1. Purpose

This guideline provides recommendations regarding best practice to support the use of fluoride varnish in Queensland Health settings.

2. Scope

This guideline applies to dental practitioners and health practitioners endorsed to administer fluoride varnish. Compliance with this guideline is not mandatory, but sound reasoning must exist for departing from the recommended principles within this guideline.

3. Related documents

- Use of dental item numbers, Oral Health Services Guideline, Office of the Chief Dental Officer, Clinical Excellence Queensland, December 2020.

4. Guideline for the use of Fluoride Varnish

Fluoride varnish contains 22.6 mg/mL or 22 600 ppm fluoride ion suspended in an alcohol and resin base. Many fluoride varnish products are available on the Australian market however only one is currently registered to prevent caries and treat dentine hypersensitivity. All other varnishes are currently only registered to treat dentine hypersensitivity. As such, use of these alternative fluoride varnishes to prevent dental caries is considered off-label.

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3 Off-label use refers to the use of a registered medicine outside of the indications, dose, route of administration or patient group set out in the relevant Therapeutic Goods Administration Product Information. Dental practitioners are encouraged to use caution when considering off-label use and to clearly communicate the potential risks and benefits to patients and / or their parent / guardian / carer before deciding on treatment.
Fluoride varnish is applied to tooth surfaces where it sets rapidly on contact with saliva forming a waxy coating. This coating is worn off over time by chewing and toothbrushing. Fluoride varnish is well tolerated by patients, including children.

4.1. Indications for use

Fluoride varnish is indicated for use for dental caries prevention and desensitising sensitive teeth in the deciduous and permanent dentitions. It is particularly useful in preventing dental caries in young children e.g. fluoride varnish programs, and for individuals determined to be at high risk including people with special needs, patients undergoing orthodontic treatment, patients with partial dentures; aged-care residents and vulnerable populations.

4.2. Contraindications for use

- Hypersensitivity/allergic reactions to colophony (natural resin) e.g. sticking plasters or medical adhesives
- Systemic illness e.g. colds, influenza
- Ulcerative gingivitis, stomatitis or other pathology of the soft tissues e.g. herpetic stomatitis or aphthous ulceration
- Severe / uncontrolled bronchial asthma

Note: Contact allergic reactions related to the resinous component of varnishes are rare.

4.3. Application frequency

The recommended frequency of application is twice per year however more frequent applications of up to four applications per year are indicated for children and adults at higher risk of dental caries.

4.4. Dosage

- For young children (primary teeth only): up to 0.25mL (5.65mg fluoride).
- For older children (mixed dentition stage): up to 0.40mL (9.04mg fluoride).
- For the permanent dentition: up to 0.75mL (16.95mg fluoride).

Note: Refer to the manufacturer’s instructions for use for details specific to the product being used.

Note: Fluoride varnish dosing pads are recommended for use when dispensing the appropriate volume of varnish to be applied.

4.5. Application procedure

1. Gain informed consent.
2. Remove plaque from the teeth by wiping with cotton gauze or by brushing with a wet toothbrush (DO NOT use toothpaste).
3. Dispense the appropriate amount of fluoride varnish.
4. Dry the teeth using cotton gauze and isolate teeth. Thorough drying is not necessary as the varnish sets in contact with saliva.
5. Apply the varnish using a probe / disposable brush / applicator. Apply a thin layer of the varnish to tooth and / or exposed root surfaces. If possible, begin with the upper posterior teeth. Dry two or three teeth at a time with cotton gauze and apply the varnish immediately.

Note: Refer to the manufacturer’s instructions for use for details specific to the product being used.

Note: Do not overload the probe / brush tip / applicator.

4.6. Post application instructions and advice

- Fluoride varnish works best if it can be left undisturbed for as long as possible.
- Avoid eating and drinking for at least 30 minutes after application.
- Soft foods and fluids can be consumed 30 minutes after application.
- Do not chew food for at least four hours after application.
- Do not brush for at least four hours after application.
- Teeth may look yellow if the varnish applied is tinted.
- Best results are obtained if varnish is applied twice per year, about once every six months, or more often for patients at higher risk i.e. up to four applications per year.

Note: Refer to the manufacturer’s instructions for use for details specific to the product being used.

4.7. Recording a fluoride varnish application

Appropriate notes should be recorded in the patient’s clinical record including consent details, teeth treated, dosage, product details and post application instructions / advice.

Item 121 Topical application of remineralisation and/or cariostatic agents, one treatment is the relevant Australian Dental Association Inc. Australian Schedule of Dental Services and Glossary dental item number to record the application of fluoride varnish. Note this item number has a limit of one (1) per appointment.
5. Document approval details

Document custodian
Dr Mark Brown, Chief Dental Officer, Clinical Excellence Queensland

Approval officer
Shelley Nowlan, A/Assistant Deputy Director-General, Clinical Excellence Queensland

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Version Control

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<td>29 April 2021</td>
<td>New template; revised title; updated related documents; advice regarding off-label use; expanded dosage information; expanded post application instructions / advice; expanded information regarding recording, updated approval officer.</td>
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