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# Promoting older people's oral health





## ESSENTIAL GUIDE

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**This guide will support nurses and care staff to improve oral care for older people and ensure optimal oral health during illness or when individuals become dependent on others for support.**

## Introduction

Oral care is recognised as a neglected area of practice (Miegel and Wachtel 2009) and regarded as a key aspect of nursing in *Essence of Care 2010: Benchmarks for Personal Hygiene* (Department of Health (DH) 2010), which provides effective guidance on developing good practice.

In recent years, a range of standards, statements and tools have been developed and evaluated. These can effectively steer and support best practice in oral care. However, no amount of tools can obviate the need for good nursing and care. Patients who are debilitated may need encouragement to maintain daily oral hygiene, and those with cognitive change or other problems in maintaining their oral health will need support to do so. Nurses and care staff have a vital role in the promotion of good oral health and hygiene, in preventing discomfort and inadequate nutrition, in detecting oral disease in the early stages and in improving outcomes for patients.

This guide aims to assist nurses and care staff in delivering this fundamental and essential aspect of care, promoting and maintaining the oral health of patients through good nursing and care, and making a real difference to individual health, wellbeing, recovery from illness and overall quality of life. It provides the guidance necessary to comply with *Essence of Care* (DH 2010) and *Fundamentals of Care* (Welsh Assembly Government 2003). Box 1 gives a glossary of terms used in this guide.

## The importance of oral health

In the DH (England) strategic review (DH 2005), oral health is defined as 'the health of the mouth, teeth and associated structures and their functional viability'. Oral health affects general health, wellbeing and quality of life. The condition of a person's mouth and teeth affects his or her comfort, communication, smiling, socialising and self-confidence. If people cannot chew food adequately, they are likely to become malnourished. A healthy mouth has effective antibacterial functions that contribute to the body's defence against infection (Malkin 2009). Poor oral functioning, hygiene or chronic oral problems can lead to systemic illness and debilitating conditions that can be life-threatening. This is especially important for older people who are dependent on others for care (Miegel and Wachtel 2009). Early detection of disease can ensure swift response and treatment.

## Common oral and dental problems in older people

**Teeth** With increasing age, teeth may become brittle and darker in colour. Surface enamel may be lost, and teeth may become loose as a result of breakdown of supporting tissues and bone loss. Teeth may be stained by food and drink (particularly tea and coffee), by nicotine from smoking or by oral iron supplements. Stains may be difficult to remove by brushing (Figure 1).

Teeth may also become discoloured if the nerve supply to the tooth dies, or following root canal treatment.

Tooth surfaces may be affected by increasing age. Attrition, the term for wear of the biting surfaces of teeth, is related to diet, habits such as bruxism (grinding teeth) and the extra load on

remaining teeth when some teeth have been lost. In severe cases, teeth may eventually be worn down to the gum margin.

Tooth surfaces may also be affected by erosion, the gradual loss of normal hard surfaces due to chemical processes. Acids are the most common cause of erosion; sources include food and drink

## BOX 1

### Glossary of terms

**Calculus (tartar):** calcified plaque that adheres to the teeth and can generally only be removed by a dentist, dental therapist or dental hygienist.

**Dental caries:** destruction of the enamel surface of teeth caused by acids created by the breakdown of dietary sugars and carbohydrates by bacterial plaque.

**Dental plaque:** a biofilm composed of micro-organisms that are present on all oral surfaces and cause dental caries and soft tissue infections.

**Dysphagia:** difficulty with swallowing.

**Dysplasia:** abnormal cells, which may be pre-cancerous.

**Edentulism:** having no natural teeth.

**Erythroplakia:** a chronic red area of mucosa that may indicate a pre-cancerous condition.

**Gingivitis:** inflammation of the gingival margins (gums) secondary to the accumulation of dental plaque. Gums may be red, swollen and bleeding, and may bleed when brushed.

**Halitosis:** offensive breath commonly caused by poor oral hygiene or dental or oral infections.

**Leukoplakia:** white patches that develop on mucosal surfaces, and which may be pre-malignant.

**Lichen planus:** white streaks on the cheeks and gums that are usually painless and persistent. Associated redness, blistering and recurrent mouth ulcers may be present.

**Oral candidiasis (oral thrush):** an oral infection caused by *Candida*, a fungus present in the natural flora and fauna of the mouth. Oral candidiasis is an opportunistic infection.

