Clinical Decision Support Chairside Tools for Evidence-Based Dental Practice

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Evidence-based clinical decision support (EB-CDS) tools designed for chairside use, help support the implementation of Evidence-Based Dentistry. EB-CDS tools organize available evidence and risk factors in order to facilitate clinical decision-making as well as to enhance rapid and effective transfer of knowledge to the patient at the point of care. Gingival recession, root exposure, caries, dental sealants, decay prevention and topical fluoride guides are presented and discussed. The Assess-Advise-Decide Approach, described in this article, better enables patients to determine which course of action is in line with their preferences and values.

Key Words: clinical decision support tools, evidence-based dental practice, periodontics, gingival recession, root exposure, caries, dental sealants, decay prevention, topical fluoride

The evidence-based dentistry (EBD) approach offers many advantages for clinicians and patients (see Sidebar 1), yet its implementation chairside, at the point-of-care, remains challenging. Practical and effective aids are needed to help clinicians apply the most current scientific evidence to clinical decision making and therapy. Evidence-based clinical decision support (EB-CDS) tools designed for chairside use will support implementation of EBD. This article briefly reviews concepts important to understanding EBD, describes a useful approach to clinical decision making, and introduces 3 EB-CDS tools for clinical practice.

CONCEPTS FOR EVIDENCE-BASED DENTISTRY

The definition and description of evidence-based medicine offered by Sackett et al is an appropriate context for better understanding evidence-based dental practice (see Sidebar 2). The American Dental Association (ADA) has applied Sackett et al’s description of evidence-based medicine to dentistry as: An approach to oral health care that requires the judicious integration of systematic assessments of clinically relevant scientific evidence, relating to the patient’s oral and medical condition and history, with the dentist’s clinical expertise and the patient’s treatment needs and preferences.
SIDEBAR 1. The Evidence-Based Dental (EBD) Practice Advantage

The Evidence-Based Dental (EBD) Practice Advantage

You

- Gain improved clinical decision-making capability
- Achieve greater confidence in treatment planning
- More opportunity to provide treatment choices selected for minimizing risks of harm and maximizing treatment safety
- Greater satisfaction derived from creating customized treatment plans based on the powerful combination of stronger scientific evidence, clinician judgment and experience, as well as patient preferences and values
- Increased day-to-day enjoyment working with a happier team motivated by working to a higher standard that puts the patient first in the dental care process.
- More peace of mind that comes with doing the right thing

Your Patients

- More trust and confidence in their doctor and his or her practice
- Greater incentive to invest in quality oral health care
- Increased pride from being a patient of a community thought leader and distinctive practice

Your Dental Team and Practice

- Increased staff confidence, pride, trust and personal satisfaction.
- Enhanced recognition in the community and with peers as a thought leader practice
- Greater opportunity to conserve practice financial resources by enabling wiser decisions in product and equipment selection.

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www.ada.org/got/ebd

EBD Champion Conference; May 2 & 3, 2008
Central to evidence-based practice is individualizing treatment based both on the strongest available evidence and a patient’s particular risk factors. The American Dental Association encourages clinicians to use caries risk assessment strategies. The American Academy of Periodontology has recently recommended risk assessment for periodontal evaluation and treatment planning. Caries Management by Risk Assessment, or CAMBRA, is also based on risk factor assessment.

Clinical decision support (CDS) is invaluable in implementing the evidence-based practice approach at the point of care (see Sidebar 3). In 2005, the National Coordinator for Health Information Technology in the United States commissioned the American Medical Informatics Association to develop a plan that would help advance CDS. The result of their efforts was the release, in 2006, of the Roadmap for National Action on Clinical Decision Support.

**Sidebar 3. A Roadmap for National Action on Clinical Decision Support**

Clinical decision support (CDS) provides clinicians, staff, patients, or other individuals with knowledge and person-specific information, intelligently filtered or presented at appropriate times to enhance health and health care.

It encompasses a variety of tools and interventions such as computerized alerts and reminders, clinical guidelines, order sets, patient data reports and dashboards, documentation templates, diagnostic support, and clinical workflow tools.

CDS has been effective in improving outcomes at some health care institutions and practice sites by making needed medical knowledge readily available to knowledge users. Yet at many other sites, CDS has been problematic, stalled in the planning stages, or never even attempted. As a result, relevant medical knowledge that should be brought to bear is not always available or used for many health care decisions in this country. This is an important contributor to the well-documented problems and suboptimal performance of our health care system.

