Methods The HARP study enrolled HIV-positive women aged 25–50 in Burkina Faso (BF) and South Africa (SA). A stratified sampling strategy was used, with 2/3 of women on ART. Three cervical cancer screening methods were evaluated; (1) visual inspection (VIA/VILI); (2) high-risk HPV DNA (HC-2); (3) conventional cytology. Four-quadrant cervical biopsies were obtained among women with abnormalities detected by at least one test or by colposcopy.
Results 1252 women were enrolled (628 in BF; 624 in SA). The distribution of CD4 count (cells/μL) was similar in both sites: 68% with CD4+ ≥ 350 and 10% with CD4 < 200. Prevalence of high risk (HR)-HPV was 43% in BF and 61% in SA, and decreased with increasing CD4+ count (P-trend < 0.001). VIA/VILI positivity was 24% in BF and 41% in SA (P < 0.001) but did not vary by CD4 count (P-trend = 0.30). Prevalence of abnormal cytology (≥LSIL & ≥HSIL) was higher in SA (89% & 30%) than in BF (24% & 5%). 62% and 97% women were biopsied in BF and SA respectively, with CIN2+ prevalence of 6% and 29%, respectively (155 of 949 evaluated women thus far). CIN2+ prevalence decreased with increasing CD4+ (Table). Sensitivity of the single screening methods to detect CIN-2 decreased with increasing CD4+ count, whilst specificity tended to increase with increased CD4+ count (Table). Overall, HR-HPV DNA was the most sensitive test (94%) and HSIL+ cytology the most specific (90%). Further analyses with combination of tests did not show much improvement on performance.
Conclusions Cervical cancer screening tests among HIV-positive women are most sensitive among women with CD4+ count below 200 cells/μL. Screening strategies may vary according to CD4+ count but this will need to be evaluated prospectively.

P5.010 PREVALENCE AND PREDICTORS OF A POSITIVE CERVICAL CANCER SCREENING TEST IN A SEXUALLY TRANSMITTED INFECTION CLINIC IN LILONGWE, MALAWI

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Background In Malawi, cervical cancer is the most common cancer among females and a leading cause of cancer-related mortality. Cervical cancer can be averted if pre-cancerous lesions are detected early and treated. Visual Inspection with Acetic Acid (VIA) is an effective screening method for preventing cervical cancer and is sustainable in resource-limited settings. We assessed prevalence and predictors of a positive VIA following its introduction in a sexually transmitted infection (STI) clinic in Lilongwe, Malawi.
Methods From October 2012 to January 2013 all females 25–45 years and females < 25 years at clinician discretion received VIA screening at the Kamuzu Central Hospital STI Clinic. We calculated the prevalence of a positive VIA result and used logistic regression to identify predictors of a positive result.
Results During this 3.5-month period, 86 women had VIA screening results. Median age was 29, 77% were married, 43% had at least some secondary education. Forty three percent were HIV-infected and 63% had an STI using Malawi's syndromic management algorithm. Nineteen percent were VIA-positive, 79% VIA-negative, and 2% VIA-uncertain. The prevalence of a VIA-positive result was 7% in HIV-uninfected women and 33% in HIV-infected women. Factors significantly associated with a positive VIA result were HIV infection (OR: 6.1, 95% CI: 1.5, 24.4) and pain during intercourse (OR: 4.5, 95% CI: 1.2, 16.1). Genital warts (OR: 2.4, 95% CI: 0.5, 10.8) and genital ulcers (OR: 3.1, 95% CI: 0.5, 20.3) were associated with an increased odds of being VIA-positive, though this trend was not statistically significant.
Conclusions The prevalence of an abnormal VIA was high among Malawian women attending an STI clinic, especially for those with HIV. To prevent cervical cancer mortality, further expansion of VIA screening is needed in Malawi for women at high risk.

