There is still much to be learnt about the best form of screening for anal cancer, and there are currently no widely accepted clinical guidelines for doctors on anal screening. At the moment, there is insufficient understanding of how anal cancer progresses from the early stages, which lesions are most likely to develop, and which treatments are most effective. Research projects are being conducted in Australia now to see what these guidelines might be. (See below).

However many clinicians believe early detection through anal screening is the right approach. What is clear is that there are advantages in people knowing that they have early signs of anal changes— which may or may not progress— and to ask their doctor to keep monitoring for changes in the anus.

If your doctor has never done an anal check, it is important to ask for a digital anal-rectal examination (DARE), see below. This is particularly the case for gay men over 35 and HIV positive gay men (who are at greater risk of progression to anal cancer). Depending on your results, you can decide with your doctor how often to have these examinations in the future.

**DIGITAL ANAL-RECTAL EXAMINATIONS**

Some gay men have incorporated a check of their anus as a part of regular STI check-ups. This is to check for possible early signs of anal cancer. Doctors may notice changes in skin areas in and around the anus and may place a lubricated finger in the anus to detect lumps. Whilst this may help detect cancers 0.5cm diameter or greater, unfortunately it sometimes misses cancers and pre-cancers cannot be detected in this way.

You might notice some changes in the anus yourself—in the form of small bumps or small, inflamed areas just inside the anal canal. A partner might be able to see this better. They should look for areas that appear blotchy, inflamed or reddish or even paler (whiter) than the surrounding tissue. Look or feel around the anal sphincter opening and about 2-3 centimetres into the anal canal.

It is important not to jump to conclusions, if changes are found. Skin tags and haemorrhoids are much more common causes of such symptoms. However, if you are at all worried about anything, or notice any changes, report any changes to your doctor immediately.
Any problems with continued bleeding or pain in the anus should also be followed up immediately, as this may be linked to several health issues, including anal cancer.

**IT IS IMPORTANT NOT TO JUMP TO CONCLUSIONS IF CHANGES ARE FOUND. HOWEVER, IF YOU ARE WORRIED ABOUT ANYTHING, OR NOTICE ANY CHANGES, REPORT THEM TO YOUR DOCTOR IMMEDIATELY.**

**HOW OFTEN TO SCREEN?**

There are currently no agreed guidelines for this. However, although more evidence may be needed, some clinicians in the U.S. recommend healthy HIV-negative gay men (with no impaired immunity) have a digital anal-rectal examination (DARE) or an anal Pap smear every one to three years, and HIV-positive people have a DARE or an anal Pap smear (see below) every year. This is particularly important for men over 35. At present, anal Pap smears are not generally available in Australia.

An Australian study being run by the University of New South Wales is studying the benefits of the various screening tests. (See SPANC study below)

**TYPES OF SCREENING**

**ANOSCOPY (SOMETIMES CALLED “PROCTOSCOPY”)**

An anoscope is a small tube (usually made of plastic), which is lubricated and inserted into the anus. A light is shone into the anoscope and it is possible to examine the whole of the anal canal this way. It can be used to diagnose a number of conditions, and give an indication whether anal cancer might be present.

If any changes are suspected, sometimes the doctor may take a small biopsy (sample of tissue) to be analysed to determine if further treatment is required.

**ANAL PAP SMEAR (SOMETIMES REFERRED TO AS A “CHAP SMEAR”)**

The use of Pap smears, similar to those in cervical screening programs, are currently under evaluation at a number of centres. It involves the insertion of a moistened swab 10cm into the anus, rotating it vigorously and withdrawing over a minute, taking a sample from the whole wall of the anus. It is then sent to the laboratory for analysis. Whilst this test can pick up pre-cancerous cells, it often misses abnormalities, and care must be taken interpreting results.
Like cervical Pap smears, anal swabs can also be tested for high risk HPV such as HPV-16 and/or HPV-18. However, because infection with HPV in the anus is so common in men who never develop anal cancer, this test may be of less value. It is also currently quite expensive and only really used in research settings.

