

Title :- Protocol – Oral Hygiene Adult Critical Care

Ownership	Practice Development Adult Critical Care
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Summary

This protocol is intended to support and inform practitioners performing oral hygiene within the Adult Critical Care.

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1.0 Aim

All patients will have their mouth care needs assessed and documented by a trained and competent practitioner within 12hrs of admission and then 12hrly(minimum) using the attached assessment tool.

2.0 Objectives

To provide patients with robust evidence based care,
 To provide practitioner with graded evidenced based procedures of care
 To enable care to be audited in a meaningful manner

3.0 Scope

- Applies to **all** patients whose normal mouth function is impaired. E.g. through intubation, oral surgery, NBM status, regardless of race/ethnic group, disability, age, gender, sexual orientation or religion.
- Applicable to registered practitioners, student nurses and health care assistants who have the appropriate skills, knowledge and competency to carry out this procedure.
- Provides evidence based procedures to ensure patients receive best and auditable care.

4.0 Standards

- All patients admitted to the Adult Critical Care Units and the High Dependency Units of the LTH NHS Trust will have their mouth care needs assessed and documented by a trained and competent practitioner within 12hrs of admission and then 12hrly(minimum) using the attached assessment tool.
- Treatment as per each patient's assessment will be delivered in a timely manner. (See Appendix 1)
- Assessment is performed to ensure any changes to the condition of the mouth are recorded and treatment altered accordingly.
- Any medicines given to aid mouth care are to be covered by an appropriate Patient Group Direction (Medicines Code LTH March 2014) or a patient specific prescription.

5.0 Background and indications for protocol Evidence for practices

The provision of oral hygiene care, especially for those unable to assist themselves, has virtually remained the same for many years and is often inappropriate, dangerous and expensive in its application (Peate 1993). Oral hygiene is performed to achieve or maintain patient comfort through ensuring the oral cavity is clean, moist and infection free. The main function of the mouth is to aid speech, mastication and swallowing of diet and fluids. Anything interfering with this will have a detrimental effect on the mouth (Heals 1993) Oral hygiene should be done in combination with the provision of adequate hydration and nutrition to ensure adequate saliva and healthy oral tissue. (Rugg-Gunn 1993).

The risk of developing oral health problems increase with the introduction of certain drugs and treatments that the patient receives whilst in hospital. Adams (1996) discusses how medications alter the pH of the oral cavity. Steroids, antibiotics, antispasmodics all alter pH and thus increase susceptibility to infection. Reduced jaw activity means reduced saliva production, again increasing the patient's risk factors. Delivery of oxygen and mouth breathing both contribute to increased risk for patients in critical care as they dry the oral mucosa. Intubated/ventilated patients are at particular risk of Ventilator Associated Pneumonia (VAP) which is defined as a pneumonia that develops 48 hours or more after intubation and which was not present before intubation. NICE (2010). Patients who develop VAP are at an increased risk of complications and therefore higher healthcare costs. (Muscedere et al 2008). Clarke (1993) lists various factors: - diabetes, suppressed immunity, renal disorders, anaemia, unconsciousness, being ventilated and receiving oral suction all increase the patient's risk of developing problems. Any type of trauma also adds to the risks, Crosby in 1989 discusses oral trauma caused by toothbrushes, pressure sores from ET tapes and chemical misuse. Antibacterial mouthwash e.g. Chlorhexidine,

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can cause dryness, burning and damage to the mucosa when diluted incorrectly and when overused result in colonization of Chlorhexidine-resistant pathogens. (Steifal 2000, McNeill 2000). However used correctly oral antiseptics such as Chlorhexidine will reduce oro-pharyngeal colonisation and VAP. (Chlebicki et al 2007), Periodontal disease creates pockets which allows debris to collect, increases gum friability and reduces saliva production. The absence of saliva production and movement in the intubated/unconscious patient after three days can lead to plaque, gingivitis, stomatitis, xerostomia and mucositis. (Fitch et al 1999, Kollef 1999). Mouth care includes offering drinks, mouthwash, moistening the mouth with moistened swabs (H₂O) and cleaning the teeth and tongue. Frequent oral care in intubated patients i.e. brushing 12hrly and oral moistening at least 2hrly appears to be the most effective care in preventing problems and maintaining good mouth condition. (Jones 1998, Buglass 1995). Adams (1996) suggests that the safest agent to use for moistening is water. It is the same pH as the mouth.

Certain conditions cannot be improved by use of these protocols and assistance ought to be sought from associated colleagues such as Dentists/ Dental Hygienist or Oral/ Maxo-facial surgeons.

6.0 Protocol**Assessment of oral cavity, of risk factors and care needs.**

Assessing the oral cavity is the key to identifying problems and determining the appropriate method of care. Five key questions should be asked.

