

Nebulizer Medications:

Betamethasone: A corticosteroid to reduce inflammation, redness, itching, and soreness.

Ceftriazone: A cephalosporin antibiotic used to treat certain types of bacterial infection.

Levofloxacin: A fluoroquinolone antibiotic used to treat or prevent certain kinds of bacterial infection.

Tobramycin: An aminoglycoside antibiotic used to treat or prevent certain kinds of bacterial infections. Topical use of this agent offers fewer side effects and less toxicity than other forms of this medication.

Vancomycin: An antibiotic used to treat or prevent certain kinds of bacterial infections.

A video of how to set up the NasoNeb® Nebulizer can be found by going to our website, www.srxpharmacy.com, and going to the specialties tab, then clicking on the nasal nebulizer link.

Medications are dispensed in individual dose Medi-Caps capsules for stability purposes. For each dose the patient opens the capsule and dissolves the contents in 15-20mL of Biofilm Saline, which only takes seconds. The entire process of administering the medication takes 1-5 minutes.

Why Biofilm Saline? Some patients build up a coating of biofilm in the sinus cavities, which prevents antibiotics from being absorbed. Biofilm Saline breaks up this biofilm for better absorption of antibiotics into the tissue of the sinus cavities.

The safety profile indicates that these nebulized solutions are well tolerated and have almost no discontinuation of therapy secondary to side effects in our patient populations. These nebulized solutions should be considered as an alternative for patients with chronic sinusitis that have failed to respond to oral therapy or other therapies with poor results or lack of compliance.

Scar Therapy Medications:

Betamethasone: A glucocorticosteroid used to reduce inflammation. Topical therapy is preferred over systemic therapy due to fewer associated adverse effects. Betamethasone produces anti-inflammatory, antipruritic, and vasoconstrictive actions.

Gabapentin: Used to treat neuropathic pain, which provides analgesia and reduces pain. Some scars, especially after surgery at the incision site, can be painful due to nerve damage. Gabapentin applied topically has been effective in treating this type of pain.

Hydroquinone: A bleaching agent used to lighten the darker scars.

Levocetirizine: A histamine (H1) receptor antagonist. Topical antihistamines can be used to reduce swelling and eliminate itching. Antihistamines also inhibit the inflammatory response, which reduces scar formation. They are also antiproliferative agents and have been shown to inhibit the deposition and synthesis of collagen in keloid fibroblasts through suppression of the release of TGF- β 1 from fibroblasts. Levocetirizine is a long acting antihistamine which provides for less frequent dosing and longer relief for patients.

Prilocaine: Produces pain relief by blocking the signals at the nerve endings in the skin. This is helpful if scars/incisions are painful to the touch.

Tamoxifen: Evidence suggests that keloid scar formation may be mediated by an unbalance of growth factor activity, including that of transforming growth factor beta-1 (TGF- β 1). Topical tamoxifen citrate chemical treatment has been shown to improve scarring by decreasing this growth factor.

Tranilast: An anti-allergic drug. Studies have shown tranilast to inhibit the release of histamine and prostaglandins from mast cells. It also suppresses collagen synthesis of fibroblasts derived from keloid and hypertrophic scar tissue but not healthy tissue. Tranilast also inhibits the release of transforming growth factor (TGF)-beta 1 from keloid fibroblasts. Topical treatment has been found to be more beneficial than when given orally in providing relief of burning sensation, pain and pruritis associated with keloid scars.

Tretinoin: Studies have demonstrated a marked reduction in scar size and decrease in pruritus in the majority of cases of intractable scars with daily applications of retinoic acid (tretinoin) solutions.

