Prophylactic antibiotics in 3rd & 4th degree lacerations: Increasing provider compliance on labor and delivery

Craig A. Mayr, MD PhD; Rachel Ruskin, MD; Emily Scibetta, MD; Meg Autry, MD; Marya Zlatnik, MD, Mari-Paule Thiet, MD
Department of Obstetrics, Gynecology and Reproductive Sciences, University of California, San Francisco

The Problem

- Perineal wound complications lead to increased length of hospital stay, readmissions secondary to wound complications and increased hospitalization costs.
- A 2008 randomized controlled trial showed prophylactic cephalosporin at the time of repair of 3rd & 4th degree perineal lacerations resulted in a decrease in wound complication rate from 24% to 8%.
- The rate of antibiotic administration to these patients at UCSF in the prior year was 77%.

Results / Progress to Date

Table 1. Quarterly incidence of 3rd and 4th degree perineal lacerations on UCSF Labor and Delivery unit

<table>
<thead>
<tr>
<th>Laceration type</th>
<th>Quarter of 2011-2012</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Q1</td>
</tr>
<tr>
<td>3rd Degree</td>
<td>2</td>
</tr>
<tr>
<td>4th Degree</td>
<td>4</td>
</tr>
</tbody>
</table>

Figure 1. Antibiotic administration rate in postpartum women sustaining 3rd or 4th degree perineal lacerations in Academic Year 2011-2012

Lessons Learned

- Successful quality improvement projects should be supported by existing data and integrated easily into existing provider practice patterns.
- Quality improvement is a multi-disciplinary team effort.
- Continued positive feedback to program participants results in wide participant buy-in and excellent rates of goal achievement.

Project Goal

- Ensure that >90% of postpartum women with 3rd & 4th degree perineal lacerations receive prophylactic antibiotics at the time of their laceration repair.

Project Plan

- Educate labor and delivery providers including nurses, residents, certified nurse midwives and attendings regarding the importance of prophylactic antibiotics in 3rd & 4th degree lacerations.
- Incorporate data collection into existing systems on labor and delivery to ensure provider compliance and accurate data.
- Communicate quarterly results with reminders to all relevant providers.

Moving Forward

- Prophylactic antibiotic administration in 3rd & 4th degree lacerations incorporated into routine labor and delivery practice.
- Evaluate 1 yr follow-up for wound complications or pelvic floor dysfunction symptoms during the 2011-2012 project period of 100% antibiotic administration.

Reference