

THE NETHERSOLE NURSING PRACTICE AND RESEARCH UNIT

EVIDENCE-BASED ORAL CARE INTERVENTION PROTOCOL

Standard statement

Patient's oral health is maintained.

Structure standard

The care team for providing oral care include

1. Nurse:
 - Conducting oral assessment and implementing the oral care protocol.
 - Maintaining effective communication with medical officer to optimize the oral care.
2. Medical officer
 - Assessing and prescribing treatment for complicated oral condition.
 - Making referral to dentist for complicated oral problems.
3. Dentist
 - Assessing and prescribing treatment for complicated oral condition.

Equipments for oral care interventions

1. Wooden spatula and pen torch
2. Disposal Glove
3. Soft and small head toothbrush or electric toothbrush
4. Plain gauze on artery forceps 5.5
5. Cotton drum sticks
6. Fluoride toothpaste
7. Oral risen agent: 0.9% normal saline / 0.2% Chlorhexidine
8. 65% glycerine or lip balm
9. Hand towel or paper hand towel

Process standard

Assessment

On admission, a comprehensive oral assessment is taken to assess current oral health status, risk factor for poor oral health, usual oral hygiene practice, and self-care ability regarding oral care.

The results of oral assessment is used to guide the decision making on choice of oral rinsing agent and toothbrush, frequency of oral care, oral care interventions.

Specific guidelines for assessing current oral health:

1. The mouth is examined using a pen torch and if necessary a wooden spatula.
2. Complete and partial dentures are removed during the examination.
3. The oral assessment is done using the Oral Health Assessment Tool. The assessment should cover the lip, gums and oral mucosa, oral dryness and

cleanliness, natural teeth, and complaints of dental pain. The dentures should be examined for fitness and any damage.

4. Evidence of complicated oral conditions, including ulcerated tongue, bleeding gum, oral ulcer, broken teeth/ exposed roots/ tooth pain/ tooth decay, denture stomatitis and pain, angular cheilitis or acute oral thrush is reported to the medical officer in-charge to consider for treatment or dental referral.
5. Oral assessment is conducted once a week days during hospitalization.

Implementation

Time schedule

Oral care is provided at least two times a day, in morning grooming and before the bedtime.

Level of assistance

According to the self-care ability, four level of assistance is provided as follows:

Functional status	Level of assistance
ADL independent, good oral care techniques	Complete self-care with reminding
ADL independent, fair oral care techniques	Complete self-care with supervision
Partial ADL dependent	Assist oral care
Total ADL independent and unconscious	Perform oral care for the patients.

Venue for oral care:

Oral care is provided in the bathroom for ambulatory patients or patients who are clinically fit for transfer to bathroom. Otherwise, oral care is provided at bedside.

Oral rising agent:

According to the oral health, either 0.9% normal saline or 0.2% Chlorohexidine is used as oral rising agent. Thymol gargle will be used according to doctor's prescription.

Oral rising agent	Indications
0.9% normal saline	Normal oral condition; Ulcerated oral tissue.
0.2%Chlorohexidine	Patients cannot rinse and spit out oral rinsing agent (e.g. uncooperative/ unconscious patients), Patchy and coated tongue; Dental caries; exposed dental root, plaque, hardened crust, excessive nasal and oral secretion.

Oral care interventions for unconscious / uncooperative patients (Refer **Appendix 1** for procedural guideline):

1. Any removable denture should be taken out.
2. For unconscious patients, arrange lateral decubitus position at bedside. Conducted the procedure for patients, who cannot be transferred to bathroom, at bedside in a prop up position.
3. Use electric toothbrush and small amount of toothpaste for toothbrushing.
4. Clean all mucosa (cheeks, palate, tongue, lips and gums) with gauze swab stick soaked with appropriate oral rinsing agent.
5. For any oral dryness, moist oral mucosa with 0.9% normal saline after cleansing and whenever necessary.
6. Clean any removable denture under water. For unconscious patients, return the denture to relatives or keep it dry in a labelled container in the patient's bedside locker. For uncooperative patients, the denture should be thoroughly rinsed and immersed in a labelled container of water, and keep in patient's bedside locker.
7. Coat lips with 65% glycerine or lip balm.

