Petersburg Only heterosexual men with no HIV, gonorrhoea, syphilis and *T vaginalis* were enrolled in the study. CT infection was detected by in-house RT-PCR assay in St. Petersburg and confirmed in Amsterdam by a molecular test (TaqMan). The presence of HR-HPV DNA in the studied samples was investigated in Amsterdam by the validated worldwide used GP5+/6+ assay.

Results The results are presented in the Abstract P3-S4.02 table 1. The overall CT and HPV prevalence in the study group was relatively high: 4.6% and 31.2%, respectively. No significant correlations have been found between HR-HPV findings and CT status ($p=1.0$).

Abstract P3-S4.02 Table 1 Detection of HR-HPV infection in 173 men with/without the history of *C trachomatis* infection

	CT present, detected during the study (prevalence, %)		CT in the past, history of being infected (prevalence, %)	
	CT+	CT–	CT+	CT–
CT infection history	8 (4.6%)	165	45 (35.2%)	128
173 men, in total				
HR-HPV infection, detected in	2 (25%)	53 (32.1%)	14 (31.3%)	40 (31.3%)

Conclusions Our study demonstrated: (1) CT and HPV prevalence among the Russian population can be high, (2) limited co-infection between HPV and CT infections: HR-HPV types were similarly often detected in both CT+ and CT– men, also regardless on their CT acquisition in the past, (3) CT history seems not to increase the HR-HPV acquisition, however, the association between HPV and *C trachomatis* infection still remains to be elucidated and follow-up studies especially among women or homosexuals. 4) All samples found RT-PCR CT+ in Russia were confirmed CT+ using molecular biological techniques in Amsterdam, showing the validity of CT detection in some settings in St. Petersburg. At the moment we additionally: (1) extent the study group, (2) investigate low-risk HPV detection and (3) perform immunogenetic analyses.

P3-S4.03 IMPACT OF COMPREHENSIVE MANAGEMENT INCLUDING COUNSELLING ON HEALTH RELATED QUALITY OF LIFE INDEX IN INDIAN PATIENTS WITH ANOGENITAL WARTS

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Background Health related Quality of life (HRQOL) can be conceptualised as the absence of pain and an ability to function in day-to-day life. Our earlier study has shown that anogenital warts have an adverse effect on HRQOL because of its impact on physical, psychological and sexual health, even though the lesions are often

asymptomatic.¹ To our knowledge, there are no studies available to show the impact of comprehensive management on HRQOL of these patients.

Methods Thirty-five apparently healthy controls (meanage $\pm$ SD 34.8 $\pm$ 11.2) and twenty patients with anogenital warts (mean age $\pm$ SD 32.7 $\pm$ 11.8 years) were included in the study. HRQOL of patients was evaluated using the WHOQOL-BREF instrument at the time of presentation and again after 4 months. During this period, all patients were comprehensively counselled by a trained counsellor and received regular treatment for anogenital warts. The questionnaire was available in local language (Hindi) and was self-administered.

Results All except two patients showed reduction in the size in response to treatment, however complete clearance was seen only in 10 patients (50%). At the baseline, the HRQOL scores of patients were significantly lower than controls in all domains. The HRQOL scores of patients after 16 weeks of comprehensive management were significantly higher than those at the baseline and comparable to those of controls (Abstract P3-S4.03 table 1).

Conclusion Comprehensive management of anogenital warts including counselling has resulted in the significant improvement in HRQOL scores. As anogenital warts are often asymptomatic, the effect on HRQOL appears to be due to its impact on psyche and fear of cancer and interventions including counselling can improve HRQOL more efficiently than in patients with other sexually transmitted diseases.

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P3-S4.04 TOPICAL 80% TRICHLOROACETIC ACID (TCA) SHOWS EFFICACY IN THE TREATMENT OF INTERNAL HIGH-GRADE ANAL INTRAEPITHELIAL NEOPLASIA (HGAIN)

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Background HIV positive men who have sex with men (MSM) are at 60–70 times increased risk of developing anal squamous cell carcinoma than the general population. HGAIN, the putative precursor to cancer, may be ablated by various methods in order to prevent neoplastic progression. While TCA has previously been used clinically to treat keratinised external anal warts, it may also be used to ablate internal HGAIN. Here we report on treatment efficacy and clinical predictors of success.