P5.011 ARE AUSTRALIAN GENERAL PRACTITIONERS (GPS) AND PRACTISE NURSES (PNS) EQUIPPED FOR INCREASED CHLAMYDIA TESTING? FINDINGS FROM THE AUSTRALIAN CHLAMYDIA CONTROL EFFECTIVENESS PILOT (ACCEPT)

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Background ACCEPt, a large cluster randomised control trial, aims to determine if annual testing for 16 to 29 year olds in general practise can reduce chlamydia prevalence. ACCEPt is also the first trial investigating the potential role of the PN in chlamydia testing. To inform the intervention, GPs' and PNs' chlamydia knowledge and practises were explored.
Methods GPs and PNs from 143 clinics were recruited from 54 postcodes in 4 Australian States and asked to complete a survey at time of recruitment. Survey responses were compared using conditional logistic regression to account for GPs and PNs from the same clinics participating.
Results Of 607 GPs and 126 PNs enrolled in ACCEPt, 86% and 78% completed the questionnaire, respectively. A third of GPs (32%) compared to 23% of PNs (P = 0.076) correctly identified the two age groups with the highest infection rates in women and only 17% vs 16% (P = 0.942) identified the correct age groups in men. Fewer GPs than PNs would offer testing opportunistically to asymptomatic young patients, including women having a Pap smear (55% vs. 84%, P = < 0.001); antenatal checkup (44% vs. 83%, P = < 0.001) and Aboriginal men with a sore throat (33% vs. 79%, P = < 0.001). Fewer GPs than PNs knew that retesting was recommended after chlamydia treatment (87% vs. 93%, P = 0.027); and that the recommended timeframe for retesting was 3 months (26% vs 66%, P = < 0.001). Under half of PNs (41%) reported involvement in chlamydia testing, with 79% wanting greater involvement and 87% wanting further training.
Conclusion Our survey reveals more gaps in chlamydia knowledge and management among GPs than PNs, which may be contributing to low testing rates in general practise. PNs have a role in increasing chlamydia testing.

P5.012 IS THE STAGE OF THE MENSTRUAL CYCLE RELATED TO CHLAMYDIA DETECTION?

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Background We investigated the association between chlamydia detection and stage in the menstrual cycle to investigate whether chlamydia detection was higher at different stages of the cycle.
Methods Electronic medical records for women attending Melbourne Sexual Health Centre March 2011 – 31st December 2012, who were tested for chlamydia by nucleic acid amplification of high vaginal, cervical, or urinary samples, and who recorded a date of Last Normal Menstrual Period (LNMP) between 0–28 days were

included in the analysis. Logistic regression was used to calculate OR (95% CI) for the association of chlamydia with menstrual cycle adjusted by demographics and behavioural variables.

Results During the study period, there were 10,017 consultations with positive diagnoses in 417 of those with a valid recorded LNMP. Detection rates were 3.8% (233/6816) in the follicular and 4.8% (184/3831) in the luteal phase of the menstrual cycle (OR 1.29 95% CI 1.1 – 1.6, p = 0.01). Detection was significantly associated with the luteal phase (adjusted odds ratio (aOR) 1.4 (95% CI 1.1–1.8) when adjusted for age, number of male partners, symptoms, inconsistent use of condoms, site of sample and sexual partners overseas/from overseas. Among women using hormonal contraception, there was no association with the luteal phase (aOR 1.3, 95% CI 0.9 – 1.8, p = 0.18; among women not using hormonal contraception, association with the luteal phase was significant (aOR 1.6, (95% CI 1.1 2.3, p = 0.007). The positive stored samples will undergo analysis to quantify bacterial load and determine if mean load differs across the cycle.

Conclusions Chlamydia detection rates are substantially and significantly higher in the luteal phase of the menstrual cycle. Hormonal and immune changes in the female reproductive tract may contribute to an increased burden of chlamydia infection in this phase, illustrated by the lack of association with the menstrual cycle in women using hormonal contraception.

P5.014 WHAT IS THE OPTIMAL TIME TO RESCREEN STI CLINIC VISITORS WITH A UROGENITAL CHLAMYDIA INFECTION?

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Background and Aim STI clinic visitors with a urogenital chlamydia infection (Ct) have a high re-infection rate. Retesting can be an effective strategy to prevent onward transmission and late sequelae. The optimal moment to offer a re-test is unknown.

Methods Between May 2012 and January 2013, all heterosexual visitors of the Amsterdam STI clinic, testing positive for urogenital Ct were offered retesting after receiving diagnosis, treatment and counselling. Participants were randomly assigned for re-testing after 2, 4 or 6 months. Participants were free to choose between two retest options; receive a home collection kit or an email/SMS invitation to return to the clinic for a self collected retest.