**Oral hygiene:** the practice of maintaining the oral health of the hard and soft tissues of the mouth.

**Periodontitis:** a severe form of gum disease when gingivitis progresses to involve the ligaments that support the teeth and alveolar bone. Chronic inflammation results in separation of the gum from the tooth, breakdown of the supporting periodontal ligaments, destruction of alveolar bone, and loosening and loss of teeth.

**Stomatitis:** inflammation of the oral cavity with or without ulceration.

**Ulcer:** a breach in the epithelium exposing the underlying connective tissue.

**Xerostomia:** dry mouth caused by reduced salivary secretion. Dry mouth has many common causes, including the oral side effects of medication given by mouth, or any other method of delivery.

with a high acid content, such as fruit juices and carbonated drinks, and gastric acid regurgitation associated with illness. Abrasion can also be caused by excessively vigorous tooth-brushing.

Dentine, the inner layer of the tooth structure, may become exposed by attrition, erosion and/or abrasion. This increases susceptibility to pain and discomfort associated with hot, cold and/or sweet stimuli.

**Dental caries and tooth loss** Dental caries (decay) is the progressive destruction of teeth by acid generated by the bacterial plaque present in every mouth. Three factors contribute to this – a susceptible tooth, bacteria and dietary sugar. Bacteria in plaque metabolise dietary sugars to produce acid. Unless plaque is removed by regular brushing, the acid attacks and demineralises the tooth surface, causing dental caries.

Older people are also more vulnerable to root caries because of gum recession (Figure 2).

The oral health of older people is changing; more people now retain some natural teeth and fewer rely on complete dentures for function. Despite this, the ability of substantial numbers of older people to chew foods is compromised by their oral health status, because they have few or no natural teeth (Walls and Steele 2004).

Tooth loss with ageing is not inevitable. Good oral hygiene and regular dental attendance help to keep teeth and gums in good condition. This is assisted by a balanced diet and chewing food well to maintain a healthy flow of saliva.

Advances in cosmetic dentistry, support dentures, crowns, bridges and implants are also helping people to retain natural-looking teeth and function into later life.

Older people tend to have fewer natural teeth than younger people, and the rate of edentulism increases with age. Although the number of edentulous older people is projected to decrease over the next 20 to 30 years, substantial numbers who rely on dentures remain. Among

**FIGURE 1**

**Oral decay and tobacco staining; the dead nerves in the decayed teeth have caused tooth discolouration**



**FIGURE 2**

**Oral neglect**



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people with some teeth, a high proportion need to use dentures in combination with their natural teeth to enhance function and appearance. Oral function in this group of people is often little better than in those who rely on complete dentures (Walls and Steele 2004).

### **Gum disease: gingivitis and periodontitis**

With the increasing retention of teeth into later life, gum disease has increased. Signs of periodontal disease include:

- ▶ Gums bleeding when the teeth are brushed.
- ▶ Red, swollen or tender gums.
- ▶ Detachment of the gums from the teeth.
- ▶ Chronic bad breath or bad taste.

As the condition progresses, teeth may become loose or change their position.

Most adults experience gum disease at some time; it is the major cause of tooth loss in adults. Gingivitis is the first sign of gum disease, when gums bleed during brushing. If untreated, it may progress to periodontitis, in which the supporting structures of the gums and bone are destroyed. This results in the loss of ligaments attaching the teeth, receding gums and bone loss; teeth may appear to look longer and become loose.

Although ageing reduces the vascularity of gums and oral mucosa, and affects healing of tissue after injury, periodontal changes are not inevitable with ageing. The main cause of gum inflammation and disease is inadequate removal of dental plaque, which accumulates at the margin between tooth and gum. Good oral hygiene is, therefore, the most effective method of preventing gum disease.

**Salivary flow** Saliva has several important functions in maintaining oral health and

comfort. It lubricates the mouth, flushes food and debris, facilitates dietary intake, neutralises acids and helps to strengthen tooth surfaces. It also has important bacteriostatic and bactericidal properties.

Despite profound changes in the structure of salivary glands with age, salivary flow and composition vary little with age in healthy people who are not taking medication. However, substantial changes in salivary composition and flow rates are seen in the context of diseases associated with older age and with the use of common drugs.

**Xerostomia (dry mouth)** Xerostomia (Figure 3) can be a distressing condition; patients may complain of difficulty in eating, speaking and swallowing, reduced taste sensation and limited tolerance of dentures. This can lead to loss of appetite and inadequate nutritional intake. Oral infections and salivary gland infections may result, along with disease of the oral mucosa and dental caries (Walls and Steele 2004). The corners of the mouth and lips can become dry and cracked. Halitosis is associated with dry mouth. Xerostomia increases susceptibility to dental caries, gum disease and oral infections.

