MOH NURSING CLINICAL PRACTICE GUIDELINES 1/2004

Nursing Management of Oral Hygiene

Ministry of Health
NMRC National Medical Research Council
SingHealth
National Healthcare Group
Singapore Private Hospitals Nursing Administrators Group
NYP Nanyang Polytechnic
ITE Institute of Technical Education
Singapore Nurses Association
Clinical Trials & Epidemiology Research Unit

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STATEMENT OF INTENT

This set of guidelines aims to guide healthcare workers who are involved in caring for patients who require assistance in maintaining oral hygiene.

The recommendations are based on the available research findings and existing evidence-based guidelines. However, there are some aspects in which there is insufficient published research and, therefore, consensus of experts in the field has been used to provide guidelines specific to conventional practice.

Every healthcare worker must exercise clinical judgement in the nursing management of oral hygiene for patients who need assistance. It is recommended that the guidelines are used with consideration for the individual patient's oral health status, overall treatment goal, resource availability, institutional policies and other care options available.

FOREWORD

Oral hygiene has significant impact on patients' general well-being and their quality of life. Patients need adequate oral care to eat and talk comfortably, feel happy with their appearance, maintain self-esteem and normal standards of hygiene. However, the circumstances surrounding hospitalisation and ill-health can lead to neglect of oral hygiene.

Care of the mouth is one of the most basic nursing activities. It is an important aspect of care that needs to be carried out consistently. Nurses play a vital role in providing effective oral care and promoting oral hygiene. To draw attention to this area of need, we are pleased to present the guidelines on 'Nursing Management of Oral Hygiene'. This set of evidence-based guidelines serves to guide healthcare providers in caring for patients who require assistance with oral hygiene. I would like to encourage you to make good use of it and incorporate it into your nursing practice.

PROFESSOR K SATKU
DIRECTOR OF MEDICAL SERVICES

CONTENTS

1 SUMMARY OF RECOMMENDATIONS

Assessment

Use Oral Assessment Guide (OAG) [Annex 1] on patients identified as requiring assistance with oral hygiene during routine assessment. C/2^{++}

The following eight categories should be assessed daily using the three ratings: B/2^{++}

1 = Normal findings.
2 = Mild abnormality without compromise of either mucosal integrity or loss of function.
3 = Severe abnormality with compromise of either mucosal integrity or loss of function.

i. Voice

Communicate with patient and listen whether
1 the voice is normal; or
2 the voice is deep / raspy (hoarse); or
3 patient has difficulty talking or experienced pain

ii. Swallow Reflex

Ask patient to swallow and observe whether
1 the swallowing is normal; or
2 patient experiences some pain on swallowing; or
3 patient is unable to swallow

iii. Lips

Observe lips and assess whether they are
1 smooth, pink, moist; or
2 dry or cracked; or
3 ulcerated or bleeding

iv. Tongue

Observe the tongue and assess whether it is

1 pink, moist, and papillae present; or
2 coated or there is loss of papillae with a shiny appearance, with or without redness; or
3 blistered or cracked

v. Saliva

Insert a spatula into mouth, touching the centre of the tongue and the floor of the mouth and observe whether

1 the saliva is watery; or
2 the saliva is thick; or
3 there is absence of saliva

vi. Mucous Membrane

Observe the mucous membrane in the oral cavity and determine if it is

1 pink and moist; or
2 reddened or coated (increased whiteness) without ulceration; or
3 ulcerated with or without bleeding

vii. Gingiva (Gums)

Gently press the gums with end of spatula and observe whether

1 they are pink and stippled and firm; or
2 they are oedematous with or without redness; or
3 there is spontaneous bleeding or bleeding with pressure

viii. Teeth or Denture Bearing Area

Observe the appearance of the teeth or denture bearing area and determine whether

1 they are clean with no debris; or
2 there are plaque or debris in localized area (between teeth if present); or
3 there are plaque or debris generalized along gum line or denture bearing area

