

SAMPLE
FLUORIDE VARNISH APPLICATION PROGRAM FOR CHILDREN
AGENCY PROTOCOL

Wisconsin Department of Health and Family Services
Division of Public Health
April 25, 2005

Table of Contents

I. Sample Fluoride Varnish Application Policy..... 3

II. Sample Fluoride Varnish Procedure 7

III. Standing Medical Orders..... 13

IV. Web Sites..... 18

SAMPLE FLUORIDE VARNISH APPLICATION POLICY AND PROCEDURE

Department: <Name Local Health Department>

Original Effective Date: <Date>

Author:

Reviewed By: <Dentist>

Reviewed By: <Dental Hygienist>

Reviewed By: <Public Health Nursing Director (if applicable)>

Approved By: <Agency Director/Health Officer>

Approved By: <Medical Advisor>

Reviewed and Revised:

20	/	_____	Initials
20	/	_____	Initials
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20	/	_____	Initials

The administration of the fluoride varnish application program will be completed under the direction of the Agency Director/Health Officer or his/her designee.

PURPOSE STATEMENT

The goal of the fluoride varnish program is to reduce the proportion of children who have dental caries experience in the primary teeth and permanent teeth. This is one primary prevention component of the health department's oral health program. This fluoride varnish program has four components: (1) oral screening, (2) anticipatory guidance, (3) fluoride varnish application, and (4) referral. Children may also receive fluoride varnish application after sealant application as part of the school-based or school-linked sealant program, consistent with Medicaid reimbursement policies, which may be subject to change. These programs promote working within the dental community to establish dental homes for children.

PURPOSE AND RATIONALE

Tooth decay is the most common chronic disease of childhood. Tooth decay is a transmissible infection and is caused by a bacterium (*streptococcus mutans*). The most likely source of inoculation of the infant's oral flora is the mother or another intimate care provider that shares foods and eating utensils. Windows of transmission occur at an average age of two years. Early childhood caries (ECC) can be well advanced by the age of three.

Dental caries can affect children's growth, lead to malocclusion, difficulty concentrating during the learning process, and result in significant pain and infection. Pediatricians, physicians and

public health personnel are more likely to encounter new mothers and infants earlier in the primary health care setting than in dental practices.

Intervention with oral screening and assessment, anticipatory guidance (education), fluoride varnish (topical fluoride application), and necessary referrals, helps prevent dental caries. This is especially important for high-risk populations. Access problems due to socioeconomic disparity present a high risk for tooth decay.

FLUORIDE VARNISH

Fluoride varnish has been used in Europe and Canada for more than 30 years. It has been proven to be effective in preventing tooth decay in both primary and permanent teeth. It is applied 2 times per year or more if the child is at higher risk of developing cavities. First introduced in the United States in 1991, it received approval as a cavity varnish and a desensitizing agent. It is used off label for the prevention of tooth decay. It is ideally suited for application on infants, toddlers, and children because of ease of application and minimal ingestion.

According to United States Centers for Disease Control and Prevention, *Recommendations for Using Fluoride to Prevent and Control Dental Caries in the United States*:

The quality of evidence for the efficacy of high-concentration fluoride varnish in preventing and controlling dental caries in children is Grade 1. Although the randomized controlled clinical studies that established Grade 1 evidence were conducted in Europe, U.S. results should be the same.

Fluoride varnish applications are readily adaptable to medical settings during well baby visits. No special equipment is needed. Fluoride varnish is safe, with minimal ingestion of fluoride. Fluoride varnish applications are also easily adaptable to Women, Infant and Children (WIC) Programs, Head Start programs, Early Periodic Screening Diagnosis and Treatment (EPSDT) and school or community-based dental sealant programs (Wisconsin Seal a Smile).

Fluoride varnish is an adjunct to community water fluoridation or dietary fluoride supplements. Dental caries is the most common chronic disease suffered by children. More than 50 percent of all children experience dental caries by the age of eight years, and about eighty percent of all children have dental caries by age 18.

The Wisconsin Division of Public Health and <Local Health Department Name> recommends application of fluoride varnishes to high risk children in accordance with the United States Centers for Disease Control and Prevention, 2001, *Recommendations for Using Fluoride to Prevent and Control Dental Caries in the United States*, Morbidity and Mortality Weekly Report. 50. RR-14. Fluoride varnish application may be placed on children during well baby examinations beginning at 6 months, Head Start screenings, incorporated into Women, Infants and Children (WIC) programs, or in the Wisconsin Seal a Smile programs.