Further, growing consumerism throughout US society, along with efforts to shift the costs of care to patients and expand patient participation in health care decisions, are driving increasing patient and consumer demand for access to reliable medical information. Achieving desirable levels of patient safety, care quality, patient centeredness, and cost-effectiveness requires that the health system optimize its performance through consistent, systematic, and comprehensive application of available health-related knowledge—that is, through appropriate use of CDS.

**The Assess-Advise-Decide Approach to Chairside CDS Tool Use in EBD**

Experience with early chairside clinical decision support tools with respect to both clinician and patient learning has led to the understanding that when these tools are organized into a few conceptual building blocks and learning occurs both verbally and visually, information overload risks decrease and learning outcomes increase. The Assess-Advise-Decide Approach is a patient-centered outcomes approach: For patients to decide their best course of action, clinicians’ need to advise based on what is assessed (see Sidebar 4). This approach is designed to simplify and clarify chairside clinical decision making by organizing the process into an easy-to-remember and quick-to-adopt 3-step approach: Assess-Advise-Decide.

**Sidebar 2. Evidence-Based Medicine: Excerpts from Sackett et al**

Evidence-based medicine is the conscientious, explicit and judicious use of current best evidence in making decisions about the care of individual patients. The practice of evidence-based medicine means integrating individual clinical expertise with the best available external clinical evidence from systematic research.

Individual clinical expertise is the proficiency and judgment that individual clinicians acquire through clinical experience and clinical practice. Increased expertise is reflected in many ways, but especially in more effective and efficient diagnosis and in the more thoughtful identification and compassionate use of individual patients’ predicaments [risk factors], rights, and preferences in making clinical decisions about their care.

Best External Clinical Evidence is clinically relevant research, often from the basic sciences of medicine, but especially from patient-centered clinical research into the accuracy and precision of diagnostic tests (including the clinical examination), the power of prognostic markers, and the efficacy and safety of therapeutic, rehabilitative, and preventive regimens. External clinical evidence both invalidates previously accepted diagnostic tests and treatments and replaces them with new ones that are more powerful, more accurate, more efficacious, and safer. Good doctors use both individual clinical expertise and the best available external evidence, and neither alone is enough. Without clinical expertise, practice risks becoming tyrannized by evidence, for even excellent external evidence may be inapplicable to or inappropriate for an individual patient. Without current best evidence, practice risks becoming rapidly out of date, to the detriment of patients.
The Assess-Advise-Decide Approach to chairside CDS tool use

What is it?
The Assess-Advise-Decide Approach is a patient-centered outcomes approach. For patients to decide their best course of action, clinicians’ need to advise based upon what is assessed. This approach is designed to simplify and clarify chairside clinical decision-making by organizing the process into an easy-to-remember and quick-to-adopt 3-step approach: Assess-Advise-Decide.

The approach is consistent with the evidence-based medicine core concept of enabling patients to make better decisions. The Assess-Advise-Decide Approach is incorporated into the 3 EB-CDS tools introduced at the 2008 EBD Champion Conference to assist in tool adoption and use.

Assess
Clinician assessment step includes:
- Take a thorough history
- Clarify and understand patient preferences and values
- Perform an appropriate clinical assessment
- Select and perform appropriate diagnostic tests
- Perform an appropriate risk factor assessment
- Determine appropriate treatment/management options
- Understand the strength of evidence/strength of recommendation supporting differential diagnoses and treatment/management options

Advise
Clinician advice step includes:
- Review of findings: clinical evaluation & risk factor assessment
- Advise patient about treatment/management options*:
  - Potential options
  - EBDM-filtered options
  - Clinician-filtered EBDM options
- Review of risks and benefits

* Summarize strength of evidence/strength of recommendations as needed.

Decide
Patient Decision Step:
Based on what they have been advised as well as on their personal experience, judgment, preferences and values, patients will be in a better position to make appropriate decisions. These decisions will be risk adjusted, evidence-based, clinician judgment/experience-guided and patient-preferred.

EB-CDS chairside tools incorporating the Assess-Advise-Decide Approach are designed to be simple and easy-to-use. They support the clinician by facilitating clinical decision-making as well as knowledge transfer to the patient rapidly and effectively at the point of care.

