(GUD) and HSV-2. In the Ugandan and Kenyan trials, PCR did not find a sexually transmissible agent in 50–60% of GUD specimens, and MMC did not protect against HSV-2 in the Kenyan trial. We sought to better define the aetiology of GUD in the Kenyan trial and examine how MMC affects GUD aetiology.

Methods We defined GUD of unknown aetiology as negative for HSV type 1 and type 2, *T pallidum*, and *H ducreyi* by PCR, and negative for HSV-2 and *T pallidum* by serology. In 59 GUD specimens from 59 men, 23 (39%) had unknown aetiology. We identified bacterial microbiota in all 59 specimens using multitag pyrosequencing of the 16S rRNA gene, and compared results by unknown vs STI aetiology. Statistical analysis employed exact methods.

Results Overall, 83 distinct genera were detected. *Prevotella* spp. was most abundant, accounting for 18% of microbiota on average, and present in 75% of specimens. Bacterial diversity was greater in GUD of unknown aetiology than STI associated GUD (median number of genera 13 [range 7–20] vs 11 [range 3–20], $p=0.06$). *Fusobacterium* spp., *Sneathia* spp. and *Anaerococcus* spp. were more abundant in GUD of unknown aetiology (7.7%, 7.6%, and 7.3%, respectively) than in GUD of STI aetiology (4.6%, 5.0%, and 5.4%). Fusobacteriales (*Fusobacterium* spp. or *Sneathia* spp.) [OR=4.7; 95% CI: 1.3 to 19.9] and *Anaerococcus* spp. [OR=4.6; 95% CI: 1.2 to 22.5] were more likely to be recovered in GUD of unknown aetiology than STI associated GUD. Fusobacteriales were more often recovered from uncircumcised men than circumcised men (62% vs 22%, $p=0.04$), and *Anaerococcus* spp. was present in 22% of circumcised vs 70% of uncircumcised men ($p=0.010$). Reported penile coital injuries were more common among men with *Anaerococcus* spp. (85% vs 57%, $p=0.01$), and condom use was less common (50% vs 71%, $p=0.11$). There was no difference in these bacteria by ulcer location.

Conclusions Fusobacteriales and *Anaerococcus* spp. may colonise genital ulcers that develop from a mechanism related to circumcision status. Many such “ulcers” may be epithelial disruptions that are traumatic in origin. These bacteria have cytotoxic properties that may ulcerate or exacerbate pre-existing minor epithelial disruptions. MMC may reduce GUD through a reduction in these anaerobic bacteria.

P3-S5.02 IS URETHRAL SMEAR MICROSCOPY IN ASYMPTOMATIC MEN EFFECTIVE IN REDUCING MAJOR *M GENITALIUM* INFECTION SEQUELAE IN WOMEN?

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Background Non-Chlamydial Non-Gonococcal Urethritis (NCNGU) is as prevalent as Chlamydial urethritis in UK men. *Mycoplasma genitalium* likely explains 10–46% of cases but there is no UK-licensed molecular test. In women, *M genitalium* is associated with pelvic inflammatory disease (PID), infertility and ectopic pregnancy. New UK guidelines do not recommend urethral smear microscopy in asymptomatic men, so asymptomatic NCNGU cannot be diagnosed, whereas previously affected men and their sexual partners were treated with antibiotics. The impact of this policy on reproductive health sequelae in women is unknown.

Methods We used a compartmental mathematical model to synthesise evidence on the natural history of *M genitalium*, diagnosis and treatment levels. Uncertainty was accounted-for using Latin hypercube sampling, with rejection sampling to fit to data. The model was stratified by sex, incorporates heterogeneous sexual behaviour, and was parameterised by behaviour data from key UK

surveys (NATSAL2, PATSI, MSTIC); STI surveillance data; and natural history data from the literature. It incorporates symptomatic and asymptomatic infection; PID; care-seeking due to symptoms, partner notification, and routine screening; and treatment failure. We fitted to national STI surveillance (KC60) data, (allowing for uncertainty in the amount of NCNGU caused by *M genitalium*), representing current practice, and examined (i) increasing microscopy in asymptomatic men by making it routine in all genito-urinary medicine clinics and (ii) decreasing rates by discontinuing it in the 20% of clinics currently still using it.

Results Microscopy in asymptomatic men reduces the burden of infection in women by reducing prevalence in men thus reducing transmission to women; and treating women via partner notification from diagnosed men. The magnitude of these effects depends upon natural history in men and women, about which there is uncertainty. We determine ranges of parameter values in which routine microscopy would be effective in reducing *M genitalium*-related sequelae in women.

Conclusions Further empirical work is required to determine if natural history parameters fall in the ranges that would make routine microscopy in asymptomatic men effective. Particularly important are the prevalence of *M genitalium*; proportion of infections that are symptomatic in men and women; duration of untreated infection; and incidence of PID, infertility and ectopic pregnancy attributable to *M genitalium*.

P3-S5.03 CONFLICT OF INTEREST AND POINT OF CARE TESTS: AN EXPLORATION OF ACCURACY IN HEPATITIS C INFECTION

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Background The WHO estimates that 170 million people worldwide are infected with Hepatitis C. In the context of HIV co-infection, rapid point-of-care tests gain importance in both the developing and developed countries. Moreover, in the light of the Food and Drug Administration's approval of the Oraquick point-of-care test for Hepatitis C for use in the USA, the accuracy of these tests is relevant.

Objective We conducted a systematic review and meta-analysis of the literature examining the sensitivity and specificity of all rapid point-of-care tests used to diagnose incident or prevalent Hepatitis C, with an attention to involvement of industry in reporting of results.

Methods Two reviewers conducted independent searches of five databases between the years of 1995 and 2010. Bayesian meta-analysis was conducted accounting for the use of imperfect reference standards (sensitivity and specificity ranges of 90%–100% were assumed) in the assessment of index tests. The quality of all included full-text studies was assessed using the QUADAS and STARD checklists, with a focus on reporting of conflict of interest with industry.

Results A total of seven studies were identified from the database searches, of which five were conducted in developing settings. Eight index tests were examined including Oraquick, HCV Tri-Dot, HCV Bidot, Thermo Ricerca, SM-HCV, Onecheck, Goldspot and Accurate. Sensitivity of all index tests ranged from 45% to 100%, while specificity ranged from 93% to 100%. Oraquick reportedly had the highest accuracy, with sensitivity ranging from 99% to 100% and a specificity of 100%. However, the authors of the study reported a financial relationship with Orasure Technologies Inc., the makers of Oraquick. Although pooled sensitivity of all tests was high at