18: _						
19: _						
20: _						
CHECK! Does your resident need an extra drink, soup or Jelly to meet fluid goal?						
Extra Fluid						
21: _						
22: _						
23: _						
TOTAL OF ALL DRINKS AND FLUID FOODS						
DOES THIS MEET >75% of TARGET?		Y	N			
IS THIS THE ONLY DAY OF REDUCED FLUID INTAKE IN THE PAST THREE DAYS?		Y	N	Is output balanced	Y	N
				Is urine clear	Y	N
				urine has normal smell	Y	N

Appendix Three – Example care plans

This is an example of a person-centred care plan and supports Care Quality Commission requirements

NameEthel Smith.....

Room... 3/ Turner Unit.....

Ethel is at risk of developing Acute Kidney Injury as she has short term memory problems and does not feel thirsty. She often forgets her drink is in front of her, and forgets whether she has drunk it or not.

To ensure Ethel stays well hydrated, staff should ensure Ethel always has a drink in front of her when possible. A fresh drink should be provided at mealtimes. She likes tea with milk, no sugar when hot drinks are served, and enjoys lemon squash when cold drinks are offered. Ethel cannot drink from an open cup, and requires a lidded beaker. Ethel often forgets her drink is there, so should be prompted to take regular sips until her drink is finished.

When medication is given Ethel should be encouraged to swallow her tablets with a full glass of squash. In very hot weather Ethel's fluid intake should be increased as per national guidance. Staff can offer Ethel small ice cubes to suck, or ice lollies to eat.

Ethel is unable to pour her own drinks overnight so staff should ensure she is offered a drink before she goes to bed and when continence care is delivered during the night. A jug of lemon squash should be available in her room overnight.

Ethel sometimes refuses drinks as she is afraid staff will not be around to help her go to the toilet when required. This is particularly noticeable before bedtime. Staff should reassure Ethel that they will assist her as necessary, and help by sitting her in a chair nearer the door so mobilising to the toilet is more manageable for her. Ethel should be reminded that drinking less will make her urine stronger and result in more 'accidents'. If staff notice any offensive smell or unusual colour in Ethel's urine they should notify the nurse in charge who can do a dipstick urinalysis to exclude a UTI. Ethel likes to use the toilet before retiring to bed, after she has been washed and her teeth brushed.

As Ethel may be dehydrated, staff should be extra vigilant with her oral care. Staff should observe Ethel's mouth whilst brushing her teeth. Any signs of infection such as white spots, shiny red tongue or coated tongue should be reported to nurse in charge who can organise a dental or GP check-up.

Ethel's fluid intake can be increased by encouraging her to eat liquid foods. She likes custard on its own, or it can be served with bananas. Ethel also likes strawberry jelly, but does not like ice cream with it. Staff should serve extra gravy with meals, and ensure Ethel has at least half a cup of milk on her morning cereal.

Staff should monitor Ethel's fluid intake by use of a fluid balance chart. Ethel's visitors can be shown how to record the fluids Ethel drinks while they are with her. The night nurse should total the fluid intake at midnight, and escalate any reduced intake to the following shift.

Example care plan for service users (domiciliary care) at risk of Acute Kidney Injury

Name:

Date	Intended Outcomes	Interventions	Evaluation	
	AKI to be avoided To be given information about the risk of AKI and what can be done to reduce this To remain hydrated	Commence fluid balance sheet Have fluids readily available – jugs filled and ready for meal times especially Explain that decreasing fluid intake does not decrease incontinence risk, it’s the opposite Offer fluids after providing care likes (list drinks) Involve family members and visitors Offer small amounts of fluid frequently	Met Met Met Met Met Met Met	Unmet Unmet Unmet Unmet Unmet Unmet

		When it's warmer weather offer ice cubes	Met	Unmet
		Ensure has good oral hygiene regime. Have they seen a dentist in the last 12 months?	Met	Unmet
		Encourage to drink all fluids offered with meals and medication, offer a full cup likes (list fluid-rich foods) uses (describe water/squash jug and cup)Requires (list any specialist drinking aids and type of assistance required)	Met	Unmet

Things to consider when writing an AKI care plan

- What drinks does your resident like? How do they like them?
- How does the resident drink best? Beaker/straw/mug/cup?
- What is the resident’s continence status? Will they need reassurance around continence?
- Does the resident understand the need for fluids? Do they have capacity to retain this information? Should they be reminded at every opportunity?
- How can relatives/visitors/other team members be included?
- Whose responsibility is it to monitor/total daily fluids?
- What is your escalation process if a resident has poor fluid intake?
- What other methods of increasing fluid would be appropriate to your resident? Ice lollies/jelly/custard?
- What is the resident’s oral care regime? How often do they see a dentist?

Appendix Four Case Study



Marjory is an 83 year old resident in your care home. She has been with you for the past three years, since she fell at home and fractured her hip. This led to her feeling anxious at home and worried about falling again. She has also lost confidence in walking and likes to have assistance to walk around the home.

