

Think Kidneys Rising to the Challenge and Tackling Acute Kidney Injury

– the NHS campaign to improve the care of people at risk of, or with, acute kidney injury

Karen Thomas & Annie Taylor on behalf of the NHS Think Kidneys programme



The problem

Acute kidney injury is recognised globally as a growing healthcare safety challenge.

- In the UK up to 100,000 deaths each year in hospital are associated with acute kidney injury. Up to 30% could be prevented with the right care and treatment
- It is estimated that one in five people admitted to hospital each year as an emergency has acute kidney injury
- Just one in two people know their kidneys make urine
- About 65% of acute kidney injury starts in the community

Delivering the change

The team - A virtual team of people came together to develop the programme. Experts included consultant nephrologists, biochemists, GPs, commissioners, pharmacists, nurses, dieticians, paediatricians and very importantly, renal patients.

We established 6 workstreams – education, implementation, detection, risk, intervention and measurement which all worked to a project plan to deliver their elements of the programme on time.

The tactics – We developed an improved care pathway in every health care sector – primary, community and secondary was important and so we have, or are in the process of creating guidelines for everyone, regardless of where in the NHS you work.

We decided we didn't want to tell people or organisations what they had to do, but to provide them with the information, resources and support to help them develop an AKI pathway that would work for them and improve their rates of AKI and detection.

Online resources were recognised to be the most accessible for the most people. Our publications are rigorously checked and validated by experts which gives them credibility with our audience of health and social care staff.

All of our outputs are published to the website for open access at www.thinkkidneys.nhs.uk

From the outset we wanted to showcase change and innovation in delivering new services for AKI. Case studies are shared on the website which detail how services have changed and improved for the benefit of patients.

Lessons learned and our messages for others wanting to tackle AKI

- Don't underestimate the value of full patient/carer participation in every area of your work
- Involve people who represent every element of the pathway in your work
- Make sure you understand your audience well – who you are trying to reach and when – we have found the effort to reach over 1,000,000 health and care staff quite a proposition!
- Realise the importance of effective communication – not only what you want to say, but the channels to use to reach people
- Make use of technology for your virtual team, publishing resources and sharing information.

The strategy for change

- AKI is recognised by NHS England as an important safety issue in the NHS, and the Think Kidneys programme was established in 2014 to better understand the scale of the challenge of AKI and how to address it
- The aim - to raise awareness of AKI across health and social care so that it could be identified more easily, allowing health and social care professionals the chance to make the best possible response and thereby improve safety and outcomes for patients
- A nationally agreed information technology algorithm was designed and pathology laboratories were mandated to implement it through a Patient Safety Alert.

Measuring for improvement and change

- the Measurement team has developed a database of the data generated by the pathology lab algorithm. This provides accurate information about AKI and links them to other data sources to provide demographic information. Newly created reporting mechanisms detect any changes in the incidence of acute kidney injury. Data is provided to the UK Renal Registry and is reported on the Think Kidneys website.

We are now starting to see results in detection rates which will ultimately have an impact on the severity of AKI experienced by patients. This will then provide a safer environment and will, in time reduce the incidence rates of AKI.

(Almost) everything you need to know about your kidneys

- Most people have two kidneys. They are about the size of your clenched fist, they each weigh around 150g and are shaped like kidney beans.
- They filter your blood every minute of the day. Your blood goes through the kidneys 40 times in 24 hours. There are 140 miles of tubes and a million filters in your kidneys.
- They sit in your lower back under the bottom ribs. Only 50% of the population know the kidneys produce urine.
- They are the hardest working organs in your body. They use 25% of the blood from every heartbeat.

What do your kidneys do?

- Make urine**: Regulate salt and water in your body, making about 3-4 pints of urine each day.
- Remove waste**: Remove waste products from your blood into your urine.
- Produce hormones**: Regulate your blood pressure.
- Create erythropoietin**: Create erythropoietin to control the production of red blood cells.
- Activate Vitamin D**: Keep bones healthy.
- Clean your blood**: Remove many drugs that some people take for other conditions.

How to keep your kidneys healthy

- Lead a healthy lifestyle**:
 - Keep hydrated
 - Don't smoke
 - Keep your weight down
 - Exercise regularly
 - Eat a healthy diet including fresh fruit, vegetables and fish
 - Reduce your intake of salt, processed foods and high sugar drinks

If you take regular medication ask your pharmacist how it may affect your kidneys

What causes kidney problems?

- One of the most common causes of kidney disease is diabetes. But there are many others including genetic and inflammatory conditions, blockages of urine flow and high blood pressure that can be a cause and/or consequence of kidney problems.
- About 1 in 10 people has some form of Chronic Kidney Disease (CKD). CKD is a long term loss of kidney function which can be harmful. Not all CKD gets worse but it can lead to kidney failure. CKD also increases the risk of heart attack or stroke and increases the risk of acute kidney injury.
- Acute Kidney Injury (AKI) is serious and can occur when a person is unwell. AKI is a quick reduction in kidney function. Finding AKI in the early stages is very important as it can mean other health problems more difficult to treat.
- Of emergency admissions to hospital 1 in 5 people have AKI. AKI can occur after major surgery or with heart problems. Up to 100,000 deaths in hospital in the UK each year are associated with AKI. It causes harm and suffering and costs a lot.

Why you need to think kidneys

- If you are worried about your kidneys visit your GP and find out if screening is necessary
- Always 'Think Kidneys' when visiting your GP. CKD and AKI often show few symptoms
- Your kidneys are remarkable and can look after you at just 10% functionality
- AKI often gets better and can even recover fully as the underlying problems are treated

What are the symptoms of kidney problems?

- In the early stages of kidney disease there are often no symptoms.** There may be no pain or reduction in urine output. Kidney problems are found by a simple blood or urine test so we recommend that people at risk of CKD or AKI are tested regularly to spot problems as soon as possible.
- Symptoms of more serious kidney problems can include:**
 - Fatigue
 - Frequent headaches
 - Loss of appetite
 - Sleep problems
 - Itchy skin
 - Swelling in ankles
 - Swelling or numbness of the hands or feet
 - Passing urine more frequently at night or less than usual
 - Darkening or lightening of the skin
 - Muscle cramps

Kidney disease is serious. It's harmful and changes lives. Protect your kidneys as if your life depended on it: because it does! Find out how to keep your kidneys healthy and safe www.thinkkidneys.nhs.uk

You can become a donor and help save a life by signing up at: www.organdonation.nhs.uk

Your kidneys are amazing. They work so hard for you. Look after them and Think Kidneys

