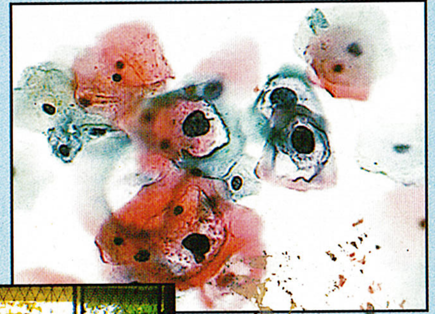
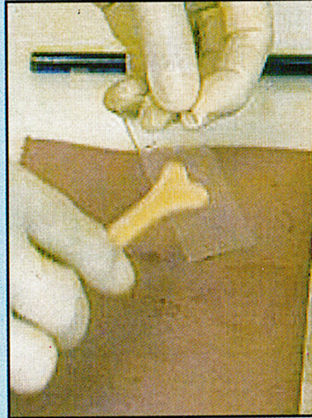
GUIDELINES FOR CERVICAL CYTOLOGY SCREENING AND REPORTING IN SRI LANKA





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Guidelines for cervical cytology screening and reporting in Sri Lanka
2010

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PREFACE

The guidelines on Cervical Cytology Screening and Reporting in Sri Lanka was originally published in 2006 in collaboration with Sri Lanka College of Pathologists and Gynaecologists. As there was a need to revise the guidelines in Cervical cytology smear taking, cytology reporting, management and follow-up of abnormal smears, few modifications were made to the document in 2010.

Cervical Cancer, the commonest cancer of the female genital tract and the second commonest cancer among Sri Lankan females is a preventable disease with early screening and timely interventions. Therefore, it is very important to strengthen the pre-cancerous screening for early detection of Cervical Cancer among the targeted women. This service is currently being available in almost all Well Woman Clinics conducted through Primary Health Care services in this country.

We wish to thank UNFPA for their greatest contribution in publishing this booklet. We hope that the national guidelines published in the document will be used by all health professionals involved in the Well Woman Clinic Programme.

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INTRODUCTION

The concept of Well Woman Clinics was introduced in 1996 to screen women for reproductive organ malignancies as a result of reproductive health concept promoted by the international agencies at the International Conference on Population and Development in Cairo in 1994. The screening programme for reproductive organ malignancies (Breast and cervical cancers and certain other conditions like Hypertension and Diabetes) was commenced through the primary health care infrastructure.

Sri Lanka stands as a pilot country in whole of South Asia to successfully implement the Well Woman Clinic services at primary health care level with the aim of improving the health status of women at their late reproductive age.

Family Health Bureau is the focal point at the national level for Well Woman Clinic Programme. In it's implementation Bureau works very closely with the National Cancer Control Programme, Sri Lanka College of Pathologists and Obstetricians and Gynaecologists.

At the end of 2009, a total number of 790 Well Woman Clinics were functioning in the country. The clinic services are implemented through Provincial Health System where Medical Officers of Health and the public health team is responsible for conducting these clinics. The clinics based in hospitals are conducted by the Medical Officers attached to these institutions. If any abnormality is detected, the clients are referred to an appropriate clinic for specialized care and thereafter follow-up of the cases will be done by the Public Health Midwife at the field.

Early detection and identification of pre-cancerous lesions of cervical carcinoma is one of the most important procedures in Well Woman Clinics. A modified Bethesda system was adopted by the relevant colleges

and organizations as the accepted reporting system for cervical smear screening and reporting in Sri Lanka. The target age group for Well Woman Clinic services has been identified as women between the age group of 35 - 60 years which is nearly a 25 percent of the population in Sri Lanka.

The target age group for pap smear screening

In 2007, it was decided that the age for cervical cancer screening should be limited to one age cohort annually, in order to yield a better coverage of the target population. Based on the epidemiological evidence, a decision was made to actively campaign to screen a cohort of females at the age of 35 years. However, the other women who voluntarily request screening will also be provided with services at WWCs including pap smear screening.

PART I

LABELING & OBTAINING A CERVICAL SMEAR

Cervical Screening should be done in a manner which makes the client happy to come for their smears. It should not be an unpleasant experience which the client will try to avoid or postpone. This can be done by the service provider, clearly explaining the importance of the procedure and the steps introduced.

