ORAL MANIFESTATIONS OF HIV/AIDS
Parotid Gland Enlargement
Not Transmissible

Persistent Generalised Lymphadenopathy
Not Transmissible

Xerostomia (Dry Mouth) is an associated feature, optimum oral hygiene is imperative. Manage symptoms with frequent sips of water containing lemon juice, sucking ice cubes, and/or salivary stimulants such as sugarless sweets or chewing gum. Artificial saliva may be helpful. Pilocarpine increases saliva flow but has side effects (consult physician). NB Xerostomia increases risk of dental decay. Visit your dental professional for advice.

Some lymphadenopathy may be associated with intra-oral lesions.

Cervical lymph nodes should be examined, the mastoid gland is often obvious and no treatment is necessary unless there is an underlying cause such as periodontal disease or other intra-oral lesions causing infection, which should be treated immediately.

NB. All medicines available on the EDL are marked with an asterisk

All drugs to be given according to prescription by appropriate Health Care Worker

Photograph 1

Photograph 2
**Primary Herpes Labialis**

*Fever blisters/cold sores - Transmissible*

**Angular Cheilitis**

*Cracking at the corners of the mouth - Not Transmissible*

Clean and dry the area very well. Stretch the mouth sufficiently to dry but not to cause cracking and bleeding. Apply aqueous chlorhexidine gluconate* 0.2% solution (shake the bottle well before applying) using gauze or cotton wool. Bathe the lesions for 1 full minute. Leave to dry for five minutes. Repeat application three times daily. Oral candidiasis is more than likely present, treat at the same time.

Topical creams and gels are an alternative, e.g. sugar-free Miconazole oral gel (Daktarin)*, Nystatin* and Triamcinolone Acetonide cream, Clotrimazole cream 1% or Ketoconazole cream 2% can be applied to the lesions 3 times daily. Paracetamol* or aspirin* for pain.

Primary Herpes Simplex is usually an asymptomatic infection but may present as a localized or even systemic disease, especially in susceptible children. Extra-oral and intra-oral vesicles quickly ulcerate.

Other lesions may be small and self-limiting, requiring no treatment if lesions clear up within 10 days. Relieve symptoms. Prevent complications including secondary infection. Aqueous chlorhexidine gluconate 0.2%* mouthwash, applied as for treating angular cheilitis. Adequate diet and hydration. Avoid acidic drinks and spicy foods which may cause pain. Drip a few drops of freshly squeezed lemon juice directly onto the affected area several times a day. Sometimes the lesions may be widespread with new vesicles continuing to appear; application of Acyclovir* 3% ointment to the lesions 5 times a day will help. Pain control with Paracetamol* or aspirin*. Secondary bacterial infection common in children. Instruct the patient not to finger or pick the lesion and clean with aqueous chlorhexidine gluconate 0.2%* and apply Tetracycline cream three times daily.
For all intra-oral lesions and in the interests of general health, optimum oral hygiene is fundamental in all treatment regimens.

**INTRA-ORAL LESIONS**

**ORAL CANDIDIASIS (ORAL THRUSH)**  
*Highly Transmissible*

- **Pseudomembranous**
- **Erythematous**
- **Hyperplastic**
- **Oropharyngeal**

**Photograph 7**

**Photograph 8**

**Photograph 9**

**Photograph 10**

**Photograph 11**

**Photograph 12**

Oropharyngeal candidiasis. Management: Fluconazole therapy, optimum oral hygiene regimen including 0.2% chlorhexidine gluconate mouthwash.
Appropriate management will depend on several factors including patient compliance, adequate saliva and possible drug interaction. Three main rules apply:

Rule 1
Topical treatment must be carried out a minimum of three times a day and continued for up to two weeks after clinical signs and symptoms have disappeared.

Rule 2
Successful topical therapy depends on adequate contact time between the drug and the oral mucosa and sufficient saliva for the drug to dissolve.

Rule 3
Antifungal mouthwash should be continued for up to a month after the obvious lesions have disappeared.

