PALCARE
There's no place like home

THE JIMMY S BILIMORIA FOUNDATION

PALLIATIVE CARE
GUIDELINES
FOR A HOME SETTING IN INDIA

3.8 ORAL CARE

INTRODUCTION

Care of the oral cavity is crucial in palliative care patients, as over 90% of them have some oral problem. It is especially important in the presence of cancer in the oral cavity. Good oral care improves communication, patient comfort and makes it better for the patient to eat and drink.

Causes of common oral health problems in palliative care patients:

- Xerostomia - previous RT to head and neck region (nasopharynx, oral cavity etc), local surgery, chemotherapy, dehydration, medications (opioids, diuretics, anti-emetics, antidepressants, anti-muscarinics)
- Oral mucositis - dry mouth, chemotherapy, radiotherapy, vitamin deficiencies, iron deficiency
- Angular stomatitis - candidiasis, xerostomia, vitamin deficiencies (Vitamin B), malnutrition, immunosuppression, chemotherapy, chronic illness
- Oral candidiasis - dry mouth, dentures, immunosuppression, long term use of corticosteroid, long term use of oxygen via a mask
- Halitosis
    - Physiological - bacterial putrefaction of food, epithelial cells, blood cells, and saliva, especially the dorsal surface of the tongue
    - Pathological - diseases of the oral cavity, respiratory system, gastrointestinal tract system, metabolic imbalances
- Dysgeusia - dry mouth, intraoral diseases (malignant, infectious), local surgery, local radiotherapy, chemotherapy, medications, zinc deficiency
- Dental caries - poor oral hygiene, local radiotherapy, intraoral diseases
- Oral discomfort and pain - dry mouth, poorly fitting dentures, intraoral diseases (malignant, infection), local radiotherapy, chemotherapy, osteonecrosis (secondary to radiotherapy, bisphosphonates)

ASSESSMENT

- Assessment must determine the underlying aetiology of the oral problems, effectiveness of treatment and impact on quality of life for the patient and family (***refer to the Guideline - Symptom assessment***)
- Ask for history of past oral problems

- Assess recent treatments/interventions undertaken including surgery, chemotherapy, radiotherapy
- Medication history
  - Opioids, diuretics, anti-emetics, antidepressants and anti-muscarinics
  - Corticosteroids
  - Bisphosphonates
- Assess the diet/ eating habits
- Ask for history of smoking
- Assess the current oral care plan, dental products used
- Assess for speech problems, dysphagia, pain and other symptoms
- Assess the mental health status of the patient (depression, anxiety), as patients with mental health problems are more likely to develop oral health problems
- Assess for diabetes mellitus, dehydration
- Remove dentures prior to examination of oral cavity
- Conduct a thorough visual examination of the oral cavity (dryness, coating, inflammation, ulceration, infection, dental caries)
- Ensure the availability of pen torch, tongue depressor and dental gauze

RECOMMENDATIONS

- Encourage the patient to examine the oral cavity and maintain good oral hygiene on a regular basis
- Encourage to report to the healthcare team early on if there are any oral problems
- Ensure that the health care professionals, who assess and manage oral health problems, have received adequate training
- Refer to a dentist, if oral problems persist even after interventions by palliative care team

MANAGEMENT

Maintaining good oral hygiene

- Brushing
  - Brush the teeth and tongue at least twice a day using a soft-bristled toothbrush or extra/super soft nylon toothbrush
  - Use a baby toothbrush in case of difficulty in brushing
  - Use oral sponges if the patient is unable to use toothbrush
  - Use a fluoride tooth paste (at least 1000 ppm fluoride); avoid toothpastes with foaming agent

- Use a sweeping motion from the gingival margin to the occlusal surface while brushing
- Spit out after brushing; do not rinse after brushing
- Soak the tooth brush in hot water before using again, if bleeding is present during brushing
- Use ultra-soft bristled toothbrush in patient with bleeding tendencies
- Use dental floss to clean the interdental areas, if possible
- Change tooth brush every 3 months; earlier if the toothbrush becomes deformed, the bristles are bent or if patient develops oral infections

