

# TRENDS IN INFECTIONS DETECTED IN WOMEN WITH PELVIC INFLAMMATORY DISEASE OVER A DECADE

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## Background:

Chlamydia trachomatis (CT) and Neisseria gonorrhoeae (NG) are established causes of pelvic inflammatory disease (PID), but in up to 70% of cases there is no pathogen detected. We aimed to describe infections detected among PID cases over a decade and establish the prevalence of Mycoplasma genitalium (MG) and bacterial vaginosis (BV) among non-chlamydial/non-gonococcal cases to inform testing and treatment practices.

## Methods:

We conducted a retrospective case-series to determine the number of PID cases diagnosed with genital infections (CT, NG, MG, BV) among individuals attending MSHC from 2014-2024. We determined the proportion of PID cases with  $\geq 1$  genital infection detected, and a chi-square trend test was used to explore trends in detection of infections over time.

## Results:

Among 2907 PID cases, 1302 (45%, 95%CI:43%–47%) had no infection detected; 294/2722 (11%, 95%CI:10%–12%) had MG, 796/2533 (31%, 95%CI:28%–35%) had BV, 422/2792 (15%, 95%CI:14%–17%) had CT, and 93/2784 (3%, 95%CI:1%–3%) had NG. Of the 2374 (82%) cases tested for all four infections, 852 (36%) had one and 467 (20%) had  $>1$  infection detected. Of the 2018/2374 (85%) non-chlamydial/non-gonococcal cases, 547/2018 (27%) had BV and 107/2018 (7%) had MG as the only infection detected while 68 cases (3%) were co-infected with BV and MG. Over the decade, the proportion of cases assessed for BV was high (80%-90%) and stable ( $p < 0.001$ ) but detection increased from 23% to 40% ( $P_{trend} < 0.001$ ). MG testing was high (91%-98%) and stable ( $p < 0.001$ ) but detection increased from 5% to 14% ( $P_{trend} < 0.001$ ).

## Conclusion:

Within this STI clinic population, CT and NG were not detected in ~85% of PID cases. Among non-chlamydial/non-gonococcal cases, BV and MG were common, and both increased in prevalence over time. These data highlight the importance of testing BV and MG in people diagnosed with PID in the STI clinic setting.

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