PROGRAM POLICY

1. The <Local Health Department Name> will serve infants and children with signed parental/legal custodian/guardian consent.
2. Signed medical history/consent forms represent a one-year agreement between parents/legal custodian/guardian and the <Local Health Department Name>.
3. The administration of the fluoride varnish program is the responsibility of <Local Health Department Name> under the direction of the Local Health Department Director/Health Officer or his/her designee and the medical advisor(s).
4. <Local Health Department authorized registered nurses and/or state-licensed dental hygienists > may apply fluoride varnishes for < Local Health Department>
 - A. A state-licensed dental hygienist practices as an employee or independent contractor consistent with s. 447.01 (3), 447.06 (2) (a) 2., 3., and 5., Wis. Stats.
 - B. Registered nurse practices consistent with Chapter 441, Wisconsin Statutes, and HFS 139 if applicable.
5. It is the responsibility of <Local Health Department Designee>, to assess the need for, plan, implement, and evaluate the fluoride varnish application program.
6. The Agency Director/Health Officer will assign support staff as necessary.

TARGET POPULATION

1. The <Local Health Department > will serve high risk infants and toddlers (under the age of six) during well baby examinations or during other health department sponsored events such as WIC Clinics, Head Start screening or for children participating in the <Local Health Department> dental sealant program under the age of 13.
2. Populations believed to be at increased risk for dental caries are those with low socioeconomic status or low levels of parental education, those who do not seek regular dental care, and those without dental insurance or access to dental services. Individual factors that possibly increase risk include active dental caries; a history of high caries experience in older siblings or caregivers; root surfaces exposed by gingival recession; high levels of infection with cariogenic bacteria; impaired ability to maintain oral hygiene; malformed enamel or dentin; reduced salivary flow because of medications; radiation treatment, or disease; low salivary buffering capacity (i.e., decreased ability of saliva to neutralize acids); and the wearing of space maintainers, orthodontic appliances, or dental prostheses. Risk can increase if any of these factors are combined with dietary practices conducive to dental caries (i.e., frequent consumption of refined carbohydrates). Risk decreases with adequate exposure to fluoride. (CDC, MMWR, 2001)
3. Signed medical history/consent forms represent a one-year agreement between parents/legal custodians/guardians and the <Local Health Department>.

RESOURCES

AAP Policy Statement, May 2003, *Oral Health Risk Assessment Timing and Establishment of the Dental Home*.

Balistreri, Thomas J., Assistant Attorney General, *December 9, 2004 Letter to Steven M. Gloe, General Legal Counsel, Department of Regulation and Licensing*.

Casamassimo P, ed. 1996. *Bright Futures in Practice: Oral Health*. Arlington, VA: National center for Education in Maternal Health and Child Health.

Kanellis, Michael J., DDS, MS, *Caries Risk Assessment and Prevention: Strategies for Head Start, Early Head Start and W.I.C.*, Dept. of Pediatric Dentistry The University of Iowa College of Dentistry, <http://www.mchoralhealth.org/PDFs/HSPartnersKanellis.pdf>, Retrieved 3/11/05.

National Maternal and Child Health Resource Center, *Pediatric Oral Health Management*, <http://www.mchoralhealth.org/PediatricOH/index.htm>, Retrieved, 3/11/05.

United States Department of Health and Human Services (DHHS). *Oral Health in America: A Report of the Surgeon General*. Rockville, MD: U.S. DHHS, National Institute of Dental Craniofacial Research, National Institutes of Health, 2000.

United States Centers for Disease Control and Prevention, 2001, *Recommendations for Using Fluoride to Prevent and Control Dental Caries in the United States*, Morbidity and Mortality Weekly Report. 50. RR-14.

University of Iowa Center for Leadership Training in Pediatric Dentistry, *Oral Management of Pediatric Patients for Non-Dental Professionals* <http://www.iowapediatricdentistry.com/>, Retrieved 3/11/05.

Wisconsin Statutes and Administrative Code Relating to the Practice of Dentistry and Dental Hygiene

Wisconsin Statutes and Administrative Code Relating to the Practice of Nursing

LEGAL AUTHORITY

Health and Family Services 139

Thomas J. Balistreri, Assistant Attorney General, *December 9, 2004 Letter to Steven M. Gloe, General Legal Counsel, Department of Regulation and Licensing*.

