UNDERSTANDING ANAL CANCER SCREENING RESULTS

THE BOTTOM LINE

GAY MEN, HPV & ANAL CANCER

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INTRODUCTION

A digital anal-rectal examination (DARE) by a clinician may detect small lumps in the anal canal, which can indicate the early signs of anal cancer. However, more complex screening methods used to look for anal cancer are anal Pap smears and high resolution anoscopy. (See 'Screening for Anal Cancer' at www.thebottomline.org.au for more information)

On the next page are tables which show the way results of anal cancer screening are interpreted.

EVEN IF SOMEONE WAS TO RECEIVE A DIAGNOSIS OF HIGH-GRADE LESIONS, THIS DOES NOT MEAN THEY HAVE ANAL CANCER.

It is important to note though that even if someone was to receive a diagnosis of high-grade lesions, this does not mean they have anal cancer. They may be at higher risk, but progression is not certain. There is limited consensus on the rates of progression from high-grade lesions to cancer, but calculated rates of progression are around 1 in 400 per year in HIV-positive men who have sex with men (MSM), and around 1 in 4000 per year in HIV-negative MSM. Smoking, older age, lower CD4 count and drugs that suppress the immune system probably accelerate this process.

Many people have a diagnosis of high-grade lesions and never develop anal cancer.

RESULTS OF SCREENING

ANAL PAP SMEARS

Pap smears may reveal changes in cells that may show a greater risk of progression to anal cancer. The results of anal Pap smear may come back as described by the following terms:

RESULT	EXPLANATION
Technically unsatisfactory	This means that the laboratory has been unable to come to a firm conclusion on the basis of the specimen provided. It is usually repeated, to get a better specimen.
No cell changes	"Negative" – no evidence of HPV-associated changes.
Possible low grade squamous intraepithelial lesion (PLSIL)	There are some changes to suggest a low grade abnormality, but not enough to make a definite diagnosis. *Also classified as: Low-grade epithelial abnormality, and also called ASCUS (Atypical Squamous Cells of Undetermined Significance).*
Low grade squamous intraepithelial lesion (LSIL)	Minor changes as a result of HPV infection. LSIL is thought to be of negligible risk of progression to anal cancer. *Also classified as: Low-grade epithelial abnormality.*
Possible high-grade squamous intraepithelial lesion (PHSIL)	There are some changes to suggest a high grade abnormality, but not enough to make a definite diagnosis. *Also classified as: Inconclusive, possible high-grade squamous abnormality, and also called ASC-H (Atypical Squamous Cells - possible High* grade).
High grade squamous intraepithelial lesion (HSIL)	This is considered a definite diagnosis of a high-grade abnormality, usually associated with an infection of high risk HPV types. *Also classified as: High-grade epithelial abnormality.*
Cancer cells	This is a very rare finding, and strongly suggests the presence of a cancer.

It is important to realise that Pap smears tend to underestimate the severity of disease. It is thus possible to have very serious abnormalities, even when the Pap smear is negative.

MANY PEOPLE HAVE A DIAGNOSIS OF HIGH-GRADE LESIONS AND NEVER DEVELOP ANAL CANCER.

ANOSCOPY & ANAL BIOPSY RESULTS

The results of anal biopsies taken during high resolution anoscopy will give a more accurate grading of any lesions found. These results can tell what proportion of cells in a biopsy is atypical, and can tell whether the lesion just affects the surface of the anal tissue (epithelium) or if it has penetrated deeper.

HPV- associated lesions are graded into low grade anal intraepithelial neoplasia (LGAIN), high grade anal intraepithelial neoplasia (HGAIN) and carcinoma (the presence of cancer cells).

Anal biopsy results are graded on the following page.

ANAL BIOPSY RESULTS ARE GRADED AS FOLLOWS:

RESULT	EXPLANATION
Negative for intraepithelial neoplasia	"Negative" – no evidence of HPV-associated changes
Other abnormalities found but not related to HPV infection	Unrelated changes found.
LGAIN (low grade anal intraepithelial neoplasia)	Minor changes which are consistent with non-cancerous HPV infection. LGAIN includes anal and peri-anal warts. LGAIN is considered to be at very low risk for progression to anal cancer. It can be "flat" or "papillary" – these terms just describe the physical appearance of the changes. *Other terms: Warts*
HGAIN (high grade anal intraepithelial neoplasia)	Abnormal cells are present in the biopsy. HGAIN is thought to be a result of infection with high risk HPV types. Most men with HGAIN will not go on to get anal cancer. About 30% of gay men have this common condition. Over time, some people may progress to cancer. It is believed that between one in a 4000 and one in 400 men with this abnormality will develop anal cancer each year. Over a one year period, 99 to 99.9% of men with this condition will not develop anal cancer. *Other terms: You may come across the terms "AIN2" and "AIN3". These are both types of HGAIN. The importance of dividing HGAIN into these two classes is currently unclear, but AIN2 appears to be less likely to progress to anal cancer than AIN3.* *The term "carcinoma in situ" is sometimes used instead of AIN3. It is not a form of cancer.* *Also known as severe dysplasia.*
Anal Carcinoma	The presence of cancer of the anus.

RESEARCH INTO SCREENING METHODS

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.

ACES

The Anal Cancer Examination Study (ACES) is a trial being run by the Melbourne Sexual Health Centre to look at how useful having an annual digital anal-rectal screening done by a doctor is in the detection of early stages of anal cancer. Early detection greatly increases the chances of survival. For more information or to register your interest, visit www.anal.org.au, email anal@mshc.org.au, or call 1800 082 820.

EARLY DETECTION GREATLY INCREASES THE CHANCES OF SURVIVAL.