Nursing interventions should be based on the rating for each category D/4

Rating	Description	Nursing Interventions
1	Normal findings	Continue with routine oral care No treatment
2	Mild abnormality	Continue with routine oral care Close monitoring Inform primary doctor
3	Severe abnormality	Perform oral care with caution Inform primary doctor Perform treatment as ordered

Institutions should establish the frequency of performing oral assessment for patients that is sensitive and specific to their clinical settings. D/4

Oral Cleansing Methods

- *Toothbrushes*
  Toothbrushing should be the first line of oral cleansing method unless the patient is prone to bleeding, pain or aspiration. C/2^{++}

  Brush teeth at least twice a day, preferably soon after awakening in the morning and before going to bed. D/4

  Use soft-bristled, small-ended toothbrush. D/4

- *Foam Swabs*
  Use foam swabs/ brushes with chlorhexidine or toothpaste when toothbrushing is not advisable. For example, in the elderly or patients with bleeding tendency. D/4

  Do not use foam swabs for longer than necessary. B/2^{++}

- *Mouth Square*
  Do not use mouth square/ cotton square/ gauze. D/4

Oral Cleansing Agents

Brush teeth with fluoride toothpaste twice daily for the prevention and control of dental caries.	A/1+
Avoid glycerine-based oral cleansing agents.	D/4
Do not use glycerine-based products containing lemon.	D/4
Use appropriately diluted (according to manufacturer's instruction) sodium bicarbonate for dissolving viscous mucous.	D/4
Hydrogen peroxide should be used only upon the advice or prescription of the physician or dentist. It is not recommended for daily routine use.	A/1+
Use chlorhexidine mouthwash twice daily as prescribed to complement oral care procedures.	B/1+
Use normal saline mouthwash for patients with oral lesions.	D/4

Frequency of Oral Hygiene

The frequency of oral hygiene should be determined by patient comfort and the status of the oral cavity. It should be performed at least twice a day.	D/4

Denture Care

Clean dentures with a denture brush/ toothbrush and soap/ toothpaste at least once daily. Chemical denture-cleansing agents can be used in addition to cleaning with soap and water. Rinse off the cleansing agent before use.	D/4

Soak dentures in clean water or with commercial denture-cleansing agents at night or when not worn. D/4

Clean denture storage container with soap and water or dispose it at least once a week. D/4

Date and label patient's name on all denture storage containers. D/4

Patient Education

The healthcare worker should involve the patient and his caregiver in the oral hygiene programme. D/4

2 INTRODUCTION

2.1 Background

The oral cavity is known to be a reservoir for pathogens to grow and thrive. Poor oral hygiene can lead to complications such as gingivitis, halitosis, xerostomia, plaque formation and dental caries. Recent studies have also associated chest infection and pneumonia with poor oral hygiene (Schleder et al, 2002; Yoneyama et.al, 2002). The literature consistently supports that various diseases/ conditions like diabetes, renal failure, malnutrition and dehydration and being on oxygen therapy, cancer therapy, immunosuppressive drugs, and antibiotic or phenytoin treatment increases an individual's risk of oral complications. Therefore, such patients will require more attention to their oral hygiene.

Care of the mouth is an important nursing procedure and should be performed as part of the routine general hygiene of a patient. Nurses play an important role in providing effective oral care and promoting oral hygiene. However, oral hygiene has often been overlooked by health care workers and performed on an ad hoc basis. In some instances, it has become a ritualistic and banal activity. Sporadic research has generated conflicting advice. Furthermore, it was reported that the delivery of oral care within institutional settings is fragmented (Roberts, 2001).

Oral assessment is an integral part of oral care and should take place on admission. Evidence has suggested that early assessment can reduce both the incidence and severity of oral complications. Once an oral assessment has been carried out, it is important to give appropriate oral care interventions based on individual patient's needs. Ongoing oral assessment should be performed to prevent oral complications and to ensure optimal oral health.

2.2 Definitions

Oral hygiene: The condition or practice of maintaining the tissues and structures of the mouth in healthy state.

Dental caries: A plaque-induced disease caused by the complex interaction of food, especially starches and sugars, with bacteria that form dental plaque.

Debris: The dead, diseased or damaged tissue and any foreign material that is to be removed from a wound or other area being treated.