Wisconsin Statutes and Administrative Code Relating to the Practice of Dentistry and Dental Hygiene

Wisconsin Statutes and Administrative Code Relating to the Practice of Nursing

Wisconsin Statutes and Administrative Code Relating to the Practice of a Generalized Public Health Nursing Program by Local Health Departments

SAMPLE FLUORIDE VARNISH PROCEDURE

PURPOSE STATEMENT

The goal of the fluoride varnish program is to reduce the proportion of children who have dental caries experience in the primary and permanent teeth. This is one primary prevention component of the local health department's oral health program.

AUTHORIZED PROVIDERS

1. <Local Health Department authorized registered nurses and/or state-licensed dental hygienists > may apply fluoride varnishes for <Local Health Department>.
2. A state-licensed dental hygienist practices as an employee or independent contractor consistent with s. 447.01 (3) and 447.06 (2) (a) 2., 3., and 5., Wis. Stats.
3. Registered nurse practices consistent with Chapter 441, Wisconsin Statutes, and HFS 139 if applicable.

SUPPLIES/EQUIPMENT/FORMS

1. Program consent forms and screening forms are available through the Wisconsin Department of Health and Family Services.
2. This program uses fluoride varnish material that is an approved United States Food and Drug Administration device.

STANDARDS TO FOLLOW

1. Record Keeping:
 - A. A signed copy of parent/legal custodian/guardian informed consent, a signed and dated medical history and screening form must be kept in the individual's health record.
 - B. Using the medical history, prior to varnish placement, a caries risk assessment and oral screening is conducted by <Local Health Department authorized registered nurses and/or state-licensed dental hygienists>. The Early Childhood Caries Prevention Form (DPH 0303) may be used to record:
 - i. Name, date, birth date, grade, special health care needs status, Medicaid/BadgerCare status
 - ii. Caries experience, untreated caries, early childhood caries or presence of sealants, treatment urgency (urgent, early or no treatment needs)
 - iii. Indication for fluoride varnish application
 - iv. Application dates and provider initials
 - v. Name of licensed individual conducting screening
 - vi. Comments and indication of referral
 - C. The need for fluoride varnish placement will be determined consistent with United States Centers for Disease Control and Prevention, 2001, *Recommendations for Using Fluoride to Prevent and Control Dental Caries in the United States*, MMWR.
 - D. All applicable federal and state occupational safety and health records will be maintained at the <Local Health Department>.
 - E. All applicable confidentiality requirements will be met.

2. Fluoride Varnish Placement Standards
 - A. DHFS Publications: *Integrating Preventive Oral Health Measures Into Healthcare Practice: Training Program for Healthcare Settings or Healthy Teeth for Mom and Me*
 - B. ASTDD Basic Screening Survey
3. Occupational Safety and Health
 - A. The <Local Health Department> follows *CDC Guidelines For Recommended Infection Control Practices in Dentistry*
4. Adverse Event Protocol
 - A. Edematous swellings have been reported in rare instances, especially after application to extensive surfaces. Dyspnea, although extremely rare, has occurred in asthmatic people. Nausea has been reported when extensive applications have been made to patients with sensitive stomachs.
 - B. If required, varnish is easily removed with thorough tooth brushing and rinsing.
5. Safety Precautions
 - A. Remind the parent/legal custodian/guardian to give the child something to eat or drink before their appointment to receive fluoride varnish application.
 - B. Advise the parent/legal custodian/guardian that the child's teeth may become temporarily discolored, as fluoride varnish has an orange-brown tint.
 - C. Explain the discoloration will be brushed off the following day.
6. Contraindications
 - A. Avoid applying varnish on large open carious lesions. Referral to a licensed dentist is indicated in this instance.
 - B. Gingival stomatitis
 - C. Ulcerative gingivitis
 - D. Intra oral inflammation
 - E. Known sensitivity to colophony or colophonium or other product ingredients which include:
 - Ethyl Alcohol Anhydrous USP 38.58%
 - Shellac powder 16.92%
 - Rosin USP 29.61%
 - Copal
 - Sodium Fluoride 4.23%
 - Sodium Saccharin USP 0.04%
 - Flavorings, Cetostearyl Alcohol
8. Fluoride Varnish Materials
Varnish, 2x2 gauze, applicator, container to hold varnish, disposable mouth mirror, toothbrush, dental bib or lap barrier and a cold glass of water.

