

## HRA clinic (Engelse vertaling)

The HRA clinic is for examination and treatment of pre-stages of anal cancer. HRA stands for: High Resolution Anoscopy, this is the examination of the anus that is performed at the clinic. The precursors of anal cancer are called Anal Intraepithelial Neoplasia, which is abbreviated as AIN. At this consultation we examine and treat patients who have an increased risk of anal cancer (such as men aged 35 and older who live with HIV and who have sex with men).

### What is AIN?

AIN (Anal Intraepithelial Neoplasia) refers to troubled cells in the anus. These troubled cells can develop into anal cancer in some patients and that is why AIN is seen as a precursor of anal cancer. Treatment of AIN can prevent anal cancer. During the HRA consultation, it is examined whether there are troubled cells in the anal mucosa.

### What causes AIN?

AIN is caused by the Human Papilloma Virus (HPV), the same virus that can cause cervical cancer in women. Many people who are sexually active contract HPV at some point in their lives. In many people, HPV is cleared by the body on its own. In some people the immune system does not work properly, so HPV may not be cleared. Long-term presence of HPV in the anal mucosa can lead to AIN. AIN (and therefore anal cancer) is more common in men and trans women aged 35 years and older living with HIV who have sex with men. Other groups also have an increased risk of AIN and anal cancer, including people with a history of vulvar cancer, women living with HIV and people who have been taking immunosuppressant medications for several years.

### How can you prepare for the examination?

We ask that 24 hours prior to the examination:

- Not to have anal sex
- Do not rinse anally (this negatively affects the examination)
- Do not insert objects into the anus
- Do not eat spicy food

There is no need to stop taking blood thinning medications.

You can take 2 paracetamol 500mg one hour before your appointment.

It is important to eat and drink normally before your arrival (so you do not have to fast).

If you have been at risk of an STD in the past 3 months, we recommend that you have an STD test done by the GGD or your General Practitioner (GP, *huisarts*) well before your visit to the HRA clinic.

## How does the examination performed?

The appointment takes approximately 45 minutes. First of all, the practitioner will ask you a number of questions, including about anal complaints and about your sexual activity. Then follows the examination of the anus, which takes about 20-30 minutes. A swab is first taken from the anus. The practitioner then feels the anus with a finger to feel for abnormalities that may indicate anal cancer. Then a short tube with a diameter of 2 centimeters is carefully inserted about 5 centimeters into the rectum, provided with an anesthetic lubricant. Inserting this tube is not painful. The anal mucosa is then stained with a gauze soaked in acetic acid.

The inside of the anus can be viewed through the hollow space in the tube. If there is a suspicion of an abnormality of the anal mucosa, a 'test sample' (biopsy) is taken after anesthesia. This biopsy is further examined in the laboratory. The smear taken at the beginning of the examination is also examined in the laboratory as an additional test to check whether any troubled cells were missed during the examination.

## What should you pay attention to after the examination?

- **Blood loss:** Up to 3 weeks after the examination you may see some blood loss in the stool or on the toilet paper. This bleeding is normal and usually stops on its own. In case of heavy and persistent blood loss (several sanitary towels full of blood per day), you must contact the AMC Dermatology outpatient clinic and, outside office hours, the emergency department. We recommend not having anal sex for 2 weeks after taking the biopsies, so that the wounds can heal properly. Please note: if there are wounds in the mucous membrane (i.e. after taking biopsies), you are more susceptible to STDs.
- **Pain:** You may experience some pain in the week after the examination. If the pain is bothersome, we advise you to take paracetamol (up to a maximum of 1000 mg 4 times a day).
- **To keep the stool soft,** it is important to drink enough water and eat a fiber-rich diet in the days after the examination.

## When will you receive the biopsy results?

Two weeks after the biopsies are taken, you will be called for the results.

If no abnormalities of the anal mucosa are found, but you do belong to a risk group, it is sufficient to have a check-up again after 1 or 2 years. Your practitioner will discuss this with you.

## What happens if abnormalities are found?

There are 2 types of deviations:

### 1. Low grade AIN (LGAIN, AIN 1)

In low-grade AIN, abnormal cells are only found in a single mucosal layer. We call them moderately troubled cells. Low-grade AIN does not need to be treated, as it can be cleared by the body itself. A check-up appointment after 1 year is then sufficient.

### 2. High-grade AIN (HGAIN, AIN2/3)

In high-grade AIN, abnormal cells are found in multiple mucosal layers. We call these severely troubled cells. High-grade AIN is NOT anal cancer. High-grade AIN is approached as a precursor to anal cancer. A minority of patients with high-grade AIN will eventually develop anal cancer. It is therefore advisable to treat high-grade AIN. The goal of treating high-grade AIN is to prevent any progression to anal cancer over time. A large study of more than 4,000 patients with high-grade AIN showed that there was much less anal cancer in people treated for high-grade AIN than in people who opted for an active monitoring approach.

## What treatments are there for high-grade AIN?

There are several options for treating high-grade AIN. The choice is made in consultation with you and depends on the location (inside or outside the anus), the extent of the abnormalities and your personal preference.

### 1. Electrocoagulation

Electrocoagulation treatment appears to be most effective for high-grade AIN on the inside of the anus. With electrocoagulation, after anesthesia, the superficial mucous layer is burned where the AIN (troubled cells) are located. This treatment is repeated after 3 months. After the treatment you may still suffer from bleeding and pain for a few days. The same advice applies as after taking the biopsies (see above). Treatment with electrocoagulation has more favorable outcomes than treatment with cream and is therefore preferred.

### 2. 5-Fluorouracil cream (Efudix)

5-Fluorouracil cream is suitable for treating high-grade AIN on the inside and outside of the anus. You apply the 5-Fluorouracil cream three times a week (Monday, Wednesday, Friday) for approximately 16 weeks. A side effect of this cream is local irritation.

### 3. Imiquimod cream (Aldara)

Imiquimod cream is suitable for treating high-grade AIN on the outside of the anus. You should apply the imiquimod cream three times a week (Monday, Wednesday, Friday) for approximately 16 weeks. Possible side effects of this cream include local irritation, fatigue and flu-like symptoms.

### 4. Other treatments

Less often, treatment will be chosen by applying trichloroacetic acid 85-90%, sinecatechins cream (Veregen), cryotherapy or CO2 laser.

### 5. No treatment

If you are not interested in a treatment, you can also opt for 'active monitoring'. This means that no treatment is administered, but you are closely monitored. Check-ups will then be offered more often. Your practitioner will discuss this with you. This policy is currently also offered in the context of medical-scientific research. Information about medical-scientific research, if applicable to your situation, is offered in a separate brochure.

## When should you come for a check-up?

Unfortunately, the treatment of high-grade AIN does not eliminate the cause (the human papillomavirus). Even after successful treatment, new abnormalities of the anal mucosa can arise. For this reason, inspections will continue to take place on a regular basis. The frequency of checks depends on what is found during the examination.

## Do you have any questions?

If you have any questions, you can contact the Dermatology outpatient clinic of the Amsterdam UMC location AMC during office hours via telephone number: 020-5662530

In case of emergencies outside office hours, you can contact our emergency post, which can be reached via 020-5669111.