Cellular Pathology Services
INTELLIGENT PATHOLOGY

HEALTHCARE STAFF INFORMATION *e*-LEAFLET 1

Handling of Diagnostic Cytology Samples

Diagnostic cytology is mainly concerned with providing a diagnosis in patients with suspected disease, whereas most Gynaecologic cytology is concerned with the detection of pre malignant disease in predominantly well women as part of a screening programme.

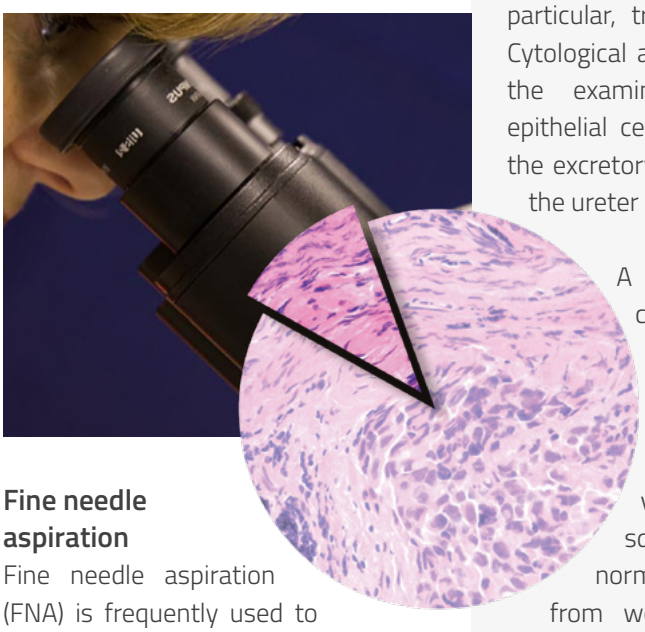
The method of cell sampling will depend upon the site to be examined. In many cases, cells will naturally exfoliate; in others assisted exfoliation may be required with the use of brushes. Less accessible lesions can be sampled using fine needle aspiration (FNA) cytology with or without the assistance of imaging devices such as ultrasound, X ray guidance, Computerised Assisted Tomography or Nuclear Magnetic Resonance.

Although the primary aim of diagnostic cytology is to assist in the making of a diagnosis for malignant disease, sometimes it is useful for the detection of infective agents.

Sampling of the respiratory tract can be used to diagnose both primary and secondary (metastatic) lung tumours. Unless the tumours have characteristic features it is not possible to always distinguish between primary and metastatic disease.

Fine needle aspiration cytology, urine cytology, fluid cytology, joint fluid cytology for crystals and other diagnostic cytology samples are processed and examined at CPS. All these samples are seen and reported by a Consultant Pathologist.

CPS monitors turnaround time for diagnostic cytology specimens as one of its KPI. Urgent processing of samples is possible, please discuss with the pathologist.



Fine needle aspiration

Fine needle aspiration (FNA) is frequently used to provide a rapid diagnostic procedure performed in an outpatient setting with or without the use of imaging.

Prepare direct smears on slides, which should be labelled in pencil with the patient's surname. If you are taking material from more than one site, indicate the individual site on each slide. It is also important to indicate whether or not the slides are fixed, by labelling them as "dry" or "fixed".

Urine cytology

The cytological analysis of urine is useful in the screening, diagnosis and follow-up of urological malignancy, in particular, transitional cell carcinoma. Cytological assessment is based upon the examination of desquamated epithelial cells the urine passes from the excretory tubules in the kidney via the ureter and bladder to the urethra.

A combination of urothelial cells and squamous cells (derived from the trigone and/or urethra) and glandular cells may be present. Additionally, vulvovaginal contaminant squamous cells are also normally seen in samples from women. Samples may be obtained by direct collection of urine, bladder washouts, samples obtained from cystoscopy, catheterisation or

For further information please contact us on:

01923 233 299
info@cellularpathologyservices.co.uk

www.cellularpathologyservices.co.uk
Unit 12, Orbital 25 Business Park, Dwight Road, Tolpits Lane, WATFORD, Hertfordshire. WD18 9DA

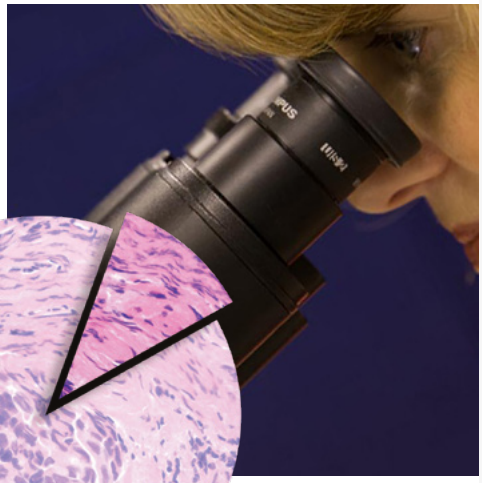
Cellular Pathology Services
INTELLIGENT PATHOLOGY

HEALTHCARE STAFF INFORMATION *e*-LEAFLET 2

Handling of Diagnostic Cytology Samples

ureteric brushes. It is important to know how a sample has been obtained; cystoscopy and instrumented samples are typically very cellular and may lead to an erroneous diagnosis of low-grade transitional cell carcinoma.

Using a sterile container, collect the 2nd voided urine of the day (an early morning urine will have stagnated overnight in the bladder resulting in degeneration of the cells). Submit on three separate occasions (different days) to increase the yield if a urothelial carcinoma is suspected; these samples need to be labelled as urine sample 1, 2 or 3.



