Promoting Childhood Oral Health with Fluoride Varnish

Dr. George Xenakis
Director of Dentistry & Radiology
William F. Ryan Community Health Network
Who We Are

• Four main centers and 15 service sites comprise the **William F. Ryan Community Health Network**
• We are nationally recognized FQHCs
• Provide high quality, affordable health care & support services to minority, medically underserved populations in Manhattan for over 45 years
• The organization is accredited by the Joint Commission

**OUR MISSION:** “Health care is a right, not a privilege.”
Care Gap

- Dental caries is the #1 chronic disease affecting children:
  - 21% of all children have dental caries in their 1\textsuperscript{st} teeth
  - 27% of non-Hispanic black/31% of Mexican – American
  - Those living in families with lower incomes – 2x as likely to have untreated caries in 2\textsuperscript{nd} teeth
Potential Consequences

- Impacts ability to eat, thrive, speak & learn
- Pain & infection results in ~51 M lost school hrs/yr
- Early tooth loss → orthodontic problems, self confidence
- Increased risk of adult tooth decay
- Economic costs
Purpose

• Increase access to care
  Oral Health Care Is The Most Prevalent Unmet Healthcare Need In Children & Adolescents

• Apply fluoride varnish to retard, arrest, or reverse the process of tooth decay in children at medium to high risk for dental caries
  Dental Caries Are Preventable
Key Elements

• Many dental studies indicate 4 applications over a two year interval reduce caries prevalence by ~30% in at-risk populations

• Infants/children are more likely to see their PCPs than a dentist
  – Promotion of early childhood oral health outside of the dental setting

• Pilot Program: initially collaborate with Ryan’s Pediatric Department
Description of the Innovation

• Component #1 - Educate PCPs:
  - Counsel parents, re: hygiene, caries, teething, eruption
  - Discourage bedtime bottles & sippy cups
  - Promote healthy eating behaviors
  - Encourage wiping child’s gums/teeth
  - Discuss sucking habits & dentofacial development
  - Referring to a dentist by the age of one
  - Applying Fl⁻ Vanish 2-4x/yr depending on child’s caries risk until a dental home has been established
INFORMATION FOR PARENTS

Ask your pediatrician about fluoride varnish

HELFPS PREVENT CAVITIES

What is fluoride varnish?
Fluoride varnish is a coating that is painted on a child’s teeth to prevent or stop cavities. If your child does not see a dentist regularly, you should ask your pediatrician about fluoride varnish.

Why is fluoride varnish recommended for children’s teeth?
Cavities can cause pain and infections that can be bad for children’s general health and lead to problems with eating, speaking, playing, and learning. Fluoride varnish makes teeth stronger, stops cavities from getting bigger, and prevents new cavities from forming.

Is fluoride varnish safe?
Yes. Fluoride varnish is safe for children of any age; it can be used on babies from the time their first teeth come in.

How is fluoride varnish put on teeth?
Fluoride varnish is painted on teeth with a brush. A trained doctor, nurse, or dentist can do it easily and quickly. There is no pain and the varnish does not taste bad. The varnish may change the color of the teeth just after it is applied. Some kinds of varnish will make the teeth look yellowish, other kinds may make the teeth look less shiny. These changes are normal, and will go away when you brush your child’s teeth the next day.

How long does fluoride varnish last?
The varnish sticks to the teeth until it is brushed away the next day, but the fluoride keeps working for several months to protect teeth. Varnish works best if it is painted on teeth 2 to 4 times a year, as recommended by your child’s health care provider.

Tips for parents after fluoride varnish application
• Wait until the next day to brush your child’s teeth.
• Give your child only soft foods for the rest of the day after treatment.
• Avoid giving your child hot, hard, or sticky foods for 24 hours after the fluoride varnish application. Hard or chewy foods might chip the varnish off.

Children should see a dentist by their first birthday and visit a dentist at least once a year.
Description of the Innovation

• Component #2 – Assessing Caries Risk
  - Introduce to PCPs the AAPD’s Caries Risk Assessment Tool: assigns caries risk to indicators (clinical findings, environmental factors & general health considerations)
  - Ask parents about their caries experience & that of siblings
  - Ask about caries symptoms
  - Assess child’s exposure to fluoride
Description of the Innovation

• Component #3 – Applying Fluoride Varnish
  - Pre-application training
  - Provide needed supplies
  - Information for parents
  - Post-application instructions
Fluoride Varnish

- Lacquer-based product that adheres to enamel allowing $\text{Fl}^-$ to be slowly released
- Can prevent, arrest & reverse early cavity formation
- Applies once teeth erupt during infancy
- Saliva sets the varnish
- Safe, effective, easy & quick to apply
- Minimum training & no special equipment required
- Low ingestion - poses little risk of fluorosis
- Procedure code D1206 for reimbursement
Goals

• The establishment of a dental home for all children by the age of one:
  - A proactive pediatric staff makes dental appts
  - Provide educational resources to parents
  - Pediatric dental visits are a Network-wide goal
  - EHR exam templates act as a reminder
Goals

• To assess every child who does not receive regular dental care for caries risk

• Apply fluoride varnish at regular intervals while stressing the importance of obtaining a dental home
Summary

• Summary
  – Prevention of caries requires a multi-strategies approach
  – Fluoride use should focus on regimens that maximize topical contact, with a lower-dose, higher-frequency approach
  – Fluoride regimens should be based on periodic caries risk assessments

Children should see a dentist by their first birthday and visit a dentist at least once a year
Contact Information

• For more information, contact:
  – Dr. George Xenakis
  – Director of Dentistry & Radiology
  – William F. Ryan Community Health Network
  – 212-316-7929
  – gxenakis@ryancenter.org