HIGH RESOLUTION ANOSCOPY (HRA)

This is a specialised technique (based on a cervical examination technique called “colposcopy”) that is mainly being evaluated in research settings. It uses a microscope and special staining techniques to identify areas of pre-cancer, which are then biopsied for further analysis. HRA is able to detect a greater number of abnormalities than Pap smears, but it is much more uncomfortable, time consuming and expensive. The availability of HRA and the need for specialist training means that it is currently only available in research settings.

Some clinicians argue though, that high-risk groups, such as people with HIV with low CD4 counts, should have regular Pap smears and even HRAs to detect cell changes. This is because they are more likely to have abnormal pre-cancerous lesions with their impaired immunity. HIV-positive people, in general, seem to be at a greater risk of changes as well.

Studies are currently being conducted to determine the relative accuracy and value of both Pap smear and HRA testing. The final results are several years away.

THE STAGES OF SCREENING

EARLY DIAGNOSIS

Anal cancers always respond to treatment better if diagnosed early, so it is important to be aware of the development of any anal symptoms. If you are at all concerned with any anal symptoms, go immediately to your GP, Sexual Health Clinic, or HIV Specialist.

They will look at the area and perform a Digital Anal-Rectal Examination (DARE). (See earlier section) If the doctor believes there is a need for further examination of these changes, he/she may refer you to a specialist, such as a colorectal surgeon.
FURTHER EXAMINATION

Further examination of anal lesions may be conducted by a GP or Sexual Health Physician, if they have the appropriate equipment, or by a colorectal surgeon, usually located in a hospital or in their private practice.

A simple way of looking at the anal canal is with an anoscope.

Sometimes a biopsy is taken. This is a small piece of skin that is removed from the outside or first few centimetres inside the anus. This can be done either in a clinic, or under in an operating theatre, under anaesthesia.

Both the results of the Pap smear and biopsies may determine if further action is necessary, or the doctor may decide to “wait and see” if there are further changes at a later date. Many anal lesions will not progress to anal cancer and some may disappear altogether, with time.

A doctor (possibly a colorectal surgeon) may recommend removal of anal lesions through a range of methods including treatment using lasers, an Infrared Coagulator or Trichloracetic Acid or surgery (see below).

BIOMARKERS

As the understanding of anal HPV infection improves, a number of new tests are being evaluated to improve the accuracy of screening, including tests of biomarkers (certain specific chemicals) detected in anal swabs. These are currently only available as part of research studies.

PRE-ANAL CANCER

Screening may result in finding abnormal high-grade cell changes in the lining of the anal canal (the part of the anus inside the body). This is known as anal pre-cancer or “high grade squamous intraepithelial neoplasia (HSIL)”. This is a pre-cancerous condition but is not cancer itself. Abnormal cells clustered together form a “lesion”. Not all lesions progress to cancer - most don’t change, and some actually shrink or disappear altogether.

See also ‘Understanding Anal Cancer Screening Results’ at www.thebottomline.org.au for more information.

A study currently underway in Australia (SPANC, see below) has shown that about 30% of the gay men recruited have pre-cancerous anal lesions. Most of these will never progress to anal cancer, but we do not yet have a good test to determine which ones will.

The most effective treatment for high-grade lesions in the anus is not certain, as it is not clear which lesions will ultimately lead to cancer. Highly suspicious lesions can be surgically removed, but this is an uncomfortable procedure and can affect quality of life.
LOW GRADE LESIONS ARE LOW RISK AND GENERALLY NOT TREATED, UNLESS THEY CAUSE SYMPTOMS, BUT ARE MONITORED FOR SIGNS OF PROGRESSION.

Treatment options include:

**LASER TREATMENT OR TREATMENT BY IRC (INFRA RED COAGULATOR)**

A High Resolution Anoscopy is initially used to identify lesions, which are then destroyed with an intense beam of light or heat. Although local anesthetic is used, it can cause some pain and there might be some bleeding afterwards.

**TCA (TRICHLOROACETIC ACID)**

A High Resolution Anoscopy is initially used to identify lesions, which are then touched with acid-soaked cotton buds. Multiple treatments are usually required over several weeks.

**SURGERY**

The lesion is cut out by a surgeon. This can only be currently done for larger lesions, as surgeons do not generally have access to High Resolution Anoscopy.