Gingivitis: A condition in which the gingival margin around the teeth may be red, swollen, and bleeding.

Dental plaque: A biofilm composed of microorganisms that attaches with acquired pellicle (crust) to the teeth and causes dental caries and infections of the gingival tissue.

Halitosis: Offensive breath commonly caused by poor oral hygiene, dental or oral infections.

Xerostomia: Dryness of the mouth caused by reduced saliva secretion.

2.3 Scope of the Guidelines

These clinical practice guidelines are tools for guiding the delivery of nursing care to patients who require assistance in maintaining oral hygiene.

The recommendations presented in this guideline are based on the available evidence. The guidelines aim to:

(a) specify nursing interventions in providing good oral hygiene care.

(b) improve patient oral health quality through on-going oral assessment and early interventions.

These guidelines are intended for healthcare workers who provide care and interventions for adults in healthcare institutions. The recommendations are not applicable for oral care of neonates and children. They are also not appropriate for patients with underlying oral pathologies, post maxillo-oral surgery, and patients with bleeding tendency.

3 DEVELOPMENT OF GUIDELINES

3.1 Training and Guidance

Members of the workgroup attended a two-day workshop conducted by Dr Edwin Chan & Dr Miny Samuel of the Clinical Trials & Epidemiology Research Unit, to learn and discuss the theory and practical issues of developing evidence-based guidelines. The practical training revolved around topic selection and the development of "mock" evidence-based guidelines which developed into these present guidelines.

3.2 Strategy and Literature Review

The workgroup performed the literature search systematically using the key words ‘oral hygiene’, ‘oral health’, ‘oral care’ and ‘oral toilet’ in the following electronic databases: CINAHL, MEDLINE and the Cochrane Library. National Guideline Clearinghouse was searched for related guidelines. A systematic review of literature was carried out on the articles found.

3.3 Evaluation of Evidence and Grading of Recommendations

We have adopted the revised Scottish Intercollegiate Guidelines Network (SIGN) system which gives clear guidance on how to evaluate the design of individual studies and grade each study’s level of evidence (see 3.3.1 and 3.3.2); and how to assign a grade to the recommendation after taking into account external validity, result consistency, local constraints and expert opinion (see 3.3.3). For areas where available evidence was inconsistent or inconclusive, recommendations were made based on the clinical experience and judgement of the workgroup or expert committee reports.

3.3.1 Individual Study Validity Rating

All primary studies and reviews addressing a particular topic were appraised using a SIGN checklist appropriate to the study's design. These were individually rated for internal validity using the system below:

Rating	Description
++	**All or most** of the criteria have been fulfilled. Where they have not been fulfilled the conclusions of the study or review are thought **very unlikely** to alter.
+	**Some** of the criteria have been fulfilled. Those criteria that have not been fulfilled or not adequately described are thought **unlikely** to alter the conclusions.
-	**Few or no** criteria fulfilled. The conclusions of the study are thought **likely or very likely** to alter.

3.3.2 Levels of Evidence

Each study is assigned a level of evidence by combining the design designation and its validity rating using the system below:

Level	Type of Edvidence
1^{++}	High quality meta-analyses, systematic reviews of RCTs, or RCTs with a very low risk of bias.
1^{+}	Well-conducted meta-analyses, systematic reviews, or RCTs with a low risk of bias.
1^{-}	Meta-analyses, systematic reviews, or RCTs with a high risk of bias.
2^{++}	High quality systematic reviews of case-control or cohort or studies. High quality case-control or cohort studies with a very low risk of confounding or bias and a high probability that the relationship is causal.
2^{+}	Well-conducted case-control or cohort studies with a low risk of confounding or bias and a moderate probability that the relationship is causal.
2^{-}	Case-control or cohort studies with a high risk of confounding or bias and a significant risk that the relationship is not causal.
3	Non-analytic studies e.g. case reports, case series.
4	Expert opinion.

