Treatment considerations in the management of a medically compromised patient under palliative care: A case study

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Introduction

In the UK, people are living longer with more comorbidities [1, 2]. Some studies have projected a 70% increase in older people living with severe disabilities by 2031 [3]. Additionally more adults are retaining their teeth[4] resulting in more complex oral healthcare needs in the older population.

Palliative care is defined by the World Health Organisation as "an approach that improves the quality of life of patients and their families who are facing problems associated with life-threatening illness" [5]. The demand for palliative care in England and Wales is expected to increase by 25-27% by 2040 [6].

Oral symptoms are common in patients undergoing palliative care with an estimated 35% having active caries and 40% of patients undergoing chemotherapy developing oral mucositis[7]. Recent guidance has included dry mouth in patient symptom assessment charts [8] with updated guidance on the mouth care of patients in hospital [9].

Dentists have an important role to play in the palliative care team with a focus on improving quality of life and mouth comfort for patients as well as the treatment of dental disease and prevention of further problems.

Case Report

89 year old male referred to OSCAR inpatient dental service.

Presenting complaint: awareness of a broken tooth in the upper left quadrant. It was rough against tongue when eating and speaking.

Medical history

- Stage four prostate cancer with bony metastases - on palliative care.
- Aortic stenosis
- Abdominal aortic aneurysm
- History of atrial fibrillation and postural hypotension
- Vailid DNA CPR order in place
- Recent Full blood counts (FBC) showing thrombocytopaenia and low haemoglobin

Medications

Enoxaparin 40mg	Paracetamol
Finasteride	Ensure compact
Bisoprolol	Oxycodone
Amlodipine	Pregabalin
Sertraline	PRN diazepam and
Lansoprazole	oxycodone
Metoclopramide	

Social History

- Never smoker, no alcohol intake
- History off recent falls.
- Able to transfer from wheelchair with support.
- Unable to fully recline and requires pillow for head support in dental chair.

Dental History

- Keeping denture in at night as concerned that it wouldn't fit if kept out of mouth for too long.
- Brushing once a day himself with manual toothbrush.

Examination

- Extraoral examination – no significant findings.
- Intraoral examination – no soft tissue pathology, evidence of dry mouth, poor oral hygiene.
- Heavily restored dentition with multiple carious cavities **(Figure 1).**
- Sharp edge carious retained root UL7 with food packing UL6 UL7

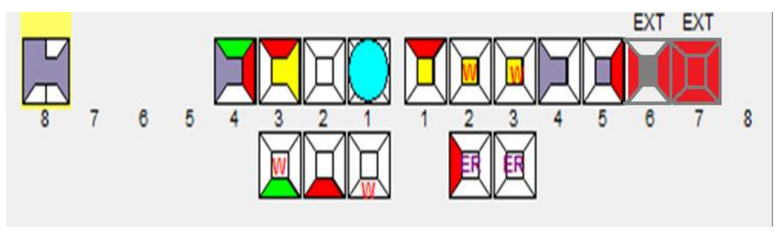
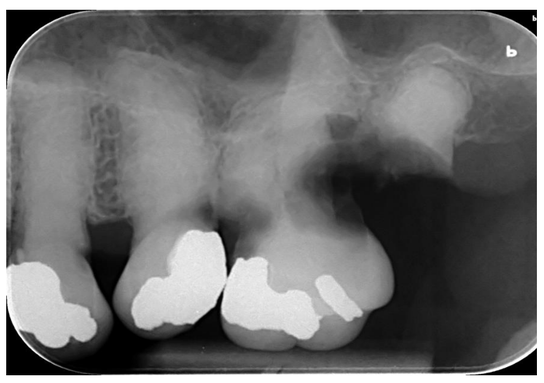


Figure 1: Dental charting on SOEL programme

Radiographs

Radiograph of upper left quadrant (ULQ) **Figure 2.** Findings reported in **Box 1**.



Box 1. Radiograph Report

- Intraoral periapical ULQ. Grade A.
- Distal radiolucency indicative of caries UL5.
- Gross caries UL6, loss of lamina dura.
- UL7 carious retained root, loss of lamina dura

Diagnoses

1) Chronic apical periodontitis UL7 retained roots

2) Chronic apical periodontitis UL6

3) Caries UL5 distal

4) Further caries seen on initial examination - full diagnosis to be determined.

Treatment Completed

Visit 1

Examination, radiographs, treatment planning.

Prevention:

- Prescription Sodium Fluoride 1.1% toothpaste, fluoride varnish application.
- Advised leaving denture out at night and cleaning instructions given. Agreed staff to provide assistance.
- Oral hygiene instruction stressing importance twice daily toothbrushing and consideration given to assisted toothbrushing.

