P5.021 POOR GONORRHOEA SCREENING IN WOMEN SEEKING STI/REPRODUCTIVE HEALTH ADVICE IN RUSSIAN PUBLIC HEALTH SETTINGS IS THE CHALLENGE FOR GONORRHOEA CONTROL AND PREVENTION OF ITS COMPLICATIONS

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Background Untreated gonorrhoea in women in 20–40% brings to PID and the following tubal infertility. The estimated number of Russian women 15–44y.o. with infertility history around 1.5% due to the tubal factor in 2011. Free access to $4000 in-vitro fertilisation for women with infertility was introduced in Russia to increase national birth rate. Timely diagnosis and treatment of gonorrhoea that can be cost-effective preventive intervention, is however compromised by the low-sensitive microscopy test for gonorrhoea screening in women. In the circumstances of fast spreading of drug-resistant gonorrhoea forms improving gonorrhoea diagnosis and treatment in Russia are urgent priorities. Methods: Desk review and stakeholder interviews were used to review and analyse gonorrhoea trends, policies and guidelines, service delivery, challenges and needs.
Results (1) Free Gs microscopy women can either receive in STI clinic or in women's consultation. Culture is mostly used as the confirmatory method or in women with gonorrhoea infected partners. Sensitive NAAT methods are available in most urban settings on commercial base. Specificity of the Russian NAAT tests remains challenge. (2) Gs prevalence studies are not available (3) Standards are developing by different institutions, there are not leadership on the development of national guidelines or public health interventions on STI. The vertical structures of STI and reproductive health services under the Ministry of Health in combination with complex region-based health financing provide a challenge for the development of cost-effective public health response when multidisciplinary approaches are needed.
Conclusion Gs prevalence studies in STI clinics and women's consultations could provide the knowledge base for the cost-effective public health action. Algorithm of final Gs diagnosis should be developed and used in accordance with local situations. Introduction of free sensitive screening test as NAAT or culture among female populations with greater than 1% Gs prevalence might be recommended for public STI or reproductive health settings.

P5.022 EARLIER HCV DIAGNOSIS BY THE INTRODUCTION OF ROUTINE HCV TESTING FOR HIV POSITIVE MSM AND MSM OPTING OUT FOR HIV IN A LARGE STI OUTPATIENT CLINIC

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Background In October 2007 at a large STI outpatient clinic (SOC), anti-HCV screening was introduced for HIV unaware MSM opting-out for HIV testing (MOH) and HIV-positive MSM. We evaluated whether this screening resulted in additional and earlier HCV diagnosis in HIV-positive MSM also attending HIV treatment centres (HTC).
Methods At first visit, MOH and HIV-positive MSM visiting the SOC in Amsterdam were screened for anti-HCV. During follow-up visits, only those previously HCV negative were tested. Retrospectively, date of new HCV diagnosis at SOC was compared with HCV data provided by HTC.
Results The anti-HCV prevalence at first screening was 0.7% (3/450) among MOH and 6.4% (112/1,742) among HIV-positive MSM of whom 30% (34/112) did not report a history of HCV. In 133 follow-up visits to MOH 0 and in 3,286 follow-up visits to HIV-positive MSM 52 HCV seroconversions were found. These 52 seroconverters and the 34 MSM anti-HCV positive at first screening, excluding 13 MSM who were detected at HTC before SOC started anti-HCV screening, were compared with HTC data. Additional data from HTC was available for 56/73 clients. 29/56 (52%) were first diagnosed at SOC: 7 were concurrently diagnosed with HIV and not in care at HTC; 11 were scheduled for a routine visit at HTC within 1 month; 3 within 3 months; 3 within a year and all 17 were tested and diagnosed with HCV at HTC because of elevated ALT values; 3 HCV diagnoses would have been missed because ALT was low or considered non-HCV related; 2 missed ALT data.
Conclusions The introduction of routine HCV-antibody screening in SOC resulted in additional and earlier diagnoses of HCV in MSM. Testing should focus on HIV-positive MSM especially those newly diagnosed with HIV. Since anti-HCV testing does not identify acute infections, additional testing policies should be evaluated at SOC.