The oral side effects of drugs are the most common cause of xerostomia in people on multiple medication. It is associated with more than 500 drugs that cause salivary gland dysfunction (Porter *et al* 2004). A broad range of drugs influence salivary secretion directly or indirectly – for example, through altered tissue hydration – and these drugs are commonly given in combination, albeit for different clinical

problems – such as an antidepressant and a beta blocker. Such unfortunate combinations are problematic, as the effects are synergistic resulting in profound xerostomia (Walls and Steele 2004). Examples include:

- ▶ Anticholinergics.
- ▶ Diuretics.
- ▶ Antihypertensives.
- ▶ Antidepressants.
- ▶ Antihistamines.
- ▶ Analgesics, particularly opiate-based ones.
- ▶ Sedatives and tranquilisers.
- ▶ Cytotoxics.
- ▶ Antiparkinsonian drugs.

Other causes of xerostomia include radiation therapy of the head and neck affecting salivary glands, chemotherapeutic agents, immunosuppressive therapy, blockage of salivary ducts and fibrosis of the parotid glands. Mouth breathing, anxiety and levels of hydration also

contribute to this condition. Frequent sips of water are effective in relieving dry mouth, and a variety of prescription and over-the-counter saliva substitutes are available as either sprays or rinses.

**Oral mucosa** Friability (susceptibility to damage) of the oral mucosa may be caused by the shift of cellular fluid, particularly in progressive dehydration or decreasing kidney function in older people. Diminished vascularity, leading to reduced blood supply, may result in nutritional deficiencies. In addition, dietary deficiencies of vitamins A, B and C, folic acid and zinc affect tissues' integrity and susceptibility to periodontal disease.

Oral mucositis is characterised by painful erythema, erosions and ulceration of the oral mucosa. It is a common complication of cancer treatments (Fiske and Lewis 2001).

**Oral infections and ulcerations** As the mucosa becomes more friable with age, it is more susceptible to oral ulceration, caused by trauma from sharp teeth and/or dentures, hard food, tooth-brushing or burns.

Ulceration may occur secondary to infections, immunological abnormalities, gastrointestinal disorders (coeliac disease, Crohn's disease, ulcerative colitis), or haematinic deficiencies (iron, B<sub>12</sub>, folate). Ulcers can be extremely painful, leading to avoidance of food. If an ulcer persists for more than three weeks, the patient should be referred to a specialist for further investigations

Fungal infections may look like creamy white coatings or yellow curd-like plaques. These can be removed but may leave bleeding areas that quickly become re-coated. Patients may complain of

**FIGURE 3**

**Xerostomia**



soreness or difficulty with swallowing; patients who are immunocompromised are at increased risk of systemic disease from untreated infections (Malkin 2009). Recognising the links between oral bacteria and chest infections, including aspiration pneumonia, is important (DH 2005).

**Thrush (*Candida albicans*)** Thrush is a common condition (Figure 4), particularly among denture wearers. Soft tissues in contact with dentures may become inflamed; white plaques may develop on the tongue. *Candida* can also infect the folds at the angles of the mouth, which form when old dentures are worn. Thrush is usually painless, so patients may be unaware of the infection. It may be precipitated by a course of broad-spectrum antibiotics, anaemia or systemic conditions. Antifungal treatment is generally effective, but good oral and denture hygiene is crucial, together with routinely removing dentures at night.

**Effects of drugs** Medication can alter the bacterial environment of the oral cavity and also reduce the secretion of saliva. Xerostomia is the most common and significant oral side effect of drugs. Bisphosphonates used in the treatment of osteoporosis can cause osteonecrosis, a severe infection of the jaw bone. Other oral side effects include enlargement of gums caused by epanutin, nifedipine and cyclosporin. Oxygen and inhalers also have a drying effect on oral mucosa. The current British National Formulary (BNF) should be checked for oral side effects.

### Effects of long-term conditions

It is estimated that more than 100 systemic diseases have oral manifestations (Haumschild and Haumschild 2009). With increasing age, an increasing number of chronic illnesses are experienced. Many of these may affect oral health and functioning or the ability of patients to maintain their oral hygiene. In addition, evidence of the association between oral health and poor general health continues to grow; research shows links between severe periodontal disease, diabetes mellitus, ischaemic heart disease and chronic respiratory disease.

