Use of a Risk Assessment Tool in Primary Care

Can old dogs learn new tricks?

Suzanne Boulter, MD, FAAP
Adjunct Professor of Pediatrics
Dartmouth Medical School
Learning Points

• Opportunities and challenges around oral health screening in primary care
• Discussion about AAP assessment tool
• Use of quality improvement (QI) concepts to promote pediatrician screening
• Presentation of QI data from AAP studies
The Problem – Too Many Recommendations

• 344 official policy statements from the American Academy of Pediatrics

• 57 policies contain 162 different verbal health advice directives that pediatricians should counsel their patients about

• Well child visits last from 15-30 minutes allowing 5-10 seconds per topic!

AAP Oral Health Policy Statement - 6
Recommendations for Pediatricians

• Assess mother/caregivers oral health
• Assess oral health risk of infants and children
• Recognize signs and symptoms of caries
• Assess child’s exposure to fluoride
• Provide anticipatory guidance and oral hygiene instructions (brush/ floss)
• Make timely referral to a dental home

Bright Futures 3\textsuperscript{rd} Edition – 2008

- 13 well child visits recommended in first 3 years of life
- \textbf{Oral Health} chosen as one of 10 key issues for pediatricians to assess as part of well child care
Bright Futures/AAP Risk Assessment Tool and Tutorial

- Result of 2 QI projects
- Developed to assist pediatricians and others to implement oral health services in practice
- Available online at [http://www2.aap.org/oralhealth/RiskAssessmentTool.html](http://www2.aap.org/oralhealth/RiskAssessmentTool.html)
- Web site includes downloadable tool, interactive tutorial, guidance, and results of QI projects
- Sent to 20,000 Pediatricians in August 2011
1) Assess Caretakers Risk Factors

• History of parental decay in prior year

• Screen for dental home of parent/caretaker

RISK FACTORS

- Mother or primary caregiver had active decay in the past 12 months
  - Yes □ No □

- Mother or primary caregiver does not have a dentist
  - Yes □ No □

- Continual bottle/sippy cup use with fluid other than water
  - Yes □ No □

- Frequent snacking
  - Yes □ No □

- Special health care needs
  - Yes □ No □

- Medicaid eligible
  - Yes □ No □
2) Assess **Child’s Risk Factors**

- Continual bottle/sippy cup use with any liquid other than water
- Frequent snacking (more than 4 times per day)
- Special health care needs
- Medicaid eligible/low health literacy level
3) Assess Child’s Protective Factors – Fluoride and Access to Dental Home

• Systemic –
  – Water fluoridation
  – Prescription supplements

• Topical
  – Toothpaste
  – Varnish
  – Rinse
4) Document Clinical Findings

• Assess for:
  – White spots
  – Decay
  – Restorations
  – Plaque
  – Gingivitis
5) Refer to Dental Home

- First dental visit at 1 year; earlier if high risk
- Develop list of dentists who will accept patients this age
- Include office phone numbers and addresses
- Refer Medicaid patients to state web site or phone line if no access
Medicaid Reimbursement for Primary Care Caries Prevention Services

States with Medicaid funding for physician oral health screening and fluoride varnish
- Medicaid coverage approved
- Approved but not fully implemented
- Only in certain circumstances
- Reimbursement not yet approved

SOURCE: http://www.mchoralhealth.org/feedback/reimbursementchart6_08.pdf
Medicaid Billing Codes and Reimbursement

- Fluoride varnish  D 1206  $12 - $53
- Oral evaluation new pt  D 0145  $29 - $56
- Oral evaluation est pt  D 0120  $20 - $27
- Age limit – varies; ages 6 months to 5 years
- Number of varnish applications reimbursed annually – 2- 4
- Training required – varies; state specific
- Delegation of procedure (NP, RN, LPN, CMA) about 2/3 of states allow
Continued Challenges for PCP Oral Health Screening

- Medicaid cuts may affect some states current payment to PCPs
- Private medical and dental insurance payments to PCPs to provide caries prevention services is lacking
- Pediatricians and other primary care providers lack the time and training to provide OH services in the medical home but national and state wide initiatives are showing improvement over time
New Opportunities

