Oral Health Care During Pregnancy

PIOHQI --
Perinatal and Infant Oral Health Quality Improvement Initiative

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Ava Roberts Course
August 19, 2016

Why OBGYN and Oral Health?

- Pregnant women most often do not receive oral health care. In Maryland, of the 30,743 pregnant women covered by Medicaid/year; only 27% accessed covered oral health services while pregnant.
- There are associations between preterm births and periodontal disease. Since the risk of dental care is minimal and the benefits may be large, dental care should be part of basic OB counseling.
- Dental care during pregnancy also will reduce dental cavities, reducing the risk of dental cavities to the newborn.
- There is a need to inform pregnant women that dental care is safe during pregnancy and why oral health is important for her and her future baby.

Where Are We Going?

- Access to oral health care
- What we need to know about oral health and pregnancy?
- The controversy: Periodontal health and poor birth outcomes
- National movement; National guidelines
- Barriers and facilitators
- Oral health care during pregnancy

Number and % Pregnant women (14+ years) enrolled in Maryland Medicaid with Dental Visits

<table>
<thead>
<tr>
<th>Year</th>
<th>Total # Enrolled</th>
<th>Receiving 1 or More Services</th>
<th>% Receiving Services</th>
</tr>
</thead>
<tbody>
<tr>
<td>1999</td>
<td>17,914</td>
<td>2,474</td>
<td>13.8</td>
</tr>
<tr>
<td>2002</td>
<td>21,112</td>
<td>3,063</td>
<td>14.5</td>
</tr>
<tr>
<td>2008</td>
<td>20,005</td>
<td>4,354</td>
<td>21.8</td>
</tr>
<tr>
<td>2012</td>
<td>27,092</td>
<td>8,330</td>
<td>30.7</td>
</tr>
<tr>
<td>2014</td>
<td>30,743</td>
<td>8,228</td>
<td>26.8</td>
</tr>
</tbody>
</table>
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Need to Know: Pregnancy and Changes in Oral Health

- For the Pregnant Patient
  - Pregnancy Gingivitis
  - Progression of Periodontitis
  - Dental Caries
  - Dental Erosion

- For the Child
  - Enamel Defects
  - Increased Caries Risk

Need to Know: Periodontal Disease in Pregnancy

Need to Know: The Dental Caries Process

- Lack of topical fluoride
- Poor oral hygiene
- Harmful food behaviors
- Teeth
- Bacteria
- Diet
- Caries
Need to Know: Salivary pH Drop Over 1 Hour with Frequent Sugar Intake

Sugar Intake → Remineralization → Sugar Intake → Demineralization → Sugar Intake

Need to Know: Dental Caries in Pregnancy

Mothers as a Source of Child’s Mutans Streptococci

<table>
<thead>
<tr>
<th>Paper</th>
<th>Country</th>
<th>Mother-Child Pairs</th>
<th>Children with at Least One MS Genotype Identical to Mother</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ersin et al. 2004</td>
<td>Turkey</td>
<td>8</td>
<td>100%</td>
</tr>
<tr>
<td>Lindquist et al. 2004</td>
<td>Sweden</td>
<td>10</td>
<td>70%</td>
</tr>
<tr>
<td>Klein et al. 2004</td>
<td>Brazil</td>
<td>16</td>
<td>81%</td>
</tr>
<tr>
<td>Li et al. 2004</td>
<td>United States</td>
<td>57</td>
<td>89%</td>
</tr>
<tr>
<td>Hames-Kocabas et al. 2006</td>
<td>Turkey</td>
<td>25</td>
<td>24%</td>
</tr>
</tbody>
</table>

Controversy: Mother’s Cavities Affects the Child’s Risk for Cavities
**Developmental Enamel Defects**

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Controversy: Periodontal Disease and Poor Pregnancy Outcomes

Corbella et al., Quintessence Int. 2016;47:193-204

Conclusion: Cross-sectional (possible confounders age, SES, smoking, BMI) show that periodontitis was 1.6 times greater in mothers with preterm births.

Controversy: Association of Mother’s Periodontitis with Preterm Births

Corbella et al., Quintessence Int. 2016;47:193-204

Conclusion: Cross-sectional (possible confounders age, SES, smoking, BMI) show that periodontitis was 1.6 times greater in mothers with preterm births.

Controversy: Effect of Periodontal Treatment on Pregnancy Outcomes


Conclusion: Longitudinal RCTs (later and higher quality trials) show that non-surgical periodontal therapy does not improve birth outcomes in pregnant women with periodontitis.

Old Wives Tales and Evidence

- Pregnant women should avoid dental treatment
- Pregnancy causes gingivitis that leads to periodontal disease
- A woman loses a tooth for every child
- Unborn child takes the calcium from mother’s teeth
- Evidence– no contraindications to dental care; high levels of progesterone exaggerate gingival response; vomiting may cause enamel erosion; no data showing a link between tooth loss and pregnancy; mother with dental caries increases caries risk in child
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National Movement; National Guidelines

- National Consensus Statement, 2011
  - Guidance for Prenatal Care Health Professionals
  - Tips for Good Oral Health During pregnancy
- ACOG, Committee Opinion, 2015
  - Association between periodontal disease and preterm birth; no benefits of periodontal therapy regarding preterm births
  - Pregnancy is a “teachable moment”
  - Cariogenic bacteria from mothers can be transmitted to children
  - Improve the training of health care providers
  - Counsel mothers regarding oral hygiene and diet
  - Referral to dentists for safe, comprehensive dental care
  - Awareness of access to care issues
  - Oral health education to medical professionals
  - Identify mothers with poor oral health
  - Establish a dental home and provide necessary care to mothers
  - Counseling regarding diet and oral hygiene

Barriers

- Oral health procedure reimbursement for physicians — need advocacy like was done for Pediatricians.
- Not my job mentality — need champions.
- Lack of interdisciplinary knowledge — that is why you are here.
- Not traditional part of OBGYN practice — flags in EMR.
- Lack of Medicaid dental coverage for low-income adults during preconception and postpartum periods — improved access to dental care for all adults.
- Education is necessary, but not sufficient, to change patients’ health behavior — providers need to understand motivational theory.
- Patient often does not follow up with dental referral.
Facilitators

- Overlapping disciplines foster best practices
- Large emphasis on interprofessional care
- Guidelines from national organizations ACOG, AAPD
- Medicaid dental coverage during pregnancy and children
- Oral health referral—written to reliable, knowledgeable dental practice

Referral between Physician and Oral Health Provider

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Oral Health Care Imperative: Ethical Issues

- Oral health providers must keep knowledge and skills current—there is no increased risk to mother of child
- Oral health providers cannot refuse to accept patient or deny services
- Oral health providers have to be truthful about reason for denial
- If oral health providers does not treat, he/she must refer
Oral Health Care Procedures – Uncomplicated Pregnancy

- Dental radiographs with lead apron and thyroid collar
- Fluoride treatment
- Dental prophylaxis, including non-surgical periodontal care to treat gingivitis and periodontitis
- Local anesthesia
- Restorations
- Emergency care

Oral Health Care Procedures – Complicated Pregnancy

- Consultation with OB provider.

Comfort When Receiving Oral Health Care

- **First Trimester**
  - Scheduling visits in the afternoon can avoid the nausea of morning sickness that many women experience.
- **Second Trimester**
  - The fetus is not large, making it easier for mothers to recline in the dental chair for prolonged periods.
- **Third Trimester**
  - Late in term, position woman slightly on left side with a towel prop to avoid vena cava syndrome.
  - Encourage her to stand and walk periodically if it is a long appointment.
  - Elevating her head helps avoid shortness of breath induced by abdominal contents pushing up on already compressed lungs.

Anesthetic Safety During Pregnancy

![Anesthetic Safety Table]

Analgesic Safety During Pregnancy

<table>
<thead>
<tr>
<th>Analgesics</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acetaminophen</td>
<td>May be used during pregnancy.</td>
</tr>
<tr>
<td>Acetaminophen with Codeine, Hydrocodone, or Oxycodone</td>
<td></td>
</tr>
<tr>
<td>Codeine</td>
<td></td>
</tr>
<tr>
<td>Mepivacaine</td>
<td></td>
</tr>
<tr>
<td>Morphine</td>
<td></td>
</tr>
<tr>
<td>Aspirin</td>
<td>May be used in short duration during pregnancy: 44 to 72 hours. Avoid in 1st and 3rd trimesters.</td>
</tr>
<tr>
<td>Naproxen</td>
<td></td>
</tr>
</tbody>
</table>


Antibiotic Safety During Pregnancy

<table>
<thead>
<tr>
<th>Antibiotics</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amoxicillin</td>
<td>May be used during pregnancy.</td>
</tr>
<tr>
<td>Cephalexin</td>
<td></td>
</tr>
<tr>
<td>Cefaclor</td>
<td></td>
</tr>
<tr>
<td>Cefuroxime</td>
<td></td>
</tr>
<tr>
<td>Metronidazole</td>
<td></td>
</tr>
<tr>
<td>Penicillin</td>
<td></td>
</tr>
<tr>
<td>Ciprofloxacin</td>
<td>Avoid during pregnancy.</td>
</tr>
<tr>
<td>Clarithromycin</td>
<td></td>
</tr>
<tr>
<td>Levofloxacin</td>
<td></td>
</tr>
<tr>
<td>Minocycline</td>
<td></td>
</tr>
<tr>
<td>Tinidazole</td>
<td>Never use during pregnancy.</td>
</tr>
</tbody>
</table>


Antimicrobial Safety During Pregnancy

<table>
<thead>
<tr>
<th>Over-the-Counter Antimicrobials</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chlorhexidine</td>
<td>May be used during pregnancy.</td>
</tr>
<tr>
<td>Xylool</td>
<td></td>
</tr>
<tr>
<td>Chlorhexidine mouth rinse</td>
<td></td>
</tr>
</tbody>
</table>


Defer Dental Procedures

- Complicated prosthodontic procedures
- Cosmetic procedures
- Orthodontics
- Elective oral surgery procedures
- IV sedation, general anesthesia (if necessary, consult with OB)
Final Thoughts

- Improve access to care for pregnant women
- Understand the many benefits (and risks) of dental care during pregnancy.
- Reduce oral health providers concerns about treating pregnant women during pregnancy.

Questions? / How Can We Learn Together?