'THINK KIDNEYS'

Bradford Teaching Hospitals NHS
NHS Foundation Trust

Acute Kidney Injury (AKI) Prevention & Early Detection

1 in 5
emergency admissions is associated with AKI

1 in every 3 - 4
cases of hospital - acquired AKI is preventable

AKI prolongs
inpatient care and increases hospital mortality

RECOGNISE, EVALUATE, INVESTIGATE, ACT, LIAISE

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AKI is a sudden reduction in kidney function, often in association with acute sepsis and dehydration

There are 3 AKI STAGES of severity:

AKI STAGE 1

>1.5x baseline creatinine or rise >26µmol/L in 48h

and/or

urine output <0.5mL/kg/h for 6-12h

AKI STAGE 2

>2x baseline creatinine

and/or

urine output <0.5mL/kg/h for ≥12h

AKI STAGE 3

>3x baseline creatinine or rise >354µmol/L

and/or

urine output <0.3mL/kg/h for ≥24h

RECOGNISE, **E**VALUATE, I**N**VESTIGATE, **A**CT, **L**IAISE

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AKI RISK FACTORS:

- Chronic kidney disease
- Advanced age/cognitive impairment
- Generalised arteriopathy
- Previous AKI

AKI RISK FACTORS:

- Sepsis
- Dehydration
- Nephrotoxic drugs (see care bundle)
- Radiocontrast

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Early Detection of AKI

U&Es are essential for all acute admissions

The laboratory AKI algorithm automatically detects a significant increase in a patient's serum creatinine.

An AKI alert message appears in ICE alongside the patient's creatinine result with a link to clinical advice.

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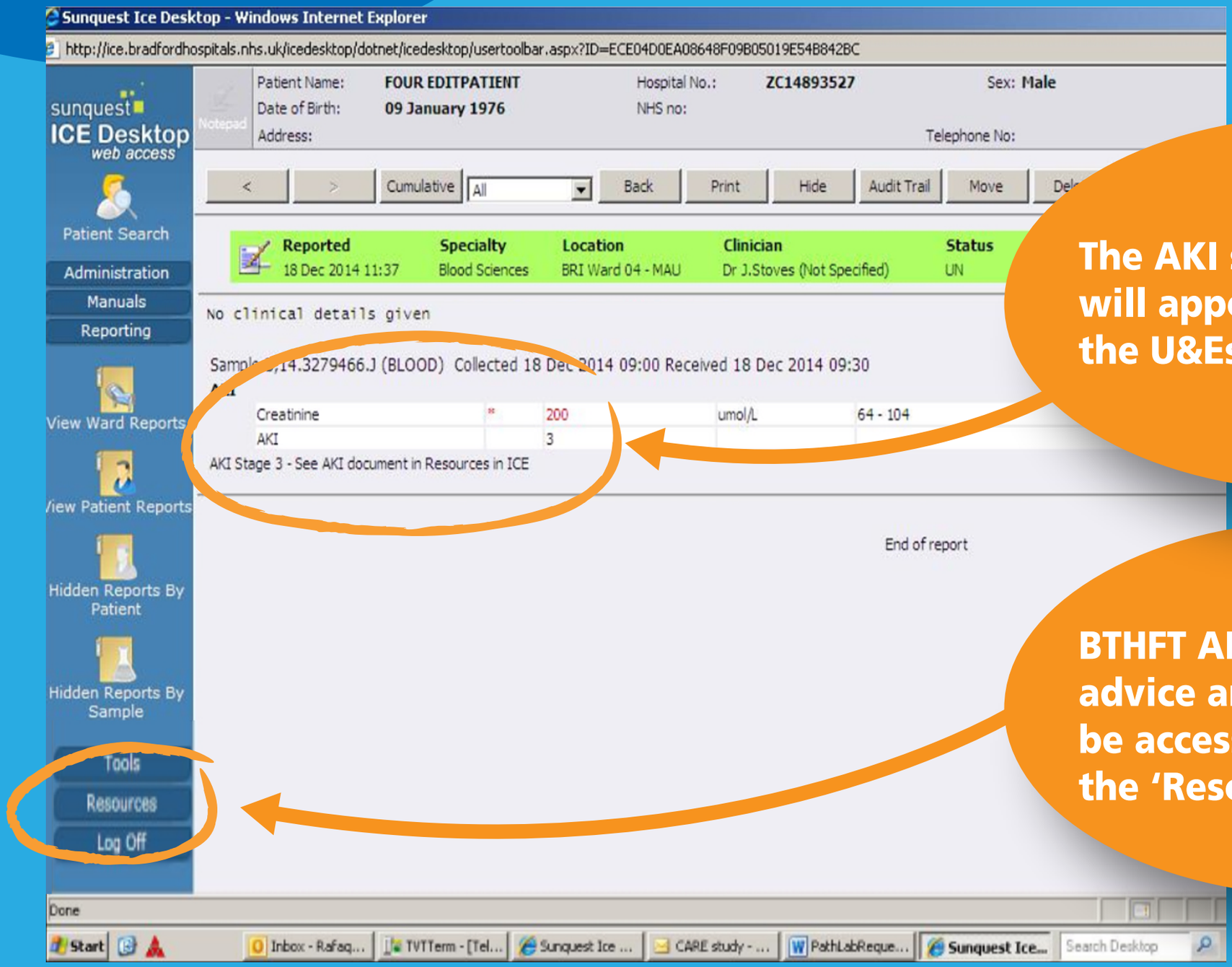
Early Detection of AKI



