Prevalence of Cervical Cancer Over-screening
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Introduction

2012 Consensus Guidelines for Cervical Cancer Screening in Low Risk Women:

- Start at age 21
- Every 3-5 years between ages 21 and 65
- Stop at age 65 or with hysterectomy

Inconsistent adherence to these guidelines

Background

- Over-screening associated with increased health care costs, unnecessary exams and procedures
- Excess screening 10-60% 2-12
- Over-screening inconsistently associated with patient characteristics 2,4,8

Research Questions

1) What was the prevalence of screening for cervical cancer in the age groups 18-20 and over 65 prior to the implementation of the guidelines in 2012?
2) What is the current prevalence of cervical cancer over-screening according to the 2012 guidelines?
3) Are specific patient characteristics associated with CCS over-screening?
4) Can an Electronic Health Record (EHR) query accurately identify screening Pap tests?

Methods

Quantitative retrospective descriptive analysis of EHR data from a wellness registry

Site: a large public healthcare system

Results

Over-screening associated with:
- Black race (48.9% vs 35.2%)
- Hispanic ethnicity (11.5% vs 8.3%)
- Medicaid insurance (9.1% vs 7.1%)
- Activation of a personal health record (63.5% vs 50.6%)

All significant at p < 0.001

Paps identified in the EHR as screening:
- 85% ages 18-20
- 74% ages > age 65

Table:

<table>
<thead>
<tr>
<th>Race/Ethnicity</th>
<th>Total Sample n=57,820</th>
<th>Ages 18-20 n=28,694</th>
<th>Ages 65+ n=29,126</th>
</tr>
</thead>
<tbody>
<tr>
<td>Black</td>
<td>20,338</td>
<td>11,829</td>
<td>8,509</td>
</tr>
<tr>
<td>White</td>
<td>31,302</td>
<td>13,465</td>
<td>17,837</td>
</tr>
<tr>
<td>Other</td>
<td>1,595</td>
<td>874</td>
<td>721</td>
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<tr>
<td>Unavailable Race</td>
<td>4,585</td>
<td>2,526</td>
<td>2,059</td>
</tr>
<tr>
<td>Hispanic</td>
<td>4,821</td>
<td>3,427</td>
<td>1,394</td>
</tr>
<tr>
<td>Non-Hispanic</td>
<td>49,679</td>
<td>24,293</td>
<td>25,386</td>
</tr>
<tr>
<td>Unavailable Ethnicity</td>
<td>3,380</td>
<td>974</td>
<td>2,292</td>
</tr>
</tbody>
</table>

*Includes Asian, Native American, Hawaiian, Pacific Islander

<table>
<thead>
<tr>
<th>Pap Outside of Guidelines n=10,918</th>
<th>Ages 18-20 n=7,412</th>
<th>Ages 65+ n=3,506</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005-2008</td>
<td>3,926 (26.8%)</td>
<td>1,089 (11.1%)</td>
</tr>
<tr>
<td>2013-2016</td>
<td>3,486 (24.8%)</td>
<td>2,417 (12.5%)</td>
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Conclusion/Discussion

- Over-screening has not decreased with publication of guidelines, and actually increased in the older age group.
- Excess costs for Pap testing alone = approximately $545,900
- Quality improvement projects should address patient and provider barriers to compliance.
- Identification of screening Pap in EHR more accurate for younger women

References

2. Cleveland, Ohio