HPV Vaccination Rates at the Time of IUD Placement: A Quality Improvement Study

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Introduction

- HPV vaccination is recommended in females ages 9-45.
- Despite CDC recommendation for vaccination until age 45, some insurance companies only cover the vaccine until age 26, making it crucially important to target this age group.
- In 2018 in Dane County, only 38.6% of women aged 19-26 were up to date on their HPV vaccination.
- For adult women who have not completed vaccination, routine gynecologic visits such as contraceptive visits are an ideal time for catch-up vaccination.
- The Epic smart phrases currently in use for IUD insertion visits do not include HPV vaccination status.

Methods & Objectives

- Objective: Improve rates of HPV vaccination among unvaccinated patients by utilizing a new Epic smart phrase for IUD insertion that includes HPV vaccination status.
- Population: Women aged ≤ 26 who presented for IUD placement with a UW OB/GYN provider
- Time periods:
  - Preintervention: September 2019
  - Postintervention: January 2020
- Study design: Retrospective chart review comparing pre- and post-intervention periods

Results

- UW OB/GYN had a higher rate of vaccinated patients among 19-26-year-olds compared with Dane County data.
- Vaccinated and unvaccinated patients had similar demographics (including age, race, BMI, provider type, and clinic) during both the preintervention (Sept 2019) and postintervention (Jan 2020) periods.
- In the postintervention period, unvaccinated patients were significantly less likely to have an up to date pap smear than vaccinated patients (P = 0.005).

Preintervention Period: September 2019

<table>
<thead>
<tr>
<th>Age</th>
<th>Vaccinated</th>
<th>Unvaccinated</th>
</tr>
</thead>
<tbody>
<tr>
<td>22.3 +/- 2.4</td>
<td>23.4 +/- 2.2</td>
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Postintervention Period: January 2020

<table>
<thead>
<tr>
<th>Race (%)</th>
<th>Vaccinated</th>
<th>Unvaccinated</th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
<td>22 (86.0%)</td>
<td>9 (81.8%)</td>
</tr>
<tr>
<td>Other</td>
<td>3 (12.0%)</td>
<td>2 (18.2%)</td>
</tr>
<tr>
<td>BMI</td>
<td>26.3 +/- 4.1</td>
<td>23.8 +/- 4.4</td>
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<table>
<thead>
<tr>
<th>Age</th>
<th>Vaccinated</th>
<th>Unvaccinated</th>
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<tbody>
<tr>
<td>20.8 +/- 2.9</td>
<td>22.7 +/- 2.6</td>
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- Among previously unvaccinated patients:
  - 0% were recommended HPV vaccination preintervention
  - 27% were recommended HPV vaccination postintervention
  - The new smartphrase was adopted in 25% of patients (vaccinated and unvaccinated).
  - When it was used, 100% of patients were confirmed vaccinated or offered HPV vaccination.

Discussion

- Our higher HPV vaccination rates (compared with Dane County) are predominantly due to our pediatric colleagues, as our pre-intervention rate of offering HPV vaccination to patients who needed it was 0%.
- The Epic smart phrase was used in 25% of encounters in the post-intervention period, which was correlated with an increase in appropriately recommending HPV vaccination to 27%.
- When the Epic smart phrase was used, 100% of patients were confirmed to have completed HPV vaccination or were offered vaccination.
- Overall, the Epic smart phrase helps providers remember to check HPV vaccination status and offer HPV vaccination if appropriate, but the uptake was low.

Conclusions & Next Steps

- More work needs to be done to improve uptake of the Epic smart phrase among UW OB/GYN providers to increase catch-up HPV vaccination rates.
- Most IUDs are placed by NPs; targeting this provider group will likely have the most yield.
- Further QI efforts to improve HPV vaccination rate should target visits for colposcopy, especially as insurance companies begin to cover HPV vaccination to the CDC-recommended age of 45.