Is the mouth dirty?

Is the mouth dry?

Are signs of infection present?

Is the mouth painful? (Regnard et al 1997)

Is the patient intubated or has a tracheostomy?

Various assessment tools have been advocated but a tool by Day 1993 (Adapted Halstead Tool) includes assessment of the oral condition, assessment of risk factors and suggests frequency of care. The tool has five categories; each is scored 1-4 with 1 being abnormal and 4 normal. Risk factors mean deduction of points. The lower the score, the higher the risk that the patient has or is at risk of developing oral hygiene needs.

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Adapted Halstead Assessment Tool. (Day 1993)

Using the tool score the patients current oral condition .The lower the score the higher risk for the patient. Circle each applicable description.

Patient s age	Teeth	Mouth	Nutritional status	Ability to maintain normal oral care
16 – 29	Own full set of healthy teeth	Healthy, pink, clean	Well balanced diet 2 - 3 litre fluid per 24 hr.	Independent & access facilities for oral care
4	4	4	4	4
30 - 49	Ill - fitting dentures	Deposits visible in mouth	Poor appetite - supplements/ IV fluids required	Bed/chair bound unable to gain access to facilities
3	3	3	3	3
50 -69	Incomplete dentition	Inflamed lesions in mouth.	Total fluid intake <1ltr/24hrs On Enteral feed	As for above but needs assistance with oral care
2	2	2	2	2
70+	Incomplete loose dentition &/or broken discoloured teeth	Infected mouth	Unable to tolerate oral fluids +/- no feeding in situ	Totally dependent (sedated or reduced GCS)
1	1	1	1	1

Score Achieved =

Subtract 1 point for each of the following (Circle if applicable) :-

Antibiotics, Dyspnoea O2 therapy Dry Mouth Immunosupressed

Subtract a further 2 points if patient is intubated (ET or Trachy)

Final Score =

risk **A score of below 15 indicated a patient at**

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Score	Care recommendation
20	Patients own discretion
15 - 19	4-6hrly care
9 - 14	2-4hrly care
2 - 9	1 -2hrly care

Procedural process for delivery of care

This procedure is aimed at all patients whom cannot perform oral hygiene care themselves.

Equipment

Non-sterile gloves, apron, toothbrush, toothpaste, water, foam swabs, towels, bowl, suction, denture pot and denture-paste.

Action	Rationale
Assess mouth condition using adapted Halstead score and inform patient of procedures	Ensures care is timely, appropriate and suited to the patients needs.
Wash hands and wear disposable gloves and apron in accordance with LTHT Infection Control Policies and Guidelines.(2009)	Prevents hospital acquired infection and transmission of infection.
Prior to commencing mouth care suction any secretions using suction yankeur	To clear mouth of dirty secretions prior to procedure
When dentures are not in use, brush gums with a small soft bristles toothbrush	Using a toothbrush helps maintain a healthy mucosa. (Xavier 2000, Steifal 2000).
Using a disposable soft bristled, small headed toothbrush and toothpaste, brush patient's teeth at a 45 degree angle to the gum line with short strokes.	Use of a small headed toothbrush enables the nurse to reach areas of teeth at the back of the mouth. The soft bristles prevent excoriation and bleeding of gums. (McNeil 2000, Xavier 2000). Using a 45 degree method with short strokes dislodges and removes plaque from the gum line. (Kite & Pearson 1995), Toothpaste is not essential for plaque removal but makes brushing more pleasant for the patients. (Roth and Creason 1986)

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<p>After brushing the teeth, remove surplus toothpaste with water soaked swabs and yankeur sucker.</p>	<p>Removing surplus toothpaste from the mouth helps prevent the drying action of toothpaste on the tissues. Steifal (2000), Jones (1998).</p>
<p>Use water soaked foam swabs to add moisture to the mouth in between brushing of teeth</p>	<p>Foam swabs alone are ineffective at removing dental plaque. But are useful when used for moistening Steifal (2000), Fitch et al (1999).</p>
<p>If patient is intubated or has a tracheostomy apply prescribed Chlorhexidine 1% gel as part of their daily mouth care. 4 times a day apply 1cm of gel to inside of each cheek, using either a pink swab or toothbrush, or if the patient is compliant a gloved finger. Mouth care should not be done for at least 2 hours after application of gel. Exclusions: oro-pharyngeal surgery, known hypersensitivity to Chlorhexidine (rare), Patient receiving terminal care</p>	<p>Tubes of Chlorhexidine 1% gel are for single patient use and must not be shared with other patients. (NICE 2010)</p>
<p>Apply lipsalve or Vaseline. Artificial saliva can be used with no detrimental effects.</p>	<p>Helps to prevent dryness and cracking of lips. Fitch et al (1999), Thurgood (1994).</p>
<p>Dispose of used and unused swabs, toothbrush and water.</p>	<p>Prevent risk of contamination.</p>
<p>Clean any dentures with toothbrush and place in a container of water. Only use specialist toothpaste as fluoride ones are too abrasive</p>	<p>Dentures need to be kept in water to prevent them cracking or warping when dry (Xavier 2000)</p>
<p>Wash hands and discard used or excess equipment.</p>	<p>Complies with LTH Infection Prevention and Control and Waste Management procedures.</p>
<p>Document all care given Evaluate care given either single episode or over a shift – (Min 12hrly)</p>	<p>Ensure others understand care patient has received and response to care. Complies with Trust and National documentation requirements.</p>

