Prevora

By: James Kim

- Prevora is a 10% chlorhexidine varnish that is applied on the full dentition for prevention of root caries.
- Chlorhexidine significantly reduces the levels of *Streptococcus Mutans* in adults.
- Chlorhexidine adsorbs to the cell wall of *Streptococcus Mutans* and breakdown the structure of the bacteria.
- The idea of Prevora is that varnish formulation allows sustained release of chlorhexidine on tooth surface which will be successful at reducing *Streptococcus Mutans*.
- Prevora is indicated for patients at high risk of dental caries.
- Prevora treatment involves 4 weekly treatments during first 8 weeks, and a single treatment at 6 months recall. Treatment can continue until patient is no longer at risk of caries development.
- Prevora product comes in 2 stages. Stage 1 contains 10% Chlorhexidine acetate and Stage 2 contains Methacrylate coating to help chlorhexidine to stay on tooth surface.
- Unlike Chlorhexidine mouth-rinse, Prevora does not stain teeth.
- A double blind randomized controlled clinical study reported statistically significant decrease in incidence of root caries in xerostomic adults between 10% chlorhexidine varnish and placebo. However, there was no statistical significance in the prevention of coronal caries (Perry *et al.*, 2000).
- Another study compared the caries-reducing effect of different varnishes (6% NaF vs. 10% Chlorhexidine vs. 5% NaF + CPP-ACP (Casein Phosphopeptide)) on mixed dentition over a period of 6 months. Although three types of varnishes significantly reduced *Streptococcus Mutans* colony count, the maximum reduction was found in Chlorhexidine varnish (Shah et al., 2017).
- Prevora is known to be safe, and minor adverse effects include irritation to gums/tongue/lips resulting from misapplication of Prevora to soft tissues and temporary bitter taste which lasts less than a day.
- Patients with eczema or sensitive to Prevora components (chlorhexidine, Sumatra benzoin, or methylmethacrylate) should not receive Prevora treatment.

- Currently there is no controlled clinical study investigating effect of Prevora on pregnancy and lactation. Manufactuers recommend not to administer Prevora on pregnant or lactating patients.

How to Use Prevora

- Before the treatment the dentition should not have open carious lesions or poor restorative margins.
- Polish teeth using prophy paste to remove plaque.
- Rinse and floss teeth. Cotton roll isolation and dry teeth with air syringe.
- Apply Prevora Stage 1 using brush.
- Dry the tooth surface with air and apply Prevora Stage 1. Air dry.
- Apply Prevora Sealant Stage 2 over the Prevora Stage 1. Dry with air syringe.

Post-op Instruction

- Dried Prevora film will come off the teeth during the next meal.
- Avoid eating hard foods for at least 4 hours post treatment.
- Avoid tooth-brushing for 24 hours post treatment. Resume tooth-brushing afterwards with a new brush.
- Do not chew gum for 24 hours post treatment.
- Avoid flossing for 3 days post treatment.
- It is still important to educate and encourage patients to practice good regular oral hygiene (fluoridated toothpaste and flossing) and eat healthy diet.

Prevora for Periodontal Health?

- Although Prevora is marketed for the prevention of root caries, 10% Chlorhexidine varnish appears to be beneficial for periodontal health as well.
- A study in Brazil showed that application of 10% Chlorhexidine varnish on dentition significantly reduced number of sites with gingivitis in adolescent population (10~15 years old) after 6 months (Nor *et al.,* 2000).
- A randomized prospective split-mouth study investigated the effect of 40% Chlorhexidine varnish (not Prevora) on orthodontic patients (12~17 years old) and reported significant decrease in gingival overgrowth (evaluated at 14^{th} and 56^{th} day after treatment) (Moreira *et al.,* 2015).

- Further research is needed to investigate the potential benefit of Prevora on periodontal diseases and peri-implant diseases.

Take Home Message

Prevora is a 10% Chlorhexidine varnish applied on the full dentition for prevention of root caries. It significantly reduces *Streptococcus Mutans* (bacterial etiology for dental caries) in adults, thereby reducing the risk of future caries development. Prevora is indicated for patients at high risk of dental caries. Lastly, it appears to also help improve periodontal health as well. Further study is needed to confirm this finding.

References

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