Abstract P3-S4.03 Table 1 HRQOL Scores in different domains of WHOQOLBREF of patients before and 16 weeks after comprehensive management and those of apparently healthy controls

HRQOL domains	Patients with ano-genital warts		p Value	Healthy controls mean (CI)
	Before comprehensive management mean (CI)	After comprehensive management (at 4 months) Mean (C.I.)		
Physical	40.8 (32.3 to 49.3)	82.1 (77.9 to 86.3)	<0.001	72.0 (63.70 to 80.30)
Psychological	47.55 (37.8 to 57.3)	78 (71.6 to 84.4)	<0.001	68.9 (60.5 to 77.3)
Social	45.05 (35.3 to 54.8)	77.2 (70.8 to 83.6)	<0.001	74.6 (68 to 81.2)
Environmental	51.35 (44.9 to 57.8)	73.55 (16.4 to 130.7)	<0.001	64.7 (58.5 to 71)
Total	184.75 (157.2 to 212.3)	310.85 (294.7 to 327)	<0.001	280.2 (253 to 307.5)
Overall QOL	2.65 (2.2 to 3.1)	4 (3.4 to 4.6)	<0.001	3.5 (3 to 4)
Overall Health	2.7 (2.3 to 3.1)	4.35 (4 to 4.7)	<0.001	3.9 (3.5 to 4.4)
Sexual health	2.95 (2.5 to 3.4)	4.15 (3.9 to 4.4)	<0.001	4.2 (3.8 to 4.5)

Methods A retrospective chart review of all patients seen at the Anal Dysplasia Clinic at the Pittsburgh AIDS Center for Treatment was performed between 1 January 2008 and 30 June 2010. 41 HIV positive MSM had biopsy proven HGAIN (AIN1/2, AIN2, AIN 2/3, and AIN3) at high-resolution anoscopy. Treatment involved applying three sequential cotton swabs soaked in 80% TCA to the lesion. Patients were seen at an average of 6 months following treatment for follow-up. Clearance was defined as the absence of HGAIN epithelial markers at HRA (punctuation/mosaicism) or AIN 1/normal epithelium on biopsy. The impact of the following variables on lesion clearance were assessed using univariate logistic regression analysis: age, CD4 count, initial grade of dysplasia on biopsy, concomitant therapy with imiquimod, previous history of HGAIN treatment.

Results The mean age of the study population was 52 years and the mean CD4 count was 565 cells/ml. Of the 43 HGAIN lesions treated in 41 patients, 22 (51%) demonstrated clearance of HGAIN epithelial markers. Repeat biopsy was performed on eight lesions and 4 (9%) lesions were AIN1, 3 (7%) lesions were AIN2, and one lesion was ungradable. By univariate logistic regression analysis, patients with a diagnosis of AIN1/2 (compared with those who had AIN2 or greater) demonstrated a non significant trend towards clearance of abnormal visual markers (OR 3.8 $p=0.112$). All other predictive variables did not achieve statistical significance.

Conclusions On a per lesion basis, the success of a single visit triple topical application of TCA was 58% that is comparable with previously published treatment studies using techniques such as infrared coagulation. While larger prospective studies are called for, following exclusion of cancer by biopsy, HRA combined with TCA treatment may represent a low-cost, minimally invasive management strategy for this population with a high-incidence of HGAIN.

P3-S4.05 MISSED OPPORTUNITIES FOR EARLY DETECTION OF CERVICAL CANCER IN AN STD CLINIC

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Background In 2009, more than 11 000 women were diagnosed with invasive cervical cancer and approximately 4000 died. Many of these women were never screened or not screened in the 5 years before their diagnosis. Because vaccine uptake has been low, it is critical to continue efforts at early detection. We examined how many women diagnosed with cervical cancer at a public hospital were seen at the public STD clinic up to 5 years before diagnosis to detect missed opportunities for early detection.

