Enfer Medical Microbiology Sample FAQ Guidance

This guidance is intended to support GPs and nursing staff with correct sample collection, handling, and interpretation of laboratory results. Following these recommendations helps ensure accurate testing, timely reporting, and reduces the need for repeat samples.

Urine Samples

1. How should a urine sample be collected?

- **Mid-stream urine (MSU)** is preferred where possible.
  Patients should be advised to start urinating, then collect the sample partway through.
- **Catheter specimens (CSU)** or **pad urines** should only be sent where clinically appropriate.
- **Urine collected from pads cannot be tested** due to a high risk of contamination.
- If a mid-stream sample is not possible, a **single urethral catheterisation specimen** is recommended.

2. Urine samples (MSU/CSU) accepted by the laboratory are the following:

- Urine Monovette with boric acid (green) – Preferred.
- Urine Monovette (yellow)
- Urine sterile multipurpose container

3. When should the urine sample be collected?

- Samples should ideally be collected **on the same day** the patient attends the surgery or clinic.
- Home-collected samples that are dropped off later are often **too old to test** and may be rejected.

4. How long is a urine sample stable?

- Urine samples must be **less than 3 days old** when they reach the laboratory.
- Collecting samples on the day of attendance significantly reduces:
  - Sample rejection
  - Requests for repeat samples
  - The risk of misleading or inaccurate results

5. Why does sample freshness matter?

- Fresh samples provide **more accurate results** and help prevent misleading test reports.

6. Are any containers better for urine stability?

- **Green-top urine containers (with boric acid)** preserve urine for **one additional day** compared to standard containers.

7. When is urine microscopy performed?

- If the sample volume is **≥ 2 ml**, it will be sent for **microscopy**.
- If the volume is insufficient, the sample will go for **culture only**.
  - The report will include the comment:
    "Insufficient sample for microscopy – please send another specimen if clinically indicated."

8. When is urine culture performed?

- Samples with <10 white blood cells (WBC) are not routinely cultured, unless the patient:
  - Is pregnant
  - Is immunocompromised
  - Has a known urinary or renal abnormality
- Samples with **≥10 WBC** are **automatically sent for culture**.

9. What clinical details should be included?

Providing relevant clinical information is essential for correct processing. Please include details such as:

- Recent surgery or invasive procedures
- Known kidney or urinary tract abnormalities
- Immunocompromised status
- Pregnancy
- Recurrent UTIs
- Previous antibiotic failure or suspected treatment failure
- Recent antibiotic use
- Recent travel

These details may influence laboratory processing and interpretation.

This list is not exhaustive — include any additional relevant information.

10. What does "mixed growth" mean?

- Growth of **three or more organisms** usually indicates **sample contamination**, particularly with MSU samples.
- In these cases, a causative organism cannot be identified.

11. How will contaminated samples be reported?

Results will be reported as:

- $>10^5$ cfu/ml Heavy Mixed Growth, or
- 10^4–10^5 cfu/ml Mixed Growth

  with a comment indicating likely contamination.

Further testing is **not routinely performed** unless there is a clear clinical indication (e.g. immunocompromised patient or urological abnormality).

12. How can contamination be prevented?

- Ensure patients receive clear instructions for:
  - Mid-stream urine (MSU), or
  - Clean-catch urine collection
- Correct collection:
  - Improves result accuracy
  - Reduces the need for repeat samples
- Where WBC is raised and **up to two organisms** are isolated, these will be fully reported with antibiotic sensitivities.

13. How are antibiotics selected for reporting?

- The laboratory aims to report **first-line oral antibiotic options** where possible.
- Typically, this includes:
  - One penicillin-based option
  - One non-penicillin option

- If two suitable options are not available, additional appropriate antibiotics may be reported.
- Antibiotics that are **not effective** for a specific organism are **not reported** (e.g. nitrofurantoin is only available/ reported on E coli and not for *Klebsiella* or *Proteus* species, in line with EUCAST guidance).

