

**TRAINING IN TAKING SAMPLES FOR
LIQUID BASED CYTOLOGY**

**LBC Implementation Guide No 4
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NHS Cancer Screening Programmes
The Manor House
260 Ecclesall Road South
Sheffield S11 9PS

Tel: 0114 271 1060

Fax: 0114 271 1089

Email: nhs.screening@sheffield-ha.nhs.uk

Website: www.cancerscreening.nhs.uk

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1. INTRODUCTION

Liquid based cytology (LBC) technology has been in use since 1996 in the USA and parts of Europe. Now, following the successful completion of the implementation pilots in England, the National Institute of Clinical Excellence (NICE) has recommended that LBC techniques are introduced across the NHS Cervical Screening Programme (NHSCSP). The implementation is part of the wider modernisation of the NHSCSP and will take up to five years to complete. The timescale will be determined by the need to retrain all laboratory staff involved with cervical cytology, all primary care sample takers and the installation of equipment in laboratories.

The purpose of this document is to assist primary care trusts (PCTs) and providers of primary care nurse training in developing local training strategies for primary care sample takers who are already trained to take samples for conventional cervical cytology. The content of an LBC taught course is given. Examples of training materials are provided as a separate PowerPoint presentation.

2. TRAINING STRATEGY

2.1 LBC implementation strategy

Local strategies for implementing LBC should be developed by strategic health authorities (SHAs) in close collaboration with PCTs, particularly PCT directors of public health. Training for primary care sample takers should be managed as an integral part of the local LBC implementation strategy. Trainers will need to pay particular attention to scheduling the training in consultation with their local laboratory(ies). There should be close liaison between trainers and the laboratory to ensure that accurate records are kept of all staff who have been trained. Laboratories should not supply consumables for taking LBC samples until they are satisfied that all sample takers in a practice or clinic have been trained in taking LBC samples.

2.2 Training delivery

All sample takers working in the NHSCSP should be trained before taking samples for liquid based cytology. Training may be either through attendance at a taught course or through cascade training delivered at GPs' practices or clinics. The method and timing of training delivery should be decided as part of the local LBC implementation strategy, and will depend on local arrangements for primary care training and on the laboratory timescale for conversion to LBC.

2.3 Taught course

The taught course is a minimum of two hours (excluding breaks), made up of lectures, interactive sessions and preparation for clinical practice. The course content is given in section 4. The taught course can be added into an existing nursing update course or an educational half day. This is the

easiest method to arrange as these courses are already routinely organised. Update days vary in content and timing and are almost exclusively attended by practice nurses. Educational half days are multidisciplinary. Alternatively, the taught course can be delivered as a stand alone course at different venues. GPs' practices and clinics need sufficient warning of dates for the taught course. Suitable venues need to be found, preferably within the local area if the taught course is delivered as a stand alone course. Taught courses of up to 25 participants work well, and allow group interaction and sharing of information.

2.4 Cascade training

If cascade training is adopted, each practice should identify a clinical lead who has attended the taught course and is prepared to undertake the training of other sample takers in their practice. The following criteria should be fulfilled in order to become a clinical lead:

- competence in taking samples for conventional cervical cytology
- participation in cervical cytology updates at least once in the past three years
- ability to communicate effectively with colleagues in the practice.

The clinical lead should either be the clinical lead for cervical cytology (if one has already been identified) or another experienced sample taker. Alternatively, some areas may employ nurse trainers who visit practices to train staff. This method may need to be used for practices or clinics that are not able to send a clinical lead to attend a taught course.

2.5 Training records

As part of the training strategy, the PCT should keep a register of primary care sample takers who have attended a taught course. There should also be a procedure agreed between the PCT and laboratory for signing off practices and clinics when all sample takers have been trained. An example form is shown in Appendix 1. A copy of the attendance register for the taught course and the list of practices and clinics where LBC training is complete should be available to the laboratory holding the LBC supplies. Supplies of LBC consumables should not be released to a practice or clinic until sample takers have been trained.

