

CERVICAL CANCER SCREENING

**AN
INTRODUCTION FOR
HEALTH WORKERS
IN THE
CARIBBEAN**



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PREFACE

This Handbook was prepared for use by health professionals involved in the taking of Pap smears, especially those in Barbados and the Organization of Eastern Caribbean States. These countries are participants in a project to control cervical cancer in the Caribbean.

Many professionals from these countries willingly shared their thoughts and technical expertise in the production of the Handbook, which is based on one previously produced by the Ministry of Health in the Commonwealth of Dominica.

We wish to thank all those who contributed to this, the final product. We caution, however, that the Handbook is meant for use as **adjunct** to training and not as a sole teaching manual.



PAHO/WHO

French Cooperation in Health.

BACKGROUND

There is evidence that cancer of the cervix is a major health problem in the Caribbean. Barbados has the highest mortality rate from this disease among Caribbean countries and the mean death rate from cancer of the cervix is three and a half times higher in the Caribbean than in North America (PAHO/WHO, 1990).

The Caribbean Cooperation in Health (CCH) Initiative was adopted by the Caribbean Community (CARICOM) Ministers Responsible for Health in 1986. The Initiative has, as one of its targets, the development of integrated national programmes for the prevention and control of the most prevalent chronic, noncommunicable diseases in the region, including cancer of the cervix.

The cervical cancer control project is assisting in the implementation of national screening programmes in participating countries through health promotion strategies, information systems, the provision of equipment, laboratory quality control and the training of health personnel. This Handbook aims to guide health workers in taking Pap smears and in managing abnormal smears, thus increasing the accuracy of the test.

INTRODUCTION

Squamous cell carcinoma of the cervix uteri begins at the squamocolumnar junction. Cervical cancer precursors are now regarded as a continuum, to which the term cervical intra-epithelial neoplasia (CIN) has been applied.

The uterine cervix is easily accessible and can be sampled by a technique with no associated morbidity or mortality. In 1928, George Papanicolaou, a Greek physician, and Aurel Babes, a Rumanian physician, independently recognized the importance of this in assisting in the diagnosis of cervical cancer.

Following the pioneering work of Papanicolaou and Traut in 1941, the use of cytology in the diagnosis of cancer of the cervix **and its precursors** has become firmly established. By this procedure, exfoliated or desquamated cells from the cervix are examined for abnormalities which may indicate changes towards cancer formation. If early changes are diagnosed and treated appropriately, **cancer of the cervix can be prevented.**

To have maximum impact, cytological screening must be a sustainable, cyclical process, involving the active enlistment of women, appropriate counselling, follow-up and the provision of adequate treatment services.

ENLISTMENT OF WOMEN

Women may be encouraged to attend appropriate health care facilities for Pap smear screening by various methods, including:

- Direct invitation, written or verbal, through a health care professional.
- Counselling and the provision of a Pap smear request form when they interface with **any** medical clinic, not merely gynecological, antenatal, postnatal or family planning clinics.
- Outreach programs, through Non-Governmental Organizations (NGO) such as women's groups, Cancer Societies and community organizations.
- Worksite and community visits by mobile clinics.
- Special events, such as "Cancer Prevention Month" or "Pap smear Week."

TARGET GROUPS

Pap smears should be carried out on:

- All women between the ages of 18 and 69 years who are, or have been, sexually active.
- Women over 69 years of age who have never had a Pap smear.
- Women who have abnormal gynaecological symptoms or signs.

ORIENTATION OF PATIENTS

- A woman who presents herself for examination must be acquainted with the procedure so that she will cooperate.
- Staff at the health facilities must provide a professional and relaxed atmosphere that will be conducive to cooperation on the part of the patient. This task will be facilitated by:

- answering questions and allaying all fears with regard to the examination;
- ensuring privacy and sufficient time to discuss the procedure and answer questions;
- emphasizing the importance of a follow-up examination.

