

Dry mouth is a symptom which is commonly experienced at the end of life, but we have received reports of symptomatic dry eyes also being experienced in patients with COVID-19. This guidance is to support treatment of such symptoms in a person at the end of their life, where further investigation of potential causes (e.g. by ophthalmology) is inappropriate. All the interventions suggested involve close contact with the person's face, the risk of which should be considered in all patients with confirmed or suspected COVID-19 and appropriate protection worn when necessary.

Dry eyes

- Remove any contact lenses if present
- Examine the eyes for any evidence of foreign objects or infection and treat appropriately
- If no infection or foreign objects present, treat as below:

Artificial tears

Carbomer 0.2% gel

- E.g. Viscotears, GelTears
- Apply 3-4 times daily
- Preferable to drops in these patients due to reduced frequency of application
- Can cause visual blurring in those who are more alert

Hypromellose 0.3% drops

- Suggest use if gels are unavailable, or if symptoms persist between applications
- Can be administered hourly PRN

Eye Ointment

- Paraffin based ointment e.g. **VitA-POS**
- Apply once at night
- Can be used in addition to artificial tears if necessary

Mucolytic

If there is excessive mucus production in the absence of infection, consider:

- **Acetylcysteine 5%** drops QDS
- e.g. ILube drops
- Please note these can cause stinging
- Use instead of artificial tears

Some patients develop an allergy to the preservatives in some eye drops. Some brands produce preservative-free hypromellose drops and carbomer gels, please speak to a pharmacist for the brands available locally

An ophthalmology report published in the BMJ has suggested that COVID-19 infection may produce symptoms of an acute viral conjunctivitis in the middle phase of the illness, but there is limited data available. The treatment of viral conjunctivitis is usually symptomatic only. The use of antimicrobial eye treatments (e.g. chloramphenicol) should only be considered if bacterial infection is suspected.

Dry mouth

Dry mouth is a common symptom at the end of life. There are many simple measures that patients and carers can undertake to treat this in the early stages of illness. This guidance is for patients at the end of life who are unable to swallow.

FOR ALL PATIENTS:

Assess

- Regular, routine assessment of the lips and mouth should be conducted
- Ideally this should be undertaken with the person in a semi-prone position where possible to avoid aspiration. If this is not possible, monitor for pooling of fluid in the mouth during cares
- Look for signs of inflammation, infection or ulceration and treat as necessary

Manage

- Follow local policy on the use of buds to deliver small amounts of water to the mouth and lips
- Remove any debris and keep the mouth clean where possible
- Apply a water based gel – e.g. BioXtra, Biotene Oralbalance or Oralieve gel to the lips after mouth care
- Please note that artificial saliva sprays are short lasting and are often more helpful when the person can self-administer/sit upright
- Treat any infection (e.g. oral thrush) or inflammation if appropriate

Prevent

- Apply a water based gel (as listed above) QDS and PRN
- Avoid paraffin containing products – e.g. Vaseline, particularly if on oxygen
- Keep mouth and lips clean, moist and free of debris where possible
- Ensure dentures and teeth are cleaned regularly – at least twice a day
- If a person is alert enough to safely take sips of water, support them to continue to do so

FOR PATIENTS ON OXYGEN:

Oxygen via face mask can worsen dry mouth. Routine practice for those patients receiving oxygen at concentrations >28% by mask would be to consider humidification. Humidification is not considered to be an aerosol generating procedure in the current COVID-19 national guidance, however an individual risk assessment should be performed.

- For those receiving oxygen via nasal cannula – treat as per mouth care guidance above
- For those receiving oxygen via mask at concentrations <28% - consider switch to nasal cannulae if possible to reduce drying effect on oral mucosa
- For those receiving oxygen via mask at concentrations >28%, conduct a risk assessment and consider humidification if in an inpatient setting. Please note higher oxygen flow rates are required to maintain the equivalent oxygen concentration delivered by venturi mask (e.g. 28% via venturi = 4-6L/min, 28% humidified = 5-11L/min)