The following regimen is recommended:

- Optimum oral hygiene and appropriate cleaning and storage of the toothbrush (anti-bacterial soap wash or sodium hypochlorite soak for one (1) minute after each use).
- The patient should drink lots of fluids, preferably a squeeze of lemon juice in clean drinking water.
- Avoid sugary foods and drinks.
- Rinse with bicarbonate of soda* mouthwash as often as possible. (1 teaspoon of bicarbonate of soda* dissolved in 1 litre of warm water mixed freshly every day.) Rinse with 0.2% chlorhexidine gluconate* (Aqueous or flavoured) mouthwash, three times daily for one minute and not at the same time as tooth brushing (due to the reaction with certain ingredients in the toothpaste) or when using any other antifungal medication. The patient must not rinse, eat or drink for half an hour after this treatment. The third and final rinse should be last thing at night.

THE RECOMMENDED TIME FOR ALL TOPICAL TREATMENTS VARIES FROM ONE TO TWO WEEKS AND ACCORDING TO PRESCRIPTION.

Anti-fungal agents are not absorbed from the gastro-intestinal tract and must be used topically or parenterally for severe infections at other sites.

Nystatin is available as Mycostatin vaginal tablet - 100 000 IU. One tablet is dissolved slowly in the mouth 3 - 4 times a day. These tablets are unflavoured and do not contain sucrose.

Nystatin* (Nystacid* on code) oral suspension: 1-5mls held in the mouth for one minute 4 times a day. N.B. Contains sucrose and sorbitol 70%.

Optimum oral hygiene regimen, rinsing with water after use and fluoride rinses advised. Nystatin lozenges 100 000 IU to be sucked 4 times daily for 10 days. Clotrimazole*, a topical imidazole, 100 mg vaginal tablet. Cut the tablet into as many pieces as possible and dissolve individual pieces in the mouth throughout the day.

NOTES
- Chlorhexidine gluconate 0.2%* is useful for treating the intra-oral pool of Staph. Aureus, however systemic antibiotics may be required to eliminate the infection which may precipitate further candidal infection.
- Some of the topical agents contain sucrose or dextrose, which are can cause dental decay. Therefore if such drugs are used, daily fluoride rinses are recommended to reduce the risk of dental decay.
- Often the tongue is coated and gross deposits can be removed with a plastic spoon (tongue scraper).
- TB medication can cause discolouration of the sputum which may discolor a coated tongue.
- The dentures of denture wearing patients should be treated as part of the anti-fungal regimen.

THE MANAGEMENT OF PHARYNGEAL AND OESOPHAGEAL CANDIDIASIS REQUIRES REFERRAL FOR MEDICAL TREATMENT.
Fluconazole 200mg* orally daily for 7 - 14 days.
Recurrent Aphthous Ulcer

Mouth ulcer
Not Transmissible

Eliminate predisposing factors and secondary infection (oral hygiene and anti-bacterial mouthwash chlorhexidine gluconate* 0.2%). Anti-fungal medication should be considered†if candidal overgrowth occurs.

Topical steroid preparations applied to the ulcer 3 - 5 times daily. Response is better if applied to the ulcer within the first 24 hours of its appearance, e.g. Kenalog in Orabase applied to the ulcer with a cotton tip or gauze.

For multiple ulcers which are difficult for the patient to reach: Dexamethosone 0.5mg/5ml* can be used as a mouth rinse for 1 minute, 1 - 3 times a day.

The following items may be of assistance in resistant cases.

- Betamethosone Sodium tablets can also be used. One 0.5mg tablet dissolved in 10ml water and used as for Dexamethosone*.

- Place Prednisolone 10mg* (2 x 5 mg tablets) in contact with painful site, do not swallow. Antihistamine syrup* (Promethazine).

- Rinse with aluminium hydroxide.

- For persistent large ulcers systemic treatment may be indicated if topical treatment fails.

Herpes Simplex Virus

Fever blisters/cold sores
Transmissible

Tetracycline - one capsule, 250mg, dissolved in 10ml water for 1-3 minutes as a mouthwash four times a day. Do not swallow. Continue until ulcers disappear. Caution: Avoid swallowing in children under six.