Oral care interventions for conscious / cooperative patients:

1. Any removable denture should be taken out.
2. Conduct the procedure for patients, who cannot be transferred to bathroom, at bedside in a prop up position.
3. Brush all teeth surface with soft toothbrush and fluoridated toothpaste. Gently brush gum and tongue to remove debris.
4. Rinse oral mucosa for 1 minute with appropriate oral rinsing agent.
5. Coat lips with 65% glycerine or lip balm.
6. Clean the removable denture with the patient's toothbrush under running water. Use toothpaste according to patients' preference.
7. All removable dentures must be taken out at bedtime. It should be thoroughly rinsed and immersed in a labelled container of water, and keep in patient's bedside locker.
8. For any denture-related oral lesion, denture should be removed until lesion is healed.
9. For any oral dryness, provide patients with the following advice:
 - i. Increased fluid intake. If contra-indicated, encourage frequent sips of water.
 - ii. Advice to take sugar-free chew or sweets for topical stimulation.
10. Consult doctor for oral saliva substitute if oral dryness is severe and persistent.

[**Appendix 2** outlines strategies to cope with behaviour/ communication/ dementia problems.]

Outcome standard

Patients' oral hygiene is maintained or restored.

Patients are able to perform appropriate oral care with their independence being optimised.

Patients are satisfied with the oral care given.

Prepared by:

- Prof. Doris Yu, Assistant Professor, The Nethersole School of Nursing, CUHK
- Ms. Ada Lau, Nurse Specialist, Department of Medicine and Geriatrics, UCH
- Prof. Athena Hong, Assistant Professor, The Nethersole School of Nursing, CUHK

July, 2007

© The Nethersole Nursing Practice Research Unit
The Nethersole School of Nursing, CUHK

Procedural guideline on oral care for the totally dependent patients

Basic equipments:

- Electric toothbrush x1 (for unconscious/ un-cooperative patient) or soft, small head toothbrush.
- Lotion for mouth rinsing (~50ml): 0.9% normal saline / 0.2% Chlorhexidine
- A glass of drinking water
- Gauze swab sticks (Plain gauze on artery forceps 5.5)
- Cotton drum sticks x 3
- 65% glycerine or lip balm
- Hand towel or paper hand towel

Oral care procedures:

Action	Rationale
<ul style="list-style-type: none"> • Explain the aim and the oral care procedure to patient and show out the toothbrush. 	<ul style="list-style-type: none"> • Orientate the patient to reduce anxiety. • Gain co-operation.
<ul style="list-style-type: none"> • Arrange lateral decubitus or prop up position. 	<ul style="list-style-type: none"> • Prevent aspiration.
<ul style="list-style-type: none"> • Wear glove and appropriate PPE according to infection control guideline. 	<ul style="list-style-type: none"> • Prevent cross infection.
<ul style="list-style-type: none"> • Wet toothbrush with drinking water and put on a thin layer of toothpaste. 	<ul style="list-style-type: none"> • Toothpaste is an effective tooth cleansing agent. • Induce olfactory stimuli to orientate patient to the tooth brushing procedure.
<ul style="list-style-type: none"> • Invite co-operative patient to open mouth, or open patient's mouth by gently pulling down the lower lip/ jaw. 	<ul style="list-style-type: none"> • Facilitate insertion of toothbrush and prevent injury to gums and mucosa.
<ul style="list-style-type: none"> • Remove removable dentures. • 	<ul style="list-style-type: none"> • Prevent aspiration.
<ul style="list-style-type: none"> • Assess for any loose teeth. 	<ul style="list-style-type: none"> • Prevent aspiration of loosen teeth and arrange early dental treatment.
<ul style="list-style-type: none"> • Insert the toothbrush by sliding down along incisor towards molar via angular of mouth gently. Start brushing from molars to incisors (from inside to outside) by placing the electric toothbrush. Rinse the toothbrush in drinking water PRN and upon completion. Repeat the procedure to the other side of oral cavity • Toothbrushing techniques: ~ Hold the manual toothbrush at 	<ul style="list-style-type: none"> • Effective for removal of plaque.