P5.023 NOVEL EMERGENCY DEPARTMENT REGISTRATION KIOSK FOR HIV SCREENING INCREASES ENGAGEMENT OF HIGH RISK PATIENTS AND IS COST-EFFECTIVE

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Background High operating costs challenge sustainability of successful U.S. Emergency Department(ED) HIV screening programmes. Free-standing registration kiosks could potentially reduce the marginal costs of ED HIV screening. We investigated a cost-effectiveness ratio(CER) as cost per new HIV diagnosis for a kiosk-based approach for offering screening, versus a counsellor-based approach.
Methods A rapid oral-fluid HIV screening programme, instituted in a U.S. ED since 2005, had a rate of new HIV diagnosis 0.16% in 2012. A two-phase quasi experimental design, including a counsellor-based approach to offer testing at the bedside (Phase I, August and September 2011) and a kiosk-based approach to offer testing at ED registration (Phase II, December 2011 and January 2012), was performed. CER per new HIV diagnosis was defined as total cost of the screening programme divided by number of newly diagnosed cases. Costs included screening programme personnel (study coordinator, testing staff, and kiosk helpers), diagnostic assays (rapid and confirmatory tests), and kiosks (2 kiosks, software, and IT consulting fees). Sensitivity analyses were performed.
Results Slightly higher rates of newly diagnosed HIV positivity were observed with kiosk approach [I: 0%(0/538); II: 0.47%(2/430; 95% CI: 0.08%, 1.53%)]. Compared to phase I, those tested via kiosk were more likely to be younger and report high-risk sexual behaviours and/or injection drug use(IDU) [phase I vs. II: age: 39 years, 35 years; high-risk sexual behaviours: 30%, 51%; IDU: 1%, 7% (all $p < 0.05$)]. Projected first-year CER for kiosk-facilitated screening was $12,470 versus $18,406 counsellor-based screening(using a new HIV diagnosis rate in 2012). Sensitivity analysis based on 95% CI of positivity(0.08%, 1.53%) estimated the 1-year CER for kiosk-facilitating screening to be $82,847 to $3,814, respectively.
Conclusions Our pilot data demonstrated that use of kiosks for offering HIV screening engaged more high-risk patients, identified more unrecognised infections, and was potentially more cost-effective than a counsellor-based bedside approach.

P5.024 USE OF RAPID HIV TEST IN LOW THRESHOLD CENTRE IN ANTWERP, BELGIUM DURING 2007–2012

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Introduction Helpcenter (HC) is a low threshold centre for HIV and STI testing and dedicated to high risk groups: men having sex with men (MSM) and migrants from high endemic regions. Rapid HIV tests (RT) are used at HC for HIV screening since June 2007. The aim of this work is to describe our experience with this testing strategy.
Methods retrospective analyse of all RT routinely performed at HC. Tests are performed on plasma using the Determine Combo®HIV-1/2 Ag/Ab (Alere) test (4th generation). Determine®HIV-1/2 (3th generation) has been used until May 2009. All reactive tests were confirmed using INNO-LIA HIVI/II Score®. A validation study was performed on 310 samples at the beginning of the project
Results up to December 2012, 5053 RT have been performed in 3884 persons including 1207 MSM and 994 migrants. The mean age was 33 years. 79 tests were reactive, 4968 negative and six not interpretable, two at the beginning of the project (learning curve) and four due to inappropriate light in the testing room and uncontrolled room temperature. Nine reactive tests were not confirmed with antibody or antigen tests (false-positive rate: 11.3%). No false-negative results have been observed during the validation study. The prevalence of HIV was high among the risk groups: 2.9% of MSM and 3% of migrants tested were found hiv-positive. The availability of RT was an important reason to consult at HC, 66% of the respondents highlight it as motivation to consult at HC. RT is offered to each person consulting at HC, 90% of them accepted to undergo a RT as screening for HIV.
Conclusion the RT is well accepted in a dedicated testing centre. The overall prevalence of HIV infection was 1.8%, nearly double in the target groups. Data on linkage to care will be presented.