Methods All cases with a diagnosis of cervical cancer from 1 January 1999 to 18 October 2010 were extracted from the electronic database of Wishard Hospital (Marion County Indiana's public hospital) using ICD-9 codes for severe squamous dysplasia (CIN3), adenocarcinoma in situ of the cervix and malignant neoplasm of cervix uteri. Results were validated using cytology and pathology records and women verified to have CIN3 or higher grade abnormalities were included. These were matched to patients in the electronic medical database of the Bell Flower Clinic (Marion County's public STD clinic) on the basis of first name, last name, date of birth, race and social security number when present. Missed opportunities were defined as those visits to Bell Flower within 5 years of a diagnosis of cervical cancer and no history of a PAP smear or HPV screening within 2 years at Wishard Hospital.

Results We identified 1309 women with cervical cancer diagnosed or treated at Wishard Hospital during the study period. Of these, 202 women were found to have visited Bell Flower at some time during the study period whereas 73 were found to have made 147 visits to Bell Flower Clinic <5 years prior to their diagnosis of CIN3 or

higher. Because a substantial number of these women had normal or low grade abnormal PAPs at Wishard <2 years prior to their diagnosis, only 48 patients (97 visits) had visits that qualified as missed opportunities.

Conclusions Most women who developed cervical cancer diagnosed or treated at the public hospital had no record of a visit to the STD clinic. Of the 38 813 visits by women to Bell Flower during the study period, only 147 visits qualified as missed opportunities for detecting cervical cancer in 48 individuals. The number of women affected by missed opportunities was low, in part, because of accessible strong PAP smears at the public hospital.

P3-S4.06 MEN WITH GENITAL WARTS DO CONSULT LATER THAN WOMEN

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Background CSSSRN is a regional hospital of 240 acute-care beds with a STD clinic which works mainly with clinical nurses, under the supervision of Infectious Diseases physicians (ID). This study aimed to review the clinical data of patients with genital warts.

Methods All files from patients with genital warts evaluated in our STD clinic between 2005 and 2010 were reviewed for clinical data including the delays before consultation. All data were analysed with Epi Info 3.5.2.

Results From 2005 to 2010, an average of 5950 patients per year attended our STD clinic, and 70% were women. A total of 656 cases of genital warts were diagnosed by visual inspection from the attending ID physician. The specific types of lesions were warts associated with Human Papilloma Virus in 76%, molluscum contagiosum 20%, both 4%. The median age was 24 years (range 16–76) and 57% of patients were men. The patients did not notice any lesion prior to consultation in 61 cases (9.3%). For the others, the delays before consultation were: 0–7 days (16.2%); 8–14 days (8.9%); 15–27 days (12%); 1–2 months (30%); 3–5 months (11.5%); 6–12 months (11.9%); >1 year (8.7%). Significant longer delays before consultation were observed for men in comparison to women. The delays were: ≤7 days (men 42/349 [12%], women 54/244 [22.1%], $p<0.001$); =14 days (men 70/349 [20.1%], women 79/244 [32.4%], $p<0.001$); =27 days (men 113/349 [32.3%], women 107/244 [43.8%], $p=0.006$); ≥6 months (men 90/349 [25.7%], women 33/244 [13.5%], $p<0.001$); more than 1 year (men 41/349 [11.7%], women 11/244 [4.1%], $p=0.002$).

Conclusions In our population, the median delay before consultation for genital warts was 1–2 months. However, men with genital warts do consult significantly later than women. Specific public health approach should be considered for men with visible genital lesions, in order to promote earlier consultation and limit transmission. More behavioural studies are needed to further investigate this observation.

Clinical sciences poster session 5: other

P3-S5.01 MICROBIAL DIVERSITY OF GENITAL ULCER DISEASE IN MEN ENROLLED IN A RANDOMISED TRIAL OF MALE CIRCUMCISION IN KISUMU, KENYA

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Background Medical male circumcision (MMC) reduces the risk of HIV acquisition by ~60%, in part by reducing genital ulcer disease