• Health care reform will drive more involvement of PCPs in oral health
• AAP is partnering with other primary care organizations and with
  
  National Interprofessional initiative
  on Oral Health
  
  to help standardize training and education efforts for all
• Increased collaboration between dentists and PCPs can improve patient oral health screening, anticipatory guidance, and referral to establish a dental home
• General dentists (not trained in pediatric dentistry) are becoming more willing to service infants and toddlers
Quality Improvement and Oral Health

Using QI as the “carrot” to increase the uptake of oral health services in primary care
Why Is Quality Important?
Physician Competencies

- Patient care
- Medical knowledge
- Professionalism
- Systems-based practice
- Practice-based learning and improvement
- Interpersonal and communication skills
American Board of Pediatrics  
Maintenance of Certification  

Maintenance of Certification (MOC) standards now mandate:  

1) Documentation of unrestricted license to practice  q 5 years  
2) Self learning and assessment activities  q 5 years  
3) Pass secure proctored exam  q 10 years  
4) *Active involvement in measuring/improving quality care for patients*  q 5 years
Pediatric Board Maintenance of Certification

Details of #4 quality improvement:

– Implementation and demonstration of a quality improvement project in practice
  • Knowledge of quality improvement methods
  • Efforts to identify system errors and implement solutions
  • Team work to enhance patient safety and improve quality care
AAP Pediatric Quality Recommendations for MOC

- Important issues for children be addressed
- Issues are appropriate for children’s health
- Topic has scientific validity
- Area is feasible
- Initiative addresses what can be improved

Opportunities for Microsystems Improvement

THE PDSA CYCLE
TEN STEPS TO QUALITY IMPROVEMENT

1. Pick a Topic
2. Define an Aim
3. Pick a Measurement
4. Map the Process
5. Brainstorm
6. Identify Process Measures
7. Plan the Process Change
8. Do the New Process
9. Study the Data
10. Act on the Data
1) Pick a Topic

- **Caries reduction**
  - Data support *worsening* of the incidence of caries over the past decade – 28% of 2-4 year old children have dental caries

2) Define an Aim: Examples

- **By Dec 1\textsuperscript{st} 2012**, using an oral health risk assessment tool, screen 100% of 9 & 12 month old patients at health supervision visits to identify those at high risk.

- **By Dec 1\textsuperscript{st} 2012**, refer 75% of all patients to a dental home by 12 months

- **By Dec 1\textsuperscript{st} 2012**, refer 100% of high risk patients to a dental home with tracking of compliance
More Examples

• By Dec 1st 2012, provide anticipatory guidance on continual bottle/sippy cup use and frequent snacking to 100% of 9 & 12 month old patients at health supervision visits

• By Dec 1st 2012, perform fluoride varnish application on 75% of high risk children as identified by the oral health risk assessment.

• By Dec 1st 2012, test and document all well water fluoride levels in households without public water supply
3) Pick a Measurement

- Oral Health Risk Assessment screening done
- Anticipatory guidance given on oral hygiene and diet
- Fluoride varnish applied
- Referral to dental home
- Order and track well water fluoride test results
4 & 5) Brainstorm and Map the New Process

• How will your office
  – Use an Oral Health Risk Assessment
  – Discuss fluoride modalities
  – Refer to dental home
Example of Mapping Process

- Patient calls for appt.
- Patient arrives
- MA rooms patient
- Provider with patient
- MA gives patient information about OHRA
- MA puts materials in room
- Provider does screening
- List of Dentists given
- Fluoride varnish applied if high risk (by OHRA)
- Patient leaves
6) Identify Process Measures - Examples

- Collect data on % of OHRA done
- Track completed referrals to a dental home
- Track % of diet and oral hygiene anticipatory guidance done
- Collate data on % of patients receiving fluoride varnish
7) Plan Process Change - Select Tools to Achieve Aim

- AAP Pediatric Oral Health Flipchart and Reference Guide

- AAP Protecting All Children’s Teeth Online Curriculum and Teaching Materials (PACT) – [www.aap.org/oralhealth/PACT.html](http://www.aap.org/oralhealth/PACT.html)


- AAP Policy Statements on Oral Health/Dental Home
  - *Pediatrics* May 2003
  - *Pediatrics* December, 2008
More Tools

• AAP Children’s Oral Health Web Site Practice Tools Page – http://www2.aap.org/oralhealth/PracticeTools.html

• AAP/Bright Futures Oral Health Risk Assessment Tool and Tutorial - http://www2.aap.org/oralhealth/RiskAssessmentTool.html


• Links to successful programs
  – Into the Mouths of Babes (North Carolina) - http://www.ncdhhs.gov/dph/oralhealth/partners/IMB.htm
  – Cavity Free by Three (Colorado) - http://www.cavityfreeatthree.org/
  – And more!

