

Guide for Use of Locally Delivered Antimicrobials

Where to use locally delivered antimicrobials:

- Pockets ≥ 5 mm with bleeding on probing (BOP).
 - The locally delivered antimicrobial may be used at the time of scaling and root planing (SRP) or at the re-evaluation appointment 4-6 weeks following SRP. If used first at the re-evaluation appointment, the site must have additional SRP to remove biofilm and hard deposits that may have re-accumulated.
- Residual pockets of ≥ 5 mm with BOP or any site ≥ 6 mm following initial SRP.
 - Determined at re-evaluation appointment.
 - If ≥ 4 residual pockets in a given quadrant then consider either retreatment (SRP) with locally delivered antimicrobial or surgical intervention.
- Sites treatment planned for osseous grafting.
 - Locally delivered antimicrobial placed 3 weeks prior to surgical procedure.
- Periodontal abscess
- Probing depth at the distal-facial line-angle of 2nd molars related to 3rd molar extractions where surgical intervention will yield a compromised result.
- Ailing/failing dental implants (peri-implantitis) where surgical intervention is not indicated or will yield a compromised result.
- Grade II furcation involvements (shallow or deep) when surgical intervention is not planned.

Who might benefit from use of locally delivered antimicrobials:

- Periodontal maintenance patients with isolated probing depths of ≥ 5 mm that exhibit BOP or any pocket ≥ 6 mm (Figure 3).
- Patients wanting to avoid periodontal surgery.
- High risk surgery patients.
 - Poorly controlled (brittle) diabetic patients
 - Patients with a history of recent or recurrent coronary or cerebrovascular events.
 - Patients with a compromised immune system due to disease or medications.
 - Kidney dialysis patients.
 - Heavy smokers ($>1/2$ pack/day)
 - Patients with physical disability that impacts oral hygiene efficiency
 - Mentally handicapped patients
- Patient's with marginal oral hygiene that is not likely to improve and thereby represent a poor surgical risk.
- Please note that locally applied antimicrobials may need to be placed more than one time to achieve the desired result.



Figure 3. Pre-treatment clinical presentation showing PD of 6 mm

How to apply locally delivered antimicrobials:

- For optimal effect from locally delivered antimicrobials the following must be achieved:
 - Oral hygiene instructions and patient compliance regarding the necessary oral hygiene procedures, ie, tooth brushing, use of interdental hygiene aids such as dental floss and proxabrushes, and use of antimicrobial oral rinses.
 - Supragingival scaling and polishing.
 - Definitive subgingival SRP (generally under local anesthesia).
 - Place locally delivered antimicrobial according to manufacturer's directions. For example, in the case of minocycline microspheres, place one pre-measured dose per pocket. If the tooth has 2 pockets that need local delivery, 2 full doses should be administered.
 - The pocket should be as biofilm and deposit free as possible prior to insertion.
 - Insert the locally delivery product to the base of the pocket. In the case of minocycline microspheres, the tip should be placed as far into the pocket as possible before activating the syringe/handle (Figures 4 and 5).

Addendum:

- If probing depths are ≤ 4 mm, the clinician should consider a conventional adult prophylaxis coupled with oral hygiene recommendations and/or reinforcement.
 - If the patient exhibits multiple probing depths of 4 mm a periodontal maintenance interval of 3-4 months should be considered until it can be determined if the patient's periodontal status is stable and/or improving.



Figure 4. Initial Insertion of the pre-measured tip for administration of minocycline microspheres



Figure 5. Tip placement to base of pocket for administration of minocycline microspheres.