Results In total 1784 individuals were included of whom 47% were male, 74% were Dutch and the median age was 23 years (IQR 20–26). 779 (44%) opted for the home collection kit and 1005 (56%) for re-visiting the clinic. At this point, 795 are eligible to evaluate retesting; 265 home collection kits were returned (75%) and 237 individuals returned to the clinic for a retest (54%). Overall, the participation rate did not differ between the assigned time periods. A test result was available for 266, 126 and 49 individuals in the 2, 4 and 6 month group, respectively. The overall positivity rate at 2, 4 and 6 months was respectively 8%, 6% and 12%.

Conclusions Based on these preliminary data we found a high test uptake. Possibly because individuals were able to choose their preferred method of retesting. As the participation rate was not affected by the period of the retest and the positivity rate seemed to be highest after 6 months this might be an optimal time interval to offer a retest to STI clinic visitors. We conclude that retesting is feasible in identifying new Ct infections.

P5.015 CHLAMYDIA TRACHOMATIS SCREENING AND TREATMENT IN PREGNANT WOMEN IN LIMA, PERU

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Background Chlamydia trachomatis (CT), the most common bacterial STD and asymptomatic in most women, causes significant adverse outcomes in pregnancy but no programmes routinely conduct prenatal screening in Latin America. To prepare for a clinical trial of CT screening and treatment in pregnancy, we determined the feasibility and acceptability of routine chlamydia screening, patient and partner adherence to treatment, and chlamydia prevalence in pregnant women in Lima, Peru.

Methods We conducted a prospective study of pregnant women > 16 years of age at two large urban maternity hospitals in Lima. We offered chlamydia screening to pregnant women during their first prenatal visit using self-collected vaginal swabs with APTIMA Combo 2® Assay (Hologic Gen-Probe, San Diego, CA). CT positive patients were contacted within 14 days of testing and were asked to bring partner(s) for counselling and offered concurrent patient partner treatment (CPPT) with 1 gramme of oral azithromycin. Unaccompanied patients received counselling and treatment in the clinic and expedited partner therapy (EPT) for partners. We performed a test of cure > 3 weeks after treatment.

Results Over 2 months, we approached 646 women for the study and enrolled 603 (93.5%). The average (+/- standard deviation) age was 27.2 + 6.9 years with an average 2.3 + 2.5 lifetime partners and an average gestational age of 26.3 + 10.5 weeks. Chlamydia prevalence was 10.0% + 3.9%. Of 39 CT positive patients contacted so far, 35 (90%) have received treatment. Of those, 46% received CPPT, 49% EPT and 5% had no contactable partners. Treatment and test of cure are ongoing.

Conclusion Chlamydia screening in pregnancy was feasible and highly acceptable in two large urban maternity hospitals in Peru. The prevalence of CT infection was high. Our settings are optimal for a clinical trial of CT screening and treatment to prevent adverse pregnancy outcomes.

P5.016 WITHDRAWN BY AUTHOR

P5.017 THE AUSTRALIAN CHLAMYDIA CONTROL EFFECTIVENESS PILOT (ACCEPT): EARLY RESULTS FROM A RANDOMISED TRIAL OF ANNUAL CHLAMYDIA SCREENING IN GENERAL PRACTISE

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Background ACCEPt is a cluster randomised controlled trial to evaluate annual opportunistic chlamydia screening for 16–29 year olds in general practise (GP). Towns in which GP clinics are enrolled, are randomised to receive a multifaceted intervention to increase chlamydia testing or continue usual practise. The primary outcome is change in chlamydia prevalence amongst GP patients in each town. We report some early results on testing uptake, a secondary outcome.

Methods From July 2010-December 2011, we enrolled 787 GPs in 150 clinics (response rate > 80%) in 54 towns. Chlamydia testing rates (the proportion who consult a GP and have a test during 12 months) and re-testing rates (proportion who are re-tested within 12 (±3) months following a negative or within 3 months following a positive test) were calculated. We compared testing between intervention and control towns from July 2011 to Sept 2012. All analyses are adjusted for intracluster correlation within clinics.