3.3.3 Grades of Recommendation

The detailed results of each study and mitigating local circumstances were considered in formulation of each recommendation which was then graded using the system below:

Grade	Recommendation
A	At least one meta-analysis, systematic review, or RCT rated as 1^{++}, and directly applicable to the target population; or A body of evidence, consisting principally of studies rated as 1^{+}, directly applicable to the target population, and demonstrating overall consistency of results.
B	A body of evidence, including studies rated as 2^{++}, directly applicable to the target population, and demonstrating overall consistency of results; or Extrapolated evidence from studies rated as 1^{++} or 1^{+}.
C	A body of evidence including studies rated as 2^{+}, directly applicable to the target population and demonstrating overall consistency or results; or Extrapolated evidence from studies rated as 2^{++}.
D	Evidence level 3 or 4 ; or Extrapolated evidence from studies rated as 2^{+}.

3.3.4 Interpretation of the D/4 grading

The grading system emphasises the quality of the experimental support underpinning each recommendation. The grading D/4 was assigned in cases where

- it would be unreasonable to conduct a RCT because the correct practice is logically obvious;

- recommendations were derived from existing high quality evidence-based guidelines. We alert the user to this special status by appending the initials of their source e.g. (D/4 – Fantl et al 1996).

3.4 Guidelines Review and Revision

Drafts of the guidelines were circulated to healthcare institutions for peer review on validity, reliability and practicality of the recommendations.

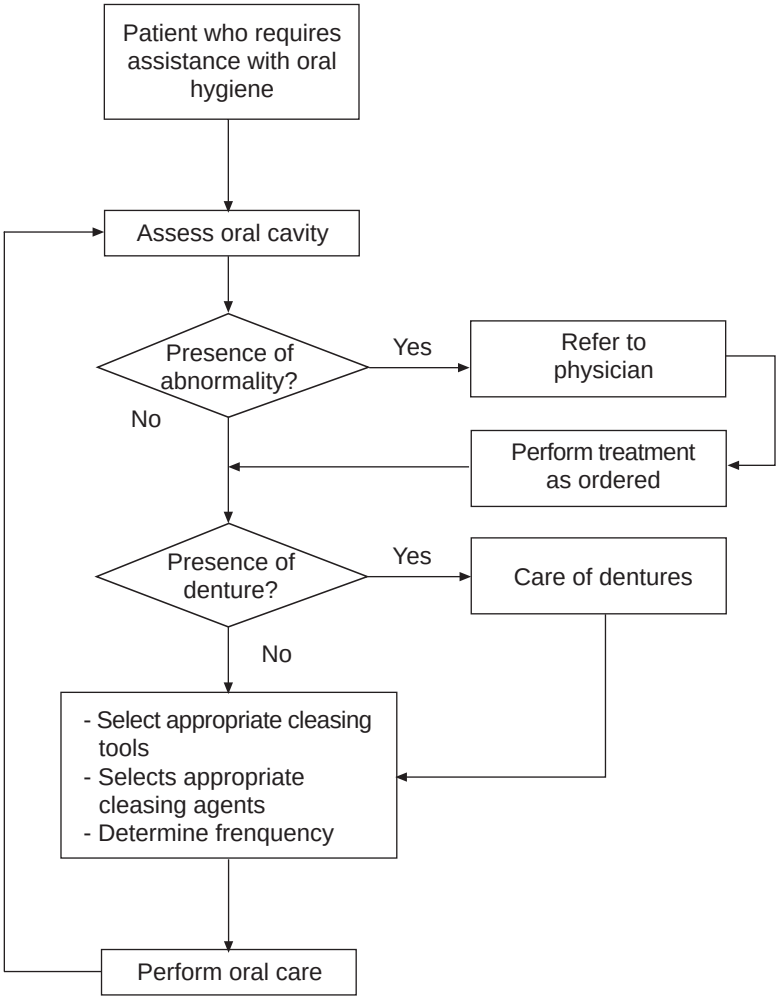
These guidelines will be reviewed and revised periodically to incorporate the latest relevant evidence and expert clinical opinion.

3.5 Limitations

These guidelines offer recommendations that are based on available scientific evidence and professional judgement. They are not intended as the legal standard of care.