Clients should be instructed not to douche on the day of the examination. She should not be using any intra vaginal medication at the time of testing. A cervical smear should not be performed if she has bleeding or obvious infection. If an infection is present, cervical smear should be performed only after appropriate treatment.

Before starting the procedure, all necessary equipment and supplies should be available at hand. The glass slides should be correctly labeled and the coplin jar filled with 95% ethanol / isopropyl alcohol should be kept ready to use.

LABELING OF SLIDES

This is a very important aspect as incorrect labeling of slides will result in erroneous reports or even a mix up of results among several patients.

Please ensure that the following precautions are taken:

1. Each slide should have an identification mark on the slide using a diamond pencil before the smear is made (i.e. Well Woman Clinic No. / Client No.). Do not use paper labels, marker pens etc. on the slides as these will wash away when the slide is immersed in alcohol for fixation.

2. Ensure that the slide is labeled according to the instructions given

(i.e. Well Woman Clinic No / Client No.), before the smear is made. The same identification number must be written on the accompanying referral form (annexure I).

OBTAINING A CERVICAL SMEAR

The dorsal position is suitable for smear taking and a source of good illumination should be available at the foot end of the bed. A speculum of suitable size should be chosen for examination. It may be slightly moistened with water before insertion and the use of other lubricants or antiseptics should be avoided. Once the speculum is inserted the ectocervix should be clearly visualized (Figure 1).

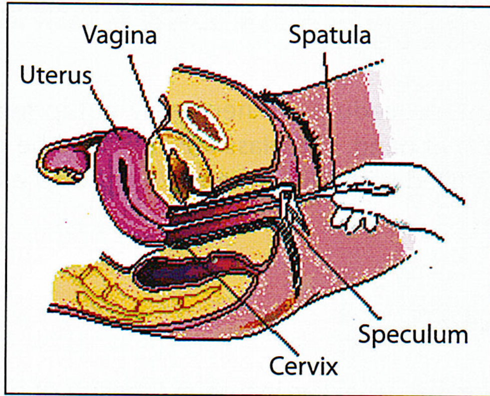

Figure 1: Visualization of the cervix

The thinner extended prong (narrow end) of the spatula should be inserted into the cervical os and rotated 360 degrees clockwise while keeping it apposed to the cervix. (Figure 2). Since there is a tendency to slip over certain areas, a reverse anticlockwise rotation towards the opposite direction should also be performed immediately.

In the case of a large, patulous or multiparous cervix, the broader end of the spatula is the most suitable to take the smear. This requires thorough scraping of the ectocervix over the whole area, using the broad, flat end of the spatula in backwards and forwards movements.

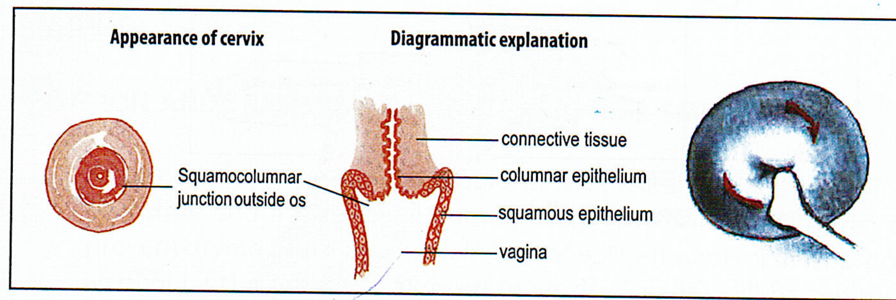

Figure 2: Smear taking

Postmenopausal or postconisation os, with no visible squamo-columnar junction demands careful sampling of the canal. In this situation a sample may be taken with endo-cervical brush additionally.

Bimanual vaginal examination should be performed only after the cervical smear has been taken.

Spreading the Smear

It is important to spread the material collected on the spatula quickly but evenly, avoiding thick areas which would result in incomplete penetration of the fixative. The spatula should be held flatly over the middle of the glass slide spreading the mucus material evenly in a flat motion to one side.

Then turn the spatula to the other side, at the middle of the glass slide and spread the mucus to the other end.

