I. Therapeutic Regimen for Common Acute Oral Mucosal Diseases

Recurrent Herpes Simplex
Topical Treatment for Herpes labialis

Prescription Products

Penciclovir (Denavir – trade name) 1%
Disp 2gm tube
Sig apply q 2h beginning in prodrome during wake hours for 4 days
Note: inhibits viral replication
External use only

OTC Products
1. Docosanol cream 10% (Abreva trade name)
   Apply to affected area 5 times/day
   prevents viral entry into cell and replication
   external use only

2. Zilactin-B, qid (adhesive gel, 10% Benzocaine, tannic, borric and salicylic acids, benzyl alcohol)

3. Sunblock

Systemic Antivirals for Herpes Simplex and Varicella Zoster Viruses

How Supplied
Acyclovir 200mg,400mg,800 mg tabs, 200mg/5ml suspension (Thirty 400mg tabs $20)
Valacyclovir (Valtrex) 500mg, 1000mg tabs (Thirty 500mg tabs is $200)

Mechanisms of action

Acyclovir is activated by viral thymidine kinase. The antiviral activity of acyclovir is primarily against herpes viruses (e.g., herpes simplex virus [HSV] and varicella-zoster virus [VZV]); although, it has limited efficacy against cytomegalovirus (CMV) and Epstein-Barr virus (EBV). The selective activity of acyclovir is due to its affinity for the thymidine kinase enzyme encoded by HSV and VZV. Acyclovir is approximately 10-times more potent against HSV-1 and -2 than against VZV. It has even less activity against CMV and EBV. The effectiveness of acyclovir against EBV is limited to actively infected cells; latent or persistent EBV infection is not affected. Acyclovir is not effective against the human immunodeficiency virus. Clinically, acyclovir is used in the treatment of herpes simplex, herpes genitalis, and herpes zoster infections. The FDA approved acyclovir in March 1982. It is available as oral, parenteral, and topical formulations.

Mechanism of Action: Acyclovir inhibits viral DNA synthesis. Acyclovir must be phosphorylated intracellularly to be active. Acyclovir is converted to the monophosphate by viral thymidine kinase, then to diphosphate by cellular guanylate kinase, and finally to the triphosphate by various cellular enzymes. Acyclovir is effective only against actively replicating viruses; it does not eliminate the latent herpes virus genome.
**Patients with hepatic impairment:**
No dosage adjustment needed.

**Patients with renal impairment:**
Serum creatinine clearance based dosage adjustments

**Acute Herpetic Gingivostomatitis: Pediatric**
- Acyclovir suspension started in first 3 symptomatic days
  - 15 mg/kg up to adult dose of 200mg (kids 2-12 yo)
  - Rinse and swallow
  - 5 times daily for 5 days
  - Supportive and Symptomatic

- Bed rest and forced fluids
- Soft diet with dietary supplementation if necessary e.g. Sustecal
- For fever, Acetaminophen (not aspirin)
- Avoid spreading to eyes

**Recurrent herpes labialis or intraoral recurrent herpes for ADULTS**
- Valtrex
  - 2g on recognition of symptoms followed by 2g 12 hours later
- Acyclovir
  - 400mg 5 times daily for 5 days begun on recognition of symptoms

**Recurrences of HSV associated with dental care**
- Valtrex
  - 2g taken twice on day on procedure and 1g taken twice the next day

**Recurrences of HSV associated with prolonged trigger (eg a beach vacation)**
- Valtrex 1g daily
- Acyclovir 400mg twice /day

**Long term suppressive therapy (6 or more recurrences of HSV/year or HSV triggering erythema multiforme)**
- Acyclovir 400mg bid
  - Reassess at 1 year
- Acyclovir 200mg 3-5x/day
  - Reassess at 1 year
- Valtrex 500mg qd (remember “qd” is once every day)
  - Reassess at 4 months

**Recurrent herpes labialis (topical cream)**
- Penciclovir (Denavir) 1% ($43.00)
  - 1.5 g tube
  - Apply q2h x 4 days
Begin at first symptoms

For chickenpox (primary VZV) – not a common dental presentation
- Book says antivirals still reserved for immunocompromised, people over 13 years old and pts with a history of family members with VZV
- Remember VZV vaccine now given to children
- Rec refer to pediatrician/physician

For Shingles (secondary VZV) – can mimic dental pain
- Valtrex
  1g tid for 7 days begun in first 48-72 hours
- Adults over 60 shingles vaccine recommended by CDC in May 2008 publication

II. Therapeutic Regimen for Common Chronic Oral Mucosal Diseases
    e.g. Recurrent Aphthous Stomatitis

Chronic vesiculo-ulcerative disease
Lidex (fluocinonide) ointment 0.05%
Disp: 15g.
Sig: Apply 6 times daily

Temovate (clobetasol dipropionate) ointment 0.05%
Disp: 15g
Sig: Apply tid.

Note: These potent topical steroids, as well as oral (systemic) steroids may put patient at risk for an iatrogenic infection. (usually candidiasis or HSV if the pt is otherwise healthy)

For severe forms of chronic vesiculo-ulcerative disease, (e.g. erosive lichen planus after biopsy) may need to use short (1-2 weeks) term systemic steroid therapy- may need to consult with patient’s physician particularly if patient is diabetic, hypertensive or already immunosuppressed.

Prednisone 10 mg tabs
Disp: 28 tabs
Sig: take 4 tabs in the morning
III. **Therapeutic Regimen for Oral Candidiasis**

Mycelex (clotrimazole) troches  
Disp 70 troches  
Sig: allow troche to dissolve in mouth slowly 5 times a day for 14 days

Nystatin ointment  
Disp 30g tube  
Apply to denture base and insert in mouth tid

Nystatin 100,000 U/ml (Mycostatin –trade name) oral suspension  
Disp: 240 ml  
Rinse with 4ml qid for 2 minutes and swallow for 14 days  
Do not eat or drink for 30 minutes after application

Angular Cheilitis  
Vytone or Alcortin A cream 1% (Iodoquinol-HC) (contains hydrocortisone and iodoquinol which has antibacterial and antifungal properties)  
Disp: 1 oz. tube  
Sig: Apply to affected areas qid

*Oravig (miconazole) Buccal tablets 50mg (FDA approved in 2010)  
14 tabs  
Apply 1 tablet to the upper gum once daily in morning for 14 days.  
Do not crush/chew/swallow

*Diflucan (fluconazole), 100mg tabs  
16 tabs  
Take 2 tabs on first day, then 1 tab daily for 14 days  
*Warning many drug-drug interactions