ADA’s Clinical Practice Guidelines

“Your first-line resource for implementing the best available evidence”

Sharon Tracy, PhD
Center for EBD
Staying abreast of knowledge base is overwhelming
Your key: Clinical Practice Guidelines
Purpose
What is a clinical practice guideline?
Clinical practice guidelines: Not one-size-fits-all

Photo credit: http://thedaasler.wordpress.com/2011/05/24/one-size-does-not-fit-all-use-cases-for-desktop-virtualisation/
How can we trust clinical practice guidelines?

Standards

*Clinical Practice Guidelines We Can Trust; Robin Graham, Michelle Mancher, Dianne Miller Wolman, Sheldon Greenfield, and Earl Steinberg, Editors; Committee on Standards for Developing Trustworthy Clinical Practice Guidelines; Institute of Medicine; ISBN 978-0-309-16422-1; 300 pages (2011). This PDF is available from The National Academies Press at http://www.nap.edu/catalog.php?record_id=13058
To be trustworthy, CPGs should:

- Be based on an explicit and transparent process that minimizes distortions, biases, and conflicts of interest (Standards 1 and 2);

To be trustworthy*, CPGs should:

- Be developed by a knowledgeable, multidisciplinary panel of experts and representatives from key affected groups (Standards 3 and 7);

ADA
To be trustworthy*, CPGs should:

- Consider important patient subgroups and patient preferences, as appropriate (Standard 3);
To be trustworthy*, CPGs should:

- Be based on a systematic review of the existing evidence (Standard 4);
To be trustworthy*, CPGs should:

• Provide a clear explanation of the logical relationships between alternative care options and health outcomes, and provide ratings of both the quality of evidence and the strength of the recommendations (Standards 5 and 6) ; and

ADA
To be trustworthy*, CPGs should:

- Be reconsidered and revised as appropriate when important new evidence warrants modifications of recommendations (Standard 8).

ADA
Timeframe to develop CPGs

• Typically takes 2 years
  – Establish expert panel
  – Develop protocol for SR
    • Questions to answer
    • Databases to search
    • Inclusion/exclusion criteria
    • Etc.
  – Then:
What CPGs does ADA have?

- Caries prevention
- Oral cancer
- Next: Periodontal disease

Illustration credit:
http://www.bearcanyonperio.com/patient-education/gumperiodontal-disease/
Where can I find ADA CPGs?

ADA Center for Evidence-Based Dentistry™

Evidence
Guidelines
- Critical Summaries
- Plain Language Summaries
- Systematic Reviews
- Evidence by Topic

EDUCATION

RESOURCES

Clinical Practice Guidelines

Clinical practice guidelines are based on the best available evidence. These are the standard for dental professionals in clinical decision making and help incorporate science into patient care.

Topical Fluoride (Updated November 2013)

The panel assessed the efficacy of various topical fluoride caries-preventive agents, including mouthrinses, varnishes, gels, foams and pastes. The guidelines are an update of the 2006 ADA recommendations.

- Full Report (PDF)
- Executive Summary (PDF)
- Chairsde Guide (PDF)
Other CPG resources to help you implement

- Chair side guides: front side

Clinical Recommendations for Use of Professionally-Applied or Prescription-Strength, Home-Use Topical Fluoride Agents for Caries Prevention in Patients at Elevated Risk of Developing Caries

**Strength of recommendations:** Each recommendation is based on the best available evidence. The level of evidence available to support each recommendation may differ.