14. Which guidelines are followed?

Antibiotic reporting follows:

- National antimicrobial prescribing guidelines
- EUCAST European guidelines

15. When should the laboratory be contacted?

- If a patient is already receiving an antibiotic not listed on the report
- For complex cases or if additional treatment advice is required
  → Please contact the **Consultant Microbiologist at Enfer Medical to discuss**

Swab Samples

16. Who should collect the swab?

Please indicate on the request form whether the swab was:

- Taken by clinical staff, or
- Self-taken by the patient

17. How long are swab samples stable?

- Swabs must reach the laboratory within **5 days of collection**.
- Samples received after this time will be **rejected** and a repeat sample requested.
- This ensures results are accurate and clinically meaningful.

18. What type of swab should be used?

Swabs accepted by the laboratory are the following:

- Gel amies with charcoal
- Gel amies
- Copan liquid swabs

19. What clinical details should be provided for swabs?

Include relevant information such as:

- Recent surgery or invasive procedures
- Kidney abnormalities
- Immunocompromised status
- Pregnancy
- Recurrent infection
- Suspected or confirmed antimicrobial treatment failure
- Recent antibiotic use
- Travel history

20. How quickly are results reported?

- Results are reported within the agreed turnaround time where possible.
- Some samples may take longer due to additional testing requirements.

21. What will be included in the report?

Reports may include:

- Target organisms
- Unexpected organisms of clinical significance
- Explanatory comments to aid interpretation
- Infection control alerts (where relevant)

Throat Swabs

Please note that routine throat culture is primarily intended to detect Group A Streptococcus.

22. When is anaerobic culture added?

If clinical details indicate:

- Recurrent infection
- Persistent symptoms
- Treatment failure
- Quinsy
- Recent surgery

An anaerobic culture plate will be added and incubated for **10 days**.

23. How are results interpreted?

Reports may include a comment such as:

"The throat is a colonised site; organisms other than Group A Streptococcus are commonly isolated and should be interpreted in clinical context."

Genital Samples

24. What is reported for vaginal and vulval swabs?

- *Candida* species may be isolated.
- Species-level identification is only performed if:
  - Infection is recurrent, or
  - Treatment failure is suspected

  (Please include relevant clinical details.)

25. Is susceptibility testing available for Candida?

- Available via the Mycology Reference Laboratory (Bristol)
- Results typically take 4–6 weeks

26. Bacterial Vaginosis (BV) Screening

- Available for patients **≥13 years and <55 years of age** using HVS/LVS samples.
- For women **over 55 years**:
  - BV screening by Gram stain is not recommended
  - An anaerobic culture plate is added instead
  - If anaerobes are isolated, the report will state:

    "Anaerobes isolated – likely susceptible to metronidazole"

Genital STI Screening

27. How should STI samples be sent?

- For **Gonorrhoea, Chlamydia, and Mycoplasma**:
  - Send an **Aptima tube** with a swab or urine sample for PCR testing
- Gel swabs from cervix or urethra may be sent for *Neisseria gonorrhoeae* culture only

  (Currently referred to The Doctors Laboratory, London)

28. Are there plans for in-house testing?

- Endocervical and urethral swabs are currently referred externally.
- In-house screening is planned for **later in 2026**.

29. What happens if a pathogen is difficult to isolate?

- Swabs from skin, wound, and genital sites often contain multiple organisms.
- If further work is required:
  - Testing may take longer
  - A preliminary report will be issued as soon as possible

30. What about resistant organisms?

- Some organisms require:
  - Additional antimicrobial testing, or
  - Confirmation at a reference laboratory
- This may delay final results
- A preliminary report will be issued where possible

Contact the Laboratory

- To speak with the Consultant Microbiologist or Laboratory Scientists at Enfer Medical. Please provide the below information to help us return calls promptly and avoid delays in patient management.
  - A mobile number
  - A landline number
  - 3 suggested times to call back at.

Urine Microscopy Reporting Categories

Particle	Normal (-)	Mild (+)	Moderate (++)	High (+++)	Very High (++++)	Clinical Interpretation examples
RBC (Red Blood Cells)	0–10	10–100	>100	—	—	Trauma, infection, bleeding
WBC (White Blood Cells)	0–40	40–100	>100	—	—	Inflammation or infection
CRY (Crystals)*	0–6	6–18	18–60	60–132	>132	Risk of stone formation
EPI (Epithelial Cells)	0–5	5–10	10–20	>20	—	Contamination or inflammation
YEA (Yeast)	0–3	3–10	10–20	20–50	>50	Suspected candiduria