The importance of oral health in palliative care patients

Emma Riley

The mouth is the ‘gateway’ to the body; it is central and pivotal to how we eat, communicate, laugh, cry and love. Thus, it deserves to be cared for, nurtured and respected like other areas of the body. If asked if mouth care is important to patients’ health and quality of life, the majority of healthcare professionals in any care setting will answer ‘yes’. Why is it then that the mouth or oral cavity is often neglected? This article explores different oral conditions that can develop in patients at the end of life, and the impact that they can have on their quality of life, and why oral care gets ‘missed’ and how this can be changed.

KEYWORDS:
- Oral care
- Palliative patients
- Oral conditions

Oral health is multifaced and includes the ability to speak, smile, smell, taste, touch, chew, swallow and convey a range of emotions through facial expressions with confidence and without pain, discomfort and disease of the craniofacial complex (FDI World Dental Federation).

An individual’s oral health can have both a physical and emotional impact. Throughout palliative care, it is hoped that the patient ‘will live till they die’ (Dame Saunders), and the oral cavity goes on that journey with the patient and is often the last area on the body that the relative can be involved in cleaning and caring for. With this in mind, it is important that healthcare professionals are aware of the oral problems that can occur in palliative care (Table 1), and appreciate how oral health can impact not only on the individual, but also their relatives and carers.

THE MOUTH

The mouth is much more than teeth, with the oral cavity/mouth, including (Figure 1):
- Lips
- Hard palate
- Soft palate
- Retromolar trigone (the area behind the wisdom tooth)
- Front two-thirds of tongue
- Gingiva (gums)
- Buccal mucosa (the inner lining of the lips and cheeks)
- Floor of mouth under the tongue
- Teeth.

Three factors are needed to maintain a healthy mouth, namely:
- Hydration of the tissues
- Cleansing microbial properties of saliva
- Debridement of the teeth and gums (Riley, 2014).

All patients should be educated and encouraged to maintain good oral hygiene (UK Oral Mucositis in Cancer Group [UKOMiC] guidelines, 2015). The cleaner the mouth is, the better it will cope with any treatment or medication that will affect it. If there are pre-existing dental infections, such as dental cavities, abscesses, or periodontal disease (bleeding gums), any infection may become worse. In addition, the gums may bleed more easily if they are irritated or swollen (Dana-Farber Cancer Institute).

ORAL ASSESSMENT

A documented oral assessment is essential for maintaining good oral health (Nursing Times, 2017). Previous dental problems, recent treatments (including surgery, chemotherapy and head and neck radiotherapy), current medication, quality of speech, diet, dysphagia and any local pain should be recorded (Cambridgeshire Palliative Care Group). It is also important to assess and document the patient’s current oral hygiene regimen and products used, together with denture type (is it well fitting?), any oral ulceration present and whether the patient smokes (Cambridgeshire Palliative Care Group). It is also important to...
assess a patient’s mental capacity, as there is some evidence that patients with mental health issues have a greater risk of developing oral disease and therefore have in some cases greater oral/dental needs (British Society for Disability and Oral Health, 2000).

Accurate assessment of the oral cavity, an individual plan of care and implementing preventative measures and correct treatment can improve mouth care (UKOMIC, 2015). While mouths can be assessed by any healthcare professional and there are many oral assessments tools available, the tool is only as good as the person filling in the information — hence the necessity for oral care training. It is also important to encourage the patient to assess their own mouth and report back any changes (UKOMIC, 2015). Studies have shown that hospice patients often do not report oral problems to their doctor, as they perceive treatment options are limited (Jucan, 2015).

Once a detailed history has been completed, a visual examination should take place. This should be done with the patient’s consent. A pen torch, tongue depressor and dental gauze may be needed to clearly identify the oral structures and any abnormalities (Malkin, 2009).

It is important that healthcare professionals assessing the mouth have received sufficient training and knowledge about the oral cavity. A recent audit by the author within a residential home setting, demonstrated a lack of oral hygiene training undertaken by staff (Figure 2). A number of the staff claimed that they had basic knowledge:

<table>
<thead>
<tr>
<th>Table 1: Prevalence of oral problems in palliative care (NICE, 2016)</th>
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<tbody>
<tr>
<td>Dental caries were found in 2–35% of all cases</td>
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<tr>
<td>Active gingivitis was present in 36% of terminally ill people</td>
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<tr>
<td>Dry mouth has been reported in 88% of people with advanced cancer</td>
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<tr>
<td>Taste sensation diminishes in 25–50% of people living with cancer</td>
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Staff are instructed on how to care for other areas of the body, and so the same should apply to the mouth.

