



## Question: What are the treatment options for the management of dry mouth?

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### Summary:

Any underlying causes of dry mouth should be identified before proceeding with management. Oral hygiene is essential and should be carried out twice daily. Simple interventions such as sipping cold water, sucking an ice cube or chewing sugar free gum can help to alleviate symptoms. Artificial saliva products can be used in more severe cases such as Biotene<sup>®</sup>, BioXtra<sup>®</sup> and Glandosane<sup>®</sup>, and can provide short term relief. Saliva stimulants, such as pilocarpine, may also be considered.

### What is Xerostomia?

Xerostomia, the sensation of a dry mouth, is a common symptom affecting patients with palliative care needs, with 80% of patients experiencing this symptom due to reduced saliva production in advanced disease.<sup>1</sup> It can alter a patient's taste and may make it difficult for patients to eat and swallow.<sup>2</sup> There are a number of causes of xerostomia including a diagnosis of cancer, certain classes of medications, radiotherapy and underlying co-morbidities.<sup>1,2</sup>

### Management of Xerostomia:

#### **Prevention**

Maintenance of good oral hygiene is imperative in the prevention of complications associated with dry mouth. Oral hygiene should be carried out twice daily.<sup>3</sup>

#### **Correct the correctable<sup>1</sup>**

There are multiple causes of dry mouth.<sup>1</sup> Smoking, alcohol (including in mouthwashes) and caffeine can all dry the mouth.<sup>1</sup> Treat underlying disorders to remove possible causes of dry

mouth e.g. diabetes, infection, oral candidiasis.<sup>1</sup> Review medications to identify agents which may be associated with xerostomia.<sup>1</sup>

Common classes of drugs associated with Xerostomia:<sup>1,3</sup>

Alpha adrenergic blockers
Alpha adrenergic agonists
Anticholinergics (Antimuscarinics)
Antidepressants
Antihistamines
Antiparkinsonian medications
Antipsychotics
Benzodiazepines
Beta adrenoceptor blockers
Diuretics
Glucocorticoids
H2 receptor antagonists
Non-Steroidal Anti-Inflammatory Drugs
Opioid analgesics
Proton Pump Inhibitors

### ***Non-Drug Treatment***

#### Simple Interventions

Simple interventions such as frequent sips of cold water, sucking ice cubes or chewing sugar free gum may offer symptom relief.<sup>1,4</sup> Sugar-free chewing gum can stimulate salivation in patients with residual salivary function.<sup>1</sup> Vaseline can be used around the lips every 4 hours to prevent cracking and a room humidifier may help when the weather is dry and hot.<sup>1</sup>

Pineapple chunks contain ananase, a proteolytic enzyme, which can clean the mouth if sucked like a sweet. Fresh pineapple contains more ananase than tinned pineapple, but either can be used.<sup>1</sup>

If the tongue appears furred, the use of hydrogen peroxide or sodium bicarbonate mouthwash with a soft toothbrush can be considered.<sup>1</sup> Effervescent ascorbic acid tablets may also be considered although should be avoided if the mouth is sore.<sup>1</sup>

### Artificial Saliva

Artificial saliva acts to mimic the patient's own saliva and can provide useful relief of dry mouth.<sup>4</sup> However, they seldom gives relief for more than 1-2 hours, thus require regular application.<sup>5</sup> Biotene®, BioXtra®, Glandosane® are some of the artificial saliva products available in Ireland. BioXtra® is only licensed for dry mouth associated with radiotherapy or sicca syndrome.<sup>6</sup> For maximum effect, artificial saliva needs to be taken every 30-60 minutes and before and during meals.<sup>1</sup> Artificial salivas with a neutral pH are preferable for long-term use.<sup>1</sup> Those with an acidic pH should be avoided in dentate patients (demineralisation of teeth) or in those with mucositis (increased pain).<sup>1</sup>

### ***Drug treatment***

#### Saliva Stimulants

Systemic therapies may have a role in some patients.<sup>5</sup> They are mainly based on drugs with cholinergic effects, which stimulate the salivary glands.<sup>5</sup>

Saliva stimulants such as pilocarpine, bethanechol, cevimeline or Saliva Stimulating Tablets (SST) may also be used in the management of dry mouth.<sup>1,5,7</sup> However, bethanechol, cevimeline and SST tablets do not appear to be available in Ireland.

Pilocarpine is a parasympathomimetic agent with mild beta-adrenergic activity which stimulates secretion from exocrine glands.<sup>1</sup> It is used for dry mouth after radiotherapy and may also be effective in Sjögren's syndrome or other causes of dry mouth.<sup>5</sup> About 90% of patients with drug-induced dry mouth respond to pilocarpine with benefit seen immediately.<sup>1</sup> Adverse effects, particularly increased sweating, may, however, limit its use.<sup>5</sup> See Palliative Meds Info document 'Can pilocarpine eye drops be used to treat a dry mouth?'

### **References:**

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