Users of these guidelines should determine the appropriate and safe patient care practices based on assessment of the circumstances of the particular patient, their own clinical experiences and their knowledge of the most recent research findings.

4 ALGORITHM FOR THE NURSING MANAGEMENT OF ORAL HYGIENE



5 GUIDELINES AND RECOMMENDATIONS

5.1 Assessment

Guideline 1: Oral Assessment Guide

Use Oral Assessment Guide (OAG) [adapted from Eilers et al (1988), refer to Annex 1] on patients identified as requiring assistance with oral hygiene during routine assessment. ($C/2^{++}$)

Rationale:

- Accurate baseline assessment is required for planning of oral care. (Eilers et al, 1988)

- OAG uses a rating system and offers a reliable and clinically useful tool for obtaining and recording oral cavity status. It has a high inter-rater reliability when administered by nurses knowledgeable in its use. (Eilers et al, 1988)

Guideline 2: Oral Assessment Category

The following eight categories should be assessed daily using the three ratings:

1 = Normal findings.
2 = Mild abnormality without compromise of either mucosal integrity or loss of function.
3 = Severe abnormality with compromise of either mucosal integrity or loss of function. ($B/2^{++}$)

i. Voice

Communicate with patient and listen whether
1 the voice is normal; or
2 the voice is deep / raspy (hoarse); or
3 patient has difficulty talking or experienced pain

ii. Swallow Reflex

Ask patient to swallow and observe whether

1 the swallowing is normal; or
2 patient experiences some pain on swallowing; or
3 patient is unable to swallow

iii. Lips

Observe lips and assess whether they are

1 smooth, pink, moist; or
2 dry or cracked; or
3 ulcerated or bleeding

iv. Tongue

Observe the tongue and assess whether it is

1 pink, moist, and papillae present; or
2 coated or there is loss of papillae with a shiny appearance, with or without redness; or
3 blistered or cracked

v. Saliva

Insert a spatula into mouth, touching the centre of the tongue and the floor of the mouth and observe whether

1 the saliva is watery; or
2 the saliva is thick; or
3 there is absence of saliva

vi. Mucous Membrane

Observe the mucous membrane in the oral cavity and determine if it is

1 pink and moist; or
2 reddened or coated (increased whiteness) without ulceration; or
3 ulcerated with or without bleeding

vii. Gingiva (Gums)

Gently press the gums with end of spatula and observe whether

1 they are pink and stippled and firm; or
2 they are oedematous with or without redness; or
3 there is spontaneous bleeding or bleeding with pressure

viii. Teeth or Denture Bearing Area

Observe the appearance of the teeth or denture bearing area and determine whether

1 they are clean with no debris; or
2 there are plaque or debris in localized area (between teeth if present); or
3 there are plaque or debris generalized along gum line or denture bearing area

Rationale:

- These categories reflect oral health status and are pertinent as a guide for an effective oral assessment. (Eilers et al, 1988)

Guideline 3: Recommended Intervention

Nursing interventions should be based on the rating for each category.

Rating	Description	Nursing Interventions
1	Normal findings	Continue with routine oral care No treatment
2	Mild abnormality	Continue with routine oral care Close monitoring Inform primary doctor
3	Severe abnormality	Perform oral care with caution Inform primary doctor Perform treatment as ordered

(D/4)

Guideline 4

Institutions should establish the frequency of performing oral assessment for patients that is sensitive and specific to their clinical settings. (D/4)

5.2 Oral Cleansing Methods

5.2.1 Toothbrushes

Guideline 1

Toothbrushing

Toothbrushing should be the first line of oral cleansing method unless the patient is prone to bleeding, pain or aspiration. ($C/2^{++}$)

Rationale:

- Toothbrushing is an effective means of reducing plaque and gingivitis. (Pearson et al, 2002)

- Toothbrushing removes more plaque and cleans approximal and crevice sites better than foam swabs. (Pearson et al, 2002)

- It is most economical. (Bowsher et al, 1999; Fiske et al, 2000; Miller & Kearney, 2001)

