Promoting the Health of Women in Primary Care

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Screening can be defined as the active process of identifying a disease or pre-disease condition in people who are asymptomatic and apparently healthy.

Well-Person Screening in General Practice

- Screening for asymptomatic disease, or markers of risk, in order to maximise the safe provision of treatment, eg screening for sexual transmitted infections (STIs) before inserting an intrauterine device or performing an induced abortion, or for raised blood pressure before prescribing combined oral contraceptives (COCs).

Well-Person Screening in General Practice

- Opportunistic, population or high risk group screening for asymptomatic disease not directly connected with the safe provision of treatment but related to sexual health, eg screening for STIs in adolescents, or cervical cancer screening.

Well-Person Screening in General Practice

- Opportunistic, population or high risk group screening for markers of increased risk of disease unrelated to sexual health, eg measuring the blood pressure of all clinic attenders, or screening for cholesterol screening in individuals with a close family history of cardiovascular disease.

Well-Person Screening in General Practice

- Opportunistic screening for the absence of protection against disease, eg screening for rubella antibodies in young women, or for hepatitis antibodies in homosexuals, prostitutes and intravenous drug users.

Principles of screening procedures

- the condition sought should be an important health problem, usually because it is common and serious
- there should be an accepted treatment for patients with the recognised disease
- facilities for diagnosis and treatment should be available

Principles of screening procedures

- there should be a recognisable latent or early symptomatic stage
- there should be a suitable test or examination
- the test should be acceptable to the population
- the natural history of the disease should be adequately understood, and there should be evidence that early diagnosis offers a better outcome than a later one

Principles of screening procedures

- there should be an agreed policy about whom to treat as patients
- the cost of case-finding (including diagnosis and treatment of individuals with disease) should be economically balanced in relation to possible expenditure on medical care as a whole
- case-finding should be a continuing process and not a ‘once for all’ project

Characteristics of a screening test

A *sensitive* screening procedure gives a positive result when the person being screened has the disease of interest; low sensitivity means that the number of false negatives (missed cases) is high.
A *specific* screening procedure gives a negative result when the person being screened does not have the disease of interest; low specificity means that the number of false positives (non-cases) is high.

Characteristics of a screening test

The *positive predictive* value of the screening procedure is the proportion of persons with a positive result who actually have the disease. The *negative predictive value* is the proportion of individuals with a negative result who do not have the disease. Predictive values of a test reflect the underlying prevalence of disease in the community being screened; procedures developed and evaluated in hospital settings usually have very different predictive values when used in the community where the prevalence of disease tends to be lower. A low positive predictive value means that a large number of individuals have to be assessed in order to detect one case.

Costs of screening

- The costs of screening can be substantial.
- Direct costs include the time needed to perform the test or examination, costs of consumable items and laboratory facilities, expenditure investigating individuals with a positive result (who may not necessarily have the disease), and the cost of treating patients finally deemed to have the disease.

Costs of screening

- Indirect costs are more difficult to quantify but are no less important.
- Screening can create a false sense of security if a false negative result is obtained.
- The long interval between exposure and development of a positive test for human immunodeficiency virus (HIV) does not mean that a person with a negative result is clear of the infection.
- On the other hand, a false positive result can cause increased anxiety which does not necessarily resolve immediately an individual is found to be free of disease.
- A healthy consumer of preventative services can be turned into a worried patient.

Blood pressure measurement

- Research shows strong increasing trends between both diastolic and systolic blood pressure and the risk of coronary heart disease and stroke and good evidence that effective management substantially reduces this risk.
- Studies of the effects of COCs continue to show blood pressure increases in some users, even with modern low dose preparations.

Blood pressure measurement

- Epidemiological studies have found an enhanced risk of stroke and acute myocardial infarction in users of COCs with a history of hypertension.
- Although the absolute risk is very small because cardiovascular disease is uncommon in young women, each of these observations indicates a need to measure the blood pressure of women before and during COC use.
- The widespread availability, and cheapness of the procedure, provide further support for this action.