Herpetiform Ulcers

Multiple ulcers
Not Transmissible

Optimum oral hygiene is stressed and to avoid secondary infections the simultaneous use of an antibacterial mouthwash (chlorhexidine gluconate 0.2%*) is advised. Treatment with Acyclovir® tablets 200-400mg 5 times daily may help to shorten episodes.
Primary Acute Herpetic Gingivostomatitis

*Transmissible*

Primary Acute Herpetic Gingivostomatitis manifests with extreme pain, acute gingivitis, fever, malaise, foul odour and cervical lymphadenopathy. Acyclovir* is the drug of choice, secondary bacterial infection should be treated, associated fever and pain managed and optimum oral hygiene maintained.

Other Herpetic lesions may be small and self limiting requiring no treatment if lesions clear up within 10 days. Relieve symptoms. Prevent complications including secondary infection. chlorhexidine gluconate mouthwash 0.2%* as for recurrent aphthous ulcers. Adequate diet and hydration - avoid acidic drinks and spicy foods which may cause pain.

Oral Hairy Leukoplakia (OHL)

*White streaky, hairy patches usually on the side of the tongue that cannot be wiped off*  
*Not Transmissible*

Treatment is not always indicated - optimum oral hygiene is stressed. Patients sometimes complain of appearance and sensation of OHL. Candida is sometimes present in lesions and should be eliminated with anti-fungal treatment. OHL is caused by Epstein-Barr virus and the lesions can be eliminated by high doses of Acyclovir*.

Cytomegalovirus (CMV)

*Transmissible*

Associated oral ulcers to be treated in consultation with patient’s physician as a matter of extreme urgency. Isolated oral ulcers which do not respond to conventional therapy may be the primary site of CMV.
**INTRA-ORAL LESIONS**

**HIV ASSOCIATED PERIODONTAL DISEASE**

**Linear Gingival Erythema (LGE)**
- **Distinct red banding along the gingival margin**
- **Not Transmissible**

**Necrotising Ulcerative Gingivitis (NUG)**
- Rapid destruction of gum tissue associated with foul odour, bleeding and pain.
- **Transmissible**

**Necrotising Ulcerative Periodontitis (NUP)**
- Rapid destruction of gum tissue and supporting bone, associated with foul odour and pain.
- **Transmissible**

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Professional scaling and polishing followed by chlorhexidine gluconate mouthwash 0.2%* in the early stages of the disease is often successful.

Necrotising Ulcerative Gingivitis (NUG) and Necrotising Ulcerative Periodontitis (NUP) Rapid destruction of gum tissue and supporting bone, associated with foul odour and pain.

**OPTIMUM ORAL HYGIENE IS ESSENTIAL**

These conditions require more aggressive therapy:

- The involved areas should be scaled and polished.
- Irrigation with Povidone-iodine solution (check for allergy before use) or hydrogen peroxide* irrigation is also indicated (10 Volume solution diluted to half with warm water).
- Antibiotics are usually indicated. Metronidazole 250mg* 3 x a day (may be given in conjunction with Amoxicillin* and Clindamycin* 300mg 3 x a day.
- Follow-up every 1 - 3 days, for the first week.

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NB Candidal overgrowth is a possibility during antibiotic therapy and dosages should be adjusted for children. Treatment should be continued for 5 - 7 days and longer treatment may be required if there is extensive bone involvement. Follow up visits for further oral hygiene procedures i.e. root planing and curettage. Chlorhexidine gluconate 0.2% mouthwash* regimen daily accompanying optimum oral hygiene practices stressed. Pain control - aspirin* or Paracetamol*. 

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*Denotes prescription only medication.
INTRA-ORAL LESIONS

Kaposi's Sarcoma
One or more raised or flat, reddish-purple patches
Not Transmissible

Red, purple patches raised or flat may become extremely painful, most common on the roof of the mouth. Optimum oral hygiene. Lesions should be kept free of plaque and food debris. Surgery, chemotherapy & sclerosing solutions are options. Pain management may be required.