- Care of denture
  - Wash the dentures in running water after every meal
  - Remove the denture at night
  - Soak the dentures overnight in water
  - Clean the dentures at least once a day, preferably at night
  - Wash the dentures in running water and brush rigorously with a soft brush using soap and water
  - Decontaminate the dentures intermittently by soaking them in benzalkonium chloride solution for 30 minutes
  - If there is evidence of oral thrush, soak the non-metal dentures overnight in a nystatin suspension or sodium hypochlorite solution; in case of dentures with metal parts, soak in chlorhexidine mouthwash
- Mouth rinse
  - Mouthwash:
    - Tap water - cheap; but has no medicinal properties
    - Normal saline - mildly antiseptic; but compliance is an issue due to change in taste
    - Saline/baking soda solution
      - 4 cups of water with 1 teaspoonful of table salt
      - 1 cup of water with 1 teaspoonful of baking soda
      - 4 cups of water with ½ teaspoonful of table salt with two tablespoonfuls of baking soda
      - Mouth wash with baking soda should be used immediately after preparing it
    - Hydrogen peroxide 3% and normal saline in equal measures (1:1)
    - Chlorhexidine mouthwash
      - It has anti-bacterial, antifungal and anti-plaque properties, causes staining of the teeth and tongue, and needs to be diluted in equal measure of water (1:1) to make it palatable
      - It inactivates nystatin
- Pre and post-treatment (radiotherapy/chemotherapy) protocol
  - Consultation with the oncologist is mandatory before any oral invasive procedures

- Good oral hygiene is mandatory for all patients before and after any oncological treatment
- To prevent oral health problems in patients planned for oncological treatment, use as mouthwash:
  - 10mL of 2% aqueous alcohol-free chlorhexidine gluconate mouthwash or 18mL of 0.12% aqueous alcohol-free chlorhexidine gluconate mouthwash bd, for one week prior to the commencement of treatment
- Extraction of teeth of doubtful integrity and related to the tumour mass or radiation therapy, should be done at least three weeks before the oncological intervention/treatment
- A period of seven to ten days interval should be given after an oral surgical intervention before commencing immunosuppressive chemotherapy
- After radiotherapy to head and neck tumours, check with oncologist and/or dentist before dental extraction to prevent osteoradionecrosis of mandible

Oral mucositis

- Correct the correctable
- Non-pharmacological measures
  - Maintain good oral hygiene
  - Dietary modifications
  - Suck on ice cubes or sip cold water 5 minutes before treatment and 30 minutes after treatment to reduce oral pain
- Pharmacological measures
  - Use Allopurinol mouthwash qid prophylactically to prevent oral mucositis
  - Magic mouthwash - diphenhydramine 12.5mg/5mL, and lidocaine 2% viscous solution mixed in equal proportions; rinse or gargle 5mL qid and swallow or spit out
  - Benzydamine hydrochloride 0.15% rinse or gargle 15mL for 20 - 30 seconds and spit out, repeat q3h - q1.5h prn
  - Vitamin/ iron supplements as indicated

Angular stomatitis

- Correct the correctable
- Non-pharmacological measures
  - Maintain good oral hygiene
  - Dietary modifications
- Pharmacological measures
  - Wash the area with soap water if bacterial suspicion is present and apply cream of 0.5% triamcinolone and 2% ketoconazole

- Apply topical miconazole oral gel 2.5mL topically four times daily retained near lesions before swallowing and continue use for 48 hours after lesions have healed
- Vitamin supplements

Xerostomia (dry mouth)

- Correct the correctable
- Non-pharmacological measures
  - Maintain good oral hygiene
  - Chew a sugar - free sour gum or candy
  - Hydration - frequent sips of water
  - Suck on ice cubes (or frozen pineapple slices)
  - Use water soluble jelly e.g. petroleum jelly, to keep the lips moist
  - Nebulise with saline solution if there are thick secretions
  - Delicately remove any coating, dead tissue, foreign matter and plaque from the surface of the lips, mucosa and soft tissue after moistening the affected areas with wet gauze or massaging with an oral lubricating gel
  - If using oxygen, pass it through a humidifier
  - Avoid tobacco and alcohol
- Pharmacological measures
  - Salivary substitutes (E saliva spray) tid - qid
  - Duestom salivary substitute gel (Glycerine 18%) qid
  - Pilocarpine
    - Start with 5mg tid
    - Increase the dose to 10mg qid
      - after 2 days in case of drug-induced xerostomia
      - after 4 weeks in case of radiation-induced xerostomia
    - If there is no response, then stop medication,
      - after 4 days in case of drug-induced xerostomia
      - after 12 weeks in case of radiation-induced xerostomia

