were used to evaluate associations between TV acquisition, detection of bacterial species, and total vaginal bacterial load.
Results There was no association between total vaginal bacterial load, species diversity, or richness, and likelihood of TV acquisition. Detection of *S. sanguinegens* (odds ratio [OR] 4.00, 95% CI 1.19–13.50) and *P. amnii* (OR 3.45, 95% CI 1.29–9.24) were both associated with TV acquisition. *M. indolicus* was also associated with TV acquisition (OR 2.47, 95% CI 0.88–6.93), although not significantly. Compared to women with none of these species, women with all three bacterial species had substantially higher likelihood of TV acquisition (none-reference category; one-OR 1.57, 95% CI 0.21–11.86; two-OR 4.50, 95% CI 0.93–21.76; three-OR 5.50, 95% CI 1.15–26.40). There was no association with the other three bacterial species.
Conclusion The presence of three bacterial species commonly associated with BV may increase susceptibility to TV infection. Elimination of these bacteria could be explored as an approach to decrease women's risk of trichomoniasis.

O04.2 EFFECTS OF OVER-THE-COUNTER LACTIC ACID-CONTAINING VAGINAL DOUCHING PRODUCTS ON THE VAGINAL MICROBIOTA

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Introduction Of female visitors to the STI clinic in Amsterdam, 31% report use of vaginal cleansing products (including douches). Vaginal douching may negatively affect vaginal microbiota compositions (VM). We report the effect of intravaginal douching on the VM in a prospective study.
Methods Through advertisements, we recruited 25 healthy women, aged 18–36 years, from 2015–2016. Participants were followed over 3 menstrual cycles and were instructed to use an intra-vaginal lactic-acid-containing douche 3 times a week during the 2nd cycle. Participants self-collected a median of 68 [IQR: 64–68] vaginal swabs. Baseline characteristics were collected through questionnaires. All participants kept a daily diary in which they reported douching, menstruation, sexual activity, etc. VM were assessed by 16S rRNA (V3-V4 region) sequencing. Associations between douching and VM were assessed by multivariable logistic regression, using generalised estimating equations to account for multiple observations within the same individual.
Results As of December 2016, a median of 42 [IQR:40–44] vaginal swabs from 10/25 women were analysed. These 10 women had a median age of 25 years [IQR: 21.8–29.3], 9 women were Dutch-Caucasian, 9 used hormonal contraceptives and all were highly educated. At baseline, 8 women had lactobacilli-dominated VM (*Lactobacillus crispatus* (n=6), *L. iners* (n=1) or *L. iners*/*L. jensenii* (n=1)) and 2 women had polybacterial *Gardnerella vaginalis*-containing VM (GV-VM). The latter 2 women continued to have GV-VM throughout the study period. The VMs of 2 women, dominated either by *L. crispatus* or *L. iners* at baseline, shifted to GV-VM during the 2nd cycle, which persisted in the 3rd cycle. Having GV-VM was more likely in the 2nd and 3rd cycle, compared to the 1 st cycle, after adjusting for sex and menses (odds ratio (OR) =1.7 (95% CI: 0.9–3.1) and OR=2.1 (95% CI: 0.7–6.1), respectively), though not statistically significanctly so.
Conclusion Our interim analyses suggest that regular intra-vaginal douching may promote a shift from lactobacilli-dominated VM to GV-VM.

O04.3 UPTAKE AND ACCEPTABILITY OF CONTRACEPTIVE VAGINAL RING AMONG WOMEN WITH BACTERIAL VAGINOSIS IN KENYA

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Introduction Innovative approaches for delivery of hormonal contraception and antiretrovirals are urgently needed. Intravaginal vaginal rings are a promising strategy since they obviate the need for daily dosing, a challenge in some HIV prevention studies in sub-Saharan Africa (SSA). Changes in the vaginal microbiome associated with increased risk of bacterial vaginosis (BV) are a risk for HIV acquisition and transmission, as is pregnancy. Therefore, hormonal interventions that prevent unintended pregnancies (UIP) and promote vaginal health could reduce this risk. However, there is little data on acceptability of intravaginal rings in SSA countries. We assessed uptake and acceptability of a contraceptive vaginal ring (CVR) among women with BV.
Methods We conducted a prospective study among women aged 18–40 years in Thika, Kenya. Participants were recruited from community venues and public health facilities. If interested and eligible, they were randomised to cyclical or continuous use of the CVR at month 1 visit and were followed up monthly for 7 months. At follow-up visits behavioural data was obtained and pregnancy testing performed. We used univariate methods to determine CVR uptake and survival methods to determine time to incident pregnancy.
Results Between April to December 2016, 363 women screened, 101 enrolled and 79 (78.2%) initiated CVR at randomization visit, 12 (11.9%) did not return for randomization and were considered lost to follow-up, 7 (6.9%) expressly refused to use CVR, and 3 (3.0%) terminated due to investigator's decision or other reasons. Reasons for refusal included lack of a stable partner, need to consult partners, and preference for other contraceptive methods. We observed 4 incident pregnancies, at an incidence of 18.7 per 100 person-years (95% CI 5.1–48.0).
Conclusions Contraceptive vaginal ring was highly acceptable among women with BV with few incident pregnancies, suggesting that combination prevention with antiretrovirals using this delivery system should be feasible for this population.