Minimum acceptable volume useful for cytological assessment is 25mls. If it is not possible to send the sample to the laboratory straight away, you should refrigerate the specimen at 4°Celsius.

Please do not send a single sample for both Cytology and Microbiology testing as samples cannot be shared.

This should be refridgerated up to a maximum of 72 hours, after this time the cells will start to degrade making diagnosis difficult.

Sputum cytology

Using a sterile container collect a good deep cough early morning sputum sample, before the patient has ingested food or cleaned their teeth. Submit on three separate occasions (different days) to increase the yield if a lung carcinoma is suspected; these samples should be labelled consecutively 1, 2 and 3 and each specimen sent promptly to the laboratory without waiting for the next specimen to be obtained. If it is not possible to send the sample to the laboratory straight away, you should refrigerate the specimen at 4° Celsius.

This should be refridgerated up to a maximum of 72 hours, after this time the cells will start to degrade making diagnosis difficult.

Bronchial washings and bronchial brushings

Bronchial brushings are prepared in the clinic and must be fixed immediately in 95% alcohol or spray fixed. The bronchial washings are sent directly to the Laboratory for preparation. If it is not possible to send the sample to the laboratory straight away, you should refrigerate the specimen at 4° Celsius.

For further information please contact us on:

01923 233 299
info@cellularpathologyservices.co.uk

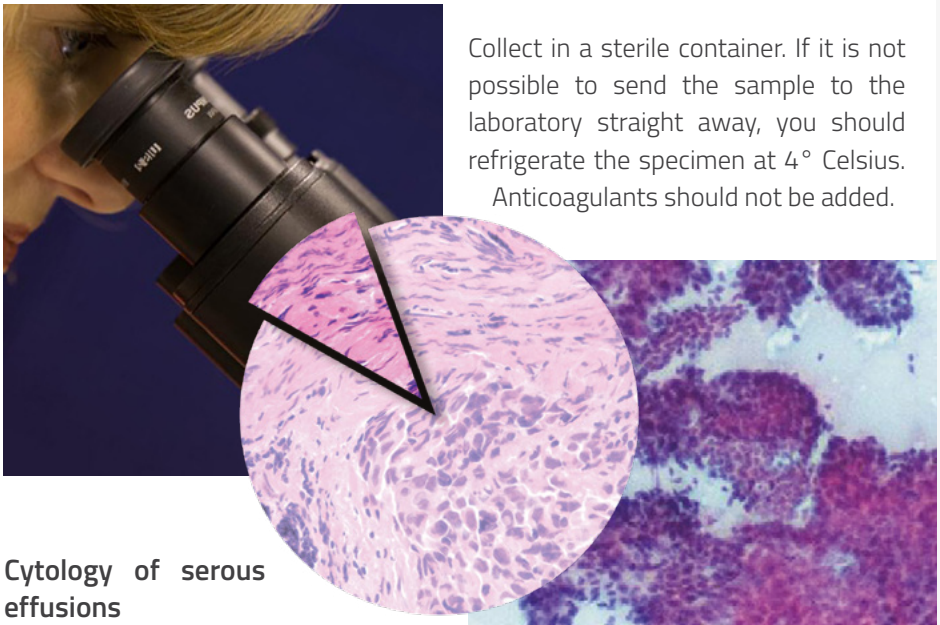
www.cellularpathologyservices.co.uk
Unit 12, Orbital 25 Business Park, Dwight Road, Tolpits Lane, WATFORD, Hertfordshire. WD18 9DA

Cellular Pathology Services
INTELLIGENT PATHOLOGY

HEALTHCARE STAFF INFORMATION *e*-LEAFLET 3

Handling of Diagnostic Cytology Samples

This should be refridgerated up to a maximum of 72 hours, after this time the cells will start to degrade making diagnosis difficult.



Cytology of serous effusions

The sampling of fluids from the serous membranes of the pleura, peritoneum and pericardial cavities is performed to ascertain the reason for excess fluid collecting in these spaces. These membranes normally produce only small amounts of fluid to provide lubrication for moving surfaces. There are two basic types of fluid, the transudate and the exudate. Transudates have a low protein and cellular content and may be associated with circulatory disorders. Exudates have a high protein and cellular content and may be associated with infections or malignant disease.

Collect in a sterile container. If it is not possible to send the sample to the laboratory straight away, you should refrigerate the specimen at 4° Celsius. Anticoagulants should not be added.

This should be refridgerated up to a maximum of 72 hours, after this time the cells will start to degrade making diagnosis difficult.

Cerebrospinal fluid (CSF)

The specimen should be sent to the laboratory in a sterile universal container immediately after it has been taken. If it is late in the day, please advise the laboratory of impending arrival to ensure technical cover so that the specimen can be processed on arrival.

Cyst aspirates

Send the maximum volume of fluid in a sterile container as soon as possible after aspiration.

Synovial fluid

The minimum volume is 5ml, which should be presented as soon as possible after collection. Please indicate whether examination for crystals is also required. If it is not possible to send the sample to the laboratory straight away, the sample should be refrigerated at 4° Celsius.

This should be refridgerated up to a maximum of 72 hours, after this time the cells will start to degrade making diagnosis difficult.

UKAS MEDICAL 9685

CareQuality Commission
Ref: 1-240465912

For further information please contact us on:

01923 233 299
info@cellularpathologyservices.co.uk

www.cellularpathologyservices.co.uk
Unit 12, Orbital 25 Business Park, Dwight Road, Tolpits Lane, WATFORD, Hertfordshire. WD18 9DA