Collection of Urine Samples

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Contents

[1 Purpose and Principle 3](#_Toc104890778)

[2 References 3](#_Toc104890779)

[3 Equipment 3](#_Toc104890780)

[4 Personnel Authorised to Perform Procedure 3](#_Toc104890781)

[5 Sample Requirements (including COSHH Risk Assessment & First Aid) 3](#_Toc104890782)

[6 Chemicals (including COSHH Risk Assessment & First Aid) 4](#_Toc104890783)

[7 Reagents 4](#_Toc104890784)

[8 Risk Assessment 4](#_Toc104890785)

[9 Calibration 5](#_Toc104890786)

[10 Quality Control 5](#_Toc104890787)

[11 Method 5](#_Toc104890788)

[11.1 Collection of urine from a patient **without** a urinary catheter: 5](#_Toc104890789)

[11.2 Collection of urine from a patient **with** a urinary catheter: 5](#_Toc104890790)

[12 Reporting of Results 6](#_Toc104890791)

[13 Reference Ranges 6](#_Toc104890792)

[14 Assay Performance & Known Limitations 6](#_Toc104890793)

# Purpose and Principle

To provide guidance for Healthcare Professional staff in the hospital to advise patients on how to provide a urine sample for diagnostic testing, or in the case of patients fitted with a urinary catheter, to advise Healthcare Professional staff in the hospital how to collect a sample.

# References

* ‘Collecting a Random urine Sample: Information for patients, relatives and carers’ available in the Trust Intranet ([Our Commitment to You (yorkhospitals.nhs.uk)](https://www.yorkhospitals.nhs.uk/seecmsfile/?id=2437))
* Shepherd E (2017) Specimen collection 2: obtaining a catheter specimen of urine. *Nursing* Times [online]; 113, 8, 29-31
* PC-HSR-URINEDIP
* PC-HSR-QUPID
* PC-SOP-USTICK
* PC-SOP-100Pro
* PC-SOP-QUPID

# Equipment

N/A

# Personnel Authorised to Perform Procedure

Any Healthcare Professional staff in the hospital requested and deemed able to do so.

# Sample Requirements (including COSHH Risk Assessment & First Aid)

Urine specimens:

* Random collection – often not regarded specimen of choice due to the potential for dilution if collected soon after the patient has consumed fluid
* First morning specimen – specimen of choice for urinalysis and microscopic analysis as it usually concentrated
* Mid stream clean catch specimen – strongly recommended for microbiological culture and antibiotic susceptibility testing sue to the reduced incidence of cellular and microbial contamination
* All human blood and urine samples must be treated as potentially BIO-HAZARDOUS.
* Approved Personal Protective Equipment (PPE) including lab coats, gloves and eye-protection must be worn when handling open blood samples or derivatives thereof.

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| msotw9_temp0 | When performed according to the protocol detailed in this SOP, and in conjunction with adherence to Trust Policies and Good Laboratory Practice, the handling of patient samples represents minimal risk to staff. |

Exposure to Bio-Hazardous Material

In the event of a needle stick injury or accidental blood splashes to eyes or mouth:

* If skin has been punctured encourage bleeding by gently squeezing. Wash with soap and running warm water then dry and dress the wound.
* Splashes to the eyes: irrigate eyes thoroughly with eye wash / saline
* Splashes to the mouth: gargle with drinking water (avoid swallowing)

Contact the Occupational Health Department / Emergency Department for guidance and report all adverse incidents to your line manager / complete a DATIX form.

Disposal of Patient Samples

Urine samples collected for POCT purposes should be disposed of immediately following POCT analysis as per the clinical waste guidance in the clinical area.

# Chemicals (including COSHH Risk Assessment & First Aid)

N/A

**GENERAL FIRST AID** 

The following first aid guidelines may be applied to all the substances detailed in this SOP.

Eyes: Irrigate thoroughly with water. At least 10 minutes is the recommended duration. Sterile saline is also available at the eye wash stations.

Lungs: Remove from exposure, rest and keep warm.

Skin: Wash substance off skin thoroughly with water. Remove contaminated clothing and wash before re-use.

Mouth: Wash out mouth thoroughly with water and give plenty of water to drink.

Remember – If at all concerned about the nature or severity of the problem, SEEK MEDICAL ADVICE.

# Reagents

N/A

# Risk Assessment

* See PC-HSR-URINEDIP for Urinalysis by Dipstick risk assessment
* See PC-HSR-QUPID for POCT urine pregnancy testing risk assessment

COSHH and Risk Assessment

This SOP and the associated risk assessment(s) have considered all hazards and necessary precautions required to control any risks identified. Where appropriate this is detailed in the COSHH assessment and Risk Assessment. Any risk; where possible is mitigated and or monitored with health surveillance to ensure health and safety for all those affected by this procedure

# Calibration

N/A

# Quality Control

N/A

# Method

## Collection of urine from a patient **without** a urinary catheter:

* Explain procedure and obtain informed consent from patient
* Check whether any special considerations should be taken, e.g. mid-stream, early morning
* Pass a urine sample into a clean white-topped urine container (or boric acid container if required for microbiology. Refer to Laboratory Medicine handbook for details) and seal.
* Label the container using either a hospital sticker, an order-comms label or by hand writing the patient’s name, date of birth, hospital number, and the date and time of collection. Check these details with the patient.
* If required, send with a request form via the POD system or via porter to Laboratory Medicine, or analyse for dipsticks or other tests immediately.

## Collection of urine from a patient **with** a urinary catheter:

The urine sample should be collected from the sampling port using aseptic technique. The sampling port is usually located in the drainage tubing, proximal to the collection bag.

The sample should not be taken from the tap from the main collection chamber of the catheter bag as there may be stagnant urine around the tap, in which bacteria may have colonised and multiplied.

* If possible, obtain informed consent from the patient
* If no urine is visible in the tubing, apply a non-traumatic clamp/gate clip a few centimetres distal to the sampling port.
* Once sufficient urine has collected in the tube, wipe the port with an alcohol wipe and allow to dry.
* Stabilising the tube below the port, insert the syringe tip into the port at an angle of 45°.
* Aspirate the required amount of urine. Refer to the Laboratory Medicine Handbook for further information, although 10 ml will usually be adequate.
* Remove the syringe and inject the urine sample into a white-topped urine container (or boric acid container if required for microbiology. Refer to Laboratory Medicine handbook for details) and seal.
* Label the container using either a hospital sticker, an order-comms label or by hand writing the patient’s name, date of birth, hospital number, and the date and time of collection. Check these details with the patient verbally or by checking the patient wrist-band.
* Wipe the sampling port with an alcohol wipe and allow to dry.
* Unclamp the catheter tubing as required.
* If required, send with a request form via the POD system or via porter to Laboratory Medicine, or analyse for dipsticks or other tests immediately.

# Reporting of Results

N/A

# Reference Ranges

N/A

# Assay Performance & Known Limitations

N/A