006.2 A PILOT RANDOMISED CONTROLLED TRIAL OF HIGH-DOSE VITAMIN D SUPPLEMENTATION TO PREVENT RECURRENCE OF BACTERIAL VAGINOSIS

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Background Bacterial vaginosis (BV) is the most common cause of vaginal infection worldwide and is associated with myriad negative reproductive health outcomes. Several cross-sectional studies indicate that women with low vitamin D levels have increased BV prevalence.

Methods This randomised, double-blinded, placebo-controlled trial started enrollment in September 2011 and concluded follow-up in January 2013. Women (n = 126) with symptomatic BV were enrolled from an urban STD clinic in the midwestern United States. All participants received standard metronidazole therapy. Intervention participants (n = 63) also received nine doses of 50,000 international units of cholecalciferol (vitamin D3) over 6 months; control arm women (n = 63) received matching placebo. BV status was assessed via Nugent scoring at three follow-up visits over six months. The primary analysis will be intention-to-treat using extended Cox proportional hazard models.

Results Participants' median age was 26. Three-quarters (75%) of women were black and 25% were white. All reported a lifetime history of sex with men, and 29% also had a lifetime history of sex with women. At baseline, median serum vitamin D levels (measured as 25-hydroxy vitamin D) were the same for intervention and control women at 15.85 ng/mL (interquartile range (IQR): 12.1–21.4 ng/mL); levels < 20 ng/mL are considered insufficient. Eighty-one percent of participants returned for one or more follow-up visits. At trial completion, median vitamin D level among intervention women was 30.5 ng/mL (IQR 24.4–37.7 ng/mL), vs. 17.8 ng/mL among control women (IQR: 11.7–27.1 ng/mL). Nugent scoring is ongoing with primary results available in early spring 2013.

Conclusion Immunologic mechanisms regulated by vitamin D may play a role in BV recurrence, but no previous study has examined whether supplementing women with vitamin D will impact subsequent development of BV. If effective against BV, vitamin D supplementation can have worldwide impact as a safe, simple intervention.

006.3 MACROLIDE RESISTANCE OF MYCOPLASMA GENITALIUM IN FRANCE DIRECTLY DETECTED IN CLINICAL SPECIMENS BY REAL-TIME PCR AND MELTING CURVE ANALYSIS

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Objectives *Mycoplasma genitalium* (MG) is a sexually transmitted organism associated with non-gonococcal urethritis in men and several inflammatory reproductive tract syndromes in women. These infections are commonly treated with azithromycin. However macrolide resistance has been reported and is associated with point mutations in domain V of the 23S rRNA gene. In order to evaluate the prevalence of macrolide resistance in MG in French clinical specimens, we first used a recently published High Resolution Melting (HRM) assay. Because wild-type and mutated MG were hardly discriminated in MG-positive clinical specimens, we developed a new molecular assay for the rapid detection of macrolide resistance.

Methods Between January 2011 and September 2012, 207 urogenital MG-positive clinical specimens were collected from 185 patients. For the detection of macrolide resistance-associated mutations, we designed a real-time PCR based on fluorescence resonance energy transfer (FRET) coupled with melting curve analysis. The assay was first validated on macrolide-resistant MG isolates with characterised A2058G/C and A2059G mutations (*Escherichia coli* numbering), then optimised to be applied directly on clinical specimens. Resistant genotypes were confirmed by 23S rRNA gene sequencing.

Results Among 207 MG-positive clinical specimens, 136 from 119 patients were amplified with our assay, showing a sensitivity of 65.7% (136/207). A substitution in the 23S rRNA gene was found in 14.2% (17/119) of the patients, with a rate of 14.5% in 2011 and 14% in 2012. Nine and eight clinical specimens harboured the A2059G and A2058G mutations, respectively. In four cases, a mixed population of wild-type and mutated MG was observed.

Conclusion Macrolide resistance prevalence of MG is 14.2% in France. Our FRET PCR assay is able to discriminate wild-type from resistant genotype in one reaction directly in clinical specimen. It will allow clinicians to shorten the time to initiate effective treatment and contribute to reduce transmission of resistant strains.

006.4 USING SMS TEXT REMINDERS TO REDUCE 'DID NOT ATTEND' (DNA) RATES IN SEXUAL HEALTH AND HIV APPOINTMENT CLINICS

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Background DNA rates in sexual health and HIV clinics have historically been high and this can reduce the ability of the clinic to see patients within the UK national target of two working days. The availability of technology such as SMS texting allows appointment reminders to be readily sent just prior to the appointment.

Objectives To measure the impact of the SMS text appointment reminders on the DNA rates in a clinic providing sexual health and HIV appointments.

Methods DNA rates were measured for two 2-month periods before (2009) and after (2012) the introduction of routine SMS text reminders being sent to patients who have pre-booked appointments. Texts were sent two working days before the booked appointments.

Results Overall, after the introduction of SMS text appointment reminders, the DNA rates fell by 35% from 203/768 (26%) to 119/699 (17%), P < 0.0001. The fall was especially large for male sexual health appointments: 56/200(28%) vs 24/165 (15%), P < 0.004 a fall of 46%. Female sexual health DNA rates also fell: 69/302(23%) vs 43/273(16%), P < 0.02, a fall of 30%, as did DNA rates for HIV clinics: 78/266(29%) vs 52/261(20%), P < 0.001, a fall of 31%

Conclusions SMS texts sent to patients two days before a booked appointment reduced the DNA rate by an average of one in three. The decrease was especially large for male patient appointments. Routine text reminders for appointments are an effective way of ensuring that the clinic runs efficiently.

006.5 AN EXPLORATORY EVALUATION OF UNIVERSAL OPT-OUT CHLAMYDIA TESTING DURING CLINICAL ENCOUNTERS FOR YOUNG WOMEN IN THE UNITED STATES

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Background Chlamydia testing rates are low, with only about a third of sexually active young women tested at clinical encounters. Even fewer sexually active female adolescents are tested. Interventions