Large clumps of material should be thinned out as much as possible, while avoiding excessive manipulation which can damage cells (Figure 3)

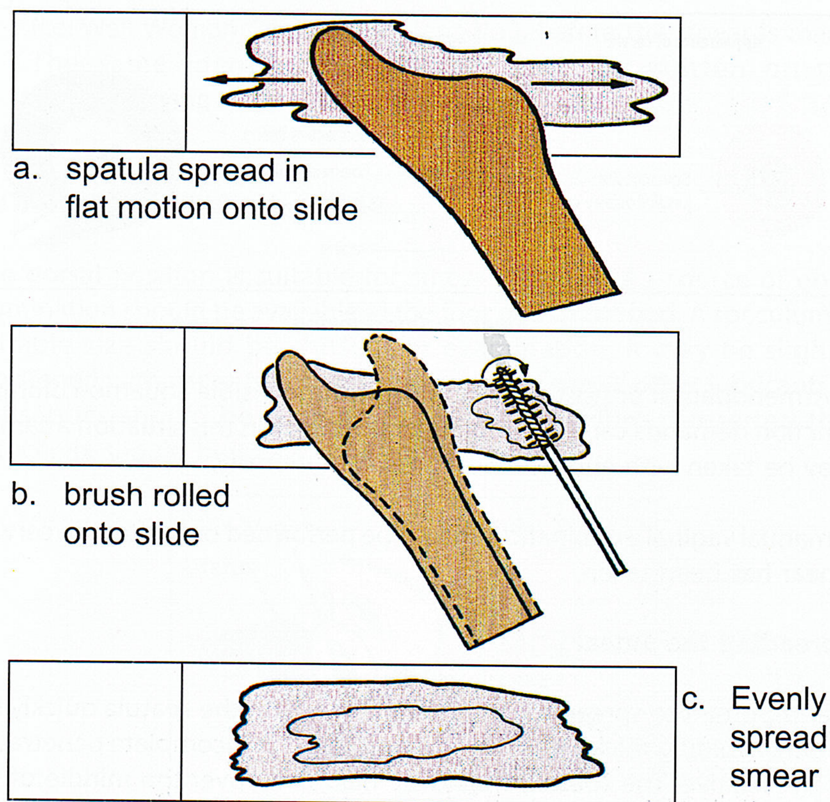

Figure 3: Preparation of the slide

Clinician Related Factors that Reduce the Accuracy of Cervical Smears

1. Inadequate sampling
2. Insufficient, unsatisfactory or thick smears
3. Contamination with blood or lubricants
4. Air-drying of the smear
5. Performing a smear in spite of obvious infection
6. Mislabeled or unlabeled slides
7. Inadequate clinical history.

PART II

FIXATION AND TRANSPORTATION OF CERVICAL SMEARS

1. All smears for pap staining should be wet fixed without air-drying. The slide should be fixed immediately (within few seconds) to prevent drying by immersing it in a jar of 95% ethanol (or in isopropyl alcohol.) If the sample is allowed to air dry, quality will be seriously impaired. Handle only the labeled end of the slide.
2. The fixation can be carried out in a Coplin's jar filled with alcohol. Alternatively plastic jars /containers (e.g. glucostix containers) filled with alcohol may be used. Do not place more than 5 smears into the same coplin jar & ensure that slides do not touch each other to avoid contamination and also to allow free circulation & rapid penetration of the fixative.
3. The slides should be "wet fixed" in alcohol for 30 minutes, taken out, allowed to dry for 30 minutes in a cool place and then transported to the laboratory, within the next 7 days
4. If alcohol sprays are used, ensure that the whole smear is covered with the spray. Ideally the alcohol in the coplin jar used for fixation should be discarded after each fixation, but due to practical problems, alcohol in the jar can be used to fix about 20 slides and then changed.
5. Transporting the slides "DRY" can be carried out in ready made wooden boxes or card board boxes. Adequate measures should be taken to ensure that the slides do not break during transport.
6. It is very important that each slide is accompanied by a referral form that has been duly completed. (Annexure 1) A common form indicating the number of slides sent, and the place from where it is being sent should accompany a set of slides (box of slides) which is sent to the laboratory for screening. (Annexure II)
7. A blue colour referral form should be filled & sent with all repeat smears of positive cases. This will enable the cyto screener to prioritize screening these slides.

PART 111

RECOMMENDATIONS FOR CERVICAL CYTOLOGY SCREENING AND REPORTING IN SRI LANKA

The following are the recommended guidelines adopted by the College of Pathologists of Sri Lanka and Sri Lanka College of Obstetricians and Gynaecologists for cervical cytology screening and reporting. These guidelines are aimed at achieving uniform reporting in cervical cancer screening by cervical smear cytology.