**WATCH AND WAIT**

Most small pre-cancers lesions do not progress, or can even heal spontaneously. Thus, a very common choice is to have regular follow up, typically every one or two years. In the rare occasions that a cancer does develop, it can be treated at a very early stage, generally with excellent results.

**VACCINE**

The HPV vaccines currently available in Australia are only licensed for “prophylactic use”. This means that they have as been shown to be highly effective when given before exposure to HPV (i.e. typically before starting to have sex). It therefore is unlikely to be of benefit to people with existing lesions. However, a trial suggested a possible additional benefit when used together with surgical treatments. They found that the rates of recurrence of high grade lesions were lower in those who received the vaccine.

The vaccine is not yet approved for this use under the Australian PBS (Pharmaceutical Benefits Scheme), and is only available for adults as a private prescription. Three doses over 6 months are required, at a cost of approximately $150 per dose (that is, a total of $450).
If you were to consider taking this vaccine, you would need to consult your doctor to obtain a script.

Some studies have shown that men who have already been exposed to one or more of the HPV strains could still benefit from anti-HPV vaccines. Vaccination can protect against strains that men have not been exposed to. It can also possibly help protect from reacquisition or recurrences of strains they have already been exposed to that lead to warts and other cell changes, including cancer. However, further study is needed in this area.

“Therapeutic Vaccine” is a term used to refer to vaccines that can treat diseases, after they have first developed. There are a number of HPV therapeutic vaccines currently under evaluation, but none have been shown to be of conclusive benefit to date. Most of the work has been done on cervical lesions, although there is reasonable hope that they might also be applicable to the anus. This is a very rapidly developing field and there is a real prospect that an effective therapeutic vaccine may eventually be found for anal pre-cancers.

Low grade Squamous Intraepithelial Lesions (LSIL) are low risk and generally not treated, unless they cause symptoms.

For further information on the treatment of anal cancer, see ‘Information for Men Diagnosed with Anal Cancer’ at www.thebottomline.org.au.

ANAL CANCER SCREENING RESULTS

See also ‘Understanding Anal Cancer Screening Results’ at www.thebottomline.org.au for more information.

TREATMENT OF ANAL CANCER

The initial diagnosis is usually made with a surgical biopsy. Once this has happened, it is important to determine whether there has been any spread of the cancer. This process is called “staging” and requires a variety of scans and blood tests.

A radiologist will then organise radiotherapy. The best form of radiotherapy is called Intensity Modulated Radiotherapy (IMRT). It has much lower side effects than conventional radiotherapy. However, it is only available at major centres and you should be prepared to specifically ask for this.

The oncologist will arrange for several doses of chemotherapeutic drugs. The commonest treatment at present are 5 fluorouracil and Mitomycin C.

Sometimes additional surgery is required, depending on how far the cancer has spread.

RESEARCH INTO SCREENING METHODS

There are currently no widely accepted clinical guidelines for doctors on anal screening. At the moment there is insufficient understanding of how anal cancer progresses from the early stages, which lesions are most likely to develop, and which treatments are most effective. More research is needed to get agreement amongst clinicians on when there is a need for screening, what the results mean and what treatments might be recommended.

MORE RESEARCH IS NEEDED TO GET AGREEMENT AMONGST CLINICIANS ON WHEN THERE IS A NEED FOR SCREENING

A trial in Melbourne, the Anal Cancer Examination Study (ACES), is currently looking at the usefulness of having an annual digital anal-rectal screening done by a doctor in the detection of early stages of anal cancer. Early detection greatly increases the chances of survival. Men who are 35 years or over with HIV and who have sex with men can participate. For more information or to register your interest, visit www.anal.org.au, email anal@mshc.org.au, or call 1800 082 820.

A trial in Sydney called SPANC (Study of the Prevention of Anal Cancer) is tracking the prevalence of anal HPV infection and related anal disease in a cohort of gay men. The aim of the study is to provide gay men with guidelines about screening for anal cancer. Men who have sex with men who are 35 and older, living in & around Sydney and who have never been diagnosed with anal cancer are encouraged to join the study. For more information or to register your interest visit www.spanc.org.au or call 1800 4 SPANC (1800 4 77262)

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