THE SPANC STUDY

The SPANC Project is the "Study of the Prevention of ANal Cancer".

It aims to track the prevalence of anal HPV infection and related anal disease in gay men. Much is still not known about the most effective screening methods to detect the development of pre-cancerous or cancerous anal lesions.

The study is being jointly run by the University of New South Wales, the University of Sydney, St Vincent's Hospital, Sydney and Royal Prince Alfred Hospital, Sydney.

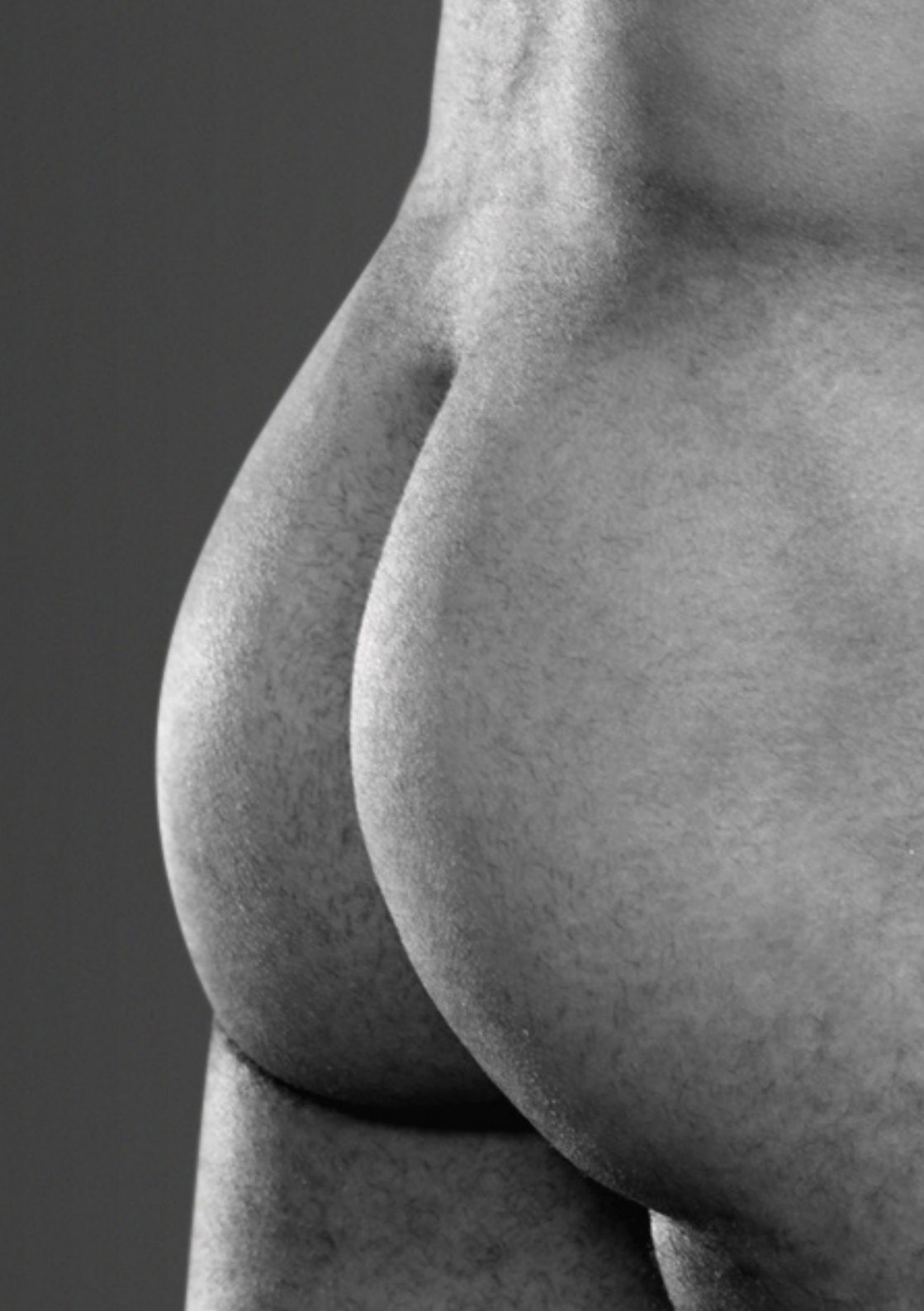
The study involves detailed behavioural assessments, screening tests using anal Pap smears, digital anal-rectal examinations (DAREs) and High Resolution Anoscopies, with biopsies. (See 'Screening for Anal Cancer' at www.thebottomline.org.au for more information)

Enrolments in the trial are for men who have sex with men aged 35 years and older, living in the Sydney area. For more information or to register your interest, visit www.spanc.org.au or call 1800 4 SPANC (1800 4 77262).

Also see 'Information for Men Diagnosed with Anal Cancer' at www.thebottomline.org.au. This section of the website also includes perspectives from people who have experienced anal cancer. A message that all of them give to people at risk of anal cancer (gay men and HIV-positive men in particular) is to get a doctor to monitor for changes in the anal area. This is particularly important for people who are 35 years old and above, as this is the most likely time when cancer may start to appear.

Another message from these personal stories is that early treatment and regular monitoring saves lives. These people are still here to tell their stories because they realised the seriousness of anal cancer and the importance of regular monitoring and early interventions.

There is also a section on the website Getting Support and Services which provides contacts such as sexual health clinics as well as information and contacts to people diagnosed with anal cancer and with other changes associated with HPV.



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Australian Federation of AIDS Organisations

napwha national association of people with HIV australia

Australian Federation of AIDS Organisations
PO Box 51 Newtown NSW 2042
www.afao.org.au

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