PROGRAM PROCEDURES

Schedule and Dosages

1. Oral health screening and risk assessment will initially be conducted by the <Local Health Department authorized registered nurse and/or state-licensed dental hygienist>.
2. Age appropriate oral health anticipatory guidance will be offered to parents/legal custodians/guardians.
3. Apply fluoride varnish no less than two times per year and up to three times per year for a child with high risk, by a <Local Health Department authorized registered nurse and/or state-licensed dental hygienist>.

Populations believed to be at increased risk for dental caries are those with low socioeconomic status or low levels of parental education, those who do not seek regular dental care, and those without dental insurance or access to dental services. Individual factors that possibly increase risk include active dental caries; a history of high caries experience in older siblings or caregivers; root surfaces exposed by gingival recession; high levels of infection with cariogenic bacteria; impaired ability to maintain oral hygiene; malformed enamel or dentin; reduced salivary flow because of medications; radiation treatment, or disease; low salivary buffering capacity (i.e., decreased ability of saliva to neutralize acids); and the wearing of space maintainers, orthodontic appliances, or dental prostheses. Risk can increase if any of these factors are combined with dietary practices conducive to dental caries (i.e., frequent consumption of refined carbohydrates). Risk decreases with adequate exposure to fluoride. (CDC, MMWR)

4. The <Local Health Department authorized registered nurse and/or state-licensed dental hygienist> is to apply a thin layer of 5% sodium fluoride varnish to all surfaces of erupted primary or permanent teeth on eligible children participating in the Women, Infants and Children (WIC), HealthCheck, Head Start, and/or dental sealant program.
5. Post application instructions and referral status will be communicated to parents/legal custodians/guardians. A follow up appointment is to be scheduled at least once per year for program eligible children. Ideally, fluoride varnishes will be placed at an initial appointment with two additional applications within a one-year period (a total of three applications).

ASSESSMENT

1. Consistent with the DHFS *Integrating Preventive Oral Health Measures Into Healthcare Practice: Training Program for Healthcare Settings or Healthy Teeth for Mom and Me*
 - A. Obtain medical history and consent
 - B. Do not apply varnish if there is a known allergy to colophony components
 - C. Conduct risk assessment of the individual
 - i. Caries experience
 - ii. Dental care utilization pattern
 - iii. Use of preventive services
 - iv. Medical history (e.g. xerostomia)
 - D. Do not apply varnish to surfaces with overt (frank) tooth decay or gingival stomatitis

PLANNING

2. Based on assessment, determine application schedule and prepare for varnish application in accordance with the dosage schedule:

- A. Verify written parent/legal custodian/guardian consent.
- B. Explain procedure to parent/legal custodian/guardian.

IMPLEMENTATION

3. Apply fluoride varnish

- A. Gather supplies: varnish, 2x2 gauze, applicator, container to hold varnish, disposable mouth mirror, toothbrush, dental bib or lap barrier and cold glass of water.
- B. Don personal protective equipment: protective eyewear, gloves, gown and mask. Mix varnish.
- C. For infants and toddlers sit in a “knee to knee” position with parent/legal custodian/guardian. Instruct the parent/legal custodian/guardian to hold the child facing towards them with the child’s legs around their hips. Or use an exam table.
- D. Young children or school-aged children are in a seated position (chair or dental chair).
- E. If using “knee to knee”, place the lap barrier on the operators lap, have the parent/legal custodian/guardian gently lower the child into the operator’s lap.
- F. Lift the upper lip and screen for contraindications, conduct oral screening and provide instruction to parent/legal custodian/guardian of infants and toddlers.
- G. Dry the upper front teeth with gauze.
- H. Apply or “paint” the varnish on the front and back of the upper front teeth.
- I. Dry the remaining teeth.
- J. Apply the varnish on the remaining teeth including the occlusal (biting) surfaces.
- K. Sit the child up and offer glass of water.
- L. Instruct the caregiver/legal custodian/guardian to have the child refrain from eating or drinking for 4 hours. If the child must eat, offer only soft food and water.
- M. Instruct the caregiver/legal custodian/guardian not to brush until the following morning. Inform the parent/legal custodian/guardian that the teeth will remain an amber color. This will come off when the teeth are brushed.
- N. Provide anticipatory guidance.
- O. Review child’s anticipatory guidance schedule with parent/legal custodian/guardian.

