# ESGO consensus document on cervical cancer screening

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Screening means applying a test to a defined group of persons in order to identify an early stage, a preliminary stage, a risk factor or a combination of risk factors of a disease. In all cases it is a question of detecting abnormalities which can be identified prior to the clinical presentation of the disease. The object of screening as a service is to identify a certain disease or risk factor for a disease before the affected person spontaneously seeks treatment, in order to cure the disease or prevent or delay its progression or onset by (early) intervention.

Although screening is widespread in the EC, a recent survey undertaken by the European Commission Training Programme for Cervical Cancer Screening (ECTP, CCS) shows that standards of screening throughout the EC are quite variable. In many EC countries there are no specified training requirements for personnel participating in cervical screening and no proficiency test for cytoscreeners who examine the smears.

At this moment, there are only a few European countries with a nationwide cancer-screening programme that have a fixed budget and measurable effects.

The present position is that the implementation of screening in European countries is fragmented with few national screening programmes for the total population, but many screening schemes restricted to limited groups within the population. The principal motive for starting a nationwide screening programme is the reduction of the mortality rate of cancer: is cancer really a public health problem or are others more urgent? Cervical cancer is preventable thus prevention of death from this cancer by screening has been proven. Where possible, systematic screening should be used, but there are circumstances in which an opportunistic approach may be necessary; however opportunistic preventive testing in daily general practice needs further study.

In a three-party health care system, the health care service is shared by the national or regional government, health insurance and medical professionals. These parties are in the position to establish the most important conditions for a successful, nationwide, systematic cervical and breast cancer screening programme.

These conditions are:

1) political agreement and overall political responsibility for this public health intervention;

2) a fixed budget and adequate financial services related to political commitment and support;

3) cooperation between preventive and curative systems;

4) willingness of the medical profession to collaborate in the multidisciplinary responsibility of the whole team;

5) acceptability to the population.

If these conditions are assured, all secondary conditions for population screening can be met.

The European Commission stimulates the exchange of experience and knowledge of screening programmes with a special emphasis on the quality assurance aspects of the screening.

If a national consensus exists, it should be thoroughly discussed and made applicable to local situations. Because there are differences in health needs and health services, as well as in ethical values and in legal norms and rules among countries, the decision to implement a particular screening programme should be taken on with the cooperation of the medical profession in each country.

Nevertheless, there are common general principles and problems which are equally relevant to all systems.

Screening programmes should be set up in European countries in accordance with the guidelines of the Europe Against Cancer programme, taking into account all local circumstances and complying with what is described in national guidelines and protocols. Screening is perceived differently in different countries, each country having its own system. Organisation of screening must reflect national and regional characteristics. It needs structural support (cytologic laboratories, colposcopic clinics and referral centres), it requires educational programmes for women and for the medical profession with a simple message and clear policies.

The cooperation of the medical community is based on a good clinical consensus and structural organisation. The position of women is subject to ethical approval and society support.

Programmes must have a clearly defined systematic population approach (invitation, public health education). Invitations should be accompanied by written information on the purposes and effectiveness of the programme, on the test, on potential advantages and disadvantages, on the voluntary nature of participation and state how data will be protected. An enquiry point should be provided for those requiring further information.

Screening for specific diseases should therefore always be considered in the context of comprehensive family medicine.

Screening programmes are influenced by the different health care systems in various countries, which fall broadly into two groups:

1) the G.P. functions as the point of access to the system including access to specialist care;

2) direct access to specialists without referral is possible in an "open" system.

A fail-safe mechanism to ensure adequate work-up is the responsibility of the programme. When a woman fails to attend for further work-up, the G.P. should be informed. The G.P. should cooperate with the system. Sufficient financial resources for the setting up (planning phase) as well as the accomplishment of the programme must be available prior to the start in order to ensure that all those in the target group can take part, including the socially deprived. In principle, screening should be free of charge.

An essential element of the organisation of a screening programme is the centralisation of individual medical data, to allow adequate coordination of care and to enable provision of information and counselling wherever needed by women. If effective screening cannot be implemented even on a small scale, then screening should not be attempted. Effectiveness is a necessary prerequisite for the screening to be ethical. None the less it should be kept in mind that screening can be effective and still unethical. Improvement in the efficiency of the service by redistribution of resources, increased coverage of the population and the introduction of quality assurance in all its aspects is needed in many European countries. Lack of coverage is generally due to lack of information of women or lack of data by the department of health. Screening should aim at the highest possible standards of quality from the medical and organisational point of view.

It is absolutely essential that adequate diagnostic facilities are available to confirm or reject initial screening findings as quickly as possible. Similarly, in accordance with accepted ethical principles and before implementation of screening programmes, adequate treatment facilities must be available and easily accessible for the confirmed cases. The workload placed on the health services by screening can be very large, especially since most screening programmes also lead to incidental pathological findings unrelated to the disease at which the programme is aimed.

Screening is a tool, which is potentially capable of improving the health of the population, but it also has adverse effects. Constant care should be taken to ensure that, in any screening programme, the advantages prevail over the disadvantages.

Cancer of the uterine cervix is a common gynaecological cancer, which occurs worldwide. There is now strong evidence that organised screening of a target population using the Papanicolaou test to detect cervical cancer is a very effective way of reducing the morbidity and mortality of this disease. Cytology still appears to be the most appropriate cervical screening test that is currently available.

Coverage and quality control are key factors in achieving an effective screening programme.

Determination of the target population should be as follows:

Minimal: 25/30 to 65 years.

Potential: 25/30 to 50 years (depending on coverage and medical history).

Extension to the age grup 20-25 years could be desirable.

With the conventional pap-smear, the minimal screening interval in countries where a screening programme is available is 5 years and the desirable is 3 years, unrelated to age.

The pap smear is still the fundamental screening test.

*Liquid based (monolayer) cytology* reduces inadequacies and increases sensitivity. Studies are under evaluation on specificity and cost/effectiveness.

Advantages can be expected when used with HPV testing and automated testing.

*Automated reading and computer-assisted reading* still need full evaluation for primary screening. The device might be used as a quality control. These tests need large labs and their cost/effectiveness need further evaluation.

*HPV testing:*

– Use for screening is under evaluation;

– Implications for management as a diagnostic triage of equivocal smears has been demonstrated.

Colposcopic biopsy still remains the "gold standard" for the assessment of any woman presenting an abnormal cytological smear. However, because of its low specificity, colposcopy is not intended to be a screening tool. Colposcopy can efficiently determine the nature and extent of a cervical epithelial abnormality in women with an abnormal smear. Referral for colposcopy is based on the severity of the smear with immediate referral for a high-grade cytological smear and a more conservative approach for two low-grade smears over a 6-month period, especially in young women.

– In some countries where mass screening is well organised and controlled, starting at an age between 20 and 25, after two consecutive annual normal tests at three-yearly intervals with an upper limit of 65, should provide a maximum reduction in risk.

The maximum protection after a negative smear is about 90% and remains roughly the same for several years after the test.

– In countries where screening is opportunistic, the efficiency of the system has yet to be optimized.

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