Blood pressure measurement

- The most appropriate frequency of monitoring has not been the subject of close scientific scrutiny.
- An arbitrary recommendation would be that the blood pressure is checked before using COCs, at 1-3 months after starting, then at 6 monthly intervals with perhaps an extension of the interval to annual checks if the blood pressure remains low after two or three years of use.
- The need to continue blood pressure monitoring is indicated by evidence that some COC users develop increases in blood pressure even after prolonged periods of use.

Urinalysis

- Urinalysis for glucose, blood or protein is not recommended.
- In young individuals, urine testing for glucose results detects very few undiagnosed diabetics (less than 1 in 1,000); the false positive rate is between 1 and 2 per cent.
- This low pick-up rate is related to the very low prevalence of asymptomatic disease; screening using blood samples is equally unproductive.
- The costs per identified case are relatively high.

Cervical smears and bimanual pelvic examination

- Comprehensive, regular screening for cervical cancer with Papanicalou smears reduces mortality from this disease.
- Current policy in the UK is for women aged 20 to 64 years to be screened at least every five years.
- Even with contractual changes which provide incentives for GPs to meet performance targets, there is a small but important proportion of women who have never had a smear.

Cervical smears and bimanual pelvic examination

- There are also many women who have had many more than the recommended number of smears even though they are at low risk of cervical cancer.
- The important public health benefits of reducing the incidence of, and mortality from, cervical cancer will be achieved more cost-effectively by decreasing the number of inappropriate smears and increasing the participation of women who have never had one.
- The primary care team has an important, although not unique, role in meeting this challenge.

Cervical smears and bimanual pelvic examination

- Studies from several countries show that the highest frequency of pre-invasive conditions (dysplasia or carcinoma-in-situ, collectively called cervical intraepithelial neoplasia (CIN)) occur at 25-35 years of age, with invasive cancer most frequent around 45-50 years.
- Given the very low proportion of teenage women with pre-invasive lesions, there is no justification for starting routine screening before the age of 20.

Cervical smears and bimanual pelvic examination

- Current evidence indicates that a three year interval between screening, provides 90 per cent protection against invasive cancer, provided that the test has reasonable sensitivity.
- A five year screening programme offers approximately 84 per cent protection.

Cervical smears and bimanual pelvic examination

- A bimanual pelvic examination is often performed when taking a cervical smear, although the purpose for this procedure is frequently unclear.
- Bimanual pelvic examinations are not pre-requisite components of a cervical cancer screening programme.
- If the purpose is to detect ovarian cancer, then the purpose is a poor screening test for it has low sensitivity, cannot distinguish between malignant and benign ovarian cysts, there is no evidence that benign cysts have malignant potential, and the false positive rate is high resulting in low sensitivity.

Cervical smears and bimanual pelvic examination

- The false positive rate is high even when performed by a gynaecologist, and may be higher still when undertaken by GPs or practice nurses.
- It is unlikely that the procedure is better at screening for other conditions.
- The available evidence, therefore, argues strongly against using the bimanual pelvic examination as a routine screen procedure in asymptomatic women.

Screening for breast cancer

- Studies have examined the value of mammography in women aged less than 50 years
- None have demonstrated a statistically significant reduction in mortality
- None of the studies were large enough to detect a valuable reduction in mortality
- For this reason, two major clinical trials are underway in Europe. Until these trials report, there are no scientific grounds for the routine screening of women aged under 50 by mammography.

Screening for breast cancer

- Intuitively, breast self-examination is an attractive alternative screening procedure.
- There is not, strong evidence that regular breast self-examination reduces mortality.
- Most cancers occurring in women who practice the technique are not found during the self examination.