The cytology report is given in a standard format (annexure III) and includes;

1. General categorization
2. Diagnosis
3. Recommendations
4. Signatures of the Pathologist and the Cytoscreener with dates

THE RECOMMENDED REPORTING FORMAT

General Categorization and Diagnosis

- **General categorization**

  * **Satisfactory**- A smear is satisfactory for evaluation if,

1. the smear is appropriately labeled with correct identification.
2. the relevant clinical information is provided.
3. the smear covers more than 10% of the slide surface.
4. above criteria are satisfied in spite of lack of endocervical or metaplastic cells. In such instances, mention this lack of endocervical, metaplastic cells as a comment as a feedback for the smear taker and for MOH to take appropriate action.

- **Unsatisfactory** - A smear is unsatisfactory for evaluation if,

1. patient identification is lacking/ confusing.
2. technically unacceptable slide (eg. broken).
3. the smear is scanty, covering less than 10% of the slide surface.
4. approximately 75% or more of the cells show air drying, contaminants, thick areas, poor fixation, blood and inflammation obscuring interpretation.

- **Diagnosis**

1. Negative for intraepithelial lesion or malignancy (NILM)

All normal smears negative for malignant cells including those with inflammation, specific organisms, reactive changes due to inflammation, radiation, IUCD, atrophic changes and glandular cells status, post hysterectomy (those changes should be mentioned as a comment).

e.g. NILM with inflammation

NILM with inflammation and Trichomonas infection

NILM with IUCD induced changes

2. Low grade squamous intraepithelial lesions (LGSIL)

Will include

- HPV changes/ Koilocytes
- Koilocytes with atypia
- CIN 1

3. High grade squamous intraepithelial lesions (HGSIL)

Will include

- CIN 2
- CIN 3

4. **Atypical squamous cells of undetermined significance -ASCUS Two categories**
   - ASCUS-cannot differentiate from high grade -ASCUS HG
   - ASCUS-cannot differentiate from low grade -ASCUS LG

5. **Glandular cell atypia**
   - Endometrial glandular cell atypia
   - Endocervical glandular cell atypia
   - Glandular cell atypia not otherwise specified (NOS)

6. **Benign endometrial cells in a woman > 40 years**

7. **Squamous or glandular malignancy**

RECOMMENDATIONS FOR MANAGEMENT AND FOLLOW UP

Recommendations are based on the category/ diagnosis of the smear and aimed at optimal management of females with abnormal smears. Management modalities include a repeat smear or referral to a - gynaecologist (for the purpose of the programme). Females with normal smears should be recalled for the next smear in 5 years.

The following are the recommended management protocol for each category.

- **Satisfactory** - When endocervical and metaplastic cells are lacking MOH should check to see whether the patient is pregnant, post menopausal or on the Pill
- **Unsatisfactory**- repeat the smear immediately

1. **Negative for intraepithelial lesion or malignancy (NILM)**
   - Repeat in 5 years.
   - Inflammation - treat only if a specific organism is identified or if the client is symptomatic. Clients with non specific inflammatory smears with out symptoms should not be treated.

     All other reactive changes - MOH to treat if possible. If further management is needed, refer.

2. **Low grade squamous intra epithelial lesions (LGSIL)**

   MOH to follow up and repeat smear in 6 months.
   - 2 repeat smears six months apart

     if negative- normal follow up
   - Repeat smear - positive - refer to a gynaecologist for Colposcopic biopsy

3. **High grade squamous intra epithelial lesions (HGSIL)**
   - Refer to a gynaecologist to obtain histological diagnosis (Colposcopy and LLETZ is recommended)
   - If biopsy is + ve and if the lesion is already adequately excised, MOH should obtain a follow up smear after 3 months. If positive refer back to gynaecologist. If negative MOH should repeat smears at 3 and 6 months intervals.
   - If biopsy is -ve MOH should obtain a follow up smear and act according to the report.

4. **Atypical squamous cells of undetermined significance (ASCUS)**
   - ASCUS HG - If Coloposcopic biopsy is + ve treat as for (HGSIL). If -ve follow up with 3 smears, 3 months apart
   - ASCUS LG - MOH to follow up and repeat smear in 6 months

5. **Glandular cell atypia**

❖ Refer to a gynaecologist to investigate for cervical or endometrial lesion based on clinical details.