Group or individual orientation may be carried out depending on the circumstances.

Pamphlets explaining the procedure should be available to be given to the woman at the time of orientation. "**The Pap Smear: An Investment in Family Health**", produced by PAHO/WHO, is an example of such educational material.

COLLECTION OF PATIENT MATERIAL

The use of the standard cervical cytology request/report form designed for use in the Caribbean is encouraged (see sample form in Annex). If this is unavailable, a similar form may be used, but it is important that the information obtained should be consistent across the Caribbean, for purposes of accuracy and comparison.

Health workers must realize the importance of **obtaining and legibly filling in all information requested**. This information is essential for accurate interpretation of the Pap smear - patient identification data, previous and current therapy, parity and physical findings are all vital in making sure errors are avoided.

TAKING OF THE PAP SMEAR

Requirements: (FIGURE ONE)

1. Vaginal speculum, bivalve (Cusco). This may be metal (a) or plastic (b): small, medium and large should be available and used with a good light, torch or spotlight.
2. Clean frosted end glass slide on which should be printed the patient's name and date of birth in pencil.
3. Ayres spatula.
4. Cytobrush or cotton swab if brush is not available.

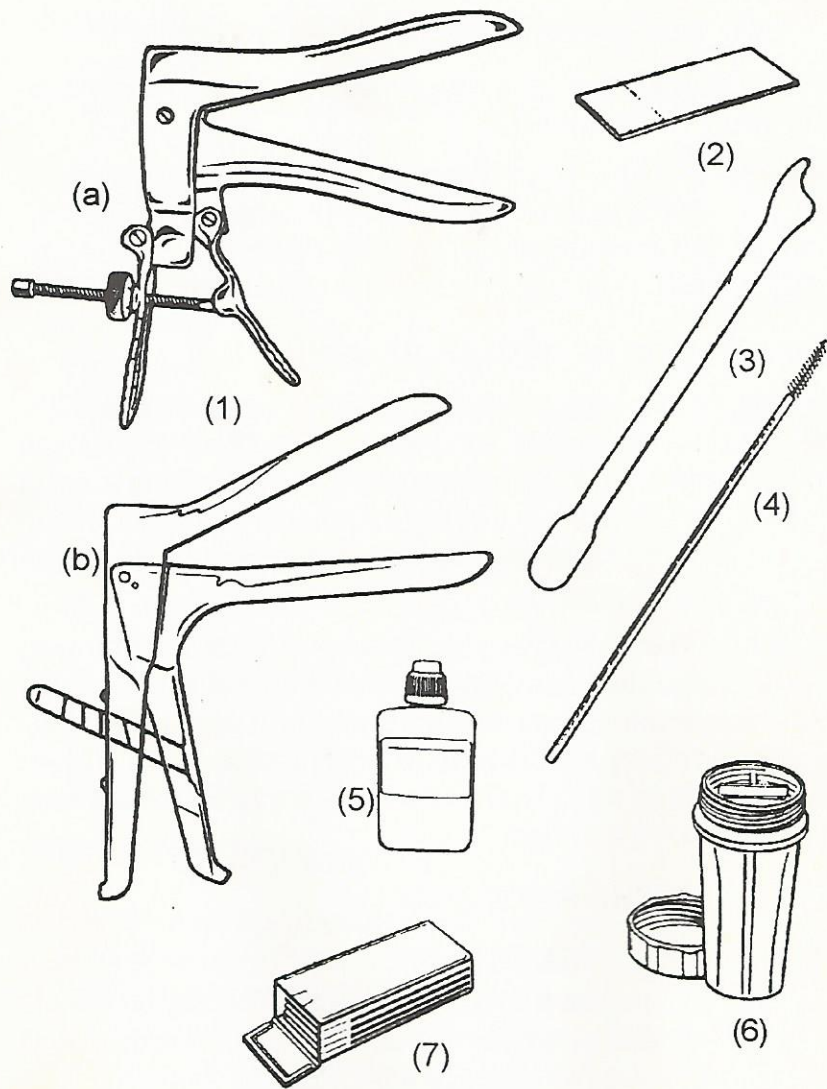


FIGURE ONE
Equipment required for performing the Pap smear

5. Cytfixative. This may be ordinary hair spray, a commercial spray made specifically for the purpose, or (6) a jar with 95% alcohol.
6. Container with 95% alcohol.
7. Specimen transport box.
8. Cytology request/report form, (**see Annex**).