Non-Hodgkins Lymphoma
Rapily growing masses or macules or non healing ulcers anywhere in the mouth - Not Transmissible

Early diagnosis is stressed. No one specific treatment is used to treat the oral lesions of lymphoma, but depending on the patient's condition chemotherapy may be required. Referral to physician is essential.
INTRA-ORAL LESIONS

Tuberculosis
Weeping irregular painful ulcer, usually on the upper front surface of the tongue
Transmissible

Photograph 29

The patient's physician will prescribe several anti-TB therapies that should clear up the entire infection including the oral lesions. Optimum oral hygiene is stressed.

Human Papilloma Virus
Warts

Photograph 30

Referral to a physician for surgical excision, carbon dioxide laser or cryotherapy. Recurrence is common and repeated treatment is often necessary. Appearance of warts in the mouth of a child should alert the health professional to possible sexual abuse.

Syphilis
Single ulcer in primary stage
Transmissible

Photograph 31

Syphiloma/Gumma on tongue

Painless ulcer with rolled border with associated lymph nodes. Immediate diagnosis of the primary lesion is imperative. Examination of material from active lesion and penicillin.*
OTHER DENTAL CONDITIONS

Dental Caries
*Tooth decay*

Refer to a dental practitioner as soon as possible.

Optimum oral hygiene, fluouride mouthwash and diet advice.

Dental Abscess
*Gum boil associated with decayed tooth*

Treat abscess as below to eliminate pathogens and thereafter treat the tooth.

- Amoxycillin* oral 8 hourly for 5 days can be coupled with Metronidazole 250mg* oral 8 hourly for 5 days if infection is severe.
- Pain management with Paracetamol* or aspirin*.
- Optimum oral hygiene routine and chlorhexidine gluconate 0,2% mouthwash*. Adjust children's dosage accordingly.
- Referral to a dental practitioner is imperative.

Dry Socket
*Post-extraction infection of tooth socket*

Refer to a dental practitioner immediately. Oral antibiotic therapy may be required.

Optimum oral hygiene, chlorhexidine gluconate 0,2% mouthwash*. Pain management with Paracetamol* or aspirin*.

Pericoronitis
*Gum inflammation associated with erupting or semi-erupted tooth*

Refer to a dental practitioner immediately. Optimum oral hygiene. Chlorhexidine gluconate 0,2% mouthwash*. Paracetamol* or aspirin* for pain control.

Tooth Grinding

Refer to a dental practitioner.

This habit causes great discomfort and pain, your oral health professional can offer various strategies for management.

Dental Hypersensitivity
*Sensitivity to hot, cold and sweet things*

Visit a dental practitioner.

Teach correct oral hygiene techniques and advise appropriate toothbrush. Apply topical fluoride rinses and varnishes.

NB. All medicinces available on the EDL are marked with an asterisk
The KwaZulu-Natal Oral Health Programme wishes to acknowledge the following:

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MOUTH CARE PACK

The mouth care pack, if available, should form an essential part of the treatment regimen for both oral and general health in hospital and home care situations.

1. Remove coating from the tongue with a spoon if necessary

2. Clean the teeth and tongue thoroughly and clean the toothbrush with antibacterial soap and leave out to dry

3. Rinse with bicarbonate of soda - 1 teaspoon in 1 litre of clean warm water - as often as possible. Mix fresh everyday.

4. Shake the bottle of chlorhexidine gluconate 0,2%* mouthwash thoroughly before use.

5. Place two capsful of mouthwash in a cup and rinse mouth thoroughly for one minute while bending the head forward. Spit out and do not rinse mouth out with water or eat or drink for half an hour after this treatment. Do this after breakfast and before sleeping NOT at the same time as brushing your teeth or taking other anti-fungal treatment.

6. Drink lots of fluid. Preferably clean water with a squeeze of lemon juice added.
### STAGING SYSTEM FOR HIV INFECTION AND DISEASE

#### First Visit

**Clinical**
- Take full history of previous illnesses and current symptoms.
- Do full physical examination of all systems.
- Determine patients clinical stage.