<p>45° to the gum and move the toothbrush to the teeth edge. Brush the chewing surface with horizontal move.</p> <p>~ Electric: place the electric toothbrush on each gum and tooth surface for brushing for a few seconds.</p> <ul style="list-style-type: none"> • Suction machine standby for patient who is not fully conscious or with swallowing problem. 	<ul style="list-style-type: none"> • Prevent aspiration
<ul style="list-style-type: none"> • Remove all residual tooth paste, debris and saliva in the oral cavity with dry gauze swab stick 	
<ul style="list-style-type: none"> • Clean and swab the oral cavity (gum and mucosa) with appropriate rinsing lotion and gauze swab stick. 	<p>Remove debris, bacteria, and encourage tissue perfusion.</p>
<ul style="list-style-type: none"> • Apply 65% glycerine to the lips and oral mucosa with cotton drum stick. • Use lip balm if available for lip care. 	<p>Keep lip and mucosa moist.</p>
<p>Denture care</p> <ul style="list-style-type: none"> • For unconscious and drowsy patient, clean the denture by toothbrush and then keep it in a labelled box or return to patient's carer. • For conscious patient, clean by toothbrush PRN. Reassemble the denture to gums or keep the dentures in a labelled box. Keep the box in patient's bedside locker. 	
<p>After care of the toothbrush:</p> <ul style="list-style-type: none"> • Clean the toothbrush in running water. Dry it by paper hand towel, recap the brush if any. Keep it in bedside locker. 	
<ul style="list-style-type: none"> • Arrange patient in comfortable position. 	

Common behaviour/ communication problems encountered during oral care:

1. Patient do not open the mouth
2. Patient refuse oral hygiene care
3. Patient bites toothbrush
4. Patient's head faces down toward chest
5. Patient's head mover around constantly

Common techniques used to cope with behavioural/ communication problem

Technique	Description
Rescuing	A second nurse enters a situation and tells the first nurse to leave so that he or she can 'help' the resident.
Task breakdown	The activity is broken down into short steps that are slowly repeated and demonstrated.
Distraction	Holding items, touching gently and talking are used to distract the patients from a distressing situation.
Bridging	Improving sensory connection and task focus by having the patients hold the same object as the nurse while the caregiver carries out an activity.
Hand-over-hand	The nurse's hand is placed over the patient's hand to guide him or her through the activity.
Chaining	The caregiver starts the activity and the resident completes it.

NB: As the effects of these strategies may depend on the situation of individual patients, nurses are advised to document the successful strategy for individual patient in the progress sheet.

Strategies and actions for each specific problem**Problem 1: Patient does not open the mouth**

Strategy:

- Assess ways to get oral hygiene care completed.
- Break peri-oral muscle spasms and gain access
- Keep the mouth open during oral hygiene care

Action required:

- Explain the procedure to the patients.
- Show the patient the toothbrush.
- Apply toothpaste on the toothbrush to trigger olfactory stimuli and let them aware of the toothbrushing procedure.

- Use techniques such as rescuing and distraction.
- Try oral hygiene care at another time of day when patient is more cooperative.
- List successful strategies in the patient's progress notes.

Problem 2: Patient refuses oral hygiene care

Strategy:

- Assess ways to get oral hygiene care completed.
- Assess the cause for the refusal of oral hygiene care – environmental, pain, fear.

Action required:

- Enlist the assistance of another caregiver.
- Use task-breakdown to break all the steps of the oral hygiene care task down into small steps.
- Use other techniques such as rescuing, distraction, etc.
- Try oral hygiene care at another time of day when patient is more cooperative or in a different environment that is more suitable.
- List successful strategies in the patient's progress notes.

Problem 3: Patients bites toothbrush

Strategy:

- Assess ways to get oral hygiene care completed.
- Assess if the biting is of an aggressive origin or is a consequence of tardive dyskinesia or other movement disorder.

Action required:

- Enlist the assistance of another caregiver.
- Use other techniques such as rescuing and distraction.
- Have another toothbrush at hand during oral hygiene care and let the patient chew on one brush while the caregiver cleans with another.
- Consult with medical and dental professionals concerning tardive dyskinesia or other movement disorder.
- List successful strategies in the patient's progress notes.

Problem 4: Patient's head faces down toward chest

Strategy:

- Assess ways to get oral hygiene care completed.

Action required:

- Enlist the assistance of another caregiver.
- Do oral hygiene care as best as is possible from different positions.

- Investigate the success of the use of different dental products such as toothbrushing, mouthrinses, spray bottles, suction toothbrushes, etc.
- Use other techniques such as rescuing, distraction, etc.
- List successful strategies in the patient's progress notes.

Problem 5: Patient's head moves around constantly

Strategy:

- Assess ways to get oral hygiene care completed.

Action required:

- Enlist the assistance of another caregiver.
- Use other techniques such as rescuing, distraction, etc.
- Do oral hygiene care as best as is possible from different positions.
- If required, discuss holding the patient's head gently during oral hygiene care with them by an assistant.
- List successful strategies in the patient's progress notes.