Guideline 2

Frequency of Toothbrushing

Brush teeth at least twice a day, preferably soon after awakening in the morning and before going to bed. (D/4 – Adair et al, 2001)

Rationale:

- Toothbrushing twice a day is a reasonable social norm that is convenient to most people. (Adair et al, 2001; Darby & Walsh, 1995)

Guideline 3

Use soft-bristled, small-ended toothbrush.
(D/4 - Dykewicz et al, 2000; Madeya, 1996; Miller & Kearney, 2001)

Rationale:

- Soft-bristled, small-ended toothbrush is efficient in plague removal with minimal gingival trauma. (Bowsher et al, 1999; Madeya, 1996)

- It is an effective means for cleaning teeth even when individuals are unable to do so independently. (Miller & Kearney, 2001)

5.2.2 Foam Swabs

Guideline 1

Use foam swabs/brushes with chlorhexidine or toothpaste when toothbrushing is not advisable. For example, in the elderly or patients with bleeding tendency. (D/4 - Griffiths et al, 2000)

Rationale:

- Use of toothbrush in a geriatric person can cause irritation and trauma to sensitive tissues more readily and reduce the effectiveness of oral care. (Dewalt, 1975)

- Patients with reduced platelets count are prone to gingival bleeding during toothbrushing. (Ransier et al, 1995)

- Foam swabs are less abrasive and reduces further trauma to the oral cavity (Dewalt, 1975; Pearson, 1996)

- Foam swabs “massage” the mucosa and increase blood flow, and thus promote saliva production. (Miller & Kearney, 2001)

Guideline 2

Do not use foam swabs for longer than necessary. (B/2^{++})

Rationale:

- Compared to toothbrush, foam brushes/swabs remove less dental debris and plague, especially from “sheltered” areas of the teeth and gingival tissue. Prolonged use might aggravate these dental problems.
  (Dykewickz et al, 2000; Pearson et al, 2002; Ransier et al, 1995)

5.2.3 Mouth Square

Guideline 1

Do not use mouth square/cotton square/gauze. (D/4)

Rationale:

- Cleansing with gauze, even when performed four hourly, exerts only transient effects, and is ineffective in removing debris.
  (Holmes, 1996)

5.3 Oral Cleansing Agents

Guideline 1

Fluoride Toothpaste

Brush teeth with fluoride toothpaste twice daily for the prevention and control of dental caries. (A/1^{+})

Rationale:

- Fluoride is recognised to be the safest and most effective cleansing agent.

- Fluoride reduces the incidence of dental caries and prevents cavities.
  (Adair et al, 2001)

Guideline 2

Glycerine-Based Products

Avoid glycerine-based oral cleansing agents. (D/4 - Bruner et al, 1998)

Rationale:

- Glycerine is a trihydric alcohol that absorbs water, dries and irritates exposed tissue. (Crosby, 1989; Warner, 1986)

- Glycerine is acidic solution, with a pH of 2.6 to 3.9. It decalcifies the teeth chemically, has no cleansing action and reduces salivary amylase level. The lower pH of the mouth will facilitate opportunities for bacterial or fungal infection. (Warner, 1986)

Guideline 3

Glycerine-Based Products With Lemon

Do not use glycerine-based products containing lemon. (D/4)

Rationale:

- Glycerine-lemon combination acts to dry the mouth and results in reflex exhaustion, i.e. lemon juice stimulates saliva production and glycerine absorbs water. This can also irritate broken mucosa. Therefore, glycerine with lemon is not appropriate for mouth care. (Warner, 1986)

Guideline 4

Sodium Bicarbonate

Use appropriately diluted (according to manufacturer's instruction) sodium bicarbonate for dissolving viscous mucous. (D/4)

Rationale:

- Sodium bicarbonate dissolves viscous mucous chemically and removes debris. (Beck & Yasko, 1993)

- Incorrect dilution of sodium bicarbonate can cause superficial burns of the mucosa. (Kite & Pearson, 1995)

- Incorrect dilution of sodium bicarbonate can alter the pH of the oral cavity to become more alkaline which causes bacteria to multiply. (Miller & Kearney, 2001)

Guideline 5

Hydrogen Peroxide

Hydrogen peroxide should be used only upon the advice or prescription of the physician or dentist. It is not recommended for daily routine use. ($A/1^+$)

Rationale:

- Hydrogen peroxide chemically destroys bacteria and mechanically cleanses wound surfaces. When hydrogen peroxide comes in contact with blood, pus, serum, wound exudates, bacteria or other debris, oxygen is liberated. Oxygen released causes froth and bubbles to be formed, thereby loosening degenerated tissues and removes abnormal tongue coating and debris.

