**BACKGROUND**

- Partner transmission and reinfection are common with Neisseria gonorrhoea (GC) and Chlamydia trachomatis (CT)¹.
- Little is known about how often patients with GC/CT receive appropriate treatment and follow-up labs in ambulatory settings.
- Understanding the management of these infections is critical in order to assess how to better direct public health programs to combat the growing STI epidemic.
- This project aimed to assess rates of guideline-concordant care and evaluate influencing factors.
- It was hypothesized that rates of guideline-concordant care would be sub-optimal and that a combination of patient and system level factors would contribute to these rates.

**METHODS**

- Data and population
  - Ambulatory care services patients aged 14-24 with a positive GC/CT nucleic acid amplification test at Denver Health.
- Assessment of guideline-concordant care using Centers for Disease Control and Prevention recommendations
  - Antibiotic treatment within 14 days
  - HIV and syphilis testing within 6 months
  - GC/CT retesting within 60 days to 6 months
- Statistical analysis
  - Bivariate and multivariable regression modeling
  - Total GC/CT tests performed during study period=27,168
  - Gonorrhoea: 484 positive (1.8% positivity rate)
  - Chlamydia: 2125 positive (7.8% positivity rate)
- Factors significantly associated with receiving elements of guideline-concordant care: aOR (95% CI)
  - Patients with documented condom use: 1.408 (1.072, 1.850), 1.276 (1.081, 1.506), 1.488 (1.252,1.768)
  - Patients who self-identify as not heterosexual: 1.278 (1.001, 1.633)
  - Patients with a history of gonorrhea: 1.725 (1.072, 2.776), 1.774 (1.104, 2.788)

**RESULTS**

<table>
<thead>
<tr>
<th>Rates of guideline-concordant management for gonorrhea and chlamydia from 2018-2019 at Denver Health, Denver, CO.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gonorrhea (N=484)</strong></td>
</tr>
<tr>
<td><strong>Appropriate treatment</strong></td>
</tr>
<tr>
<td>Treated daily of test</td>
</tr>
<tr>
<td>Treated within 2-7 days of test</td>
</tr>
<tr>
<td>Treated within 8-14 days of test</td>
</tr>
<tr>
<td>No treatment</td>
</tr>
<tr>
<td><strong>Laboratory studies completed</strong></td>
</tr>
<tr>
<td>HIV³</td>
</tr>
<tr>
<td>Syphilis⁵</td>
</tr>
<tr>
<td>Re-testing for GC/CT²</td>
</tr>
<tr>
<td><strong>Appropriate management completed</strong></td>
</tr>
</tbody>
</table>

- Testing completed on the day of the initial test or within 6 months after positive GC/CT NAAT.
- Testing completed on the day of the initial test or within 6 months after positive GC/CT NAAT.

**REFERENCES**


**CONCLUSIONS**

- This study confirms sub-optimal rates of guideline-concordant management after diagnosis with a GC or CT infection.
- Issues to address
  - Social determinants of health involving transportation, insurance, and other difficulties
  - Variability in care across sites and a lack of systems in place to assure follow-up
- Consider utilization of active recall, integrated health educators, standardized ordering / documentation tools and prescribing via decision support²³.
- Empiric antibiotic use occurred in 31-31.3%. This likely results in significant antibiotic overuse⁴.
- Ensure adequate outpatient follow-up and rapid diagnostic testing⁵.
- Study limitations
  - Lack of generalizability given data from a single-center site
  - Could not determine what portion of follow-up care issues came from patient vs. system level factors
- Untreated sexually transmitted infections lead to increased rates of transmission and may lead to serious complications, which are major causes of morbidity and mortality in reproductive-aged women¹⁴.
- There is a critical need for further improvements in management in order to decrease complications, reduce transmission, and combat the growing STI epidemic.

**ACKNOWLEDGEMENTS**

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**DISCLOSURES**

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