Gender Differences in CDC Guideline Compliance for STIs in Emergency Departments.

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Gender Differences in CDC Guideline Compliance for STIs in Emergency Departments

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Introduction

- According to the CDC, the rate of sexually transmitted infections (STIs) is rising.¹
- STIs are a common reason for Emergency Department (ED) visits.²
- Women who develop an STI of the upper genital tract are at increased risk for long-term sequelae including infertility and ectopic pregnancy.³
- The need to recognize and adjust for sex and gender differences is a growing topic in medical research.⁴
- One recent review found that only 18% of Emergency Medicine (EM)-related studies examined health outcome by gender, and that only 2% of studies included gender in the primary hypothesis.⁵
- Because EDs experience 136 million patient visits annually, EM providers have the opportunity to be a leading source of gender-based research.⁶

Problem Statement

The objective of this project was to identify patient gender differences in physician compliance with 2010 CDC recommendations for the diagnosis and treatment of STIs in the ED.

Methodology

- A retrospective chart review identified patients treated for STIs in the EDs of three LVHN hospitals during a calendar year.
- Cases were reviewed to assess for compliance with 2010 CDC guidelines across 5 domains: history, physical exam, diagnostic testing, treatment, and discharge instructions.
- Abstractors were trained by the study principle investigator using explicit protocols of inclusion and exclusion.
- Descriptive statistics, student t-tests, chi-square tests, and logistic regression were used in the analysis.
- Statistical significance was set at p ≤0.05.
- Note: this was a secondary analysis of a prior study.²

Results

- 247 participants were included, 159 (64.4%) were female.
- All 88 males presented with urethritis; 25.8% of females presented with cervicitis, and 74.2% with PID.
- Physician compliance for the five CDC criteria ranged from 68.8% for patient history to 93.5% for patient diagnostic testing.
- 54.1% of female charts had histories consistent with CDC criteria compared to 95.5% for male charts, OR=16.9; 95% CI: 5.9-48.4 , p<0.001.
- 51.6% of female charts had fully-documented delivery of discharge instructions compared to 97.7% of male charts OR=42.3; 95% CI: 10.0-178.6 p<0.001.
- No significant sex differences in documentation were observed for physical exam or treatment.

<table>
<thead>
<tr>
<th>Compliance Criteria Categories</th>
<th>Coding</th>
<th>Female</th>
<th>Male</th>
<th>Total</th>
<th>OR (95% CI)*</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>History</td>
<td>No</td>
<td>79 (56%)</td>
<td>77 (51%)</td>
<td>156 (56%)</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td>77 (51%)</td>
<td>44 (35%)</td>
<td>121 (40%)</td>
<td>16.9 (5.9-48.4)</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Physical Examination</td>
<td>No</td>
<td>48 (35%)</td>
<td>20 (22%)</td>
<td>68 (22%)</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td>51 (36%)</td>
<td>41 (37%)</td>
<td>92 (29%)</td>
<td>3.0 (1.4-7.6)</td>
<td>0.222</td>
</tr>
<tr>
<td>Diagnostics</td>
<td>No</td>
<td>5 (2%)</td>
<td>13 (2%)</td>
<td>18 (6%)</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td>51 (36%)</td>
<td>17 (21%)</td>
<td>68 (22%)</td>
<td>2.6 (1.4-4.8)</td>
<td>0.011</td>
</tr>
<tr>
<td>Therapeutic</td>
<td>No</td>
<td>12 (7%)</td>
<td>8 (9%)</td>
<td>20 (6%)</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td>51 (36%)</td>
<td>26 (31%)</td>
<td>77 (25%)</td>
<td>3.8 (1.8-9.2)</td>
<td>0.002</td>
</tr>
<tr>
<td>Discharge Instructions</td>
<td>No</td>
<td>77 (44%)</td>
<td>3-2 (2%)</td>
<td>79 (25%)</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td>42 (29%)</td>
<td>66 (77%)</td>
<td>108 (38%)</td>
<td>4.2 (1.0-178.6)</td>
<td>&lt;0.001</td>
</tr>
</tbody>
</table>

*All odds ratio estimates were adjusted by participant age. In the models, females were coded as zero and males coded as 1. The odds ratios are to be interpreted as the odds of charting compliance for male relative to female patients.

Conclusions and Future Implications

- This study found patient gender differences in documentation compliance with CDC guidelines for the diagnosis and treatment of STIs.
- By publishing these findings, we aim to raise awareness of gender differences so that providers are ensuring values-based, patient-centered care for their patients.
- This project also explores the SELECT competency of health systems by highlighting and analyzing other published gender differences, both in the U.S. and internationally.
- Further studies are required to determine the causes of these differences and how to alleviate them.

References: