



Urinary Tract Infection (UTI) Sample Collection Leaflet User Guide

Summary

The TARGET UTI sample collection leaflets provide guidance for patients and carers on collecting urine samples in primary care. They outline recommended collection methods and practical steps to reduce contamination. High quality urine samples are essential for accurate UTI diagnosis, appropriate treatment decisions, and reducing unnecessary antibiotic prescribing.

Why create the UTI Sample Collection Leaflets?

Urine culture and antibiotic sensitivity testing play an important role in diagnosing and managing urinary tract infections (UTIs). A midstream urine (MSU) sample is considered the preferred method of collection in those who are able, but it is not always collected correctly.

Research and patient feedback suggest that many people are unaware of how contamination can affect urine sample results¹. Contamination or “mixed growth” can be a common occurrence in some settings, particularly in samples from women with suspected UTIs, and can lead to unclear or inaccurate laboratory findings². In addition, some patients may be unable to collect their own sample and rely on caregivers for assistance.

These leaflets were developed to provide clear, practical guidance on urine sample collection. They explain how to collect a MSU sample, describe alternative collection methods when MSU is not feasible, and highlight ways to minimise contamination during collection and transport. By supporting the collection of better-quality samples, the leaflets aim to improve the accuracy of UTI diagnosis, optimise management, and avoid unnecessary antibiotic use.

What are the aims of the UTI Sample Collection Leaflets?

The leaflet aims to improve the quality of urine samples being sent to labs by providing easy and accessible information for patients and carers on:

- The method for midstream urine (MSU) sampling
- The methods for clean catch urine sampling and sampling using urine collection bags and pads in groups where a MSU sample isn't feasible, e.g. in babies and young children
- Ways to reduce the risk of contamination when collecting or transporting a sample

¹ Glogowska M, Croxson C, Hayward G. Women's information needs around urine testing for urinary tract infections: a qualitative study. *BJGP*. 2022; 72 (717): e244-e251. Doi:10.3399/BJGP.2021.0564

² Lifshitz E, Kramer L. Outpatient Urine Culture: Does Collection Technique Matter? *Arch Intern Med*. 2000;160(16):2537–2540. doi:10.1001/archinte.160.16.2537

Overview of the leaflets



How to collect a midstream urine (MSU) sample

For older children, young people and adults with a female urinary system

General points

Always wash your hands with soap and water before and after collecting a urine (pee) sample.

Do not open the sterile container until you are ready to collect the sample.

Avoid touching the inside of the container, and avoid letting your genitals touch any part of it.

Label the container before collecting the sample if your healthcare professional has asked you to.

To collect a midstream urine sample

1



Remove the lid of the container and place it on a clean surface with the inside facing up.

2



Use one hand to part the labia (the folds of skin around the opening of the vagina) and hold them open.

3



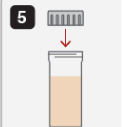
Begin peeing into the toilet (don't collect the first bit of pee). Without stopping the flow, move the container into the stream and collect some urine.

4



Fill the container with as much urine as possible without it overflowing, or to the marked line if there is one. Finish peeing into the toilet.

5



Put the lid back on the container and tighten it securely. Rinse and dry the outside of the container if it is wet.

6



Take the urine sample to your healthcare provider as soon as possible, along with any forms or labels you have been asked to fill in. Follow the tips on page 2.

Header section:

This section explains what the leaflet is about, who it is intended for and which organisations have endorsed it.

General Points section:

This section tells you what you need to know before you start collecting your sample.

Instructions on how to collect a sample:

The next section shows you step by step, with the help of pictures, how to collect your sample.

Summary information:

This section explains why a sample is needed and why the process in the previous steps is important.

Summary information

What is a midstream urine sample?

A midstream urine sample is urine collected partway through peeing.

Why do I need to collect urine midstream?

Pee from the start of the urine stream can pick up germs from the skin, which may affect the test results. Collecting the sample midstream helps avoid this and gives more accurate results.

Do I need to wash my genital area before collecting a sample?

You do not need to use special wipes or cleaning products, unless your healthcare professional tells you otherwise. Just make sure the area is clean and dry.

Can I use a jar or container from home?

You should use the container your healthcare professional has given you to collect the sample.

Does it matter when I collect the sample?

Try to collect the sample as close to your appointment as possible to get the best quality sample. Try to take the sample before you take antibiotics if you can.

Are there situations where this process may change?

Sometimes your healthcare provider may recommend a different method for collecting a urine sample. If so, follow the guidance they give you.

Tips for returning a urine sample

- ✓ **Return the sample quickly**
Take it to your healthcare provider as soon as possible – ideally within two hours.
- ✓ **Check drop-off times**
Ask when the latest drop-off time is, so your sample can reach the lab the same day.
- ✓ **Keep it cool**
If you cannot deliver the sample quickly, put it in a plastic bag and store it in the fridge until you can do so.
- ✓ **Using special sterile containers**
Some containers have a preservative powder and a marked fill line. Try to fill to the line, but if you can't, just collect as much urine as you can.