Scar Gel: A distinctive and elegant topical anhydrous silicone base that can be used alone or with various actives for the potential use in scar formulations. **This scar gel has been found to be an ideal choice for use on all types of scar tissue, including new scars, old scars, surgical scars, keloids, stretch marks or any skin conditions that would benefit from barrier protection. This proprietary base is infused with unique ingredients and made with unique technology, giving it potential healing and soothing power, emolliency and mild penetration.** The scar gel contains an Amazonian oil, Pracaxi oil. The indigenous cultures of the Amazon rain forest commonly use Pracaxi oil for dermatologic conditions, and it is well recognized in that region for its potential healing properties. Pracaxi oil is rich in organic acids with antioxidant, antibacterial, and antifungal properties. In the Amazon, Pracaxi oil has also been used for generations to treat skin spots, severe acne (and scars), psoriasis, and rosacea.

Wound Gel Medications

Aloe: Aloe has been used for many years for wound healing and burns. Aloe can improve wound healing by inducing several growth factors' production and cell proliferation. Topical aloe vera has also been shown to have a synergistic effect with other medications used for wound healing.

Betamethasone: A glucocorticosteroid used to reduce inflammation. Topical therapy is preferred over systemic therapy due to fewer associated adverse effects. Betamethasone produces anti-inflammatory, antipruritic, and vasoconstrictive actions.

Gabapentin: Used to treat neuropathic pain. It works by blocking the GABA receptors involved in pain, providing analgesia and reducing pain. Some wounds can be painful due to nerve involvement. Gabapentin applied topically has been effective in treating this type of pain.

Itraconazole: An antifungal that can aid in the superficial skin infections caused by yeast.

Ketoprofen: An anti-inflammatory (NSAID). When used topically, Ketoprofen has been demonstrated to inhibit pro-inflammatory enzyme cyclo-oxygenase 2 (COX-2), which in turn reduces scar formation and/or thickness.

Lidocaine: A topical anesthetic that provides pain relief by blocking signals at the nerve endings in the skin.

Mupirocin: An antibiotic that is often used topically to prevent or treat Staph infections, including MRSA.

Tobramycin: An aminoglycoside antibiotic used to treat or prevent certain kinds of bacterial infections. Topical use of this agent offers fewer side effects and less toxicity than other forms of this medication.

Vancomycin: An antibiotic specific to methicillin-Resistant Staphylococcus Aureus (MRSA) infections and is used to treat or prevent this particular infection. Topical use of this agent offers fewer side effects and less toxicity than other forms of this medication.

Wound gel: A base designed to promote a moist wound environment to promote the healing process. It is a soft, opaque polyethylene glycol (PEG) ointment base containing organic meadowsweet extract. Due to the phenolic glycosides (spiraein) and flavonoids in the meadowsweet, it potentially has germicidal, anti-inflammatory and healing properties, thus making it a good choice for wounds, ulcers, burns, sores, and cuts. Ointments that are not water soluble often present a big problem to wound care patients and practitioners, so this wound gel may be a welcome option! This wound gel is a water-soluble base for easy cleansing/debridement. It is adherent, provides occlusion, and maintains a moist environment at the wound/dressing interface. The objective of wound management is to provide conditions that will maintain a moist environment. This wound gel also potentially may be useful for dermatologic formulations outside of wound care.

How to use the compounded wound gel:

- Wash and completely dry the affected area. Apply a small amount of medicine to the area to be treated. If the infection is severe, the patient may need to apply with gloves or using a cotton applicator.
- The affected area may be covered with gauze or a bandage.
- To clear up the infection completely, the wound gel should be used for the full course of treatment.
- Wash hands immediately after using the wound gel.
- If a dose is missed, use it as soon as possible. If it is almost time for the next dose, the missed dose should be skipped and regular dosing schedule should be resumed.
- The wound gel is a water soluble gel, but is formulated to stay in the wound. To clean or debride the wound, use warm water or other method as prescribed.

Note: In the literature, polyethylene glycol has been reported to be absorbed from open wounds and damaged skin and is excreted by the kidneys. In common with other polyethylene glycol-based vehicles, this wound gel should not be used in conditions where absorption of large quantities of polyethylene glycol is possible, for example on extensive burn areas and large surface areas, especially if there is evidence of moderate or severe renal impairment.