METHOD OF SMEAR TAKING

The cervical smear is a good diagnostic tool for detection of EARLY neoplastic changes of the cervix (FIGURE TWO). This is done by obtaining the cells from the endocervix, ectocervix and vagina, the last being especially important in post-menopausal women.

The smear should be taken before digital vaginal examination is done. The speculum should be clean of glove powder. **NO** lubricant should be used, but tap water may be used for moistening the end of the speculum.

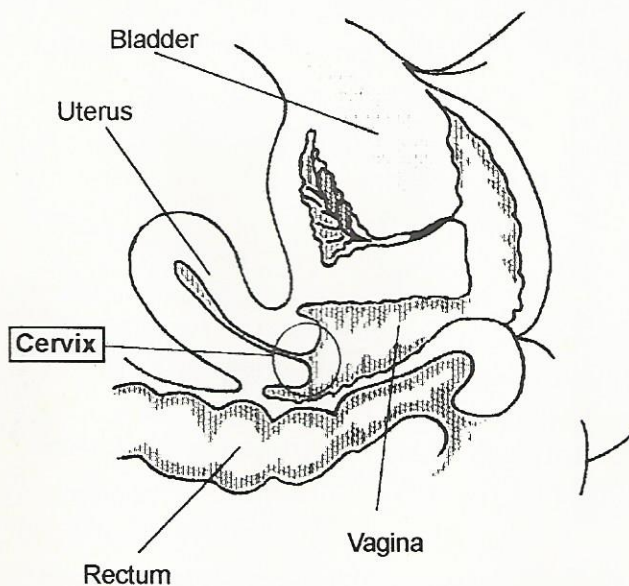


FIGURE TWO
Transverse section of the female pelvis with cervix highlighted.

The patient should be reassured and made comfortable, then placed in the dorsal position with her legs apart. If a metal speculum is being used, she should be told that the instrument may feel cool. The speculum should be introduced gently and the cervix adequately exposed (FIGURE THREE).

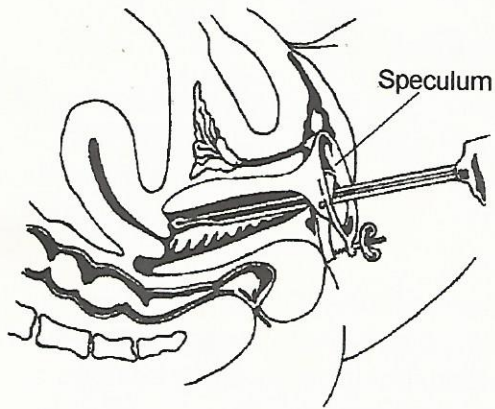


FIGURE THREE
Exposing the cervix
using a speculum.

The brush is inserted into the endocervix and rotated through 180°. This is smeared at one end of the slide (FIGURE FOUR).