EVALUATION

Inform parent/legal custodian/guardian of procedures, provide post application instructions and communicate referral status

RELATED POLICY

Fluoride Varnish Program Policy and Dental Sealant Program Policy and Procedures

RESOURCES

Balistreri, Thomas J., Assistant Attorney General, *December 9, 2004 Letter to Steven M. Gloe, General Legal Counsel*, Department of Regulation and Licensing.

Casamassimo P, ed. 1996. *Bright Futures in Practice: Oral Health*. Arlington, VA: National center for Education in Maternal Health and Child Health.

University of Iowa Center for Leadership Training in Pediatric Dentistry, *Oral Management of Pediatric Patients for Non-Dental Professionals*, <http://www.iowapediatricdentistry.com/>, Retrieved 3/11/05.

United States Centers for Disease Control and Prevention, 2001, *Recommendations for Using Fluoride to Prevent and Control Dental Caries in the United States*, Morbidity and Mortality Weekly Report. 50. RR-14.

United States Centers for Disease Control and Prevention, 2003. *Guidelines for Recommended Infection Control Practices in Dentistry*, MMWR, December 19, 2003:52(RR-17).

United States Department of Health and Human Services (DHHS). *Oral Health in America: A Report of the Surgeon General*. Rockville, MD: U.S. DHHS, National Institute of Dental Craniofacial Research, National Institutes of Health, 2000.

Wisconsin Statutes and Administrative Code Relating to the Practice of Dentistry and Dental Hygiene.

Wisconsin Statutes and Administrative Code Relating to the Practice of Nursing

LEGAL AUTHORITY

Balistreri, Thomas J., Assistant Attorney General, December 9, 2004 Letter to Steven M. Gloe, General Legal Counsel, Department of Regulation and Licensing.

Wisconsin Administrative Code, Chapter HFS 139, Qualifications of Public Health Professionals Employed by Local Health Departments

Wisconsin Statutes and Administrative Code Relating to the Practice of Dentistry and Dental Hygiene

Wisconsin Statutes and Administrative Code Relating to the Practice of Nursing

SUPPORTING DOCUMENTS

Assistant Attorney General, *December 9, 2004 to Steve Gloe, General Legal Counsel, Wisconsin Department of Regulation and Licensing.*

Chapter HFS 139, *Wisconsin Administrative Code Qualifications of Public Health Professionals Employed by Local Health Departments*

United States Centers for Disease Control and Prevention, 2001, *Recommendations for Using Fluoride to Prevent and Control Dental Caries in the United States*, Morbidity and Mortality Weekly Report. 50. RR-14.

Wisconsin Department of Health and Family Services, Division of Health Care Financing, (2003). *Healthy Teeth for Mom and Me*.

Wisconsin Department of Health and Family Services, Division of Public Health, (2004). *Integrating Preventive Oral Health Measures Into Healthcare Practice: A Training Program for Healthcare Settings*.

Wisconsin Department of Health and Family Services, Division of Health Care Financing, (February 2004) *Wisconsin Medicaid Coverage of Topical Fluoride Application, Number 2004-14*.

Wisconsin Department of Health and Family Services, Division of Health Care Financing, (September 2004). *Medicaid and BadgerCare Update: Policy on Dental Hygienists at HealthCheck Nursing Agencies Revised*, No. 2004-70.

Wisconsin Statutes and Administrative Codes Relating to the Practice of Dentistry and Dental Hygiene

Wisconsin Statutes and Administrative Codes Relating to the Practice of Nursing

STANDING MEDICAL ORDER FOR PUBLIC HEALTH NURSES APPLICATION OF FLUORIDE VARNISHES

Name of Physican, MD, medical advisor to the <Local Health Department> authorizes the applications of fluoride varnishes for a one-year period of time from month/date/year to month/date/year. This standing order will be reviewed on an annual basis.