<table>
<thead>
<tr>
<th>Strength of recommendations</th>
<th>In Favor</th>
<th>Weak</th>
<th>Expert Opinion For</th>
<th>Against</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strong</td>
<td>Evidence strongly supports this intervention</td>
<td>Evidence supports implementing this intervention only after alternative has been considered</td>
<td>Evidence lacks; level of certainty is low; Expert opinion guides this recommendation</td>
<td>Evidence supports not implementing this intervention or discontinuing ineffective procedures</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Age Group of Patient Affected</th>
<th>Professionally-Applied Topical Fluoride Agent</th>
<th>Prescription-Strength, Home-Use Topical Fluoride Agent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Younger than 6 years</td>
<td>2.26% fluoride varnish at least every 3 to 6 months</td>
<td>In Favor</td>
</tr>
<tr>
<td></td>
<td>OR 1.23% fluoride APF gel for 4 minutes at least every 3 to 6 months</td>
<td>In Favor</td>
</tr>
<tr>
<td>6-18 years</td>
<td>2.26% fluoride varnish at least every 3 to 6 months</td>
<td>In Favor</td>
</tr>
<tr>
<td></td>
<td>OR 1.23% fluoride APF gel for 4 minutes at least every 3 to 6 months</td>
<td>In Favor</td>
</tr>
<tr>
<td>Older than 18 years</td>
<td>2.26% fluoride varnish at least every 3 to 6 months</td>
<td>Expert Opinion For</td>
</tr>
<tr>
<td></td>
<td>OR 1.23% fluoride APF gel for 4 minutes at least every 3 to 6 months</td>
<td>Expert Opinion For</td>
</tr>
<tr>
<td>Adult Root Caries</td>
<td>2.26% fluoride varnish at least every 3 to 6 months</td>
<td>Expert Opinion For</td>
</tr>
<tr>
<td></td>
<td>OR 1.23% fluoride APF gel for 4 minutes at least every 3 to 6 months</td>
<td>Expert Opinion For</td>
</tr>
</tbody>
</table>

**Additional Information:**
- 0.3% fluoride varnish, 1.23% fluoride (APF) gel, or professionally applied fluoride varnish are not recommended for preventing coronal caries in all age groups. See ADA publication for recommendation strengths by age group. The full report, which includes more details, is available at abd.org.
- No prescription-strength or professionally-applied topical fluoride agents except 2.26% fluoride varnish are recommended for children younger than 6 years. See ADA publication for recommendation strengths by age group. The full report, which includes more details, is available at abd.org.
- Patients who have received 1.23% fluoride (APF) gel applications are not necessary for coronal caries prevention in all age groups. See ADA publication for recommendation strengths by age group. The full report, which includes more details, is available at abd.org.

1 Weyant RJ, Proft SL, Axcell JD, et al. Topical Fluoride. In: American Dental Association. Guidelines for Prevention, and Supporting Systematic Review. JADA 2012;143(7):729-799. © 2013 American Dental Association. All rights reserved. Any other use, copying, or distribution, whether in printed or electronic format, is strictly prohibited without the prior written consent of the ADA.
Arriving at recommendation strengths

<table>
<thead>
<tr>
<th>LEVEL OF CERTAINTY</th>
<th>NET BENEFIT RATING</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Benefits outweigh potential harms</td>
</tr>
<tr>
<td></td>
<td>Benefits balanced with potential harms or uncertainty in the balance</td>
</tr>
<tr>
<td></td>
<td>No benefit or potential harms outweigh benefits</td>
</tr>
<tr>
<td>High</td>
<td>Strong</td>
</tr>
<tr>
<td>Moderate</td>
<td>In favor</td>
</tr>
<tr>
<td>Low</td>
<td>Expert Opinion For$^\text{†}$ or Expert Opinion Against$^\text{‡}$</td>
</tr>
</tbody>
</table>

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$^\text{†}$ Indicates a recommendation based on expert opinion.

$^\text{‡}$ Indicates a recommendation against the use of the intervention.
Using Topical Fluoride Agents for Caries Management and Prevention

**Determination of Caries Risk:** There are many systems to determine caries risk [see ADA*, AAPD**].

- **Individual risk factors increasing risk for developing caries may include, but are not limited to:**
  - Active caries in previous 12 months
  - High titers of cariogenic bacteria
  - Poor oral hygiene
  - Drug/alcohol abuse
  - Poor family dental health
  - Cariogenic diet
  - Genetic abnormality of teeth
  - Many multi-surface restorations
  - Chemo or H/N radiation therapy
  - Eating disorders
  - Active orthodontic treatment
  - Irregular dental care
  - Suboptimal fluoride exposure
  - Developmental or acquired enamel defects
  - Prolonged nursing (bottle or breast)
  - Presence of exposed root surfaces
  - Restoration overhangs and open margins
  - Physical or mental disability with inability or unavailability of performing proper oral health care
  - Xerostomia (medication, radiation, or disease-induced)

