

Pharyngeal and anogenital chlamydia in men who have sex with men: temporal trends and characteristics among attendees at a Sydney metropolitan sexual health clinic 2011-2014

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Background and Aim

- *Chlamydia trachomatis* (CT) notification rates have been rising in Australia for many years, but declined for the first time in 2013-2014
- Surveillance data does not include sexual orientation and therefore notification rates are not available for men who have sex with men (MSM)
- Australian STI testing guidelines recommend regular CT testing at pharyngeal and anogenital sites among asymptomatic MSM
- Aim: Investigate temporal trends and characteristics of clinic-diagnosed pharyngeal and anogenital CT among MSM attending a Sydney Metropolitan Sexual Health Clinic.

Methodology

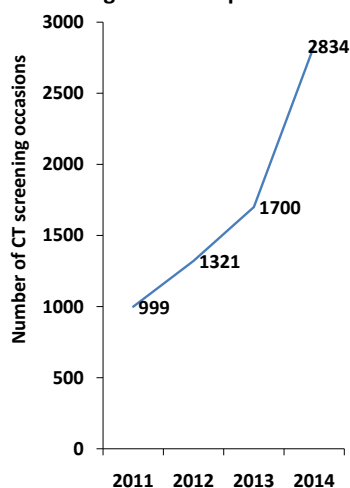
- Retrospective study of MSM tested for CT at RPA Sexual Health Clinic in Sydney, Australia, between 1st January 2011 and 31st December 2014
- Clinic policy during study period was CT testing of pharynx, rectum and urine, in all MSM, irrespective of reported sexual exposures
- Laboratory record of pharyngeal testing was used as a proxy for MSM status and inclusion in study
- Case note review of all positive chlamydia diagnoses was undertaken
- Testing using Aptima Combo 2 (Hologic,US)
- Statistical analyses using STATA13 (Statcorp,College Station,TX).

Results

- 2919 MSM with total of 6850 CT testing occasions
- Significant increase in testing (p -trend<0.001) (Figure 1)
- Overall CT positivity 8.2%
- Positivity remained stable over the study period (Figure 2)

- Non-significant decline in proportion of those diagnosed with CT that reported any anogenital symptom (OR 0.85, p -trend = 0.079) (Figure 3)
- Majority of rectal and urethral CT asymptomatic (Figure 4)

Figure 1: Number of CT Testing Occasions per Year



| Site of Infection | Number of positive CT testing occasions n=562 (8.2%) |
|---------------------------|---|
| Rectal only | 323 |
| Urethral only | 82 |
| Pharyngeal only | 39 |
| Urethral and rectal | 56 |
| Rectal and pharyngeal | 38 |
| Urethral and pharyngeal | 4 |
| All 3 sites | 4 |
| Incomplete 3 site testing | 16 |

Figure 2: Positivity of Rectal Urethral and Pharyngeal CT n=6850

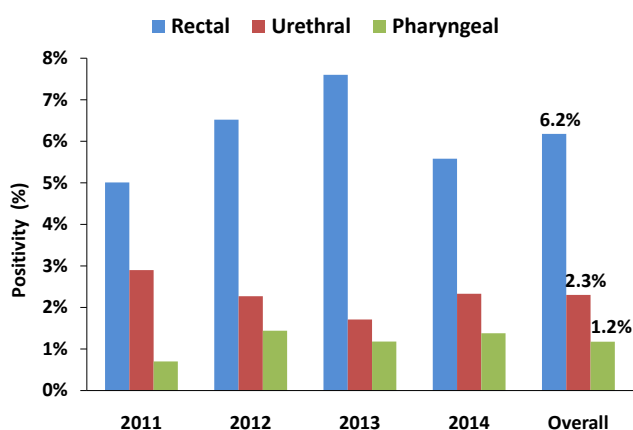


Figure 3: Percentage of Chlamydia Positive MSM with Anogenital Symptoms

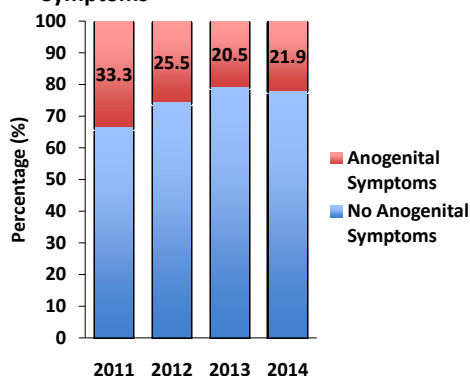
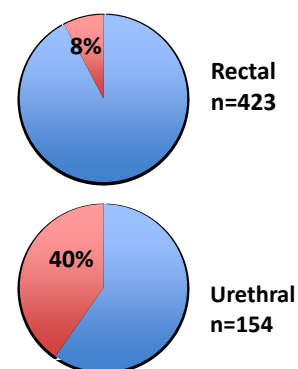


Figure 4: Frequency of Symptoms in Rectal and Urethral CT



- Men with Pharyngeal CT had a median of 15 sexual partners over 12 months prior to testing
- Non-significantly higher than men with urethral CT (10, p =0.077) or rectal CT (11, p =0.094)
- No concurrent anogenital infection in 39 (46%) of 85 pharyngeal CT infections
- 2 contacts of CT and 6 with anogenital symptoms
- 31 (5.5%) of CT infections would have remained untreated without pharyngeal testing

Conclusion

- Chlamydia positivity remained stable despite substantially increased testing
- Temporal decline in symptomatic infections likely reflects a recent policy shift towards asymptomatic testing of MSM
- Men with PCT had more sexual partners than men with anogenital CT
- 36% of pharyngeal infections and 5.5% of overall CT infections would have remained untreated without pharyngeal screening
- There may be public health benefits of regular pharyngeal CT testing among MSM