Program Requirements

1. The <Agency authorized registered nurse> will provide fluoride varnish to infants and children that present with the following:
 - A. A signed informed consent has been secured from the parental/legal custodian/guardian of the child

AND

- B. The child must be under age 6 with documented risk for dental caries* and meets one or more of the following criteria:
 1. Enrollment as a Wisconsin Medicaid/BadgerCare client;
 2. Enrollment in a WIC, Head Start, or HealthCheck program
 3. Enrollment in a public, private, or parochial school in Wisconsin

*Populations believed to be at increased risk for dental caries are those with low socioeconomic status or low levels of parental education, those who do not seek regular dental care, and those without dental insurance or access to dental services. Individual factors that possibly increase risk include active dental caries; a history of high caries experience in older siblings or caregivers; root surfaces exposed by gingival recession; high levels of infection with cariogenic bacteria; impaired ability to maintain oral hygiene; malformed enamel or dentin; reduced salivary flow because of medications; radiation treatment, or disease; low salivary buffering capacity (i.e., decreased ability of saliva to neutralize acids); and the wearing of space maintainers, orthodontic appliances, or dental prostheses. Risk can increase if any of these factors are combined with dietary practices conducive to dental caries (i.e., frequent consumption of refined carbohydrates). Risk decreases with adequate exposure to fluoride. (CDC, MMWR, 2001)

2. An oral health screening shall be conducted and documented by a public health nurse who meets the criteria set forth in HFS 139 and has demonstrated competence and training in oral screening and the application of fluoride varnishes, or a Wisconsin registered nurse who is working under the supervision of a public health nurse.**

Schedule and Dosages

1. The <Local Health Department authorized registered nurse> will apply the initial fluoride varnish application as a thin layer of 5% sodium fluoride varnish to all surfaces of erupted primary or permanent teeth.
2. Repeat the fluoride varnish application at least twice for a high-risk child and up to three times over a period of one year.

Prescription

Fluoride varnishes to be used include:

1. Omni Cavity Shield, available in unit dosages –
 - One .25 ml unit dose for children 6 months through 5 years of age.
 - One .40 ml unit dose for children 6 years of age and older.

2. Colgate Oral Pharmaceuticals Duraphat – 1 to 2 drops per child depending on number of erupted primary or permanent teeth.
 - One drop for 4-8 erupted primary teeth
 - Two drops for full compliment of primary/permanent teeth

Contraindications

1. Gingival stomatitis
2. Ulcerative gingivitis
3. Intra-oral inflammation
4. Known sensitivity to colophony or colophonium or other product ingredients which include:
 - A. Ethyl alcohol anhydrous USP 38.58%
 - C. Shellac powder 16.92%
 - D. Rosin USP 29.61%
 - E. Copal
 - F. Sodium Fluoride 4.23%
 - G. Sodium Saccharin USP 0.04%
 - H. Flavorings, Cetostearyl Alcohol

Precautions

Do not apply varnish on large open carious lesions. Referral to licensed dentist is indicated.

Pre-application Instructions

1. Remind the parent/legal custodian/guardian to provide the child something to eat or drink before receiving the fluoride varnish application.
2. Advise the parent/legal custodian/guardian that the child's teeth may become temporarily discolored, as fluoride varnish has an orange-brown tint.
3. Explain the discoloration will be brushed off the following day, yet the protective qualities of the fluoride varnish will remain.

Post-application Instructions

1. The child may drink water immediately following the varnish application.
2. After the fluoride varnish application, instruct the parent/legal custodian/guardian not to administer other fluoride preparations that day (e.g., gels or foams).
3. The routine use of fluoride tablets and rinses should be interrupted for several days after initial application.
4. The child should eat a soft, non-abrasive diet for the remainder of the day. Avoid sticky foods.
5. Do not brush or floss the child's teeth for 24 hours after the varnish placement.

Side Effects

It is normal for the teeth to appear dull and yellow in appearance until the teeth are brushed.

Adverse Reactions

Edematous swellings have been reported in rare instances, especially after application of extensive surfaces. Dyspnea, although extremely rare, has occurred in asthmatic people. Nausea has been reported when extensive applications have been made. If indicated, varnish film can be removed with a thorough brushing.

Caution

Store varnish in a safe location at room temperature. Store out of the reach of children.