The AKI stage and comment will appear in ICE alongside the U&Es result

BTHFT AKI management advice and guidelines can be accessed by clicking on the 'Resources' link

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The AKI 8 Care Bundle

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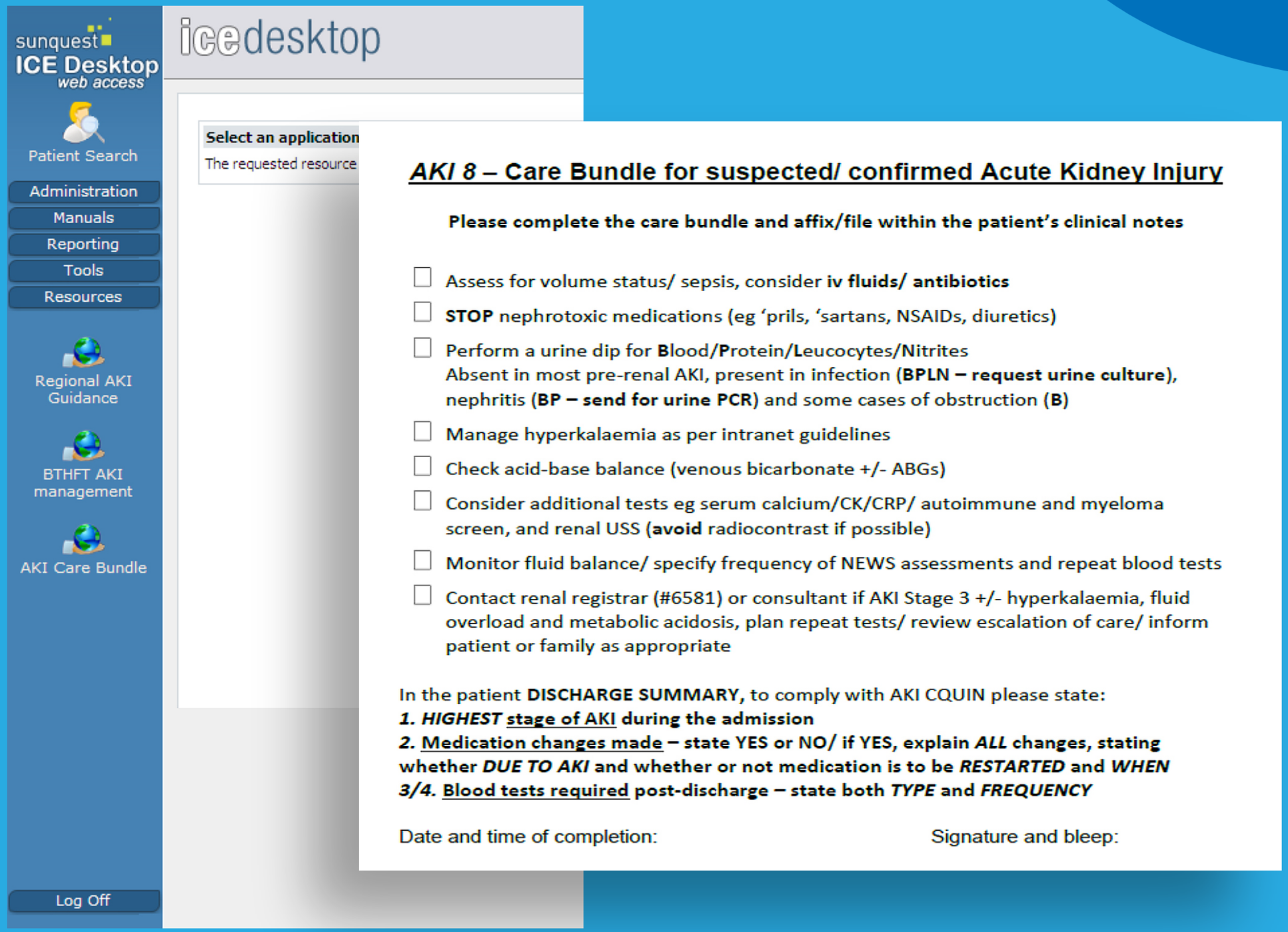

