3.12.2 *Cervicography*

This method involves interpretation of a photographic record of the exposed acetowhite-treated area of the cervix with a specially developed camera. It is still under development.

3.12.3 *Analysis of cervical scrapes and biopsy specimens for human papillomavirus (HPV) infection using molecular biological techniques*

Screening for HPV has been advocated recently in view of the association between HPV and cervical cancer. Since a definite causal relationship between HPV and cervical cancer has not been demonstrated and since no satisfactory treatment of HPV is available it is inappropriate at this time to recommend this approach.

4. Management of the Patient with an Abnormal Cervical Smear

4.1 INTRODUCTION

WHEN AN abnormal smear report has been issued, the patient must be recalled for further examination and referral for treatment if necessary. Experience shows that this is not always the case, and a fail-safe mechanism for ensuring follow up must be part of the screening organisation (see 2.11).

The subsequent management of a patient with an abnormal smear depends on the degree of abnormality, the age of the patient and local gynaecological practices. Follow-up and management of the patient with an abnormal smear form the basis for this chapter.

4.2 FOLLOW-UP OF AN ABNORMAL SMEAR REPORT: FAIL SAFE MEASURES

The primary responsibility for follow-up of a woman with an abnormal cervical smear rests with the smear taker. However, support from other services involved in the cervical screening programme is essential to maximise follow-up efforts. The following fail safe measures should be in place:

(i) An abnormal smear report should be clearly marked with the phrase "further action required".
(ii) A copy of the smear report must be sent to the smear taker and the patient's general practitioner if he or she is not the smear taker. The woman should receive a letter informing her of the smear result or advising her to contact her doctor within a specified time.
(iii) A check list of all smears taken must be kept by the smear taker who must ensure all reports are received within 3 weeks of smears being sent to the laboratory for processing.
(iv) The cytology laboratory is appropriately placed to check whether action has been taken on any abnormal smear reports that have been issued. The cytology laboratories should send out a reminder to the smear taker and/or general practitioner if no action has been taken within 3 months of issuing an abnormal smear report.
(v) Despite all attempts to ensure action is taken, some women will escape follow-up either because they refuse further investigation or because they cannot be traced.

The names of such women should be given to the programme manager (see 2.8) who should keep a record of the attempts that have been made to contact the women concerned.

4.3 MANAGEMENT OF MILD DYSPLASIA (CIN1)

There is no agreement on the management of women with mild dysplasia (CIN1) or koilocytic atypia. Each case needs to be decided on an individual basis. Due to the high spontaneous regression rate and long average duration of these lesions before progression to invasive cancer, a repeat smear in 6 months is usually recommended in the first instance. Since there is evidence that in a small proportion of cases a more severe lesion may be present than is apparent from the cytological finding, colposcopy is recommended if the repeat smear contains abnormal cells. Alternatively, 2–3 consecutive negative smears should be obtained within 12–18 months before the woman may be returned to routine screening. Referral for colposcopy is recommended for women aged 35 and over (and women with symptoms) who have a mild dysplasia (CIN1). A biopsy is advised in the event of an abnormal transformation zone being seen.

4.4 MANAGEMENT OF MODERATE AND SEVERE DYSPLASIA AND CARCINOMA *IN SITU* (CIN2, CIN3)

There is no international agreement on treatment, but the following recommendations are given. Immediate referral for colposcopy is advised if the smear shows CIN2 or more. If an abnormal area of the transformation zone is seen, a biopsy is essential in these cases. If the biopsy shows CIN2 or more, treatment must be instituted. Treatment regimes are of two types; (1) local destructive therapy or (2) conisation. Local treatment may be by cryotherapy, heat coagulation, laser coagulation or loop exisicion. Conisation may be by cold knife conisation, electric loop or laser.

4.5 CONDITIONS FOR LOCAL DESTRUCTIVE THERAPY OF CERVICAL INTRAEPITHELIAL NEOPLASIA

Before local destructive treatment can be instituted the following conditions must be fulfilled:

(i) The transformation zone must be visualised in its entirety.
(ii) The abnormal area must be clearly defined. If the lesion extends into the endocervical canal local treatment is not sufficient.
(iii) A biopsy specimen must be taken before any local treatment is instituted.