Reporting Adverse Reactions

To be developed by the Division of Public Health

Medical Advisor

Date

**Training is provided by DHFS upon request.

APPLICATION OF FLUORIDE VARNISHES BY STATE-LICENSED DENTAL HYGIENISTS

Program Requirements

The Wisconsin licensed dental hygienist employed by or contracted by the <Local Health Department> will provide fluoride varnish to infants and children that present with the following:

1. A signed informed consent has been secured from the parental/legal custodian/guardian of the child

AND

2. The child under 13 years of age with documented risk for dental caries* who meets one or more of the following criteria:
 - A. Enrollment as a Wisconsin Medicaid/BadgerCare client;
 - B. Enrollment in a WIC, Head Start, or HealthCheck program
 - C. Enrollment in a public, private, or parochial school in Wisconsin

*Populations believed to be at increased risk for dental caries are those with low socioeconomic status or low levels of parental education, those who do not seek regular dental care, and those without dental insurance or access to dental services. Individual factors that possibly increase risk include active dental caries; a history of high caries experience in older siblings or caregivers; root surfaces exposed by gingival recession; high levels of infection with cariogenic bacteria; impaired ability to maintain oral hygiene; malformed enamel or dentin; reduced salivary flow because of medications; radiation treatment, or disease; low salivary buffering capacity (i.e., decreased ability of saliva to neutralize acids); and the wearing of space maintainers, orthodontic appliances, or dental prostheses. Risk can increase if any of these factors are combined with dietary practices conducive to dental caries (i.e., frequent consumption of refined carbohydrates). Risk decreases with adequate exposure to fluoride. (CDC, MMWR, 2001)

3. An oral health screening shall be conducted and documented and fluoride varnish placed by a <Local Health Department authorized state-licensed dental hygienist>.** A state-licensed dental hygienist practices as an employee or independent contractor consistent with s. 447.01 (3) and 447.06 (2) (a) 2., 3., and 5., Wis. Stats.

Schedule and Dosages

1. The registered dental hygienist will apply the initial fluoride varnish application as a thin layer of 5% sodium fluoride varnish to all surfaces of erupted primary or permanent teeth.
2. Repeat the fluoride varnish application at least twice for a high-risk child and up to three times over a period of one year.

Prescription

Fluoride varnishes to be used include:

1. Omni Cavity Shield, available in unit dosages –
 - One .25 ml unit dose for children 9 months through 5 years of age.
 - One .40 ml unit dose for children 6 years of age and older.
2. Colgate Oral Pharmaceuticals Duraphat – 1 to 2 drops per child depending on number of erupted primary or permanent teeth.
 - One drop for 4-8 erupted primary teeth
 - Two drops for full compliment of primary/permanent teeth

Contraindications

1. Gingival stomatitis
2. Ulcerative gingivitis
3. Intra-oral inflammation
4. Known sensitivity to colophony or kolophonium or other product ingredients which include:
 - A. Ethyl alcohol anhydrous USP 38.58%
 - B. Shellac powder 16.92%
 - C. Rosin USP 29.61%
 - D. Copal
 - E. Sodium Fluoride 4.23%
 - F. Sodium Saccharin USP 0.04%
 - G. Flavorings, Cetostearyl Alcohol

Precautions

Do not apply varnish on large open carious lesions. Referral to licensed dentist is indicated.

Pre-application Instructions

1. Remind the parent/legal custodian/guardian to provide the child something to eat or drink before receiving the fluoride varnish application.
2. Advise the parent/legal custodian/guardian that the child's teeth may become temporarily discolored, as fluoride varnish has an orange-brown tint.
3. Explain the discoloration will be brushed off the following day, yet the protective qualities of the fluoride varnish will remain.

Post-application Instructions

1. The child may drink water immediately following the varnish application.
2. After the fluoride varnish application, instruct the parent/legal custodian/guardian not to administer other fluoride preparations that day (e.g., gels or foams).
3. The routine use of fluoride tablets and rinses should be interrupted for several days after initial application.
4. The child should eat a soft, non-abrasive diet for the remainder of the day. Avoid sticky foods.
5. Do not brush or floss the child's teeth for 24 hours after the varnish placement.

Side Effects

It is normal for the teeth to appear dull and yellow in appearance until the teeth are brushed.

Adverse Reactions

Edematous swellings have been reported in rare instances, especially after application of extensive surfaces. Dyspnea, although extremely rare, has occurred in asthmatic people. Nausea has been reported when extensive applications have been made. If indicated, varnish film can be removed with a thorough brushing.

Caution

Store varnish in a safe location at room temperature.
Store out of the reach of children.