Screening for breast cancer

- The false positive rate is high resulting in many women having unnecessary biopsies.
- This is especially so in younger women. Breast self-examination is time-consuming to teach properly.
- For these reasons, the teaching of breast self-examination cannot be recommended.
- All women should be advised to practice ‘breast awareness’.

Blood tests in oral contraceptive users

- All currently available COCs produce a variety of alterations in carbohydrate, lipid and lipoprotein metabolism, and haemostatic changes.
- The clinical significance of these changes is still unknown.
- Any screening should be restricted to women with a strong personal or family history of venous or arterial vascular disease.
- Routine testing of all new users for clotting abnormalities is not justified.
- More than 50% of cases cannot be predicted by the currently available assays.

Cholesterol measurement

- Cholesterol measurement is often done to screen for markers of risk of disease unrelated directly to sexual health.
- There is still no consensus about the value of population screening for raised cholesterol levels.
- Many clinician prefer to target the measurement of cholesterol in individuals already at known increased risk of cardiovascular disease rather than undertake the blanket screening of everyone.

Cholesterol measurement

- Tables have been developed for identifying, on the basis of age, smoking habits, history of hypertension and diabetes, and evidence of left ventricular hypertrophy, those in whom the measurement of cholesterol is warranted.
- The important concept underlying these tables, and other devices for determining risk of cardiovascular disease, is the need to consider together all known risk factors rather than act on any one in isolation.

Hepatitis B antibodies

- Hepatitis B is a potentially serious disease with perhaps two to ten per cent of those infected as adults becoming carriers of the virus for more than six months
- Chronic carriage is more frequent in those infected as children and rise to 90 per cent in those infected perinatally.

Screening for HIV

HIV testing is sought for a variety of reasons:

- to know that the infection has/has not been caught
- to take special care of health (including possibly drug treatment) if HIV is detected
- to inform decisions about whether condom use needs to continue within a stable relationship
- to inform decisions about having children
- because of employment or insurance considerations
- because certain countries requiring testing before entry

Screening for HIV

In each situation, the person needs to consider:

- exactly why the test is being requested (eg is s/he being put under undue pressure to have one, is there really an increased risk of contracting the infection?)
- how will s/he handle the result (whether negative or positive)
- how will the test result affect any existing/future relationships

Screening for STIs

Pelvic infection, infertility, ectopic pregnancy and chronic pelvic pain are important long term sequelae of STIs. Some infections, such as Chlamydia trachomatis, are often asymptomatic, increasing the chance of spread and subsequent tubal damage.

Screening for STIs

Practices wishing to undertake screening for STIs need to be aware of:

- client factors likely to indicate greater risk of infection
- the prevalence of infection in their population (ideally)
- the strengths and limitations of the locally recommended screening tests

Screening for STIs

- any practical issues about taking, storing and transporting the specimen
- how to notify clients of the results and deal with any of the difficult and sensitive issues which can arise
- how to provide an efficient tracing service for partners of clients with positive results
- the current local recommendations for treatment

Areas of Health Promotion

- Health Education
- Presentation of ill health
- Public Health or Social Policy

So, what is a healthy diet?

- A variety of foods should be eaten and lower fat options and healthy cooking methods, such as grilling instead of frying, should be used.
- Complex carbohydrates such as bread, rice, pasta and potatoes. Try to eat wholemeal pasta, bread and rice weekly.
- At least 5 portions of fruit and vegetables a day. This includes fresh, frozen, dried and tinned varieties (fruit juice counts as one portion).
- Servings of low fat dairy products a day. Use butter, margarine and oils sparingly.

So, what is a healthy diet?

- Women, especially teenagers, should eat plenty of calcium containing foods, such as dairy produce, green vegetables and fortified breads and cereal. Calcium builds strong bones and reduces the risk of osteoporosis.
- Meat, fish or other protein rich foods such as beans and lentils keeping to moderate amounts daily. Try to eat one portion of oily fish such as salmon once a week.
- All women need more iron, found again in fortified cereals and bread and red meat, than men due to the loss through menstruation and pregnancy.

