Results Among 1312 MSM, 4.3% (n = 56) had rectal gonorrhoea. Anal sexual practices, other than anal-penile sex, were common among MSM: receptive oro-anal (rimming) (70.5%), receptive fingering or penile-perianal contact i.e dipping (84.3%) and using partner's saliva as a lubricant for anal sex (68.5%). Saliva as a lubricant (adjusted OR 2.17; 95% CI 1.00 to 4.71) was significantly associated with rectal gonorrhoea after adjusting for potential confounding factors. Receptive rimming and fingering or penis dipping were not statistically associated with rectal gonorrhoea. The crude population attributable fraction of rectal gonorrhoea associated with use of partner's saliva as a lubricant for anal sex was 48.9% (7.9% to 71.7%).

Discussion/conclusion Saliva use as a lubricant for anal sex is a common sexual practice in MSM, and may play an important role in gonorrhoea transmission. Almost half of rectal gonorrhoea cases may be eliminated if a message of prevention is included in not using partner's saliva for anal sex.

O004 INHIBITORY EFFECT OF AN ANTISEPTIC MOUTHWASH AGAINST *NEISSERIA GONORRHOEAE* IN THE PHARYNX (GONE) AMONG MEN WHO HAVE SEX WITH MEN: A RANDOMISED CONTROL TRIAL

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Background/introduction Gonorrhoea prevalence is increasing among men who have sex with men (MSM) worldwide. Studies suggest pharyngeal infection may be central to transmission and is the site of acquisition of resistant genes. With condom use falling, other interventions to reduce the transmission of gonorrhoea are urgently required.

Aim(s)/objectives To determine whether Listerine, a commercial mouthwash product, has an inhibitory effect against *N. gonorrhoeae*.

Methods MSM who tested positive for pharyngeal gonorrhoea by nucleic acid amplification test between May-2015 and February-2016 and returned for treatment within 14 days, were enrolled in the study. They were randomised to gargle either Listerine or saline for 60 seconds. Pharyngeal swabs were taken before and after gargling, and tested by culture. Only men who tested positive by culture before gargling were included in the analysis. The proportions of men who tested positive for pharyngeal gonorrhoea after gargling in both groups were calculated.

Results Of the 197 MSM who enrolled, only 58 MSM (33 in Listerine arm and 25 in saline arm) tested positive by culture on the day of recruitment. 17 (52%) MSM in the Listerine arm remained culture positive versus 21 (84%) in the saline arm after gargling the solution (p = 0.013). The odds of being culture positive were 4.4 (95% CI: 1.4–17.7) times higher among men who gargled saline compared to those gargled Listerine.

Discussion/conclusion This data suggest Listerine could reduce the viable numbers of *N. gonorrhoeae* on pharyngeal surface which may prevent transmission. Further trials to look at efficacy over time are warranted.

O005 SELF-TAKEN EXTRA-GENITAL SAMPLES COMPARED WITH CLINICIAN-TAKEN EXTRA-GENITAL SAMPLES FOR THE DIAGNOSIS OF GONORRHOEA AND CHLAMYDIA IN WOMEN AND MSM

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Background Extra-genital tests for gonorrhoea and chlamydia are important in MSM and are increasingly important in women as vulvovaginal swabs (VVS) alone can miss infections. Self-sampling is frequently used but there has been no robust RCT against clinician-taken samples in MSM or women to assess its efficacy.

Aim To compare self-taken extra-genital samples in women and MSM with clinician-taken samples for diagnostic accuracy.

Methods Women and MSM attending a sexual health clinic were invited into a 'swab yourself' trial. Clinician and self-samples were taken from the pharynx and rectum (plus VVS in women and FCU in MSM) for gonorrhoea (NG) and chlamydia (CT) using NAATs. The sampling order was randomised. Patient infected status was defined as at least two positive confirmed samples.

Results 1251 women and MSM were recruited to January 2016. Overall prevalence: NG 5.7% (rectal 4.3%, pharyngeal 3.1%), CT 17.8% (rectal 16.5%, pharyngeal 4.0%). 9.4% of female NG cases and 13.8% of CT cases were VVS negative. 72% of MSM NG cases and 89.5% of CT cases were FCU negative.

Sensitivity, specificity, PPV and NPV are shown in the table:

Abstract O005 Table 1 Sensitivity & specificity of extra genital samples

	Sensitivity (95% CI)	Specificity (95% CI)	PPV (95% CI)	NPV (95% CI)
NG rectal clinician	96.3 (87.3–99.6)	100.0 (99,7–100.0)	100.0 (93.2–100.0)	99.8 (99.4–100.0
NG rectal self	98.2 (90.1–100.0)	99.9 (99.5–100.0)	98.2 (90.1–100.0)	99.9 (99.5–100.0)
NG pharynx clinician	95.1 (83.5–99.4)	100.0 (99.7–100.0)	100.0 (91.0–100.0)	99.8 (99.4–100.0)
NG pharnyx self	97.6 (87.4–99.9)	100.0 (99.7–100.0)	100.0 (91.4–100.0)	99.9 (99.5–100.0)
CT rectal clinician	96.6 (93.1–98.6)	99.9 (99.5–100.0)	99.5 (97.2–100.0)	99.3 (98.6–99.7)
CT rectal self	98.1 (95.1–99.5)	99.8 (99.3–100.0)	99.0 (96.5–99.9)	99.6 (99.0–99.9)
CT pharynx clinician	92.0 (80.8–97.8)	99.9 (99.5–100.0)	97.9 (88.7–100.0)	99.7 (99.2–99.9)
CT pharynx self	96.0 (86.3–99.5)	99.9 (99.5–100.0)	98.0 (89.2–100.0)	99.8 (99.4–100.0)

No statistical difference between self and clinician-taken rectal or pharyngeal samples by McNemar test.

Conclusion This on-going work is the first randomised study showing that self-taken extra-genital samples have high sensitivity and specificity and are comparable to clinician-taken samples. High levels of extra-genital infections were found. In women 9% of NG and 14% of CT infections would be missed using VVS alone demonstrating the benefit of extragenital sampling.