Reporting Adverse Reactions

To be developed by the Division of Public Health

**Training is provided by DHFS upon request.

WEB SITES

Please note that web sites are subject to change.

AAP Policy Statement, May 2003, *Oral Health Risk Assessment Timing and Establishment of the Dental Home.*

<http://aappolicy.aappublications.org/cgi/content/full/pediatrics;111/5/1113>

Balistreri, Thomas J., Assistant Attorney General, *December 9, 2004 Letter to Steven M. Gloe, General Legal Counsel, Department of Regulation and Licensing.*

http://dhfs.wisconsin.gov/health/Oral_Health/taskforce/relatedmaterials.htm#04dec

Bright Futures in Practice: Oral Health

<http://www.brightfutures.org/oralhealth/about.html>

Chapter HFS 139, Wis. Admin. Code

<http://www.legis.state.wi.us/rsb/code/hfs/hfs110.html>

Chapter HFS 140, Wis. Admin. Code

<http://www.legis.state.wi.us/rsb/code/hfs/hfs110.html>

Children's Dental Health Project

<http://www.cdhp.org>

Healthy Teeth for Mom and Me

http://dhfs.wisconsin.gov/medicaid5/trainings/oral_health_training/index.htm

Integrating Preventive Oral Health Measures Into Healthcare Practice: Training Program for Healthcare Settings (Includes screening forms)

http://dhfs.wisconsin.gov/health/Oral_Health/oralhealthmanual.htm

Kanellis, Michael J., DDS, MS, *Caries Risk Assessment and Prevention: Strategies for Head Start, Early Head Start and W.I.C.*, Dept. of Pediatric Dentistry The University of Iowa College of Dentistry.

<http://www.mchoralhealth.org/PDFs/HSPartnersKanellis.pdf>

National Guideline Clearinghouse, Agency for Health Care Quality and Research

Recommendations for Using Fluoride to Prevent and Control Dental Caries in the United States

http://www.guideline.gov/summary/summary.aspx?doc_id=2919&nbr=2145&string=fluoride

Oral Health in America: A Report of the Surgeon General

<http://www.nidcr.nih.gov/NewsAndReports/ReportsPresentation/CallToPromoteOralHealth.htm>

Pediatric Dental Disease: A Critical Marker for Children's Overall Health

<http://www.mchoralhealth.org/PDFs/criticalmarker.pdf>

Pediatric Oral Health Management

<http://www.mchoralhealth.org/PediatricOH/index.htm>

Recommended Infection Control Practices in Dentistry

<http://www.cdc.gov/OralHealth/infectioncontrol/guidelines/index.htm>

<http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5217a1.htm>

United States Centers for Disease Control and Prevention, 2001, *Recommendations for Using Fluoride to Prevent and Control Dental Caries in the United States*, Morbidity and Mortality Weekly Report. 50. RR-14.

<http://www.cdc.gov/OralHealth/InfectionControl/guidelines/index.htm>

University of Iowa Center for Leadership Training in Pediatric Dentistry, *Oral Management of Pediatric Patients for Non-Dental Professionals*.

<http://www.iowapediatricdentistry.com/>

Wisconsin Statutes and Administrative Code Relating to the Practice of Dentistry and Dental Hygiene

<http://drl.wi.gov/prof/denh/def.htm>

Wisconsin Statutes and Administrative Codes Related to the Practice of Nursing

<http://drl.wi.gov/prof/rn/def.htm>

Wisconsin Department of Health and Family Services, Division of Health Care Financing, (September 2004). *Medicaid and BadgerCare Update: Policy on Dental Hygienists at HealthCheck Nursing Agencies Revised*, No. 2004-70.

<http://dhfs.wisconsin.gov/medicaid/updates/2004/2004-70.htm>

Wisconsin Department of Health and Family Services, Division of Health Care Financing, (February 2004). *Medicaid and BadgerCare Update Wisconsin: Medicaid Coverage of Topical Fluoride Application*, Number 2004-14.

<http://dhfs.wisconsin.gov/medicaid/updates/2004/2004-14.htm>

Wisconsin Department of Health and Family Services, Division of Health Care Financing, (June 2001). *Medicaid and BadgerCare Update: Dental Sealants Are Now a Covered HealthCheck Service for All Medicaid Recipients Under age 21*, Number 2000-16

<http://dhfs.wisconsin.gov/medicaid/updates/2001/2001-16.htm>