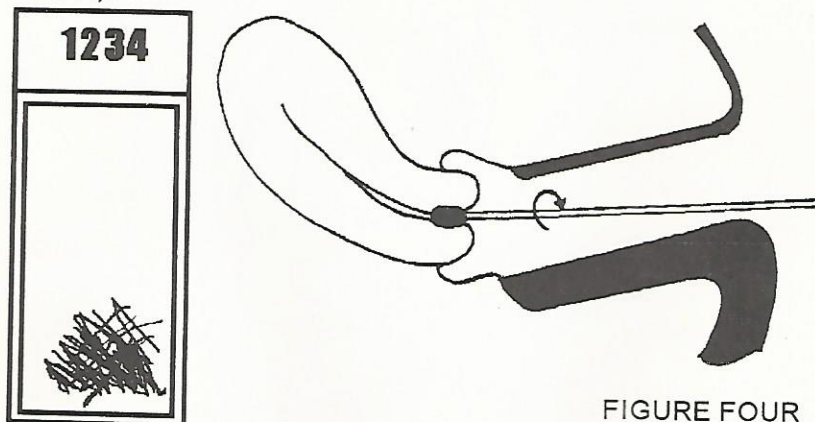


FIGURE FOUR
Rotate brush through 180°

① The spatula is then used with the longer wing inserted into the external os and rotated through 360° using a little pressure so that the surface cells of the ectocervix are obtained. This is applied on the middle 1/3 of the slide (FIGURE FIVE).

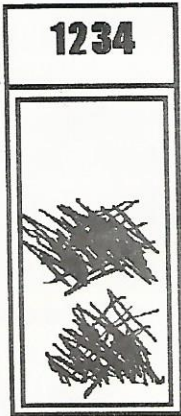
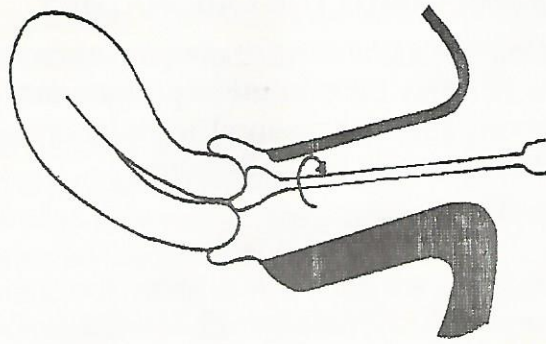


FIGURE FIVE
Rotate brush 360°

The other end of the spatula is then used to obtain cells from the posterior vaginal wall in the posterior fornix. The smear is applied to the last 1/3 of the slide (FIGURE SIX).

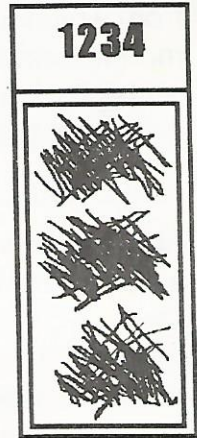
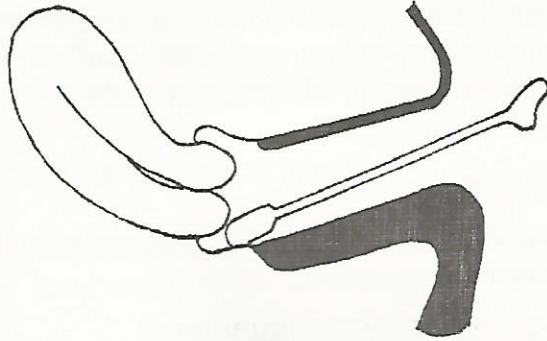


FIGURE SIX
Sampling secretions in the posterior fornix

The above steps of taking an adequate smear need to be done in quick succession. The smear must be fixed immediately by using the spray fixative held 6-8" away from the slide or placing the slide in the jar with alcohol. This will prevent air drying.

CARE SHOULD BE TAKEN that the smear is:

- 1 not too thick
- 2 not air dried
- 3 not too bloody

TRANSPORTING SMEARS TO THE LABORATORY

All smears should be dispatched with their accompanying request form, **which must be completely filled out in duplicate** (use carbon paper if necessary), to the laboratory as soon as possible, preferably within 24 hours.

FREQUENCY OF TAKING SMEARS

After two (2) negative smears done a year apart, the smear should be done every three (3) years unless, clinically, more frequent sampling is indicated.