Patient deemed to have capacity and discussed extraction UL6 and UL7. Liaised with medical ward staff on precautions or contraindications required. Agreed for bloods to be taken on day of procedure **(Figure 3)** to ensure adequate platelets.

Full Blood Count	Value	Range
Platelets	96 ↓	150-400
Haemoglobin	95 ↓	130-180
White Blood Cells	5.4	4-11

Figure 3: Blood results on day of procedure.

Visit 2

Extraction of UL6, UL7 under local anaesthetic.

- **Treatment considerations:**
- Adequate time for appointment, ensuring no other medical interventions planned.
- Manual handling risk assessment. Assistance for transfer from his wheelchair to the dental chair.
- Ensuring the patient was comfortable and providing a pillow for neck support.
- Good anaesthetic technique, minimising discomfort and providing full anaesthesia of both teeth.
- Communication with the patient was maintained throughout, agreed stop signals and breaks as required.
- Bleeding risk assessment. Teeth extracted as atraumatically as possible. Socket was packed and sutured due to thrombocytopaenia.
- Clear post-operative instructions to the patient and ward.
- Patient unavailable for further appointment due to discharge.
- Referral to Community Dental Service for ongoing care.

Discussion

Patients undergoing palliative care can present with a number of different challenges to their oral health. Special patient groups who may require more tailored management include:

- Patients with impaired manual dexterity
- Patients who are mechanically ventilated
- Patients undergoing chemotherapy
- Patients undergoing radiotherapy to head and neck region
- Patients with dysphagia
- Patients with dementia or who lack capacity
- Patients who are immunosuppressed
- Patients with xerostomia

There is now robust guidance on mouth care for these patient groups [9].

Risk Factors in Palliative Care

Increase in oral risk factors

Multiple active carious lesions.
Declining manual dexterity to maintain oral hygiene

Medical history

Multiple medications with the potential to cause xerostomia
Nutritional supplements which can be cariogenic[10]

Access for dental treatment

The patient wasn't registered with a general dental practitioner and due to difficulties transferring from wheelchair to the dental chair may find himself unable to access treatment. Surgeries with additional equipment such as hoists or wheelchair recliners may be required. Eventually domiciliary visits may be the only way to provide care.

Frailty

At present the patient was able to cope with treatment. However there may come a point where he is unable to tolerate invasive dental procedures. Treatment may then shift towards symptom management rather than curative interventions **(Figure 4).**

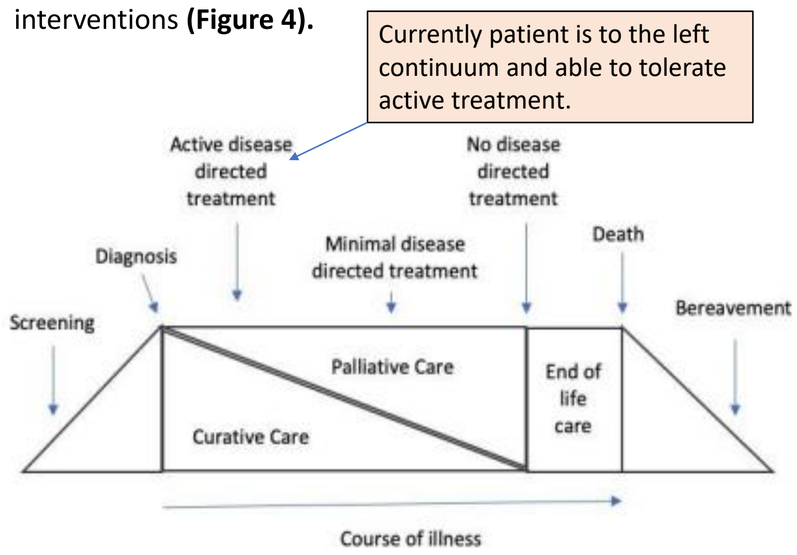


Figure 4: Continuum of palliative care.
Adapted from: https://heeoe.hee.nhs.uk/sites/default/files/palliative_dentistry.pdf

Palliative Care Principles & Future Considerations

1) Ensuring palliative patients have had a mouth care risk assessment completed as part of their care plan.
2) Ideally an assessment by a dentist when a palliative diagnosis is made or early referral to dental services where pain or discomfort is suspected.
3) Prompt treatment of any symptoms or dental disease while the patient is able to cope.
4) Ascertaining patient wishes at an early stage for future planning before disease progression.
5) Ensuring care staff are trained in mouth care and understand the importance of maintaining good oral hygiene for the health and comfort of their patients.
6) As patient's capacity for treatment diminishes, keeping patient comfort and wishes at forefront of all discussions and decision making.

Conclusion

Risk assessment, communication between colleagues and early referral for assessment and/or treatment are essential to ensure good quality of life. This case demonstrates some of the considerations involved in providing care for palliative patients using a patient centred approach.

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