Scan here
for more
information

QR code

Tips for returning a urine sample:

This section provides useful tips on how to ensure your sample stays of good quality and can give a clear result.

QR Code link:

You can follow the QR code to find other UTI resources and view a short video version of the leaflet

Who should use these leaflets?

These leaflets are designed to be used by the following groups:

- patients (children or adults) to collect a midstream urine sample;
- caregivers to collect a sample from infants or young children using bags or pads;
- caregivers to collect a sample from infants or young children using a clean catch method.

These leaflets were not developed to be used with patients who have structural differences to their urogenital tract, for example, those who have undergone urogenital surgery.

It is up to the clinician as to whether the process outlined in these leaflets would be appropriate for an individual patient and to suggest modification or additional information that would be appropriate.

In some cases, patients may need additional assistance to collect a urine sample and should discuss their support needs with their clinician.

When should you use UTI Sample Collection Leaflets?

These leaflets can be used when a urine sample is requested by a health care provider to assess a patient for a Urinary Tract Infection and/or to check bacteria in the urine for antibiotic susceptibility. These leaflets were not designed to be used for collecting urine to monitor conditions or test for other infections, like sexually transmitted infections.

How should you use UTI Sample Collection Leaflets?

These leaflets were designed to be used in multiple ways. They can be downloaded directly from the TARGET website, printed during a consultation and discussed with patients, or they can be viewed directly online as HTML webpages. There are also accompanying videos that can be accessed via weblink and viewed by patients online.

What will you need to use these leaflets?

A healthcare provider using these leaflets will need to be able to supply or direct the patient to a supply of appropriate CE marked leak proof containers designated for urine sample collection. The [UK Standards for Microbiology Investigation](#) use the term, “CE marked leak proof container,” to describe containers bearing the CE marking used for the collection and transport of clinical specimens. The requirements for specimen containers states: “The design must allow easy handling and, where necessary, reduce as far as possible contamination of and leakage from the device during use, and, in the case of specimen receptacles, the risk of contamination of the specimen. The manufacturing processes must be appropriate for these purposes.

These leaflets follow national guidance from the [UK Standards for Microbiology Investigations Investigation of urine](#) and the [National Institute for Health and Care Excellence](#). It is beyond their remit to endorse any product or technology to collect urine samples that is not recommended by these guidelines.

How we develop and review these resources

The leaflets were developed by the TARGET team under the guidance of a steering group that consisted of healthcare professionals covering general practice, nursing and microbiology, patient representatives and representatives from NHS England and the UKHSA AMR & HCAI division. Further expert review by clinicians in primary and secondary care and patient focus groups also contributed to the development.

TARGET resources are reviewed every 3 years or sooner if new evidence indicates that an update is necessary.

How to contact us

We are happy to receive feedback about how you have used this leaflet and any constructive comments on how it can be improved. Please contact us at TARGETantibiotics@ukhsa.gov.uk. Unless they are designated as urgent based on clinical risk criteria, we will review queries quarterly and respond in writing after review by appropriate representatives.

Local adaptation and legal information

These leaflets were developed for application in England. We would discourage major changes to the content. If alterations are made by an end user to these leaflets for local use, it must be made clear within the amended document where the alterations have been made and by whom. It should also be acknowledged that UKHSA and the partner organisations shall bear no liability for such alterations.

While every care has been taken in the preparation of these leaflets, UKHSA and the partner organisations shall, to the greatest extent possible under any applicable law, exclude liability for all losses, costs, claims, damages or expenses arising out of or connected with the use of these leaflets or any information contained within them.

The evidence base and expert consensus recommendations are as complete as possible at the date of issue. Any omissions and new material will be considered at the next review. Sources of evidence can be found in the fully referenced versions of the leaflets.

This guidance is Crown copyright, which should be acknowledged where appropriate.

Accessibility

These leaflets have been awarded with a Crystal Mark for use of plain English. The Crystal Mark is a seal of approval for the clarity of a document from the Plain English Campaign.

- Crystal Mark 24504 for How to collect a midstream urine sample (female)
- Crystal Mark 24505 for How to collect a midstream urine sample (male)
- Crystal Mark 24506 for How to collect a clean-catch urine sample
- Crystal Mark 24507 for How to collect a urine sample using pads or collection bags



The HTML webpage versions of the leaflets comply with Web Content Accessibility Guidelines (WCAG) 2.2 to ensure that the content can be accessed by a wider range of people with disabilities, including those with vision, hearing, speech and movement deficiencies, photosensitivity, learning disabilities and cognitive limitations, and combinations of these. These guidelines apply to the leaflet accessed via desktops, laptops, tablets, and mobile devices

Special Thanks

Thanks to our Steering Group members for their guidance and contributions to the development of these resources:

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Ruth Jones – Patient Representative

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