Marjory likes living in the residential home and has made some good friends and enjoys chatting. She takes ibuprofen for some pain in her hip. She is a Non-Insulin Dependent Diabetic (NIDDM) and has to be careful about eating food containing high sugar levels. She takes Metformin for this. Marjory has some heart failure and takes Furosemide and Ramipril for this.

Think about what you learnt in activities two and eight to answer the following questions:

- Is Marjory at risk of AKI?
- How do you know this?
- How can each member of the team help reduce her risk?

It's Friday morning and you go to see Marjory to offer to help her to get up and dressed. She doesn't seem to recognise you, and when you help her out of bed you find she has been incontinent of urine. The urine has a strong odour and is dark in colour.

- What might be wrong with Marjory?
- What steps can you take to help Marjory?

On Monday Marjory is feeling much better, but she is now anxious about being incontinent again and doesn't want to drink very much of the extra fluids she is being offered.

- What can you do to help?

Answers to Case Study Questions:

Think about what you learnt in activities two and eight to answer the following questions:

- Is Marjory at risk of AKI?
- *Answer – yes*

- How do you know this?
- *Answer : risk factors from Communities at risk document :
Older people are the group most at risk of AKI
Older patients are especially prone to dehydration – particularly if they also have dementia or frailty, making food and fluid intake more difficult, particularly if they are reliant on others for access to fluids.
Patients with heart failure often have an element of CKD and are on diuretics and ACEi
Metformin is excreted by the kidneys*

- How can each member of the team help reduce her risk?
- *Answer - Encourage fluids. Regular check-ups with GP. Encourage healthy diet to control diabetes*

It’s Friday morning and you go to see Marjory to offer to help her to get up and dressed. She doesn’t seem to recognise you, and when you help her out of bed you find she has been incontinent of urine. The urine has a strong odour and is dark in colour.

- What might be wrong with Marjory?
- *Answer - UTI*

- What steps can you take to help Marjory?
- *Answer - Request GP visit. Take a urine sample either to send or dipstick. Encourage lots of fluids. Ask GP if Marjory should take all of her medicines*

The national primary care guidance for UTI can be found here:

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/586766/managing_common_infections.pdf

On Monday Marjory is feeling much better, but she is now anxious about being incontinent again and doesn’t want to drink very much of the extra fluids she is being offered.

- What can you do to help?
- *Answer -A Jelly, yoghurt, custard, milky puddings, soup, etc. Offer water with regular drinks, Reassurance, sitting near to a toilet and support with toileting*

Acknowledgements

The following organisations, working groups and individuals contributed to the development of this guidance document:

Karen Thomas, UK Renal Registry
Annie Taylor, Think Kidneys
Julie Slevin, UK Renal Registry
Rajib Pal, GP - Hall Green Health
Derek Johnson, Principal Catering Manager, Community Meals, Leeds
Kieran Attreed-James, Quality Improvement Officer, Essex County Council
Lesley Cruickshank, Quality Innovation Manager: Residential & Nursing, Essex County Council
Sheila Holland, Lead Nurse for Palliative and End of Life Care (Education) in Care Homes, The Harlow Integrated Team
Jane Edwards, Quality In Care Team, Clinical Lead, Buckinghamshire County Council
Maire McManus
Owain Brooks, ABMU Health Board, Renal Pharmacist Morrision Hospital
Sarah McNulty, Public Health Consultant, Public Health Team Knowsley Council
Adam Gordon, Consultant and Honorary Associate Professor in Medicine of Older People, Honorary Secretary, British Geriatrics Society
Lisa Truefitt, Medicines Management Dietician, Dudley Group NHS Foundation Trust
Caroline Lecko, Patient Safety Lead, NHS England
Sally Bassett, Southern Derbyshire CCG
Rachel Levenson, CV Programme Manager, NHS England South (South West) Medical Directorate South West Strategic Clinical Network
David Birth, Pharmacist, Wolverhampton CCG
Molly Henriques-Dillon, Quality Nurse Team Leader, Wolverhampton CCG
Paula Cashmore, Clinical Quality Monitoring Officer, NHS Birmingham City Cross CCG
Elaine Allison, Matron/Manager, St Bartholomew's Court
Sue Shaw, St Bartholomew's Court
Kath, St Bartholomew's Court
Sue Ann Balcombe, Home Manager, Excel Care Holdings
Gill Finch, Manager, Marmora Care Home
Shaun Green, Somerset CCG
Natalie Mclellan, Branch Manager, MiHomecare
Suzanne Moore, Deputy Manager, Excel Care Holdings
Kausar Sadiq, Manager, Penny Pot Residential Home
Jane Byford, Operational Manager, Maison Care
Sophie Murray, Sunrise Senior Living



Certificate of completion

This is to certify that

.....

**has completed the Think Kidneys Acute Kidney Injury
and Hydration Learning Guide and has pledged to
improve care for the residents of**

.....

Think Kidneys is a national programme led by
NHS England in partnership with UK Renal Registry