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The AKI 8

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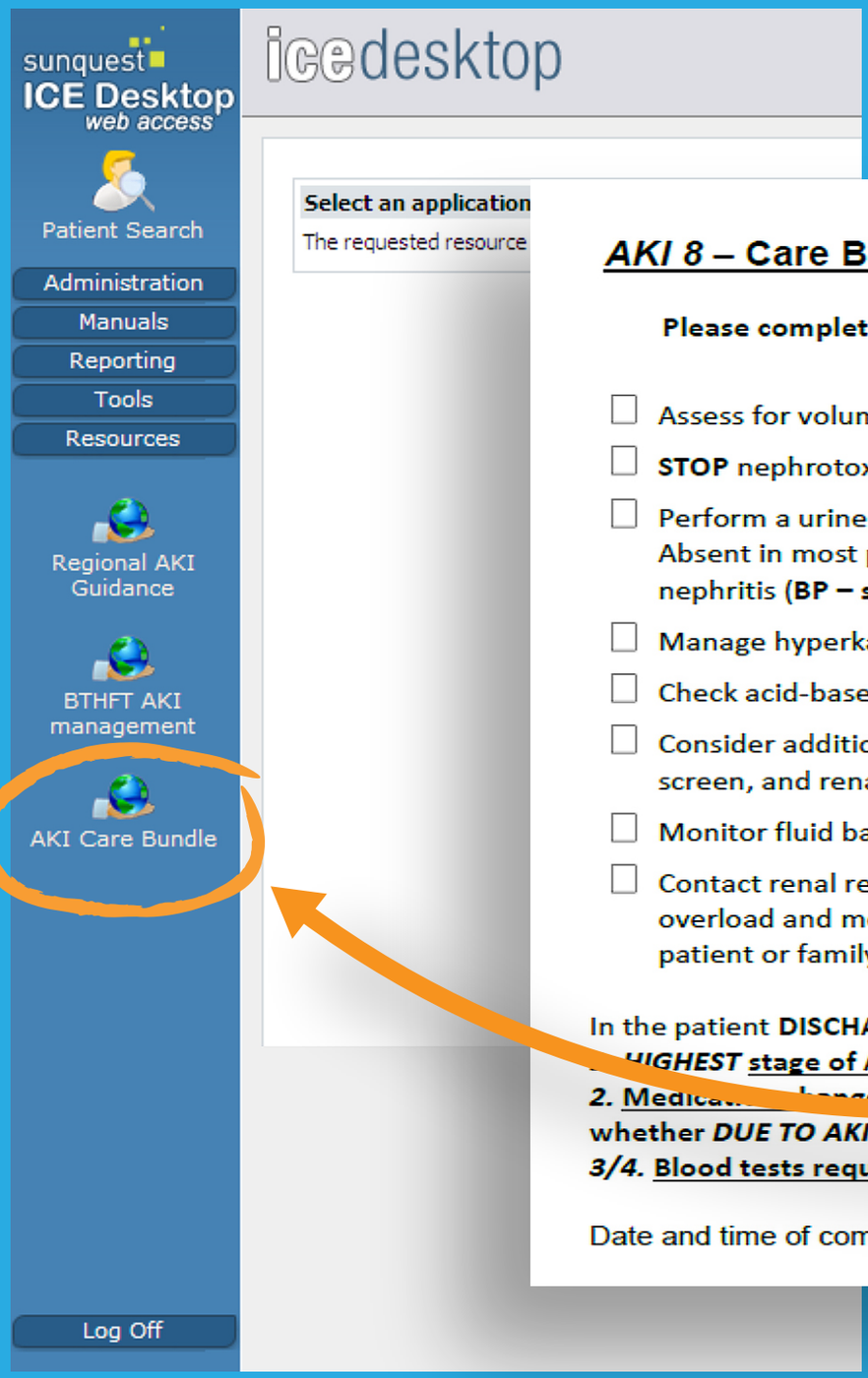

AKI 8 – Care Bundle for suspected/ confirmed Acute Kidney Injury

Please complete the care bundle and affix/file within the patient's clinical notes

- ☐ Assess for volume status/ sepsis, consider **iv fluids/ antibiotics**
- ☐ **STOP** nephrotoxic medications (eg 'prils, 'sartans, NSAIDs, diuretics)
- ☐ Perform a urine dip for **B**lood/**P**rotein/**L**eucocytes/**N**itrites
  Absent in most pre-renal AKI, present in infection (**BPLN – request urine culture**), nephritis (**BP – send for urine PCR**) and some cases of obstruction (**B**)
- ☐ Manage hyperkalaemia as per intranet guidelines
- ☐ Check acid-base balance (venous bicarbonate +/- ABGs)
- ☐ Consider additional tests eg serum calcium/CK/CRP/ autoimmune and screen, and renal USS (**avoid** radiocontrast if possible)
- ☐ Monitor fluid balance/ specify frequency of NEWS assess
- ☐ Contact renal registrar (#6581) or consultant if AKI St overload and metabolic acidosis, plan repeat tests/ patient or family as appropriate

In the patient **DISCHARGE SUMMARY,** to comply with AK
***HIGHEST* stage of AKI during the admission**
***2.* Medica changes made – state YES/ NO/ if YES, expla whether *DUE TO AKI* and whether or not medication is to be R**
3/4.* Blood tests required post-discharge – state both *TYPE* and *FREQ

Date and time of completion: Signature and bleep:

Click on Resources to download the AKI 8 care bundle

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