Oral candidiasis

- Correct the correctable
- Non-pharmacological measures
  - Maintain good oral hygiene
- Non-pharmacological measures
  - Clotrimazole 0.1% paint for topical application bd - tid for 5 days
  - Nystatin - 5 lakhs units powdered and mixed with glycerine suspension; rinse or gargle 1mL qid and swallow for 7 - 10 days
  - Nystatin lozenges
  - Tab. Fluconazole 50 - 100mg OD for 7 - 10 days

Halitosis

- Correct the correctable
- Non-pharmacological measures
  - Maintain good oral hygiene
  - Dietary modification
  - Smoking cessation
  - Natural products e.g. black tea, herbal preparations e.g. mint preparations
- Pharmacological measures
  - Cosmetic sprays/mouthwashes

Dysgeusia

- Correct the correctable
- Non-pharmacological measures
  - Dietary interventions
    - Use foods that taste "good"
    - Avoid foods that taste "bad"
    - Enhance the taste of the food (flavouring agents e.g. monosodium glutamate, adequate salt and sugar)
    - Focus on the presentation, smell, consistency, and temperature of the food
- Pharmacological measures
  - Tab. Zinc Sulfate 200mg/day divided q12h for 3 months

Coated tongue

- Management of xerostomia
- Brushing of the tongue from front to back
- Pineapple cubes can be helpful; but the acidity of the pineapple could result in increased dental problems
- Effervescent vitamin C tablet could be an alternative to remove the coating
- Mouthwash with baking soda can be helpful

Painful mouth

- Topical agent - topical Doxepin rinse 0.5% q4h can be advised as an analgesic; but do not swallow
- Local anaesthetic like viscous xylocaine – to swish and gargle or swallow (avoid food intake, at least 30 minutes after using xylocaine viscous, to avoid aspiration and injury secondary to hot and cold foods)

- Combination of disprin and local anaesthetic like viscous xylocaine – to swish and gargle or swallow (avoid food intake, at least 30 minutes after using xylocaine viscous, to avoid aspiration and injury secondary to hot and cold foods)
- Systemic agents - ***refer to the Guideline - Pain management***

Dental caries

- Maintenance of good oral hygiene
- Topical application of Sodium fluoride gel 1% or Stannous fluoride gel 0.4% for 5 minutes, later stages, 15 minutes tid

Drooling

- Non-pharmacological measures
  - ➢ Consultation with physiotherapist on positioning of the head and speech therapist on improving swallowing if the drooling is secondary to the inability to retain the saliva secondary to the poor lip or head control
- Pharmacological measures
  - ➢ Tab. Amitriptyline 10 - 25mg PO, hsod
  - ➢ Atropine - 1% ophthalmic solution, 4 drops on the tongue or S/L q4h prn
  - ➢ Glycopyrronium
    - ❖ Administer as solution
    - ❖ Start with 200mcg PO stat and q8h
    - ❖ Increase dose every 3 days to 1mg q8h

REFERENCES

Angular Cheilitis Help – Learn how to Diagnose, Treat and Cure Angular Cheilitis. Retrieved online from http://www.angularcheilitishelp.org/angular-cheilitis-causes.php on 24 February 2019

Angular Cheilitis Treatment. Retrieved online from http://www.angularcheilitishelp.org/angular-cheilitis-treatment.php on 24 February 2019

Davies, A.N. (2015). Oral Care. Oxford Textbook of Palliative Medicine (pp. 447-456)

Dion, D., Lapointe, B., Tyler, M.T. (2012). Mouth Care. Palliative Medicine – A Case-Based Manual (pp. 124-135)

Hegde, S., Deverashetty, A., Pai, A. Palliative oral care: A life prolonging therapy. *Asian Pacific Journal of Health Sciences.* (2016); 3(3): 68-71

Regnard, C., Allport, S., Stephenson, L. ABC of palliative care - Mouth care, skin care, and lymphoedema. *British Medical Journal*. (1997); 315: 1002-1005

Riley, E. The importance of oral health in palliative care patients. *Journal of Clinical Nursing*. (2018); 32(3): 57-61

Supportive and palliative care in dentistry and oral medicine. Retrieved online from https://www.researchgate.net/publication/305368661_Supportive_and_palliative_care_in_dentistry_and_oral_medicine on 23 January 2019.

Twycross, R., Wilcock, A., Howard, P. (2014). Ear, nose and oropharynx. Palliative Care Formulary 5. (pp. 742-754)