**Laboratory Tests**
- If no documentation of HIV test result, repeat HIV test.
- Full blood count (FBC) and differential; PRP; PAP smear for women; Anti-HBc.

**Prophylaxis**
- Influenza vaccine 0.5mL IM before influenza season.
- Trimethoprim-Sulphamethoxazole (TMP-SMX also known as cotrimoxazole or Bactrim® or Septra®) 2 single strength (80/400mg) or 1 double strength tablet (160/800mg) po daily for life for patients who are clinically stage 2, 3 or 4, PEM (Protein energy malnutrition) scheme and multivitamins as required.

**Frequency of visits for review**
- Review results of tests in one week so that results can be acted on: eg, give Penicillin 2.4 million units IM weekly x3 if RPR positive.
- Refer if abnormal PAP smear.
- Give Hepatitis B vaccine if anti-HBc negative.

#### Stage 1

**Clinical**
- Patient is generally asymptomatic.

**Laboratory Tests**
- PAP smear annually for women.

**Prophylaxis**
- Reinforce health lifestyle choices; Multivitamins 1 tab daily as required.

**Frequency of visits for review**
- 6 monthly.

#### Stage 2

**Clinical**
- Patient may be suffering from minor weight loss, skin rashes, upper respiratory tract infections. Conduct review of systems and physical examination concentrating on the mucocutaneous system.

**Laboratory Tests**
- PAP smear annually for women.

**Prophylaxis**
- Reinforce health lifestyle choices; Multivitamins 1 tab daily as required.
- Trimethoprim-Sulphamethoxazole 2 single strength (80/400mg) or 1 double strength tablet (160/800mg) po daily for life.
- Influenza vaccine 0.5mL annually prior to influenza season.

**Frequency of visits for review**
- 3 to 6 monthly.

#### Stage 3

**Clinical**
- Patient is starting to feel ill - may stay in bed because is not feeling well - weight loss, candida, diarrhoea, fever, TB, pneumonia.

**Laboratory Tests**
- PAP smear annually for women.

**Prophylaxis**
- Reinforce health lifestyle choices; Multivitamins 1 tab daily as required.
- Trimethoprim-Sulphamethoxazole 2 single strength (80/400mg) or 1 double strength tablet (160/800mg) po daily for life.
- Influenza vaccine 0.5mL annually prior to influenza season.

**Frequency of visits for review**
- 3 monthly / as clinically indicated.

#### Stage 4

**Clinical**
- Patient is now sick - may become bedridden for most of the day - server opportunistic infections may be present that need referral for investigation and treatment.

**Laboratory Tests**
- PAP smear annually for women.

**Prophylaxis**
- Reinforce health lifestyle choices; Multivitamins 1 tab daily as required.
- Trimethoprim-Sulphamethoxazole 2 single strength (80/400mg) or 1 double strength tablet (160/800mg) po daily for life.
- Influenza vaccine 0.5mL annually prior to influenza season (the use of this vaccine in servely immunocompromised patients is controversial).

**Frequency of visits for review**
- Monthly to 3 months / as clinically indicated.
- Refer for social support grants, if required.
Acknowledgements
Photography

Photograph 1 - Ish Maharaj
Photograph 2 - Christa Nightingale
Photograph 3 - Christa Nightingale/Ish Maharaj
Photograph 4 - Christa Nightingale/Ish Maharaj
Photograph 5 - Christa Nightingale/Ish Maharaj
Photograph 6 - Christa Nightingale/Ish Maharaj
Photograph 7 - Christa Nightingale
Photograph 8 - Christa Nightingale
Photograph 9 - Christa Nightingale
Photograph 10 - Christa Nightingale
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Photograph 13 - Christa Nightingale
Photograph 14 - Christa Nightingale
Photograph 15 - Christa Nightingale
Photograph 16 - Christa Nightingale
Photograph 17 - Ish Maharaj
Photograph 18 - Christa Nightingale
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