HIGH RATES OF MYCOPLASMA GENITALIUM, BUT NO MACROLIDE RESISTANCE, AMONG PREGNANT WOMEN IN PAPUA NEW GUINEA

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Background:
Mycoplasma genitalium (MG), and especially macrolide resistant MG, is emerging as an important cause of reproductive tract syndromes and adverse pregnancy outcomes in a number of countries. We provide the first report on the prevalence of, and risk factors for *Mycoplasma genitalium* in Papua New Guinea (PNG). Other important infections such as *Chlamydia trachomatis* (CT), *Neisseria gonorrhoea* (NG), *Trichomonas vaginalis* (TV) and *Bacterial vaginosis* (BV) were also investigated in this study.

Methods:
As part of a larger cohort study in PNG, vaginal swabs and urine samples were collected from 700 pregnant women at their first antenatal visit. Samples were tested locally by GeneXpert for CT, NG and TV, and vaginal swabs were later tested for MG using the SpeeDx ResistancePlus MG kit. A vaginal smear was examined under microscopy for diagnosis of BV (using Nugent's score). Women received treatment in accordance with national guidelines or if they had a positive result by GeneXpert.

Results:
A high proportion of pregnant women were diagnosed with at least one reproductive tract infection (RTI); many women had multiple infections. Of those enrolled, 12.44% (78 / 627 samples) were positive for MG with no macrolide resistance detected. Other STIs were common, including CT, NG, TV as well as BV and we identified risk factors for infection and overlap between these infections and MG.

Conclusion:
We show that MG is present in PNG and is highly prevalent in this region, as are other important RTIs. Despite macrolide resistant MG being common in neighboring countries, none were detected here. We identified risk factors for MG infection to guide policy and treatment algorithms. Ongoing studies will determine associations with adverse outcomes impacting on women's reproductive health. Furthermore,

implementation research required to describe how to reduce MG and other RTIs in settings with significant health system constraints.