We customize individual prescriptions for the specific needs of our patients.

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PRESCRIPTION COMPOUNDING FOR

DENTAL MEDICINE

757 Norland Avenue, Suite 105
Chambersburg, PA 17201
Phone: (717) 217-6790
Fax: (717) 217-6925
Web: www.NorlandAvenuePharmacy.com
GINGIVITIS

The following study found that chlorhexidine therapy may be an option to treat and prevent gingivitis and reduce yeast counts in those infected with HIV - “Use of chlorhexidine gel (0.2%) to control gingivitis and candida species colonization in human immunodeficiency virus-infected children: a pilot study” (Pediatr Dent. 2011 Mar-Apr;33(2):153-7).

PURPOSE: The purpose of this study was to evaluate chlorhexidine to control gingivitis and Candida species (spp.) in children infected with the human immunodeficiency virus (HIV) and their acceptance of the therapy.

METHODS: Twenty-six HIV+ children were selected, and oral exam-established biofilm, gingival indexes, and stimulated saliva were collected for Candida ssp. identification. The children brushed their teeth for 21 days with chlorhexidine gel (0.2%). Salivary samples, biofilm, and gingival indexes were collected after 21 -days and again 35 days after ceasing gel use. The children answered a questionnaire about the therapy.

RESULTS: All children tested positive for Candida and gingivitis. After 21 days, Candida counts and gingivitis decreased in 25 and 26 children, respectively. Mean reduction was approximately 68% for Candida spp. and 74% for gingivitis. Thirty-five days after discontinuing gel use, gingivitis and Candida spp. increased in 13 and 16 patients, respectively. Considering the Candida spp., the heavy growth was lower in the first re-evaluation. Candida albicans was the most frequent species. Approximately 85% did not experience inconvenience with the gel, and approximately 48% thought it was good for tooth-brushing.

CONCLUSION: Chlorhexidine therapy may be an option to treat and prevent gingivitis and reduce yeast counts in children infected with HIV. PMID: 21703065

This study found that chlorhexidine as an adjunct to daily plaque control could be useful in the management of plaque-associated gingivitis - “Antimicrobial effect of adjunctive use of chlorhexidine mouthrinse in untreated gingivitis: a randomized, placebo-controlled study” (APMIS. 2011 Jun;119 (6):364-72).

ABSTRACT: “The aim of this study was to examine the effectiveness of chlorhexidine mouthrinse (CHX) in addition to daily plaque control on subgingival microbiota in patients with untreated gingivitis. Fifty gingivitis patients were randomized to CHX or placebo groups. CHX group rinsed with 0.2% CHX, while placebo group rinsed with placebo mouthrinse for 4 weeks. Subgingival plaque samples were collected and plaque index (PI), papilla bleeding index (PBI), calculus index, and probing pocket depth (PPD) were recorded at baseline and at 4 weeks. The amounts of Aggregatibacter actinomycetemcomitans, Porphyromonas gingivalis, Prevotella intermedia, Tannerella forsythia, Fusobacterium nucleatum, and total bacteria were detected by quantitative real-time PCR method. In the CHX group the total bacteria count was significantly reduced in posterior teeth at 4 weeks (p < 0.05), while no significant decrease was observed in the placebo group (p > 0.05). CHX mouthrinse as an adjunct to daily plaque control could be useful in the management of plaque-associated gingivitis and in reducing the subgingival total bacteria count especially in posterior teeth.”  PMID: 21569094

An example of how you might prescribe follows:

With our state of the art compounding lab and pharmacy experience we have the ability to compound chlorhexidine into an alcohol free oral gel. This formulation may help those that can benefit from an alcohol free form of chlorhexidine.
The results from this study suggest that the combination of ketoprofen + acetaminophen provided a significantly more rapid onset of analgesia than either drug given alone in the management of pain after oral surgery - "Effects of combination treatment with ketoprofen 100 mg + acetaminophen 1000 mg on postoperative dental pain: a single-dose, 10-hour, randomized, double-blind, active- and placebo-controlled clinical trial" (Clin Ther. 2009 Mar;31(3):560-8).

**BACKGROUND:** A combination of analgesic drugs with different pharmacologic properties may be more effective, with fewer adverse events, than either agent used alone.

**OBJECTIVE:** This study assessed whether the combination of acetaminophen and ketoprofen is more effective and better tolerated than either drug used alone in treating postoperative pain.

**METHODS:** This single-dose randomized, double-blind, active-and placebo-controlled study was conducted at the Finnish Student Health Service, Oulu, Finland. Patients aged 18 to 40 years with moderate or severe pain (>or=3 on a numerical rating scale [NRS] of 0-10) after surgical removal of impacted third molars were randomly assigned to receive one of the following drugs in single oral doses: ketoprofen 100 mg + acetaminophen 1000 mg, ketoprofen 100 mg, acetaminophen 1000 mg, or placebo tablets. Effectiveness was assessed by the onset of analgesia, pain intensity difference (PID) from baseline, sum of PID (SPID), and duration of analgesic effect. Patients rated pain intensity on the NRS at rest and on dry swallowing. Onset of pain relief was measured using time to PID in >or=1 category at rest or on dry swallowing (PID >or=1). Patients recorded the occurrence of adverse events and the supplemental consumption of rescue medication (ibuprofen).