(iv) Invasive carcinoma must be excluded by biopsies under colposcopic control.

Local destructive therapy may be used to treat CIN2 and 3, when the conditions defined in 4.5 are fulfilled. If they are not fulfilled, conisation as a combined diagnostic and therapeutic method is recommended. Treatment of invasive cancer is not discussed here.

Analysis of records from countries where screening programmes have been running for several years have shown a tendency towards conservative treatment whenever possible. This should be encouraged. In particular hysterectomy for small lesions should be discouraged.

4.6 COMPLICATIONS AFTER TREATMENT OF CERVICAL LESIONS

Complications may occur in 2–5% of patients receiving local therapies. They may be of short term character such as bleeding, discharge and infection or of long term nature such as subfertility, including tendency to abortion or premature delivery. Risk of complications probably depends on the technique used and the size of the cone. All complications should be recorded.

4.7 RESIDUAL AND RECURRENT LESIONS

Residual lesions are defined as the presence of abnormal cells in a cervical smear within 1 year of treatment. The potential for residual lesions to occur will depend on the clearance of endocervical margins after conisation.

4.8 FOLLOW-UP AFTER TREATMENT FOR PREINVASIVE CANCER

Most abnormal smears after treatment occur within 2 years. Thus close follow-up by repeat smears and/or colposcopy is essential after treatment. The recommended frequency for follow-up smears varies between centres, but twice in the first year and once in the second year is suggested. Women with normal smears 3 years after treatment for CIN may be returned to the screening programme.

Controlled trials comparing the various forms of local treatment and follow-up regimes are lacking. Such trials are encouraged.

5. Monitoring the Programme and Use of Resources

5.1 INTRODUCTION

CERVICAL CANCER screening programmes aim at (1) preventing cervical cancer with minimal negative side-effects, and (2) using available resources in an optimal way. It is possible to have an effective preventative programme which is not cost effective. Comparing the outcome of the screening activity with the aim of the programme is an important aspect of quality assurance. Lists of parameters which must be monitored and targets to be achieved in a cervical screening programme is given in Tables 5.1 and 5.2.

The parameters are divided into those that can be measured in the short term and those that can be measured in the long term. The description assumes a target age group of 25–65 years and a 3-year screening interval. Most of the short term parameters can be measured following the completion of a 3-year screening round. Some of them, however, require inclusion of observations from the next round. Observations for the long term parameters such as changes in mortality and in some cases also in incidence will be available only after a 10-year period.

Also specified in this chapter are the data gathering requirements needed for assessment of the programme. This is described in terms of collection of data on individual women and collection of statistical data.

Table 5.1. Monitoring the cervical screening programme. Prevention of cervical cancer. List of parameters to be measured and targets to be achieved in relation to time scale

Time scale	Parameters	Targets
Short term	Coverage	85% of all women
	Interval to reporting	Must not exceed 3 weeks
	Proportion of unsatisfactory smears	Must not exceed 5%
	Follow-up compliance	
	Treatment compliance	Follow-up and treatment to be activated within 3 months after an abnormal smear
	Sensitivity and specificity	
	Distribution of invasive cancers	
	Interval cancers	
Long term	Mortality rates	Reduction in mortality by 15% by the year 2000
	Incidence cancers	

5.2 PARAMETERS FOR MONITORING THE EFFECTIVENESS OF THE SCREENING PROGRAMME IN PREVENTING CERVICAL CANCER IN THE SHORT TERM

5.2.1 *Coverage*

If a screening programme starts in an area where the previous, spontaneous smears are not registered, all women in the catchment area should be invited to the first screening round, and the invitations should be distributed throughout the 3 year period. However, if the previous smears are registered, invitation may be restricted to women on the register who, at the time of invitation, have not had a smear during the past 3 years. Mobility of the target population must be taken into account when assessing coverage over a 3-year screening round. The coverage is calculated as the number of women with at least one smear in a 3-year period divided by the target population in the middle of the second year (mid year population).