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**EVIDENCE-BASED CLINICAL DECISION-MAKING SUPPORT TOOLS**

Three EB-CDS tools have been developed for use by clinicians and their patients in conjunction with the American Dental Associations’ 2008 EBD Champion Conference. These tools incorporate the Assess-Advise-Decide Approach to assist in tool adoption and use.

**Tool 1: The Dental Chairside Guides tool for attached gingiva conditions**

The Dental Chairside Guide EB-CDS tool: Attached Gingiva is designed to organize many common root exposure risks for individuals with either no attached gingiva or narrow band width of attached gingiva. It helps guide clinician assessment and enhances knowledge transfer to the patient at the point of care.

Today there is little strong scientific evidence supporting the majority of decisions dental clinicians need to make, including those concerning no attached gingiva or narrow band width of attached gingiva. In these situations where evidence is of insufficient strength to strongly support clinical decision making, emphasizing individual risk factor assessment is consistent with the evidence-based approach. Although clinical detection of root

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**Figure 1.** The Dental Chairside Guides™ Evidence-Based Clinical Decision Support (EB-CDS) Tool: Attached Gingiva.
exposure, no attached gingival, and/or narrow band width of attached gingiva is often considered routine in the practice setting, clinical decision making guided by individual risk factor assessment is not common (see Figures 1-7).

The Dental Chairside Guide EB-CDS tool: Attached Gingiva is an example of an EB-CDS tool developed for clinical situations where:

1. The strength of evidence available to guide clinical decision making is weak
2. Etiology is not well understood
3. There are multiple risk factors
4. The clinical presentation is common

The attached gingiva EB-CDS tool was developed for chairside use based on the September 2007 article published in the Journal of Evidence-Based Dental Practice titled “Evidence-Based Clinical Decision Support Guide: Mucogingival/Esthetics.” It provides background reference support not covered in this article. This chairside tool is not intended to assist the clinician in selecting a specific surgical revision procedure. There exists a wide body of evidence to support various surgical interventions.12,14

Figure 2. Increasing root exposure. Courtesy G. K. Merijohn, DDS

Figure 3. No root exposure and no attached gingiva. Courtesy G. K. Merijohn, DDS

Figure 4. Root exposure: data are not available regarding recession history or rate of change. Courtesy G. K. Merijohn, DDS
The Dental Chairside Guides™
Evidence-Based Clinical Decision Support (EB-CDS) Tool: Attached Gingiva

Instructions for use.

The Dental Chairside Guides™ Attached Gingiva clinical decision support tool is designed to facilitate clinical decision-making as well as knowledge transfer to the patient rapidly and effectively at the point-of-care.

For patients diagnosed with no attached gingiva or a narrow band of attached gingiva:

**Step 1: Assess** for any presenting Group 1 Risks; **Advise** on a management plan; Patient makes risk-adjusted decision.

**Step 2: Assess** for root exposure status ("Increased", “Any”, “No”): Follow the framework pathway; **Advise** on a management plan; Patient makes risk-adjusted decision.

**Clinical tip:** When consulting with the patient, fold Dental Chairside Guides™ in order to focus the view to the section(s) being discussed. Unfold and refold panels in order to minimize information overload.

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**Figure 5.** The Dental Chairside Guides™ Evidence-Based Clinical Decision Support (EB-CDS) Tool: Attached Gingiva.

This tool is designed to be used as a visual and verbal chairside aid that can streamline the process of advising the patient about the decision options for managing Group 1 risks and deciding among surgical revision, surgical revision consultation, or wait and watch options (see Figures 1, 6, and 7). Clinician experience and judgment guided the organization of the most common risks into Group 1 and Group 2 (see Figures 1, 6, and 7). Treatment recommendation decision pathways are based on risk factor assessment and, when possible, risk management. An important feature of this chairside tool is the clinical decision support it provides when root exposure historical data are not available regarding teeth presenting with root exposure and no attached gingiva or narrow band width of attached gingiva (see Figures 4 and 7). Dentists will find this tool useful for restorative case planning when cosmetic outcomes are critical. The Dental Chairside Guide EB-CDS tool: Attached Gingiva can support the clinician in forecasting risks for exposure of restoration margins and/or root surfaces in restorative and orthodontic cases. Additionally, it can enhance treatment acceptance for prerestoration and preorthodontic interventions aimed at preventing exposure of restoration margins and/or root surfaces.