**RESULTS:** The study included 76 patients, accounting for 78 cases (2 patients were operated on twice and were assessed as 4 individual patients) (59% women, 41% men; mean age, 22.8 years; white race, 100%; and mean weight, 68.3 kg). At 1.5 hours, mean SPIDs at rest and on swallowing were significantly greater in the combination group than in the acetaminophen, ketoprofen, and placebo groups (all, P < 0.05). Mean time to onset of pain relief (PID >or=1) at rest and on swallowing were significantly less in the combination group than the acetaminophen, ketoprofen, and placebo groups (all, P < 0.05). Median time to use of rescue medication was significantly longer in the combination group than in the acetaminophen group (P = 0.006) and the placebo group (P < 0.001) but not the ketoprofen group. At 1.5 hours after administration, maximum sedation scores were not significantly different between the study groups. The prevalences of trismus, bleeding, and edema were not significantly different between the study groups.

**CONCLUSIONS:** The results from this study suggest that the combination of ketoprofen 100 mg + acetaminophen 1000 mg provided a significantly more rapid onset of analgesia than either drug given alone in the management of pain after oral surgery in this patient population. Adverse events were not significantly different between the study groups. These results support the clinical practice of combining ketoprofen with acetaminophen for the management of acute pain. PMID: 19393845

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We have the ability to combine ketoprofen and acetaminophen together into one transdermal cream. This form of delivery may be beneficial for those patients that are unable to take or tolerate the oral forms of these medications.

**COMPpounded Medication**

Acetaminophen 25% / Ketoprofen 10%

Transdermal Cream

30gm

Apply to inner wrist or neck TID
ORAL CANDIDIASIS

Topical application of clotrimazole can serve as the basis for a new treatment approach to oral candidiasis, a very common chronic opportunistic infection with improved clinical outcome - “A novel sustained-release clotrimazole varnish for local treatment of oral candidiasis” (Clin Oral Investig. 2010 Feb;14(1):71-8).

ABSTRACT: “The use of dental varnish for therapeutic purposes has been reported for fluoride or antibacterial drugs. Our objectives were to develop a sustained-release varnish containing an antifungal drug (clotrimazole) for topical application and to evaluate the release rate of the drug in human saliva in comparison with an available commercial troche and their acceptance by healthy volunteers. Following in vitro optimization of the release rate from the varnish, we have embarked on a crossover comparative study assessing the oral sensations and pharmacokinetics of a 10-mg clotrimazole oral troche versus a 10-mg sustained-release clotrimazole varnish in 14 human volunteers over a period of 5 h. Saliva samples were assessed for clotrimazole concentration by high performance liquid chromatography analysis. The volunteers’ evaluation of the varnish and troche (taste, other sensory changes, convenience, and oral suitability) were recorded. At all time points, salivary clotrimazole concentrations were higher, and the terminal half-life was significantly prolonged in the varnish group in comparison to the control group. This can be attributed to continuous release of clotrimazole from the varnish formulation. The duration of the drug over the minimal inhibitory concentration, following application of the varnish, was more than threefold longer than following administration of the troche. The developed sustained-release varnish can be applied in patients at a lower frequency than troches, thus, achieving higher patient compliance and efficacy. This novel varnish application can serve as the basis for a new treatment approach to oral candidiasis, a very common chronic opportunistic infection with improved clinical outcome.” PMID:19404692

With our state of the art compounding lab and pharmaceutical knowledge, we can compound clotrimazole into an oral adhesive paste that can be applied topically.

An example of how you might prescribe follows:

<table>
<thead>
<tr>
<th>COMPOUNDED MEDICATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clotrimazole 1%</td>
</tr>
<tr>
<td>Oral Adhesive Paste</td>
</tr>
<tr>
<td>30gm</td>
</tr>
<tr>
<td>Apply as directed for 14 days</td>
</tr>
</tbody>
</table>
**Prescriber's Signature____________________________________   Refills:  1    2    3    4    5    6    7    8    9    10   11   12    NR**

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### Gingivitis

- **[ ] Chlorhexidine 0.2%**  
  Alcohol Free Oral Gel  
  Quantity 60ml  
  Directions: Apply QD as directed

### Postoperative Pain

- **[ ] Acetaminophen 25%/Ketoprofen 10%**  
  Transdermal Cream  
  Quantity 30gm  
  Directions: Apply to inner wrist or neck TID

### Oral Candidiasis

- **[ ] Clotrimazole 1%**  
  Oral Adhesive Paste  
  Quantity 30gm  
  Directions: Apply as directed for 14 days

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**Directions**

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