**Diabetes mellitus** Diabetes mellitus can lead to xerostomia, burning mouth, altered taste, dental caries, increased susceptibility to *Candida* infections and impaired healing. Periodontal disease progresses more rapidly in people with diabetes mellitus and, the poorer the diabetic control, the more severe the periodontal disease (Al-Shammari *et al* 2006).

**FIGURE 4**

**Thrush**



**Neurological diseases** Neurological diseases, such as Parkinson's disease, may impair patients' ability to self-care for oral hygiene as a result of problems with manual dexterity. Patients may also experience xerostomia because of decreased quantity and quality of saliva, burning mouth and root caries.

Problems controlling dentures may result from loss of neuromuscular control and a reduction in the quantity and quality of saliva (Nakayama *et al* 2004).

Dropoling is commonly caused by delayed swallow and poor posture; dysphagia is a symptom in later stages of the disease, affecting up to 80 per cent of patients.

**Stroke** A stroke can have a profound effect on the oral and facial tissues, resulting in difficulties with eating, drinking and swallowing (British Society of Gerodontology (BSG) 2010); maintenance of oral hygiene may also be affected. If facial paralysis or loss of muscular control is present, pooling of food may occur on the affected side; this increases the risk of decay in dentate people and may contribute to inhalation of food (Kidd *et al* 1995).

Dysphagia can cause choking and aspiration pneumonia. People often respond by reducing fluid and food intake, leading to dehydration and malnutrition.

Stroke can also cause communication problems, including aphasia, dysphasia and dysarthria, so the person may not understand what is being said or may have difficulty expressing needs and preferences (Singh and Hamdy 2006).

Difficulty in recognising objects, such as a toothbrush (visual agnosia), or in carrying out purposeful actions (apraxia), may also occur as a symptom of stroke.

**Other long-term conditions** Other effects of long-term conditions on oral health include the following:

- ▶ Osteoarthritis and rheumatoid arthritis may affect the hands, resulting in limited manual function and, therefore, reduced ability to maintain oral hygiene.
- ▶ Respiratory disease can lead to breathlessness, mouth-breathing and dry mouth.
- ▶ Thyroid deficiency can lead to excessive tiredness and reduced motivation.
- ▶ Older people with a diagnosis of mental illness have a greater need for dental care than do those without a diagnosis of mental illness (Purandare *et al* 2010).
- ▶ Depression reduces motivation and can reduce interest in personal hygiene.
- ▶ Dementia commonly leads to loss of memory, particularly short-term memory, affecting the person's ability to remember to carry out normal oral hygiene procedures. Communication difficulties, agnosia and apraxia may also occur, leading to poor oral hygiene and an increase in periodontal disease. Chalmers and Pearson (2005) identified an increased prevalence of edentulism, higher accumulation of plaque, greater prevalence of periodontal sites with gingival bleeding and a higher prevalence of decayed teeth; oral diseases and conditions were related to the severity of dementia rather than to the specific diagnosis.

## Oral cancer

Signs and symptoms of oral cancer vary according to the site of the tumour. Suspicious pathology can be identified by regular oral health risk assessment (OHRA); the patient should be referred to an oral health professional for further assessment, diagnosis and treatment.

The signs of suspected pathology include (National Institute for Health and Clinical Excellence (NICE) 2005):

- ▶ Unexplained red and white patches, including suspected lichen planus (Figure 5), of the oral mucosa that are painful, swollen or bleeding.
- ▶ Unexplained ulceration of the oral mucosa or mass persisting for more than three weeks.
- ▶ Tooth mobility persisting for more than three weeks.

## Oral health and nutrition

Age-related changes identified in this guide can have an impact on a person's diet as a consequence of adaptation to reduced chewing

ability or because of mechanical difficulties with chewing or swallowing as a consequence of salivary change (Marshall *et al* 2002). This can result in altered food choices, with a reduction in intake of fruit, vegetables and dietary fibre. Chewing, which incorporates salivary enzymes into food in the mouth, is an important part of the initiation of digestion. Furthermore, enjoyment of food depends on the release of taste sensations into the mouth during chewing.

If patients have their own natural teeth, frequency of sugar intake should be reduced to a minimum, including avoidance of sugar in drinks. Discouraging 'sweet treats' and avoiding eating sugary snacks between meals, along with the following guidelines for safe nutritional supplementation, will reduce the risk of dental caries (All Wales Special Interest Group/Special Oral Health Care 2009).

Dietary support and advice should be given to patients being converted to edentulism for the first time. Special patterns of nutritional support may also be required for edentulous people during their recovery from illness.