The Dental Chairside Guide EB-CDS tool: Attached Gingiva is recommended to be used whenever no attached gingiva or a narrow band width of attached gingiva is detected. Instructions for use and implementation recommendations are found in Figures 5, 6, and 7.

**Tool 2: Current evidence for managing early enamel lesions and suspicious dentinal lesions**

This caries management tool address 2 different, but equally problematic treatment decisions that clinicians often encounter on occlusal surfaces. One is an early
Early enamel lesions

Identification (Assess). Early enamel lesions are relatively common findings in children and adolescents, and less common but not unknown in adults. The clinical presentation (see Sidebar 5) is summarized on the left (Assess) section of the management tool (Figure 8). These lesions are often referred to as “incipient lesions” but that designation is confusing because there are 2 distinct clinical presentations that traditionally have been described as “incipient” lesions, and it is important to distinguish between them. One presentation is the early enamel lesion described in the sidebar. The other presentation is the “stick” of a probe in a pit or fissure. The “sticky fissure” is not necessarily a lesion, as frequently the resistance of the probe to withdrawal from a fissure is due to friction of the side of the probe against the fissure wall into which it has been wedged. Because of the possibility for false-positive identification of lesions, as well as the possibility of damage to demineralized but as yet noncavitated enamel, vigorous probing of occlusal surfaces is no longer considered to be an appropriate diagnostic procedure. Thus, early enamel lesions are detected entirely from visual inspection of a thoroughly dried occlusal surface. The drying, 5 seconds or longer, is essential to visualize early stages of demineralization. The typical clinical presentation is...
The Dental Chairside Guides™ Evidence-Based Clinical Decision Support (EB-CDS) Tool: Attached Gingiva

Step 2

Fold the EB-CDS tool as shown and:

Assess all patients who present with no attached gingiva or narrow band of attached gingiva for root exposure status.

- For patients with increased root exposure, Advise surgical revision.
- For patients with no root exposure, Advise wait & watch.
- For patients with any root exposure (no data available to determine if it has increased) Assess for the presence of any Group 2 Risks. If there are any presenting Group 2 Risks, Advise surgical revision consultation.

Decide: Patient decides regarding therapeutic options.

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summarized on the left side of the EB-CDS management tool, and it is expected that this description will be useful as an occasional reference for clinicians not used to searching for these lesions.

Effectiveness of treatment options (Advise). The middle (Advise) section of the card summarizes the evidence concerning the effectiveness of 4 approaches to managing individual early enamel lesions. The purpose of the summary is to remind the clinician of what is known, and to help convey this information to a patient. The evidence is not plentiful for any of these options; it consists at best of 2 or 3 studies. However, in most instances the available evidence is reasonably consistent. The “monitor” approach illustrates that progression of untreated lesions is relatively slow, with between 5% and 16% advancing within the space of a year following identifica-

tion. It is not known, however, what proportion of such lesions will ever progress. The effectiveness of attempts to remineralize occlusal lesions is poorly understood, with a wide range of progression proportions, from 0% to 37% in the year following identification. In contrast, sealant effectiveness using light or autopolymerized resin has been better well documented. Progression is low for the first 3 years after treatment, rising to 11% after 5 years without repair. Finally, restoration effectiveness has not been studied extensively for early enamel lesions, but the available studies show a range of replacement rates for such restorations from 0% to 20% at 5 years, which places it in the same “ball park” as sealants with respect to progression.

Patient factors (Decide). The right (Decide) side of the EB-CDS management tool presents patient factors...
thought to be associated with the risk of lesion progression, as well as initiation. These factors have not been specifically associated with the progression of early enamel lesions. The purpose of listing these factors is to remind the clinician that their presence or absence, ie, a patient’s caries risk, should be considered in the process of recommending a treatment to a patient. If a patient’s caries risk level is low, it is assumed that the risk of progression of a given early enamel lesion is also reduced, and a less invasive treatment option may be considered with less likelihood of progression in the long term. Also, if the management tool is used to help the clinician inform patients of treatment options and the rationale for the clinician’s recommendation, the presence of these risk factors may facilitate a discussion of appropriate treatment to reduce a patient’s overall risk of caries. It must be noted that the focus of the management tool is on the treatment of the individual lesion, but a complete intervention should include attention to reducing caries risk as well. A patient’s desire to maintain intact tooth structure, while not a “risk” factor, is also an important consideration.