**MAINTAINING GOOD ORAL HYGIENE**

To maintain oral health, healthcare professionals should ensure that patients and/or their carers adhere to the following:

- Brush twice a day using a fluoride toothpaste
- Try to spit out after brushing, do not rinse
- In some cases, a baby toothbrush may be easier if brushing becomes difficult
- Change the toothbrush if any oral infections are present
- Dentures should be removed if they are uncomfortable. Try to ensure that they are removed at night and stored in water
- If fungal infection is present, dentures should be cleaned thoroughly and soaked in a sodium hypochlorite (Milton) for 15 minutes twice a day. If the denture is chrome (metal), soak in chlorhexidine mouthwash (UKOMIC, 2015).

**Mouthwashes**

There is little conclusive evidence to support the use of mouthwashes:

- Water — inexpensive, but will not remove coating
- Normal saline — inexpensive and mildly antiseptic, but there may be issues with compliance due to altered taste
- Sodium bicarbonate — has mucolytic properties and could correct pH if low in dry mouth cases. Does have an unpleasant taste and can be an irritant
- Chlorhexidine — antibacterial, antifungal and has anti-plaque properties. However, the Medicines and Healthcare products Regulatory Agency has highlighted the risk of anaphylactic reactions to chlorhexidine (MHRA, 2014). It inactivates nystatin (which is used to treat fungal infections), and can stain the teeth and tongue, and be unpalatable, so needs to be diluted 50 water: 50 chlorhexidine.

**DRY MOUTH**

Dry mouth is also called xerostomia, derived from the Greek word xeros meaning ‘dry’ and stoma meaning ‘mouth’.

A dry mouth can cause dry lips, bad breath, alteration in taste and difficulty speaking, eating and swallowing (NHS Choices). From a quality of life issue, this can impact greatly on the patient and their relatives.

Many factors can contribute to a dry mouth, including:

- Medication — over 400 prescription and over-the-counter drugs, such as antihistamines, antidepressants and high blood pressure medicines, can cause a dry mouth (US Food and Drug Administration [FDA])
- Diabetes (NHS Choices)
- Radiotherapy to the head and neck (NHS Choices)
- Dehydration
- Anxiety
- Candida infection (National Institute for Health and Care Excellence [NICE], 2016).

**Figure 2.**

Responses of staff in a residential care home to the question: ‘have you ever been trained how to clean the mouth?’

| 1 | No experience or training given |
| 2 | Practical knowledge, but no training |
| 3 | More training required |
| 4 | Confident in practice post training |
| 5 | Could you train other staff |

Taste sensation diminishes in 25–50% of people with advanced cancer

Dry mouth has been reported in 88% of people with terminally ill people

Active gingivitis was present in 36% of all cases

Dental caries were found in 2–35% of all cases

Prevalence of oral problems in palliative care (NICE, 2016)
Dry Mouth?
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- Does not interact with other medications

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The following measures can help to alleviate a dry mouth:

- **Hydration** — frequent sips of water
- **Saliva substitutes or oral gel**, e.g. the BioXtra® range or Saliva Orthana (AS Pharma) (UK Medicines Information)
- Avoiding acidic foods or acidic artificial saliva products (e.g. Glandosane® aerosol spray [Fresenius Kabili]) for people with their own teeth
- Keeping lips moist — if the patient is on oxygen use a water-based solution
- **Saline nebulisers** to assist with thick secretions (Riley, 2014)
- **Pilocarpine tablets** (NICE, 2016).

It is also important to gently try and remove any coating, debris, and plaque from lips, mucosa and soft tissues. Failure to remove these secretions can cause pain, ulceration, bleeding and predispose the oral cavity to infection (NHS Scotland). The areas should also be soaked with damp gauze or massaged with an oral lubricating gel.