LABORATORY RESULT AND MANAGEMENT/ FOLLOW UP OF THE PATIENT

The interpretation and diagnosis of the smears submitted will be returned on the original request form to the clinics from which they originated, with comments and/or recommendations. Comments and recommendations made on the report by the Cytotechnologist/Pathologist should be considered in the clinical follow up.

ABNORMAL SMEARS

All women with abnormal smears should be referred to a doctor for further management.

Guidelines for management

All patients seen with cytological changes without suspicion of CIN or HPV/condyloma

Pelvic examination

Establish type of inflammation and treat

Repeat cytology 8 - 12 weeks after treatment



All patients with two consecutive abnormal smears with inflammatory atypia and without an identified cause and/or with HPV/condyloma should be referred for colposcopy.

All patients with CIN I, CIN II, CIN III/CIS corresponding to mild dysplasia through to carcinoma in situ and patients with smears consistent with condyloma and malignancy must be referred for colposcopy.

PROCEDURE FOR COLPOSCOPY

All patients should have had a full pelvic examination with evaluation of the pelvic organs before colposcopy is carried out. The method includes:

1. Speculum examination
2. Application of acetic acid
3. Schillers test
4. Record keeping

Speculum Examination

A bivalve speculum, preferably a Grave's or Cusco, may be used.

The cervix should be exposed without disturbing its surface. The cervix and vagina are gently cleansed with cotton wool. Normal saline may be used. The appearance is noted. Leukoplakia, if present, will be visualized.

Application of acetic acid

Using a large cotton wool swab on a tip (e.g. Scopettes - 8" cotton tipped applicators), three percent (3%) acetic acid is applied to the ectocervix. When this is done, the papillae of the squamocolumnar junction rapidly appear, so that the site of the junction may be identified and recorded.

As further acetic acid is applied and reaches deeper layers of the epithelium, any abnormality which is present will become more apparent. If the squamo- columnar junction is not visible on viewing the cervix, the following manoeuvres may be used to demonstrate it:

- 1 Pressure with a cotton wool swab from behind forwards on the anterior lip of the cervix. This allows the external os to open and the junction to become visible anteriorly. A similar manoeuver is then applied to the posterior lip.
- 2 An endocervical speculum or a polyp forceps may be introduced, closed, into the cervical canal and then opened slowly to spread the orifice and the canal.

Whatever method is used, the investigation requires much gentleness and careful technique. Having examined the ecto- and endocervix, the walls of the vagina should also be examined.

Schillers Test

The examination should be completed by the Schillers test using a large cotton wool tipped swab soaked in Lugol's solution. The cervix and vagina are painted. Any iodine-negative or poorly stained zones should be noted. Biopsies may then be taken from the ectocervix, endocervix and vagina as indicated.

Record keeping

A colposcopic diagram should be used.

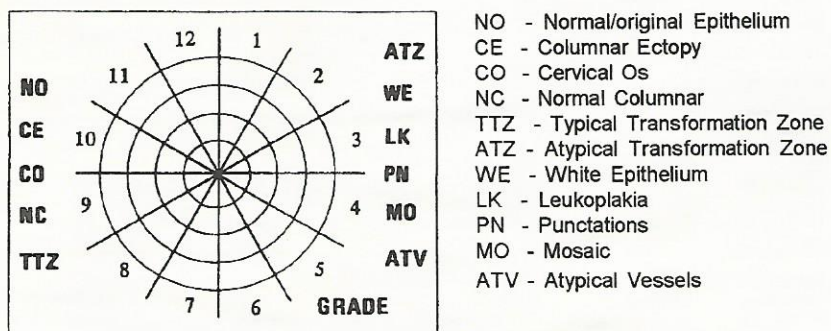


FIGURE SEVEN

The above may be made as a stamp.

It should show the site of the squamo-columnar junction, if visible. If the junction is not visible, this finding must be noted. All abnormalities should also be recorded, as well as the biopsy sites.