Suspicious dentinal lesions

Identification (Assess). There is no definitive description of a suspicious dentinal lesion, each suspected lesion is just that, a specific location on an occlusal surface were a clinician thinks, but is not sure that a dentinal lesion exists (see Sidebar 6 and Figure 9). The very few studies of suspicious lesions have demonstrated that when opened, roughly half prove to be carious lesions extending to, or into dentin. Thus, clinicians seem to be demonstrating a reasonably balanced sense of uncertainty in designating this kind of clinical appearance as suspicious. It is worth noting that these are not “hidden caries lesions,” where visual inspection shows no suspicion of the caries process, but radiographic examination reveals a dentinal lesion. Here, there is no radiographic evidence of dentinal caries.

Effectiveness of treatment options (Advise). The middle of the EB-CDS management tool summarizes the extremely scanty evidence on effectiveness of 4 alternative treatment approaches. Monitoring leads to uncertain
outcomes, with studies reporting between 16% and 77% of suspicious lesions progressing in 2 or more years of observation. There are no studies of attempts to remineralize suspicious lesions, and ozone is ineffective. Sealants show good effectiveness, with progression occurring in less than 20% of lesions in 2-, 3-, and 5-year studies. When suspicious lesions are restored, the restoration replacement rate is less than 20% for 3 years and 25% or less for 5 years.

Patient factors (Decide). The patient factors that should be considered in making a recommendation are the same as those listed for early enamel caries. Again, these risk factors have not been associated specifically with progression of suspicious dentinal lesions. Rather they are associated with the rate of the initiation and progression of caries lesions generally, and serve as reminders that the choice of intervention should

SIDEBAR 5. Early Enamel Lesions

Early occlusal enamel lesions are areas of initial demineralization associated with pits and fissures on occlusal surfaces. They are usually characterized as a white or light brown discoloration along the edge of a fissure, with some surface extension. The discoloration is a surface phenomenon; there is no underlying shadow. These lesions are not detected by probing, although vigorous probing can prevent their remineralization. In some instances, a slight change in the texture of the discolored surface may be detected using a very light sweeping stroke with an explorer. These lesions represent the first clinically detectable developmental stage of a caries lesion. At this stage there is either no, or minimal demineralization of dentin, and the prismatic structure of the enamel is largely intact. There usually is no radiolucency apparent, but if present, it is confined to the enamel. These lesions may be detected using laser reflectance methods, depending on the detection threshold employed.
consider the patients caries risk. Less invasive treatment options become more attractive as the general caries risk, and hence the assumed risk of progression, declines.

Tool 3: Clinical decision support for professionally applied topical fluoride

The highest level of evidence available to clinicians for clinical decision making is an evidence-based clinical recommendation or guideline. Such evidence is developed by an expert panel that follows a specific process to identify systematic reviews on a topic, critically assess the systematic reviews, and provide guidance as to how the cumulative body of evidence can be considered by the clinician as part of the decision-making process.

In 2005, the ADA Council on Scientific Affairs convened an expert panel to develop evidence-based clinical recommendations on professionally applied topical fluoride. The expert panel critically assessed the evidence and developed specific recommendations for the use of topical fluorides as a primary preventive approach. The recommendations are stratified by both age and caries risk. The ADA Council on Scientific Affairs approved the panel’s recommendations, which were published in the August 2006 issue of the Journal of the American Dental Association (JADA). An executive summary of the full report also appeared in the issue. For detailed information, the reader is encouraged to consult both the full report and the executive summary.

An evidence-based clinical decision support (EB-CDS) tool based on the topical fluoride clinical recommendations has been developed (Figures 10 and 11). This tool is not intended to replace either the full report or the executive summary that appeared in JADA. Rather, this EB-CDS tool is intended as a chairside aid that addresses the key points to be considered in the decision-making process.

The topical fluoride tool involves 3 steps: Assess, Advise, and Decide. The first step is to assess the patient based on 2 factors: age and caries risk status. There are many systems to determine caries risk. One system, shown in Figure 11, considers both caries risk factors and caries history within the previous 3 years.