• Data collection
  – Paper
  – Electronic Health Record (EHR)
Example of EHR Tool
eQIPP Program

- Education and Quality Improvement in Pediatric Practice
  www.eqipp.org
- Launched by AAP in 2002; 7 topics available
- Bright Futures module with 10 topics including oral health released in 2010
Completion Requirements

• Knowledge of QI basics
• Data collection using chart review
  – Baseline data
  – Follow up data
• Creation and tracking of improvement plan using aim statement
eQIPP Oral Health in Primary Care Module – Coming Soon!

- Funded by Health Resources and Services Administration (HRSA)
- Multidisciplinary expert group including pediatricians, pediatric dentist, family physician, nurse practitioner and physician assistant
- Focuses on the implementation of oral health services in the medical home
- Available online fall of 2012!
8) Do the new process

Gather data using EHR or paper chart – number of well child visits that include:

- OHRA screening
- assessing patients for caries
- applying varnish
- discussing fluoride and determining tap water fluoride content
- recommending establishment of dental home and giving written local referral recommendations
9) Study the Data

% Screened or referred

PDSA 1  PDSA 2  PDSA 3
Identify Potential Systems Solutions

- Train everyone in practice on OHRA
- Choose coordinator (oral health champion)
- Determine staff roles for screening, counseling, referral and varnish
- Have supplies in kit
- Store kit in central location
- Screen for needed services at every visit
  - Close K, Rozier G, Zeldin L, Gilbert A. Barriers to the adoption and implementation of preventive dental services in primary medical care. *Pediatrics* 2010;125:509-517
10) Act on the Data

• Quality improvement becomes continuous when PDSA cycles are repeated.
How to Promote Change:

• Change becomes improvement through measurement.

• Improvement is done as a team.

• Improvement is the result of repeated PDSA cycles leading towards an aim.
Quality Improvement Oral Health Project Examples

• Quality Improvement Innovation Network (QuIIN) Pilot Project

• Bright Futures Brightening Oral Health Implementation Project

• Bright Futures Preventive Services Improvement Project (PreSIP)
QuIIN Network

- A network of practicing pediatricians and their teams who use QI methods to test tools, interventions, and strategies to improve healthcare outcomes for children and their families
- QuIIN pilot-tested the first version of the OHRA Tool
- 388 members in 46 states plus PR, MX, Pakistan
Brightening Oral Health Tool Piloted

Brightening Oral Health Project
Oral Health Risk Assessment Tool

This is a: 9 month visit □
12 month visit □

<table>
<thead>
<tr>
<th>RISK FACTORS</th>
<th>PROTECTIVE FACTORS</th>
<th>DISEASE INDICATORS (CLINICAL EXAMINATION)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Has mother or primary caregiver had active decay in the past 12 months?</td>
<td>Yes □ No □</td>
<td>□ White spots or visible decalcifications</td>
</tr>
<tr>
<td>Yes □ No □</td>
<td>□ Existing dental home</td>
<td>□ Obvious decay</td>
</tr>
<tr>
<td>Does mother have a dentist?</td>
<td>Yes □ No □</td>
<td>□ Restorations present</td>
</tr>
<tr>
<td>Yes □ No □</td>
<td>□ Drinks fluoridated water or takes F supplements</td>
<td>□ Visible plaque accumulation</td>
</tr>
<tr>
<td>Other Risk Factors:</td>
<td>□ F varnish in the last 6 months</td>
<td>□ Gingivitis (swollen/bleeding gums)</td>
</tr>
<tr>
<td>Yes □ No □</td>
<td>□ Child has teeth brushed daily with fluoridated toothpaste*</td>
<td>□ None</td>
</tr>
<tr>
<td>□ Continual bottle/sippy cup use with fluid other than water</td>
<td></td>
<td>□ No Teeth Present</td>
</tr>
<tr>
<td>□ Frequent snacking</td>
<td></td>
<td></td>
</tr>
<tr>
<td>□ Special health care needs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>□ Low SES/health literacy/Medicaid eligible</td>
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</tbody>
</table>