CONCLUSION

Cervical cancer is one of the cancers that can be prevented. Every effort must be made to decrease its incidence and it is hoped that the Handbook will assist health professionals as they strive to achieve this goal.

PAHO/WHO
French Cooperation in Health

CERVICAL CYTOLOGY REQUEST/REPORT FORM

SECTION I (To be completed by person taking smear)

Patient Reg. No. _____

NAME: Last _____ First _____ M.I. _____ Maiden _____
 ADDRESS: _____
 PATIENT ID # _____ DOB: Y M D _____ AGE: _____ OCCUPATION: _____
 CLINIC/HOSPITAL: _____ COUNTRY: _____

CLINICAL DATA

MOST RECENT CYTOLOGY: (Tick the appropriate box)
 Date: _____
 Lab #: _____
 Result: Pregnant Post Partum Postmenopausal Wks _____ Yrs _____
 L.M.P. Y M D _____
 No. of pregnancies: _____ Parity: _____
 Contraceptives: Condom I.U.C.D. Hormonal Pill Inj
 Other Therapy: Oestrogens Progestogens Other

PREVIOUS GYNAECOLOGICAL THERAPY (Tick the appropriate box)

Cervix biopsy: Histology _____ Date (Y/M/D) _____
 Punch LLETZ/LEEP Cone
 Other treatment: Cryosurgery Radiotherapy Chemotherapy Other (Specify) _____
 TAH/VAH BSO/USO

EXAMINATION:

CLINICAL APPEARANCE: Normal None Cervical Spontaneous
 DISCHARGE: Normal None Ecropy. Rubulent
 SOURCE OF SPECIMEN: Cervical Endocervical Brush
 METHOD USED: Normal None Ecropy. Rubulent Ulcer Leukorrhoea Endometrial Other (Specify) _____
 CLINICAL COMMENTS: _____

SMEAR TAKEN BY: _____ STATUS (Please tick) Doctor Nurse/Midwife
 SIGNATURE: _____ DATE: Y M D _____

SECTION II (To be completed by laboratory)

Lab No. _____
 Date received: Y M D _____

LAB NAME: _____ COUNTRY: _____
 SMEAR: Satisfactory Unsatisfactory Reason: _____
 Satisfactory but limited by: _____

DIAGNOSIS: No abnormal cells Abnormal cells not classified Describe: _____
 Abnormal cells consistent with:
 Mild dysplasia (CIN I) and/or condyloina Severe dysplasia/CIS (CIN III)
 Mild dysplasia (CIN I) Invasive squamous cell carcinoma
 Moderate dysplasia (CIN II) Invasive adenocarcinoma

OTHER FINDINGS:

Inflammation: Mild Moderate Severe
 Inflammatory epithelial effects Metaplasia Atypical metaplasia
 ASCUS AGUS Yeast Trichomonas Abnormal bacteria: Specify: _____
 Viral effects: HSV HPV (condyloina)
 Other organisms: Specify: _____
 Atrophic effects Irradiation effects Keratosis/Hyperkeratosis High maturation index

COMMENTS: _____

RECOMMENDATIONS: Repeat smear In immediately In _____ months After therapy Ensuring endocervical sampling
 Colposcopy / biopsy

CYTOTECHNOLOGIST: _____ SIGNATURE: _____
 PATHOLOGIST: _____ SIGNATURE: _____ DATE REPORTED: Y M D _____
 (See explanations overleaf)

CYTOLOGY REQUEST FORM SAMPLE

ANNEX

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CARICOM
Caribbean Community Secretariat
Bank of Guyana Limited,
P.O. Box 10827 Georgetown, Guyana 02-69281.
Fax 592-2-67816



PAN AMERICAN HEALTH ORGANIZATION
WORLD HEALTH ORGANIZATION
Office of Caribbean Programme Coordination
Navy Gardens, Dayrells Road, St. Michael, Barbados.
Mailing Address: P.O. Box 508, Bridgetown, Barbados.