The second step is to advise the patient about evidence currently available on the topic. In this step, the clinician should consider the patient’s age and caries risk, and the evidence supporting the frequency and modality of topical fluoride application (gel or varnish). Additionally, the recommendations of the expert panel are summarized. The strength of each recommendation, which is based on the corresponding evidence, is represented in a color spectrum. In this spectrum, blue represents recommendation based on the highest level of evidence, and the grading system gradually decreases to red, representing recommendations based substantially on extrapolations or subjective opinions. Three additional factors also should be considered: (1) current evidence supports a 4-minute application for fluoride gel and foam; there is no clinical evidence for the effectiveness of 1-minute applications; (2) there is limited evidence differentiating sodium fluoride (NaF) and acidulated phosphate fluoride (APF) gels; and (3) the recommendations have not been extrapolated to foam because of limited evidence.

The third and final step of the topical fluoride tool is decision making. Through the application of EBD, this step involves incorporating the scientific evidence, the practitioner’s clinical judgment, and the patient’s needs and preferences. Ultimately, it is the patient’s role to make final treatment decisions. The assess and advise steps are key to providing information and recommendations to be used by the patient in making decisions about his or her own treatment.

The first decision should determine if a topical fluoride treatment is indicated. If treatment is indicated, the next decision should determine both the most appropriate type of fluoride for the patient and its frequency of application. Because risk factors and the patient’s needs and preferences may change with time, the final decision should determine how often the patient should be reevaluated.

**SIDEBAR 6. Suspicious Dentinal Lesions**

Suspicious occlusal dentinal lesions are areas on occlusal surfaces where an examining clinician suspects a lesion is present, but cannot identify any definitive clinical signs, ie, frank cavitation or radiolucency. There are no standard criteria that define such lesions; clinicians will respond to slightly different presentations as “suspicious” such as “sticky” fissures, color, or dentinal shadow under the enamel.

**CONCLUSION**

The 3 EB-CDS tools organize available evidence and risk factors to facilitate clinical decision making as well as rapid and effective knowledge transfer to the patient at the point of care. These tools are intended to augment clinicians’ professional expertise, not replace it. EB-CDS tools are not expected to triage each and every clinical situation; however, they cover most common risk factors and provide guidance, serving as practical chairside tools. Treatment recommendation decision pathways are based on risk factor assessment and, when possible, risk management.

When CDS tools are organized into a few conceptual building blocks and learning occurs both verbally and visually (for both the clinician and the patient), information overload risks decrease and learning outcomes...
The Assess-Advise-Decide Approach better enables patients to decide which course of action is in line with their preferences and values. EB-CDS chairside tools incorporating this approach are designed to be simple and easy to use. They support the clinician by facilitating clinical decision making as well as knowledge transfer to the patient rapidly and effectively at the point of care. As dentistry’s evidence base continually improves and knowledge transfer methodology advances, practical and effective EB-CDS tools must continually be brought up-to-date to reflect these developments.

### REFERENCES

**Professionally Applied Topical Fluoride: Evidence-based Clinical Recommendations**

**Determination of Caries Risk**

There are many systems to determine caries risk. One such system is offered below that can be used for caries risk assessment.

<table>
<thead>
<tr>
<th>Risk group</th>
<th>Age</th>
<th>Primary or Secondary Carious lesions in the past three years</th>
<th>Risk factors listed above</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low</td>
<td>All age groups</td>
<td>None and</td>
<td>None</td>
</tr>
<tr>
<td>Moderate</td>
<td>&lt; 6 years</td>
<td>None and</td>
<td>At least one risk factor</td>
</tr>
<tr>
<td></td>
<td>&gt; 6 years</td>
<td>One or two and</td>
<td>At least one risk factor</td>
</tr>
<tr>
<td>High</td>
<td>&lt; 6 years</td>
<td>Any and</td>
<td>Multiple risk factors or Low Socioeconomic status or Xerostomia* or suboptimal fluoride exposure</td>
</tr>
<tr>
<td></td>
<td>&gt; 6 years</td>
<td>Three or more and</td>
<td>Multiple risk factors or Xerostomia* or suboptimal fluoride exposure</td>
</tr>
</tbody>
</table>

*Medication, radiation or disease induced xerostomia.

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