<table>
<thead>
<tr>
<th>Recommended Topical Fluoride Agents</th>
<th>Fluoride Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>PPM Fluoride</td>
</tr>
<tr>
<td>Professionally-applied Agents:</td>
<td></td>
</tr>
<tr>
<td>2.26% fluoride varnish</td>
<td>22,600</td>
</tr>
<tr>
<td>Acidulated phosphate fluoride (APF) gel (with 0.1M phosphoric acid)</td>
<td>12,500</td>
</tr>
<tr>
<td>Prescription-strength, Home-Use Agents:</td>
<td></td>
</tr>
<tr>
<td>Gel or paste with or without acidulation (0.1M phosphoric acid)</td>
<td>5,000</td>
</tr>
<tr>
<td>Mouth rinse</td>
<td>900</td>
</tr>
</tbody>
</table>

The following were not reviewed, but are presented as a reference:

- **Over-the-counter Strength:**
  - Toothpaste with 1150 ppm (0.12%) fluoride or less
    [i.e., 0.25% sodium fluoride]
  - Mouthwash with 100 ppm (0.01%) or 225 ppm (0.02%) fluoride
    [i.e., 0.02%/0.05% sodium fluoride]

* ADA.org/5152.aspx?CurrentTab=2

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Other CPG resources to help you implement

ADA - EBD Audio Podcasts

*For a smooth playback experience, you need a broadband internet connection. If your broadband connection isn’t fast enough, audio may stutter. If you are experiencing stuttering or choppy playback, try pausing the audio until the buffer is full and then play the audio.

This page works best with Internet Explorer 9 and above, as well as Firefox and Safari. Please upgrade to the latest version of your browser.

Dr. Robert Weyant is Associate Dean of Dental Public Health and Community Outreach and Professor and Chair of the Department of Public Health at the School of Dental Medicine at the University of Pittsburgh. He also currently serves on the ADA Council on Scientific Affairs. Dr. Weyant was the chair of the Expert Panel who developed the 2013 update of the Clinical Recommendations for Topical Fluorides for Caries Prevention.

In this podcast, Dr. Weyant discusses the 2013 clinical recommendations for topical fluoride agents to prevent dental caries, including professionally-applied and prescription-strength, home-use products. He discusses why the update was necessary and the process that was used to generate the clinical recommendations. An executive summary of the systematic review was published in the November 2013 issue of the Journal of the American Dental Association. You can read the full report and download your free chairside guide at ebd.ada.org/ClinicalRecommendations.aspx.

<table>
<thead>
<tr>
<th>Title</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Topical Fluoride for Caries Prevention - 2013 Update</td>
<td>12:38</td>
</tr>
</tbody>
</table>

Dr. Tim Wright is a pediatric dentist by training and has a full time academic appointment as Chairman of Pediatric Dentistry at the University of North Carolina and currently serves as the Chair of the ADA Council on Scientific Affairs.

In this podcast, Dr. Wright discusses the available modalities and clinical effectiveness of non-fluoride caries preventive agents.

A multidisciplinary expert panel convened by the ADA Council on Scientific Affairs concluded that certain non-fluoride agents may provide additional benefit as adjunctive therapies in children and adults at higher risk for developing caries. On the basis of available evidence, the panel recommended the use of sucrose-free polyol chewing gum, xylitol lozenges or hard candy, and a mixture of chlorhexidine-thymol varnish for certain populations. Listen to learn more.

An executive summary of the systematic review was published in the September 2011 issue of the Journal of the American Dental Association (JADA). You can read the full report here and download your free chairside guide.

<table>
<thead>
<tr>
<th>Title</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-fluoride Caries Preventive Agents</td>
<td>14:59</td>
</tr>
</tbody>
</table>
Posting on U.S. government website:

- National Guideline Clearinghouse (part of U.S. Department of Health and Human Services / Agency for Healthcare Research and Quality) [www.guideline.gov](http://www.guideline.gov)
Stay tuned for announcements of new or updated ADA CPGs

- JADA publication
- ADA News articles
- Press releases
- Member marketing e-blasts
- Social media postings
- Periodically visit ebd.ada.org to see what’s new
We need to meet you halfway – be on the lookout for new/updated CPGs

ADA Center for EBD You!
Please tell your colleagues!
Discussion and feedback