2.6 LBC supplies

An order form for LBC consumables should be designed in consultation with the laboratory. Recommended numbers for ordering should be included as storage can be an issue for some practices. The form should also include suggested items for return to the laboratory when these are no longer required for conventional cytology (eg glass slides, slide carriers, unopened fixative bottles).

3. TAUGHT COURSE

3.1 Aim of the course

The taught course has been designed as a framework for meeting the training needs of sample takers who are already experienced in taking samples for conventional cervical cytology. The aim of the course is to extend their skills to enable them to take samples suitable for liquid based cytology.

3.2 Outline timetable

09.30	Welcome and introductions
09.40	Session 1: Overview of the NHS Cervical Screening Programme Why liquid based cytology?
10.00	Session 2: Revision of anatomy and physiology of the cervix
10.10	Session 3: Taking the LBC sample Communicating with women
10.45	Break
11.00	Session 4: Comparison of LBC and conventional cytology
11.10	Session 5: Practical issues Questions and discussion
12.00	Close

3.3 Learning outcomes

At the end of the course the sample taker will:

1. be able to understand the difference between conventional and liquid based cytology and be able to communicate this to women
2. be able to take a liquid based sample using the recommended equipment and procedure according to the manufacturer's instructions
3. be able to handle the liquid based sample safely
4. be able to order supplies of equipment and return unused equipment to the local laboratory, using the appropriate form.

3.4 Learning activities

A variety of teaching methods should be used during the course:

- lectures
- practical demonstrations
- videos
- discussion.

An example PowerPoint presentation is available on the NHS Cancer Screening Programmes website (www.cancerscreening.nhs.uk). Trainers may wish to use some or all of the slides as part of their teaching materials.

A laboratory visit to view the new technology would be useful as an optional extra.

3.5 Other learning resources

The following materials may be useful for course participants to refer to after attending the course, or to use as training aids for cascade training in their practice or clinic:

- NHS Cancer Screening Programmes website: www.cancerscreening.nhs.uk
- NHSCSP leaflet *Cervical Screening: THE FACTS*¹
- local information relating to LBC
- product based information (video, CD RoM, samplers, vials, protocols) provided by the equipment suppliers: Cytoc UK Ltd (the ThinPrep® system) or Medical Solutions plc (the SurePath™ LBC system).

3.6 Certificate of course attendance

A register should be kept of all those attending the taught course and a certificate of course attendance should be issued (see example shown in Appendix 2).

4. CONTENT OF SESSIONS

Session 1: The NHS Cervical Screening Programme

- Aims and objectives of the NHSCSP
- Facts and figures about cervical cancer
- Cervical screening statistics
- The NICE recommendation

- Why LBC has been introduced
 - continuing improvement to the NHSCSP
 - limitations of conventional cytology
- How LBC is different
 - easier method for sample takers
 - reduces unwanted material (eg mucus, blood, polymorphs)
 - thin layer preparation
 - smaller area of slide to screen
- What LBC can offer the cervical screening programme
 - dramatic reduction in inadequate tests
 - reduction in anxiety for women
 - reduction in workload for primary care and laboratory staff
 - potential for increased automation.

Session 2: Revision of anatomy and physiology of the cervix

- Use pages D1–D4 from the *Resource Pack for Smear Takers* (NHSCSP Publication No 9)* to revise the transformation zone²
- Any additional local material showing different presentations of the cervix.

Session 3: Taking the LBC sample

- Equipment
 - specula of different sizes, reusable and once only use
 - Cervex-Brush®
 - endocervical brushes
 - fixative vials: ThinPrep or SurePath
 - gloves
 - good light source
 - waste disposal
 - sterilisation facilities
 - black ball point pen
 - sample forms and bags
 - leaflets
- The woman
 - welcome
 - check identity – name, date of birth, address, NHS number
 - explanation of new technique
 - information leaflets
 - answer questions
 - communicating effectively with women

*A second edition of the resource pack, which includes guidance on taking samples for LBC, is in preparation.