How can I lose weight?

- Losing and maintaining weight loss is concerned with a gradual and permanent change in eating habits.
- This is helped by also increasing the amount of exercise you take.
- Fad and very low calorie diets are unlikely to be a long-term solution.

How can I lose weight?

- Aim to lose weight slowly and make small easy changes to your diet first and then build on your success by attempting further changes.
- Do not underestimate the importance of small maintained changes such as reducing the amount of fat in your diet and be realistic about what you can change in any period of time, particularly if other life changes are occurring simultaneously.
- Eat regular meals, think before having seconds and try to avoid eating in-between meals.

Reducing the amount of fat

- use spreads on bread sparingly try replacing with jam, marmite or pickles
- use semi-skimmed or skimmed milk
- eat low fat dairy produce, diet yoghurts, half-fat or cottage cheeses, replace cream with yoghurt or custard

Reducing the amount of fat

- grill rather than fry and use small amounts of olive oil in cooking only when essential
- avoid processed meats such as mince and sausages which are very high in fat try replacing with Soya products or mixing meat and Soya together
- remove fat and skin off meat before cooking

What is the best form of exercise?

- Weight bearing exercise, such as brisk walking and jogging builds bone strength helping to prevent osteoporosis.
- Aerobic exercise that makes the heart beat faster strengthens the heart and helps reduce heart disease.
- Swimming is a good all round exercise.
- For maximum effect exercise should be taken at least twice a week for 30 minutes.

Isn’t alcohol good for you?

- Yes, depending on the volume and type consumed.
- In general wine decreases mortality from all causes, particularly coronary artery disease.
- Beer and spirits have less beneficial health effects and are associated with greater risks of cancer and mortality in excess.

How much can I safely drink then?

- Light drinkers (1-7 drinks a week) of any alcohol has no detrimental effect on health.
- Moderate drinkers (8 to 21 drinks a week), particularly wine drinkers, reduce mortality from all causes particularly their risk of coronary heart disease by 32-49%.
- More than 22 drinks of beer or spirits is associated with increased mortality, a 63% increased risk of cancer specifically. This increased risk is reduced if wine is also consumed (Gronbaek et al, 2000).

How can I screen for alcohol problems in primary care?

Using the CAGE questionnaire, MCV and GGT blood tests will detect about 75% of women with alcohol problems

(WHO Collaborating Centre for Research and Training for Mental Health, 1998)

CAGE questionnaire

- Have you ever felt you should **C**ut down on your drinking ?
- Have people **A**nnoyed you by criticising your drinking ?
- Have you ever felt bad or **G**uilty about your drinking ?
- Have you ever had a drink first thing in the morning (**E**ye-opener) to steady your nerves or get rid of a hangover ? (Ewing, 1984).

I’ve tried to quit smoking, but failed

- It’s very common to take more than one attempt to finally give up but its never too late to try. Often trying to give up with a friend, nicotine replacement or Bupropion may help you to be successful.
- The National Women’s Health Information Center run by the US Department of Health and Human Services has a very wide ranging and useful Web site (http://www.4woman.gov). The following information and further links to other sites to help you quit may be derived from there.

What can I do to help me quit?

First, pick a date to quit. Quitting all at once is much more likely to succeed than trying to cut down gradually. Tell your family and friends about your plans to quit, and ask for their support. Then, before stopping, throw away all your cigarettes, don't keep any where you live.

What can I do to help me quit?

Before you stop smoking, think about the situations, which make you want a cigarette. If you always smoke after a meal, plan what you'll do instead. If you smoke during certain tasks at work, figure out what can replace the cigarette. Some people like to hold something in their hand in certain situations, substituting a pencil or pen can work for them. Many feel comforted by having something in their mouth, sugar free gum or candy, or carrot or celery sticks are good choices. Some people use cigarettes to relax when they are stressed. Substituting walking, reading or meditating can be a good alternative.