**FIGURE 5**

**Oral lichen planus**



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## Priorities in best practice

NHS Quality Improvement Scotland's (NQIS) Best Practice Statement (2005) acknowledges that nursing staff may perceive caring for a person's mouth as difficult, distressing and intrusive. Although challenging, these barriers need to be overcome to provide effective care.

Promoting oral health and hygiene, identifying changes and preventing oral deterioration are fundamental and essential elements of nursing practice. Nurses have a duty of care, including carrying out and recording appropriate

assessment and, taking the individual patient's needs and views into account, planning, evaluating and documenting care. This accountability involves ensuring effective and evidence-based prevention strategies and proactive interventions. Nurses are also accountable for minimising harm and risk (Nursing and Midwifery Council 2008).

While the diagnosis of oral disease will be made by specialists, registered nurses should be able to recognise early change and refer patients. They should understand that (NQIS 2005):

- ▶ Fungal infections and *Streptococcus mutans* can lead to aspiration pneumonia.
- ▶ The incidence of fungal infection is increased, often owing to poor denture hygiene.
- ▶ The incidence of xerostomia is increased as a side effect of medications.
- ▶ Reduced salivary flow impairs removal of debris, increases the risk of tissue ulceration and rapid development of dental caries and reduces ability to wear dentures. Frequent sips of cold water or ice chips and saliva substitutes can help to remedy reduced salivary flow, and special high-dose fluoride toothpastes can help to prevent dental caries.
- ▶ Frequent dietary sugars increase the risk of dental caries.
- ▶ Daily use of fluoride mouth rinses or toothpaste can help to prevent dental caries.

Nursing staff should also be aware of the signs of oral cancer. A person with a history of smoking and heavy alcohol use is particularly at risk.

Standards for oral health in care homes for older people (DH 2005) provide a basis for all healthcare facilities to develop a care environment that promotes oral health (Box 2).

### Screening and assessment: oral health risk assessment

Health professionals will encounter unmet oral and dental needs in patients presenting with other health problems. Oral assessments should be carried out at regular intervals to monitor the effectiveness of oral hygiene interventions and their impact on oral health during rehabilitation and recovery (Griffiths and Boyle 2005a).

Completion of an OHRA at the first point of contact is an important aspect of nursing care. It assists in identification of risks for oral health and the development of an individual care plan (Box 3).

A simple assessment of the mouth will provide a baseline for routine oral care; this could include a section to record oral pathology. If a patient is in pain or has oral pathology requiring more specialised dental investigation, the assessment will trigger the need for referral to the dental team or a specialist referral. Initial assessment should include an inspection of the lips, mouth and teeth in a good light (for example, using a hand-held pen torch). Observations to be recorded will include:

- ▶ Presence or absence of natural teeth, and their condition.
- ▶ Type and cleanliness of dentures, and use.
- ▶ Any abnormalities of soft tissues.
- ▶ Presence or absence of saliva.
- ▶ Access to oral hygiene materials. For example, toothbrushes, toothpaste, denture cleaning products and so on.

Assessment should also record patients' physical and mental ability to carry out oral care and their attitudes and feelings about their mouth and teeth. This will ensure that optimum care is offered and complies with the person's wishes. Family or carers

should be invited to be present to provide support during assessment of patients with cognitive impairment and may assist with oral hygiene.

Advice for assessing a person who may lack capacity for consent or who is not compliant should be provided by the employing authority and can be found in guidelines (Fiske *et al* 2006).

If specific problems such as drooling or swallowing difficulties are identified, the patient should be referred to a registered nurse with specialist training or to a speech and language therapist. Further examples of oral health risk assessments can be found in Holistic Oral Care (Griffiths and Boyle 2005a) and in

guidelines that can be downloaded from the British Society of Disability and Oral Health ([www.bsdlh.org.uk](http://www.bsdlh.org.uk)).

### Evidence-based protocol for daily oral care

The literature identifies a range of protocols for daily oral care. Box 4 summarises some routine daily procedures. Box 5 gives an example of good practice for assisting with tooth-brushing.

