

The Cytology Laboratory provides a rapid service for liquid based cervical samples. Urine cytology is performed in house while other non-gynaecological cytology samples are referred to a UKAS accredited laboratory for reporting.

Human papilloma virus (HPV), Chlamydia and Gonorrhoea testing is carried out routinely from ThinPrep vials and can be requested at the time the cervical sample is taken.

Laboratory hours

The laboratory department is open between 9.00am and 6.00pm. Out of hours results available on 020 7307 7373.

Urgent samples

It is helpful if requests for urgent samples can be discussed with the Cytology Manager. Please telephone 020 7307 7323.

Use of service/Information required

Request forms must include **3 identifiers** (this can be patient's full name = 2, date of birth, hospital number or reference number) and need to accompany each sample.

Appropriate clinical information providing previous treatment/histological diagnosis is essential to ensure correct management recommendations can be given in the patient report. Tick boxes are provided to assist you.

The specimen container must be clearly labelled with patient details. Forms and samples which are mismatched will result in the sample being returned to the sender for correction and will delay the report turn around time.

Clinical advice

The Consultant Cytopathologists and the Advanced Practitioner work together to provide clinical and technical advice, including recommendations for follow-up, HPV testing and management of complex cases. To contact the department directly, please telephone 020 7307 7323.



RECORD...

- ...the patient's 3 identifiers to include date of birth on the vial.
- ...the patient information and medical history on the cytology requisition form.



OBTAIN...

...an adequate sample from the cervix using a Cervex Brush (broom-like device). Insert the central bristles of the brush into the endocervical canal deep enough to allow the shorter bristles to fully contact the ectocervix. Push gently and rotate the brush in a clockwise direction five times.



RINSE...

...the Cervex Brush immediately into the PreservCyt Solution vial by pushing it into the bottom of the vial 10 times, forcing the bristles apart. As a final step, swirl the brush vigorously to further release material. Visually inspect the Cervex Brush to ensure that no material remains attached. Discard the brush.

Do not leave the head of the Cervex Brush in the vial. Check the vial is in date before use.



TIGHTEN...

...the cap so that the black torque line on the cap passes the black torque line on the vial. Do not over-tighten.



PLACE...

...the vial and request form in a specimen bag for transportation to TDL.

ThinPrep® PAP Test Cervex Brush Protocol

PREPARE ALL EQUIPMENT BEFORE STARTING THE PROCEDURE

- Note expiry date on sample collection vial. Do not use expired vials.
- Ensure the entire plastic seal is removed from the lid of the vial and discarded.
- Complete patient details on both the request form and the vial.

 Specimens may be returned or discarded if details are missing from the vial.
- Remove the lid from the vial before taking the sample.
- Use of lubricant is NOT recommended.

DO

- If excessive mucus is present, this should be gently removed before sampling.
- Use either the Cervex Brush (broom-like device) on its own or a Plastic spatula and endocervical brush combination.
- The Cervex Brush should be rotated 5 times in a clockwise direction.
 The Plastic spatula should be rotated through 360 degrees and the endocervical brush rotated through one quarter to one half turn.
- Immediately rinse the collected material into the vial.
- Replace the lid and tighten so that the black torque line on the cap passes the black torque line on the vial to avoid leakage.
- Keep the unlabelled portion of the sample vial free of labels so that the contents can be seen.
- If barcoded labels are used these must be applied horizontally around the vial.
- Samples should be sent to the laboratory without delay.

DON'T

- DO NOT leave the head of the Cervex Brush in the vial.
- DO NOT routinely clean the cervix or take a cervical swab before taking a cervical sample.
- An endocervical brush should never be used in isolation.
- DO NOT under any circumstances use a wooden spatula.
- DO NOT leave the collection device sitting in the vial whilst dealing with the patient.
- DO NOT over-tighten the lid on the vial.
- DO NOT place multiple labels on the outside of the vial.
- DO NOT apply barcoded labels vertically on the vial.
- DO NOT use expired vials.
- DO NOT delay the sending of vials to the laboratory. The sample needs to be processed within 3 weeks of collection.
- DO NOT use excessive lubricant please AVOID if possible.

Gynaecological Samples

The Cytology department processes cervical samples directly referred from all sectors of practice – Health Screening, Occupational Health, GP's, Consultants, Colposcopy Units, Clinics, Hospitals and other Laboratories.

Liquid Based Cytology (LBC) is processed using the Hologic ThinPrep system.

The Doctors Laboratory uses the Hologic Imaging system as an enhanced Quality Control.

Information for Sample Takers is available by contacting the department. Important: the head of the cervical broom must NOT be left in the vial. The use of lubricant interferes with LBC sampling and may result in an inadequate sample. Use of lubricant is NOT recommended as it can affect the processing quality of the sample. Supplies of Thin prep vials are available from TDL.

STI Screening from Hologic Thin Prep Vial (HPV - see page 6)

Tests are priced individually. Please request tests individually. Thin Prep Vials are kept for 21 days after receipt of sample. Requests for additional tests from the vial already received in the laboratory can be made by contacting the Cytology Department.

