Acute Kidney Injury (AKI)

What do your kidneys do?

- Make urine.
- Remove waste products from your blood.
- Regulate salt and water content in your body.
- Produce hormones that help to regulate your blood pressure.
- Activate vitamin D.

What is acute kidney injury (AKI)?

- AKI refers to a sudden **(acute)** change in kidney function that has occurred in a few hours or days.
- **Injury** in this case does not mean a physical blow to the kidneys, **it means that the kidney is not carrying out its functions as well as it should**.

What causes AKI?

AKI can occur in children and adults and is generally because of another medical condition. AKI in patients with cancer can be caused by a variety of individual factors including:

- dehydration
- nausea and vomiting
- diarrhoea
- increased fatigue
- reduction in oral intake
- infection/sepsis
- major surgery
- certain medications which can be harmful to the kidneys including, ibuprofen, naproxen, ramipril
- increase in abdominal fluid known as ascites
- blockage in the kidneys

You are also more at risk if:

- you are 65 years and over
- you have a chronic (long term) kidney disease (CKD)
- have diabetes or heart or liver failure
- are receiving platinum-based chemotherapy e.g. cisplatin, carboplatin, high dose methotrexate or having regular scans with iodine contrast

Some chemotherapy side effects such as nausea and vomiting, diarrhoea, change in taste and fatigue can cause you to become dehydrated.

If you are struggling with these symptoms, please contact The Christie Hotline as this can then lead to AKI if not addressed promptly.

How will healthcare professionals know if I have an AKI?

- AKI is detected by a blood test that measures for a substance called creatinine.
- Creatinine is a waste product produced by body muscles and removed by the kidneys.
- Rising levels of creatinine can suggest reduction in kidney function.
- Monitoring urine output, if you have noticed your urine is dark in colour and output has reduced, this could suggest dehydration.

Look after your kidneys

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Remember to monitor your urine colour.
You're aiming for 1-3, 4-8 then you must hydrate.

How will we look after you in hospital?

Depending on the severity of AKI you may be required to have some fluid via a drip into your vein and come back the following day for a recheck of bloods or we may require you to be admitted to hospital. We will then consider the following:

- the cause of AKI
- fluid through a drip in your vein
- ultrasound kidney scan may be required, this is helpful if we suspect any blockages in the kidney
- potential requirement to withhold certain chemotherapy tablets or defer treatment until kidney function is restored
- a review of medications; we may be required to stop, hold for a period, or change them to something else that is considered less of a risk to the kidneys
- reviewing anti-sickness and anti-diarrhoea medication
- monitoring your oral intake and output closely

IF YOU EXPERIENCE ANY OF THE FOLLOWING YOU MAY BE AT RISK OF AKI

- Nausea and vomiting and unable to tolerate liquids.
- Unable to eat or drink due to nausea, increased tiredness, vomiting.
- Mucositis when you have a sore mouth or throat, and you are unable to drink any fluids.
- Diarrhoea that is getting worse.
- Worsening tiredness, impacting on your ability to do day to day things.
- Feeling light-headed or drowsy.

PLEASE RING THE CHRISTIE HOTLINE OR VISIT YOUR GP IF YOU EXPERIENCE ANY OF THE SYMPTOMS DESCRIBED ABOVE.

What can I do to prevent AKI?

Try to drink 6-8 glasses (approximately 1.5-2 litres) of fluid per day – water on its own or with cordials, juices and ice lollies for example.

This will need to be increased to 3 litres per day if you are receiving cisplatin chemotherapy.

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Contact The Christie Hotline for urgent support and specialist advice

The Christie Hotline: 0161 446 3658

Open 24 hours a day, 7 days a week

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Website: www.christie.nhs.uk

Stay hydrated!

You should aim to have around **6-8 glasses** of fluid per day.