**ORAL CANDIDIASIS**

Oral candidiasis can present as a loss of taste, redness, soreness, or angular cheilitis (a condition where the lip becomes inflamed and irritated; angular is defined as angle or corner so angular cheilitis means inflammation within the corners of the mouth, Angular Chelitis Help). The causes of oral candidiasis should be identified, such as immunosuppression, steroid use (oral/inhaled), dry mouth, dehydration, mucosal damage and/or poor oral hygiene (Health Education England [HEE], 2016). A mouth swab should also be taken to establish if infection is present and antifungal treatments prescribed accordingly, which should be kept in the mouth for as long as possible before swallowing (UKOMiC, 2015), and eating should be avoided for 30 minutes after each dose. If using a topical agent, remove dentures before each administration.

Nystatin and chlorhexidine mouthwash should not be used at the same time, but rather one hour apart as they inactivate each other. It is also important to wait 30 minutes between the use of toothpaste and chlorhexidine and to consider changing the patient’s toothbrush more often (Riley, 2014).

Dentures should be soaked in chlorhexidine solution (if a metal denture) or a Milton solution (Procter & Gamble) for 15 minutes twice a day (Riley, 2014).

**SORE OR ULCERATED MOUTH**

It is important not to underestimate how a painful mouth can affect patient quality of life. Indeed, patients have rated oral mucositis as the most distressing part of their cancer treatment (UKOMiC, 2015).

It is important to identify the cause of the soreness. This can be due to oral mucositis (inflammation of the mucosal membrane characterised by ulceration which may cause pain) (UKOMiC, 2015), tumour, aphthous ulcers or vitamin deficiency (Health Education England [HEE], 2016).

Management should involve:

- Normal saline solution
- **Topical agents**, e.g. Difflam™ (Meda Pharmaceuticals)
- Ice chips
- Considering mucosal protectants, e.g. MuGard®
- Caphosol (EUSA Pharma) — a calcium phosphate mouth rinse for the prevention of oral mucositis (NHS SCOTLAND)
- For severe pain, consider topical and systemic medications and seek specialist advise (UKOMiC, 2015; NICE, 2016).

Due to dental pain, urgent referral to the dental team is also essential.

**COATED TONGUE**

A coated tongue usually presents in a mouth with poor salivary function, so managing the dry mouth will assist with this. Brushing the tongue from front to back can help, and pineapple cubes are often suggested, although caution is needed as these can be acidic and thus increase dental problems and infection (HEE, 2016). An effervescent vitamin C tablet can also help to clean the tongue (Marie Curie).

**DROOLING**

Excess salivation can be distressing and disabling for patients. It is important to explain the cause of the problem before prescribing any medication (Cambridge Palliative Care Guidelines Group). This can be local or systemic causes such as oral inflammation/infection, or an inability to retain saliva in the mouth due to poor lip or head control.

<table>
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<th>Table 2: Prevalence of oral mucositis in palliative care (Riley, 2014)</th>
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<td>Patients receiving haematopoietic stem cell transplantation — 98%</td>
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<tr>
<td>Head and neck cancer patients receiving head and neck radiotherapy — 95%</td>
</tr>
<tr>
<td>Patients receiving chemotherapy to treat a solid tumour — 50%</td>
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Problems with swallowing can also lead to drooling, with patients being unaware of the build up of saliva in their mouths (Bavikatte et al, 2012).

Medication is given to dry up these secretions and, in some cases, it may be necessary to consider ablation of the salivary glands with radiotherapy or the use of Botox injection into the glands (Cambridge Palliative Care Guidelines Group).

Once secretions are managed, the mouth may become drier, so prompt management of the dryness is important.

With any of the listed conditions that can affect the palliative patient, it is essential that basic oral care is maintained.

CONCLUSION

It has been highlighted how much the mouth can change in the palliative care setting. Acknowledging that the mouth deserves the same care and respect as the rest of the body is essential. As Sarah Hurley, Chief Dental Officer stated:

Every patient has a mouth, therefore each and every care pathway must reflect the enduring need for oral care, this begins by ‘putting the mouth in the body.’ (August, 2016)

This must start with educating staff, relatives and carers around the often complex and ever-changing dynamics of the oral cavity.

In the author’s clinical opinion, there should be more information provided to relatives and carers on mouth care. The oral cavity can deteriorate quickly in the terminal stages of life, but if this was explained more effectively, it may be understood a great deal more.

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