- However, hydrogen peroxide impinges on the normal microflora of the mouth and this promotes fungal overgrowth.

- Hydrogen peroxide should not be used when the patient has any fresh granulation surfaces in the mouth, as it tends to break down the new tissues. (Fischman et al, 1992; Passos et al, 1966)

Guideline 6

Chlorhexidine Mouthwash

Use chlorhexidine mouthwash twice daily as prescribed to complement oral care procedures. ($B/1^+$)

Rationale:

- Chlorhexidine has broad-spectrum antibacterial and antifungal activity. It has both preventive and therapeutic roles in preventing plaque formation and the development of gingivitis. It also has anti-caries properties. (Weitz et al, 1992)

- Chlorhexidine is rapidly absorbed onto the bacterial cell surface. It disrupts the cytoplasmic membrane binding to oral tissue for extended periods, resulting in sustained-release effect. Thus, twice daily use is recommended. (Ransier et al, 1995; Weitz et al, 1992)

- Prolonged use of chlorhexidine may result in the formation of superficial yellow, brownish stain. This stain can be removed by toothbrushing. Moreover, its prolonged use can also alter taste perception. (Weitz et al, 1992)

Guideline 7

Normal Saline Mouthwash

Use normal saline mouthwash for patients with oral lesions. (D/4)

Rationale:

- Normal saline promotes healing and granulation of tissue. (Daeffler, 1980)

5.4 Frequency of Oral Hygiene

Guideline 1

The frequency of oral hygiene should be determined by patient comfort and the status of the oral cavity. It should be performed at least twice a day. (D/4)

Rationale:

- To maintain patient comfort.

- Frequent mouth care is required for patients not secreting a normal amount of saliva. (Turner, 1994)

5.5 Denture Care

Guideline 1

Clean dentures with a denture brush/ toothbrush and soap/ toothpaste at least once daily. Chemical denture-cleansing agents can be used in addition to cleaning with soap and water. Rinse off the cleansing agent before use. (D/4 - Johnson & Chalmers, 2002)

Rationale:

- Physical cleaning is essential to ensure dentures are clean.

- To prevent denture-induced infection (Johnson & Chalmers, 2002)

Guideline 2

Soak dentures in clean water or with commercial denture-cleansing agents at night or when not worn. (D/4 - Johnson & Chalmers, 2002)

Rationale:

- Regular removal of denture calculus, debris and staining is essential to good denture care. (Johnson & Chalmers, 2002)

Guideline 3

Clean denture storage container with soap and water or dispose it at least once a week. (D/4 - Johnson & Chalmers, 2002)

Rationale:

- Regular cleaning of denture storage containers is required to maintain cleanliness and to prevent growth of micro-organisms.
(Johnson & Chalmers, 2002)

Guideline 4

Date and label patient's name on all denture storage containers.
(D/4 - Johnson & Chalmers, 2002)

Rationale:

- To prevent mix-up of dentures and the potential for cross-infection.
(Xavier, 2000)

5.6 Patient Education

Guideline 1

The healthcare worker should involve the patient and his caregiver in the oral hygiene programme. (D/4)

Rationale:

- Outcome is enhanced when the patient and his caregiver participate in the management of oral hygiene.

6 QUALITY ASSURANCE

Healthcare administrators should consider these guidelines in their in-house quality assurance programmes. Nurses should critically review the implications of these guidelines for their routine care delivery, trainee teaching and patient education needs.