Infection by PCR (singles)

| TEST | CODE | SAMPLE REQS | TAT |
|------------------------|------|-------------|--------|
| Chlamydia trachomatis | TPCR | TPV | 2 days |
| N. gonorrhoea | TGON | TPV | 2 days |
| Chlamydia/Gonorrhoea | TCG | TPV | 5 days |
| Mycoplasma genitalium | MGEN | TPV | 2 days |
| Ureaplasma urealyticum | UGEN | TPV | 2 days |
| Trichomonas vaginalis | TVPC | TPV | 2 days |
| Gardnerella vaginalis | GVPC | TPV | 2 days |
| Herpes Simplex I/II | HERD | TPV | 5 days |

| 7 STI PROFILE BY PCR FROM THIN PREP VIAL | | | |
|---|---|--|--|
| Chlamydia trachomatis N. gonorrhoea Mycoplasma genitalium Macrolide Resistance Test (M.gen)* Ureaplasma Trichomonas vaginalis Gardnerella vaginalis Herpes Simplex I/II | All tests can be requested individually *included if POSITIVE M.gen is detected from the same sample. TAT 2 DAYS | | |
| | PP12 | | |
| TPV | | | |

Human papillomavirus (HPV) is a common virus transmitted through sexual contact. High Risk subtypes of HPV (HR-HPV) are linked to the development of abnormal cells and can cause cervical cancer. HPV is a necessary cause of invasive cervical cancer. Evidence shows HPV testing is a more effective way to identify women at risk of cervical cancer than by testing microscopically for abnormal cells from a PAP smear.

HR-HPV testing has been used in the UK since 2011 to identify women with low grade cytology abnormalities and as a follow up test of cure in women who have received treatment. In 2017 the UK NHSCSP recommended that **testing for HPV should replace cytology as the first (primary test) in cervical screening**. Primary HR-HPV testing has higher sensitivity for high grade CIN than primary cytology. HR-HPV testing also has a lower false negative rate than cytology. Primary HR-HPV testing was fully implemented in the UK during 2020. Sample taking remains unchanged: HR-HPV testing is carried out from Thin Prep samples. Cytology will be undertaken as a triage if HPV is DETECTED.

WHAT DOES THIS CHANGE MEAN?

It means that HPV testing is the **FIRST LINE TEST**. It will be carried out as a single test, with a single result reported as DETECTED/NOT DETECTED.

- If HR-HPV is NEGATIVE (NOT DETECTED) this means no further testing is needed for your patient: she returns to Routine Recall
- If HR-HPV is POSITIVE (DETECTED) this means that CYTOLOGY will be processed from the same Thin Prep Vial. A further specimen is not required.
- If the CYTOLOGY result from this sample is HR-HPV NOT DETECTED the patient Recall
 will be determined by the screening history and will either be a repeat HR-HPV test in 12 months'
 time or, if HR-HPV remains persistent, a referral to colposcopy will be recommended.
- If the CYTOLOGY result from this sample is ABNORMAL the recommendation is to refer this patient for COLPOSCOPY.

https://www.gov.uk/government/publications/cervical-screening-primary-hpv-screening-implementation/cervical-screening-implementation-quide-for-primary-hpv-screening-implementation-guide-for-primary-hpv-screening-guide-for-primary-hpv-screening-guide-for-primary-hpv-screening-guide-for-primary-hpv-screening-guide-for-primary-hpv-screening-guide-for-primary-hpv-screening-guide-for-primary-hpv-screening-guide-for-primary-hpv-screening-guide-for-primary-hpv-screening-guide-for-primary-hpv-screening-guide-for-primary-hpv-screening-guide-for-primary-guide-for-primary-hpv-screening-guide-for-primary-hpv-screening-guide-for-primary-hpv-screening-guide-for-primary-hpv-screening-guide-for-primary-hpv-screening-guide-for-primary-hpv-screening-guide-for-primary-guide-for-primary-guide-for-primary-guide-for-primary-guide-for-primary-guide-for-primary-guide-for-primary-gui

Since 1st January 2019 all TDL requests for HPV have been processed as follows:

- If HPV is requested as a single test, and the result is NEGATIVE/NOT DETECTED, cervical cytology (PAPT) will only be processed if specifically requested.
 The PAPT would be charged as an additional test.
- If HPV result is DETECTED, cervical cytology (PAPT) will be processed, even if not requested. The PAPT cervical sample will NOT be charged additionally.
- If cervical cytology (PAPT) is requested, HPV will always be processed with the PAPT.
 The PAPT will be charged.

UNDERSTANDING THE SIGNIFICANCE OF HPV TESTING

The benefit of a negative HPV result is its negative predictive value – meaning that a negative HPV result indicates that a patient is at very low risk of developing cervical disease. The negative predictive value of both DNA and mRNA testing is the same. DNA tests detect presence of virus only. A mRNA test detects the presence of viral oncogenic expression.