- Collecting the sample
 - using the Cervex-Brush®, insert the central bristles of the brush into the endocervical canal so that the shorter, outer bristles fully contact the ectocervix
 - using pencil pressure, rotate the brush **FIVE TIMES in a clockwise direction**
 - in order to ensure good contact with the ectocervix, the plastic fronds of the brush are bevelled for **CLOCKWISE rotation only**
 - a high cellular yield will be achieved with correct use of the brush.

IMMEDIATELY FIX THE SAMPLE using appropriate instructions below.

ThinPrep

- Rinse the brush into the fixative vial using a vigorous swirling motion.
- Push the brush into the bottom of the vial at least 10 times, forcing the bristles apart. **FIRM PRESSURE IS NECESSARY or the cells will cling to the brush.**
- Inspect the brush for any residual material and remove any remaining by passing the brush over the edge of the fixative vial.
- Ensure that the material reaches the liquid or it will not be preserved.
- Tighten the cap so that the torque line passes the torque line on the vial.
- If you have placed any material on the edge of the vial give it a shake.

SurePath

- Simply remove the head of the brush from the stem and place into the vial of fixative.
- Screw the lid on and shake to ensure that the cells do not cling to the device.

NB For both methods, it is essential that the sample is placed in the vial at once in order to achieve immediate fixation. Please remove the speculum after you have done this.

- Completing the consultation
 - ask the woman to dress and join you at the desk to complete the consultation
 - check that the woman's name and date of birth are recorded on the vial
 - check that the form is complete
 - ensure that the woman understands how and when she will receive her result
 - discuss possible results and follow-up if appropriate
 - ensure that the woman understands that if she has any abnormal bleeding or discharge she must see her GP
 - let the woman know how to seek further advice
 - complete notes/computer record
 - place the vial in an appropriate package for transport to the laboratory
 - dispose of equipment and waste safely
 - send the sample to the laboratory as soon as possible
- Frequently asked questions
 - use local examples.

Session 4: Comparison of LBC and conventional cytology samples

- Use examples provided by the local laboratory.

Session 5: Practical issues

- Cascade training
 - all sample takers taking liquid based samples must have some form of training
 - organise a short session back at the practice to train all other sample takers
 - training resources are available from the training organiser
 - send or fax the form back to the training organiser when training is complete
- Supplies
 - attendance register for the taught course needs to be available to the laboratory holding the supplies
 - supplies of consumables are **NOT** to be given to any clinician unless they are on the attendance register
 - a special order form should be used for LBC consumables
 - recommended numbers for ordering are to be included because storage can be an issue in some surgeries
 - suggested items for return to the laboratory can also be included, eg glass slides, slide carriers, unopened fixative bottles
 - health and safety: product information
- Useful contacts
 - contact details for local training organiser and laboratory.

REFERENCES

1. *Cervical Screening – THE FACTS*. Department of Health, 2004.
2. *Resource Pack for Training Smear Takers*. Sheffield, NHS Cervical Screening Programme, 1998 (NHSCSP Publication No 9).

APPENDIX 1: EXAMPLE RECORD OF LBC TRAINING

Liquid Based Cytology Training

Practice/clinic _____

Clinical lead _____

Contact details _____

ALL sample takers should undergo training prior to converting from conventional to liquid based cytology.

To ensure that this happens, the clinical lead for cervical cytology or another experienced sample taker should be responsible for disseminating training and information to all sample takers within the practice/clinic. That person will receive formal training at the LBC taught course.

Please could all sample takers sign the form below as evidence that they have received training. The form should be faxed or sent to:

{insert local training organiser here}

Name	Position	Date

APPENDIX 2: EXAMPLE OF CERTIFICATE

*West Surrey Primary Care Training in association with the
SE Regional Cytology Training School, Royal Surrey County Hospital*

Certificate of Attendance

This is to certify that

.....

attended

the LBC Taught Course

on

Monday March 8th 2004

Training organiser:

Date: