Caries Management Course
Module: Risk Assessment part I

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Module Objectives

• Overview of Caries Risk Assessment focusing mainly on CAMBRA

• Relevance to Caries Management Principals

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Early Childhood Caries (ECC)

This child is not even 2 years old

Photos courtesy of Dr. Ling Zhang
Caries Risk Assessment

- Best Predictor for Future Caries is Past Caries Experience
- Infant with Caries: High Risk

Caries Risk Assessment

- Best Predictor for Future Caries is Past Caries Experience
- Infant with Caries: High Risk
- The Challenge is trying to predict future caries experience w/o.

Risk Factors

- Genetics
- Oral Hygiene
  - Bacteria
  - Diet
- Saliva

Caries Risk Assessment

- Different Protocols and Forms:
  1. ADA
  2. AAPD (American Academy of Pediatric Dentistry)
  3. CAMBRA (academic institutions)
  4. A growing list of others from state agencies, etc
Caries Management by Risk Assessment

- Assess the risk for dental caries in the future: Interview and Clinical Exam
- Then alter the balance between caries pathological and protective factors
- John Featherstone and others

The Caries Balance

Pathological Factors
- Acid-producing Bacteria
- Sub-normal saliva
- Frequency of carbohydrates
- Poor Health Literacy

Protective Factors
- Saliva
- Fluoride
- Antiplaque Agents
- Oral Hygiene

Caries Risk Assessment

Moving from Academic to Practice

1. Is it part of a standard exam or is it another procedure?
2. Adoption by Dentists, Insurance industry, and the entire “Dental Profession”
   Patient and Client Driven Lawsuit

Literature

- CAMBRA update-Clinical Prospective
- Practice Redesign to Support Disease Prevention and Management of Caries
Caries Risk Assessment

Moving from Academic to Practice

New CDT Codes Introduction - Next Session

Dr. Edwin J. Zinman, D.D.S., J.D.
Dental Malpractice Attorney

- “The legal ramification is that it’s [Caries Risk Assessment] the standard of care”
- Cites a $75,000 settlement in CA where a dentist replaced a patient’s ‘broken’ filling but failed to take steps to control the patient’s caries.

Source Dr. Bicuspid

Caries Risk Assessment

Adoption by the Dental Profession

- Addressing Diagnostic versus Surgical compensation
- Time/effort/expertise need to be compensated

Caries Risk Assessment

Caries

No Caries
Caries Risk Assessment

Disease Indicators
- Restorations
- Decalcifications
- Cavitated Lesions

Risk Factors
- Caregiver Caries/Bacteria Counts
- Diet / Habits
- Medical Condition
- Health Literacy

Protective Factors
- Oral Hygiene
- Fluoride Exposure
- Dental Home
- Saliva

No Caries
Caries
Caries Risk Assessment Ages

**Ages 0-5**
- Caregiver caries status
- Transmission of S. mutans from caregiver to child
- Child Bottle Use such as nighttime use

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Caries Risk Factors

<table>
<thead>
<tr>
<th>Factor</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nighttime Feedings</td>
<td>Very Significant (p&lt;0.0008)</td>
</tr>
<tr>
<td>Parental Education</td>
<td>Very Significant (p&lt;0.002)</td>
</tr>
<tr>
<td>Sugar Snacking</td>
<td>Very Significant (p&lt;0.002)</td>
</tr>
<tr>
<td>Lack of Fluoride Toothpaste use</td>
<td>Very Significant (p&lt;0.009)</td>
</tr>
<tr>
<td>Cooperation for Toothbrushing</td>
<td>Significant (p&lt;0.018)</td>
</tr>
</tbody>
</table>

Cassamassimo AAPD 2010

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Caries Risk Assessment

**Goal** is to examine numerous factors instead of a single factor.

**Part II** will exam collecting CAMBRA information and clinical performance of the tool.