6. **Benign endometrial cells in a woman > 40 years**

❖ Refer to a gynaecologist to investigate based on clinical details

7. **Squamous or glandular malignancy**

❖ Urgent gynaecological referral for appropriate management

(ALL GYNAECOLOGICAL REFERRALS SHOULD BE DONE WITHIN ONE MONTH)

PART IV

CERVICAL CANCER SCREENING FOR WOMEN WHO ATTEND STD CLINICS OR HAVE A HISTORY OF STIs

All women attending STD clinics should be considered for cervical cancer screening since precursor lesions for cervical cancer occur approximately five times more frequently among women attending STD clinics than among women attending family planning clinics.

Pap smear testing is recommended,

❖ For women who do not have documented evidence of a normal Pap test within the preceding 12 months.

❖ Annual screening for women aged 21-30 years

❖ Every 2-3 years for women aged > 30 years if three consecutive annual Pap tests are negative.

Recommendations for management and follow up

1. **LG-SIL**
   Refer to a gynaecology clinic for colposcopic examination of lower genital tract and if indicated colposcopically directed biopsy.
2. **HG-SIL**
   Refer to a gynaecology clinic for colposcopy and biopsy.
3. **ASC-US**
   ASCUS HG- Refer to a gynaecology clinic for colposcopy and biopsy
   ASCUS LG- Repeat smear in 6 months, and if negative - repeat at 6 months intervals for 3 intervals.
   If negative results are noted return to cervical cancer screening at a normal interval for age.
   Refer for HPV- DNA testing if facilities are available.
   Whenever a follow up test is positive refer to a gynaecology clinic for colposcopy.

Reference-Centers for Disease control & Prevention. Sexually Transmitted Diseases Treatment Guidelines 2006- Centers for Disease Control & Prevention. MMWR recommendations & Reports 55 (RR-11) : 67-69

Annexure I

REFERRAL FORM

MOH Area

1. Full Name :
2. Age :
3. Address / Contact No :
4. NID No. :
5. Identification No (Same as the slide) :
6. Name of the Clinic :
7. LRMP : Date Month Year
8. Specimen Type :

Present — First Smear — Date

Follow up

Previous — Date — Slide No:

Normal — Abnormal

Diagnosis of previous smear:

Treatment

9. Symptoms
   - Discharge
   - Post-coital Bleeding
   - Inter-menstrual Bleeding
   - Post-menopausal Bleeding
   - Other (specify)
10. Appearance of Cervix
    - Normal
    - Abnormal (Comment)
      - Malignant
      - Cervicitis
      - Polyps
11. Condition
    - Pregnant
    - Post-natal (12/52)
    - IUCD inserted
    - Oral contraceptive
    - Menopause
    - Other hormones (Specify)

Comments:

....

....

Date : .... Signature :..

Designation :..

Annexure II

COMMON FORM

MOH area-

Clinic/ Hospital Name-

Registration No.-

No. of slides-

Date-

Designation-

Signature-

Annexure III

CERVICAL CYTOLOGY REPORT

Name:	MOH area :
Age :	Clinic name :
NID No.:	Date of Pap Smear:
Date Received:	Date Reported:
Lab No.:	Identification No.:

A) General Categorization

1. Satisfactory ☐
2. Unsatisfactory ☐

B) Diagnosis

1. Negative for intra epithelial lesion or malignancy ☐
2. Low-grade squamous intra epithelial lesion ☐
3. High-grade squamous intra epithelial lesion ☐
4. Atypical squamous cells of undetermined significance
   - Cannot differentiate from high grade ☐
   - Cannot differentiate from low grade ☐
5. Atypical glandular cells
   - Endometrial glandular cell atypia ☐
   - Endocervical glandular cell atypia ☐
   - Glandular cell atypia not otherwise specified ☐
6. Endometrial cells in a woman > 40 Years ☐
7. Malignancy
   - Squamous ☐
   - Glandular ☐

Comments :

Recommendations:

Pathologist (Name)	:................................	Cyto-Screener (Name)	:................................
Date	:................................	Date	:................................
Signature	:................................	Signature	:................................

Committee for formulation of revised recommendations for cervical cytology screening and reporting in Sri Lanka.

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