6.1 Parameters for Evaluation

In the nursing management of oral hygiene, the quality of care may be evaluated using indicators such as:

- Proportion of dependent* patients with appropriate oral hygiene performed

- Rate of oral infection (amongst the dependent patients) related to ineffective oral hygiene care

*Dependent patients are defined as patients who need assistance in performing oral hygiene.

Closer monitoring can be conducted for further evaluation of the quality of oral care.

6.2 Management Role

Healthcare administrators, together with quality assurance teams, should ensure that the targets for the outcome indicators are met. They may benchmark against hospitals or institutions that perform well.

7 IMPLEMENTATION OF GUIDELINES

It is expected that these guidelines will be adopted after discussion with healthcare administrators and clinical staff. They may review how these guidelines may complement or be incorporated into their existing institution protocols.

Feedback may be directed to the Ministry of Health for consideration for future review.

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ANNEX 1 ORAL ASSESSMENT GUIDE

Category	Mode of Assessment	Score	Description
Voice	Auditory Converse with patient & listen	1	Normal
		2	Deep or horse
		3	Difficulty in talking or painful
Swallow	Observation Ask patient to swallow. To test gag reflex, gently place spatula on back of tongue & depress	1	Normal swallow
		2	Some pain on swallow
		3	Unable to swallow
Lips	Visual/ palpatory Observe tissue	1	Smooth, pink & moist
		2	Dry or cracked
		3	Ulcerated or bleeding
Tongue	Visual/ palpatory Observe appearence of tissue	1	Pink, moist & papillae present
		2	Coated & loss of papillae with a shiny appearence with or without redness
		3	Blistered or cracked
Saliva	Spatula Insert spatula into mouth, touching the centre of the tongue & the floor of the mouth	1	Watery
		2	Thick
		3	Absent
Mucous Membrance	Visual Observe appearence of tissue	1	Pink & Moist
		2	Reddened or coated (whiteness) without ulceration
		3	Ulceration with or without bleeding
Gingiva (Gums)	Spatula & visual Gently press tissue with tip of spatula	1	Pink, stippled & firm
		2	Oedematous with or without redness
		3	Spontaneous bleeding or bleeding with pressure
Teeth or Denture (Denture Bearing Area)	Visual Observe appearance of teeth or denture bearing area	1	Clean & no debris
		2	Plague/ debris in localised area (between teeth if present)
		3	Generalised plague & debris along gum line or denture bearing area

Adapted from: Eilers et al (1988)

Staff Initial:

ANNEX 2 SELF ASSESSMENT

1 The first line of oral cleansing method is

A foam swabs.
B mouth rinsing.
C toothbrushing.
D cleaning with forceps and mouth squares.

2 The safest and most effective cleansing agent is

A fluoride.
B chlorhexidine.
C normal saline.
D hydrogen peroxide.

3 The recommended oral hygiene practices include the following EXCEPT

A Plaque reduction
B Control of bacterial growth
C Maintain an intact oral mucosa
D Aggressive brushing with hard bristles

4 When performing oral care, it is no longer recommended to use

A water.
B chlorhexidine.
C lemon glycerine.
D sodium bicarbonate.

5 The recommended frequency for chlorhexidine mouthwash is

A once a day
B twice a day
C three times a day
D four times a day

6 The scope of this clinical practice guideline does NOT include patients with

A physical impairment.
B cognitive impairment.
C difficulty in speaking and/or swallowing.
D bleeding tendencies and post maxillo-oral surgery.

7 Denture care should include the following EXCEPT

A Clean with soap and water.
B Soak with water or chemical cleansing agents.
C Physical cleaning of dentures at least once daily.
D Wrap with a clean tissue paper and label correctly.

8 The Oral Assessment Guide includes the following EXCEPT

A Voice
B Tonsils
C Mucous membrane
D Teeth or denture bearing area

ANSWERS

Q1 refer to 5.2.1, guideline 1
Q2 refer to 5.3, guideline 1
Q3 refer to 5.2 & 5.3
Q4 refer to 5.3, guideline 3
Q5 refer to 5.3, guideline 6
Q6 refer to 2.3
Q7 refer to 5.5
Q8 refer to Annex 1