What can I do to help me quit?

Many people need help to quit smoking. Help can come in several forms. Tell your doctor, who will advise about nicotine replacement therapy, you want to quit. Some general practices run smoking cessation clinics with specifically trained nursing staff. Being in a support program makes it likelier you'll succeed.

Dealing with Teenagers

- Fortunately teenagers are generally healthy but sometimes their lifestyles can be imprudent.
- Young women's attitudes often being akin to "it won't happen to me".
- By 1996 33% of fifteen year old girls were classed as smokers, over 40% of sixteen year olds reported weekly alcohol consumption at an average of 3.4 units and it is well recognised that the use of illegal drugs and solvents is rising, particularly in younger teenagers (Walker, Oakley and Townsend, 2000).

Is there treatment for postpartum depression?

Yes, antidepressant medication, psychotherapy, or both, depending on the woman's symptoms and choice, can be used and have been found to be equally effective.

The 10 minute consultation

Mrs. White a 47 year old lawyer books a 10 minute appointment with you to discuss her recent menstrual problems. She mentions that recently she has been gaining weight and her usual dieting has not helped. You have previously treated Mrs. White for depression, and today she again appears low and tearful. She enquires whether you think HRT would help?

What are the issues?

- Perimenopausal menstrual difficulties are common and usually easily treated. Mrs. White's periods may be coming more frequently and lasting for longer, sometimes being very heavy. Alternatively she may have started to miss periods and be concerned about this.
- "Period trouble" may have been used as a "ticket" to legitimise her consultation allowing her opportunity to discuss with you other concerns which she may feel do not warrant a doctor's appointment.
- Health promotion and management of Mrs. White's weight.

What are the issues?

- Exploration of Mrs. White's mood. Her past history confirms that she previously required a course of antidepressants. Is there something in particular that has precipitated a recent onset of depression ?
- She furthers wishes to know your opinion on whether HRT will help ? The most important question here is clarifying what Mrs. White particularly wants help with and then in the context of her answer discuss the possible benefits of taking HRT.
- Time management is a serious problem with this scenario because many of the above issues may take a whole consultation and so what should be covered first and what can be deferred needs to be negotiated.

What to do?

- Take a comprehensive menstrual history specifically highlighting any postcoital, intermenstrual and post menopausal bleeding. The possibility of fibroids, with symptoms of mennorhagia, should be considered.
- Further assessment of her menstrual problems may involve a bimanual examination, haemoglobin measurement, pelvic ultrasound and/or referral for specific gynaecological investigation, such as endometrial biopsy.

What to do?

- Advise appropriately on exercise, smoking, diet, alcohol and stress management. Explain that following the menopause there is a shift in fat deposits from the lower to the central body accounting for the change in body shape that many women find depressing. Regular exercise and a healthy, low fat balanced diet, avoiding fad diets, will control body weight and enhance a woman's self esteem (Deeks, 2000).

What to do?

- Assess Mrs. White for the symptoms of major depression; persistently low mood, early morning waking/sleep disturbance, poor concentration, poor appetite and thoughts of suicide.
- Ascertain whether there are any significant psychosocial issues that may be contributing to Mrs. White's symptoms. Questions about her family and work situations may discover whether she is going through a change in social role with children leaving home or work difficulties.

What to do?

- Enquire why HRT is an issue but time constraints mean that Mrs. White needs to be invited to come back to see you or the nurse to fully discuss HRT. The possible benefits, reasons and risks for HRT in Mrs. White's individual case need to be covered. Mrs. White needs to be examined and the different HRT preparations discussed if she decides to proceed. Patients often find it useful read some further information before attending a second session specifically for HRT.
- Before terminating the consultation any questions Mrs. White has should be dealt with and her understanding of the management plan checked and an appropriate follow up appointment made. It is essential that the patient's agenda has been clarified and appropriately dealt with.