If signs of infections are present, see additional conditions above for advice and consult with medical colleagues.

7 Provenance

Original document based on:
 Sarah Robinson ICU Scarborough General Hospital. Northern Region Benchmarking Group.
 Debbie Nicholson ICU West Cumberland Hospital.
 Cardiac ICU LTH. Christina Johns CITU LGI.

8 Consensus group

Senior Nursing staff (Adult general ICU, Cardiac ICU, Neuro ICU Adult SHDU's)
 Clinical Nursing staff (Adult general ICU, Cardiac ICU, Neuro ICU, Adult SHDU's)
 Infection Control Nurse
 Clinical Directors.
 Critical Care Outreach

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Evidence level: C

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10 Audit

Mouth care is audited as part of the Saving Lives Care Bundle

Equity and Diversity

Leeds Teaching Hospitals NHS Trust believes in fairness, equity and above all values diversity in all dealings, both as providers of health services and employers of people. The Trust is committed to eliminating discrimination on the basis of gender, age, disability, race, religion, sexuality or social class. We aim to provide accessible services, delivered in a way that respects the needs of each individual and does not exclude anyone. By demonstrating these beliefs the Trust aims to ensure that it develops a healthcare workforce that is diverse, non discriminatory and appropriate to deliver modern healthcare.

APPENDIX 1 TREATMENT ADVICE CHART FOR ORAL CARE

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CONDITION	ACTION
1. Healthy mouth	12hrly brush teeth/gums and/or overnight soaking of dentures in dentural once or twice weekly. If patient is intubated or has a tracheostomy apply prescribed Chlorhexidine 1% gel 4 x day.
2. Dry mouth and/or lips.	Apply lipsalve. Provide drinks, mouthwash and water soaked mouth substitute or Glandosane spray prn. swabs. Use of prescribed Orthana saliva
3. Viral Herpes Simplex.	Prescribed Aciclovir 5% cream. Apply topical to site of infection 5x daily for 5 days. See LTHT microbiology site.
4. Mouth ulcers.	Adcortyl in orabase. Triamcinolone Acetonide 0.1% in Adhesive base. Apply a thin layer 2-4 x daily. Do not rub in. Dose limited to 5 days.
5. Coated tongue.	Brush tongue with toothbrush, if able suck pineapple chunks in natural juice or effervescent ascorbic acid 250mg placed on tongue.
6. Painful mouth.	Topical analgesia, Benzydamine (Difflam) 0.15% Mouthwash or spray 15mls (diluted with water if stinging occurs) every 1½ – 3hrs as required for up to 7 days. Spray- 4-8 sprays on affected area every 1½ to 3 hours.
7. Severe Stomatitis.	As above. Prescribed Chlorhexidine mouthwash 0.2% 10mls bd for 1 minute. Clean & soak dentures for 15mins in made solution.
8. Candida (with or without white patches or coating)	If suspected, obtain swab to confirm candida infection If confirmed from microbiology get prescribed oral Nystatin Suspension 10,000u/1ml. Rinse 1ml QDS then Swallow. 6hrly use for 7 days. Continue 48hrs after lesions have healed. Candida reported - consider further treatment with oral Fluconazole 50mg daily 7-14 days.
9. Halitosis (Bad breath).	Regular mouth care. Teeth brushing, mouth swabs. Determine cause and treat accordingly.
10. Angular Cheilitis. (Sore corners of mouth). Maybe caused by Candida.	Keep area dry. Apply soft paraffin. Change position of ET tube tapes. Change tapes if wet. Send swab to Microbiology, if Candida positive treat as above.
11. Gingival & Peridental disease (Gum & tissue)	Brush teeth & gums twice daily. (Gums will bleed). Prescribed Chlorhexidine mouthwash 0.2% 10mls bd for 1 minute (do not swallow). Removal of plaque & calculus by scaling (dentist only).

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