Caries Risk: □ Low □ High
Completed: □ Anticipatory Guidance □ Fluoride Varnish □ Referral to __________
Goals:

*New recommendation.*
Results of QuINN Caries Risk Assessment Tool Pilot Project

**Testing Results**

Did You Find the Oral Health Risk Assessment Tool Helpful?

- **YES**
- **NO**

Over 80% of the practices found the tool to be helpful.

“It makes health care practitioners think about risk factors for caries”

--Testing QuINN Pediatrician

Was the Tool Helpful to Identify High Risk Patients for Dental Caries?

- **YES** 83%
- **NO**

“Prompted discussion about dental care/caries risk with patients and families”

--Testing QuINN Pediatrician
Bright Futures Brightening Oral Health Implementation Project

- 10 sites chosen to test OHRA tool as part of Brightening Oral Health project
- Pre test survey and data collection from practices
- Post project data collection completed
Brightening Oral Health Practice Teams by State

[Map showing states with different team counts]
Clinician Agreement on Oral Health

Assess 6, 9, 12 month old children for dental caries
Assess maternal oral health
Refer all 12 month olds to a dental home
Our practice has a system in place to document oral health risk assessment.
Practice Has a System and Can Identify High Risk Patients

- My practice has a system to identify high risk patients for an oral health referral.
System to Apply Fluoride Varnish

Pre Test Data: 33%

Post Test Data: 50%
Easily Accessible Dental Referral List in my Office

Pre Test Data

- Yes: 78%
- No: 22%

Post Test Data

- Yes: 87%
- No: 13%
Someone responsible for regularly updating practice’s oral health list

Pre Test Data

Post Test Data
Brightening Oral Health Study Conclusions

• Practice teams employing a system to document oral health risk assessments increased significantly

• Practice teams utilizing a system to identify high risk patients for an oral health referral increased significantly
Preventive Services Improvement Project (PreSIP)

- Designed to answer the question: Can Bright Futures be easily implemented, birth to 3, in a busy clinical setting?

- 12 preventive screening areas assessed based on the recommendations of the Bright Futures Guidelines, 3rd Edition
  
  - Funded by HRSA/MCHB
Bright Futures: Preventive Services Improvement Project (PreSIP)

21 Practice Teams

Diversity in Practice Size and Patient Population
Bright Futures Preventive Services Project: Preliminary Oral Health Findings

- Oral Health Risk Assessment Completed at 9 month Visit: 31% (Baseline), 74% (6 Months Later)
- Dental Home Identified/Risk Assessment Completed at 2 year Visit: 60% (Baseline), 81% (6 Months Later)
Bright Futures Preventive Services Improvement Project (PreSIP): Oral Health Risk Assessment 9: Month Chart Review for Collaborative

Baseline | February | March | April | May | June | July | August

Oral Health Education Presented

31%

81%
Bright Futures Preventive Services Improvement Project
Aggregated Pre and Post Data--9 Month Visit

Developmental Screen Completed: 54% Pre, 88% Post
Positive Developmental Screen Follow-Up: 54% Pre, 87% Post
Three BF Anticipatory Guidance Priorities Used: 73% Pre, 98% Post
Parental Strengths Assessed: 9% Pre, 66% Post
Oral Health Risk Assessment Completed: 31% Pre, 86% Post
Learning Points

• Opportunities and challenges around oral health screening in primary care
• Discussion about AAP assessment tool
• Use of quality improvement (QI) concepts to promote pediatrician screening
• Presentation of QI data from AAP studies
Contact Information

• For more information about AAP and its Oral Health Initiatives please contact:
  – Lauren Barone, MPH, Manager, Oral Health at oralhealth@aap.org or 847-434-4779
  – Suzanne Boulter, MD, FAAP at drsboulter@yahoo.com