Requests for Cervical Cytology (PAPT) only will no longer be processed without HPV. HPV testing will be charged.

Requests for PAPT

| TEST | CODE | SAMPLE REQS | TAT |
|-------------------|------------------------|-------------|----------|
| Cervical Cytology | PAPT will include HPVH | TPV | 2-3 days |

If PAPT is requested as a single test, HR-HPV will be undertaken additionally, and a combined report will be issued. **PAPT and HPVH will be charged**.

Requests for PAPT with selected HPV (HPVH or HP20 or HPVT)

| TEST | CODE | SAMPLE REQS | TAT |
|---------------|-------------|-------------|----------|
| PAPT and HPVH | PAPT + HPVH | TPV | 2-3 days |

If PAPT and HPVH are requested together, results will be given as a combined report, **PAPT and selected HPVH test will be charged**.

Requests for HPV as the PRIMARY TEST will reflex to PAPT if HPV is DETECTED/POSITIVE. PAPT will NOT be charged.

| TEST | CODE | SAMPLE REQS | TAT |
|-----------------------------------|------|-------------|----------|
| HPV mRNA (All High Risk Subtypes) | HPVH | TPV | 2-3 days |

If HPV is DETECTED/POSITIVE, cervical cytology (PAPT) will be processed **without charge**. The PAPT will be processed from the same vial.

Requests for HP20 as a single test

| TEST | CODE | SAMPLE REQS | TAT |
|---------------|------|--------------|----------|
| HPV Typed DNA | HP20 | TPV/PCR Swab | 2-3 days |

HPV low and high risk DNA subtypes will be reported individually (5 low and 14 high risk). If HPV is DETECTED/POSITIVE, cervical cytology (PAPT) will be processed **without charge**. The PAPT will be processed from the same vial.

Requests for HPVT as a single test

| TEST | CODE | SAMPLE REQS | TAT |
|---------------|------|-------------|--------|
| HPV Typed DNA | HPVT | TPV | 3 days |

If one or more of DNA types 16, 18, 31, 33, 45 are DETECTED/POSITIVE, reflex testing for expression of E6/E7 oncoproteins will be undertaken and cervical cytology (PAPT) will be processed **without charge**. The PAPT will be processed from the same vial.

HPV/PAPT Combined Report

Where HPV result is reported with Cervical Cytology, a recommendation for patient management will be given, based on the combined findings.

Self-collection HPV samples

TDL Self-Collection HPV Test

Human Papillomavirus (HPV) is the primary cause of nearly all cervical cancer. In most cases, the HPV virus is harmless and causes no symptoms. Most women who acquire HPV are able to clear the infection through their own immune systems. Persistent presence of high-risk types of HPV can cause cervical lesions which over time may develop into cancer if untreated. Testing for HPV determines the presence, or absence, of HPV and will determine whether the HPV type present is high risk for CIN and cervical cancer.

The **Self Collection HPV Test** provides women with the option to self-collect a vaginal specimen that is then sent to the laboratory for testing. There is well documented high level of concordance between the HPV DNA results from self-collected and clinician-collected specimens.

The **Self-Collection HPV Test** is validated, using a CE marked sample collection device for vaginal cell collection. This sample is then sent to the laboratory for processing for 14 high risk HPV DNA subtypes. A negative result means that these high-risk subtypes HPV were not detected and the patient is at extremely low risk of developing high-grade cervical disease/CIN2+ before their next routine visit.

A positive HPV result might indicate an increased risk of developing CIN/cervical cancer, and the report from the laboratory will provide a clear recommendation for follow-up/colposcopy.

The value of HPV DNA testing in cervical cancer screening and disease detection has been proven over and over again. Self-collection of specimens for HPV testing is not intended to replace existing patient management pathways but allows for:

- . Those who wish to test following a change of sexual partner
- Option for identifying individual high risk DNA subtypes
- Personal preference to self-collect vaginal samples
- An acceptable option for women who avoid having regular cervical smears
- Self-collection for HPV increases acceptability and coverage rate of cervical cancer prevention

Results will always be sent to the requesting clinician, clinic or healthcare organisation.

HPVY Self-Collected HPV DNA with reporting of high risk subtypes (16, 18, 31, 33, 35, 39, 45, 51, 52, 56, 58, 59, 66, 68).

HPVZ Self-Collected HPV DNA with individual reporting of all subtypes

16, 18, 31, 33, 35, 39, 45, 51, 52, 56, 58, 59, 66, 68.

For more information, or to order Self-Collection HPV Test Packs, please contact Annette Wilkinson on 020 7307 7373 or annette.wilkinson@tdlpathology.com

| TEST | CODE | SAMPLE REQS | TAT |
|---|------|---------------------|---------|
| HPV mRNA (All High Risk Subtypes) | HPVY | Self-collection kit | 3 days |
| HPV Individually Typed High Risk DNA Subtypes | HPVZ | Self-collection kit | 10 days |

Self-collection HPV samples