P5.025 DEVELOPMENT AND COMPARATIVE EVALUATION OF AN INNOVATIVE HIV SELF-TESTING SMARTPHONE APPLICATION, AN INTERNET-BASED AND A PAPER-BASED INSTRUCTIONAL PROGRAMME IN SOUTH AFRICA

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Background South Africa has about 11% of the total population living with HIV, the largest to date for any country. Facility-based HIV testing has reached only 50% South Africans because of fear of visibility leading to stigma, embarrassment and discrimination. Alternative strategies like self-testing for HIV may improve engagement, but evidence is limited. For self-testing to be successful, knowledge regarding the process, clear instructions about how to conduct, interpret and seek linkages to counselling and staging is essential.
Methods We created an internet-based HIV self-testing programme with a popular oral HIV test. The programme had built-in content for counselling, personal risk staging, instructions to self-test, and to seek counselling and referral. We also created an equivalent paper version and evaluated both programmes in 251 health care professionals working at University of Cape Town, South Africa. The tested internet programme was converted into an interactive, engaging smartphone HIV self-test application. The application was piloted for design, content and comprehension in 12 young adults (aged 18–25 years).
Results Internet and paper-based self-testing programmes were well received (91.3%) by participants with overall preference for self-testing reported at 100%. User feedback on the smartphone application was incorporated after pilot evaluation and the following were improved: (a) a user centred design and layout, (b) colourful interface with clear instructions, (c) clarity of content for comprehension, (d) built-in features for expanded access, and (e) overall presentation. After six iterations, a prototype Android application was developed.
Conclusion High preference to self-test facilitated the use of the internet and paper-based programmes. This indicates that if validated self-tests are presented with clear instructions to self-test and built-in confidential linkages to counselling and treatment are provided, many more individuals will opt for HIV self-testing. These programmes and the smartphone application will be useful for the scale-up of unsupervised self-testing initiatives in literate populations worldwide.

P5.026 MORE THAN JUST SELLING THE TEST: PHARMACIST OPINION ABOUT THE SALE OF OVER THE COUNTER HIV RAPID TESTS

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Community pharmacy sale of over-the-counter (OTC) rapid HIV tests may provide an important extension of the public health system. U.S. pharmacy practise has expanded to include several public health services; however, nothing is known about pharmacist attitudes about OTC sale of HIV tests and related consultation opportunities.
Methods This study identifies and explores the views of pharmacists regarding the sale of OTC rapid HIV tests. Exploratory interviews were conducted among a sample of 17 licenced community pharmacists in a Midwestern U.S. state with moderate HIV incidence. 30-minute interviews were conducted in person or by telephone between May and September 2012. Interviews were recorded and transcribed for a priori and open coding. Three investigators independently coded transcripts to assure interrator reliability.
Findings Pharmacists had positive attitudes about the OTC rapid HIV test, as testing would likely result in more people learning their HIV status. Participants felt that the pharmacy role should not be limited to test kit sale. Pharmacists framed their role as health consultants focused specifically on results consultation and linkage to treatment. Point of sale was identified as the opportunity for consultation about the HIV test and to establish a relationship for future discussion about results and linkage to care.
Conclusion Pharmacist consultation at point of OTC HIV test sale provides an important opportunity to increase options for linkage to HIV care. Future studies should investigate pharmacist opinion and attitudes about the OTC sale of rapid HIV test kits among a larger and more representative sample of community pharmacists, and in states with other geographic, socio demographic and epidemiologic characteristics.

P5.027 HIGH PREVALENCE OF UNDIAGNOSED HIV INFECTION IN PATIENTS WHO WERE NOT OFFERED SCREENING AND PATIENTS WHO DECLINED SCREENING: EVALUATION OF A RAPID HIV SCREENING PROGRAMME IN A U.S. URBAN EMERGENCY DEPARTMENT

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Background U.S. emergency departments(EDs) have become a cornerstone of the current CDC screening approach for identifying unrecognised HIV-infected patients. However, in spite of intensive efforts many ED screening programmes frequently fail to identify many infected patients. We aimed to investigate the prevalence of undiagnosed infection in an ED with an established HIV screening programme.