### Caring for a person who is dependent on others

Older people who need help with daily living activities will require support with oral hygiene

## BOX 2

### Standards for oral health in care homes for older people

#### Assessment on admission

- ▶ Residents will be encouraged and assisted if necessary to register with a dentist for regular check-ups and dental care.
- ▶ The name of the dentist with whom the resident is registered (if known) will be recorded.
- ▶ The length of time since the last dental check-up will be recorded. If more than a year, staff will offer to assist with arranging a dental check-up.
- ▶ The resident's oral status will be noted – that is, presence of natural teeth, dentures and so on, and whether dentures are labelled with the owner's name.
- ▶ Residents with dentures more than five years old will be encouraged to have a check-up.
- ▶ Denture labelling will be provided with the owner's consent.

#### Environment

- ▶ Residents should have access to privacy for oral hygiene.

(DH 2005)

- ▶ Sanitary fittings should be fully accessible to disabled residents and adequately illuminated.
- ▶ Taps should be suitably adapted for the individual resident's needs.
- ▶ Suitable facilities will be provided for on-site dental treatment.

#### Oral hygiene equipment

- ▶ Residents should have easy access to oral hygiene equipment that is appropriate to their needs.
- ▶ Oral hygiene equipment will be reviewed at least every three months.

#### Staff will:

- ▶ Receive training in oral and denture hygiene.
- ▶ Encourage oral hygiene after meals and before retiring.
- ▶ Encourage the removal, thorough cleaning and storage of dentures overnight.
- ▶ Arrange a dental appointment for a resident if an oral or dental problem is identified.

that ranges from minimal assistance to total assistance (Griffiths and Lewis 2002, Griffiths and Boyle 2005b). An OHRA will indicate the type and frequency of oral care required. Box 6 outlines some more specialised procedures for oral health care. Assistance should be provided to maintain independence, with the use of aids to

oral hygiene and techniques such as prompting, applying toothpaste to the brush, guiding the person's hand, and providing appropriate support for denture care and hygiene. Staff need strategies to cope with someone experiencing mental confusion who refuses oral care; involvement of family carers can help to

### BOX 3

#### Oral health risk assessment tool

A response in a highlighted area signifies a need for further investigation or action, and possible contact with local dental service.

- |   |                                   |  |                                     |
|---|-----------------------------------|--|-------------------------------------|
| 1. Does the client have natural teeth?  | <input type="checkbox"/> No       | <input type="checkbox"/> Yes   | <input type="checkbox"/> Don't know |
| 2. Does the client wear dentures?   | <input type="checkbox"/> No       | <input type="checkbox"/> Yes, specify:<br><input type="checkbox"/> Upper<br><input type="checkbox"/> Lower | <input type="checkbox"/> Don't know |
| a) If yes, are dentures labelled?   | <input type="checkbox"/> Yes      | <input type="checkbox"/> No  | <input type="checkbox"/> Don't know |
| b) How old are dentures?  | <input type="checkbox"/> >5 years | <input type="checkbox"/> <5 years  | <input type="checkbox"/> Don't know |
| 3. Does the client have any problems?<br>For example pain, discomfort, difficulty eating,<br>decayed teeth, denture problems, ulcers,<br>dry mouth, halitosis and so on.<br>If yes, describe the problem. | <input type="checkbox"/> No       | <input type="checkbox"/> Yes   | <input type="checkbox"/> Don't know |
| 4. Does the client smoke or have a past<br>history of smoking?  | <input type="checkbox"/> No       | <input type="checkbox"/> Yes   | <input type="checkbox"/> Don't know |
| 5. Is the client taking medication?<br>Check the British National Formulary<br>for any oral side effects.   | <input type="checkbox"/> No       | <input type="checkbox"/> Yes   | <input type="checkbox"/> Don't know |
| 6. Is urgent dental treatment required?   | <input type="checkbox"/> No       | <input type="checkbox"/> Yes   | <input type="checkbox"/> Don't know |
| 7. Date of last dental treatment?   | <input type="checkbox"/> >1 year  | <input type="checkbox"/> <1 year   | <input type="checkbox"/> Don't know |
| 8. Registered for dental care?<br>If yes, record name and address of dentist.   | <input type="checkbox"/> Yes      | <input type="checkbox"/> No  | <input type="checkbox"/> Don't know |

(Reproduced with permission of Shelagh Thompson, editor of the Journal of Disability and Oral Health. Adapted from Griffiths 1995)

## BOX 4

### Routine daily procedures

#### Care of the lips

- ▶ Clean with water-moistened gauze and protect with a lubricant to minimise the risk of dry, cracked and uncomfortable lips.

#### Care of the person who is edentulous with dentures

- ▶ Ensure dentures are marked with the person's name.
- ▶ Leave dentures in plain water overnight if acceptable to the individual.
- ▶ Soak plastic dentures in dilute sodium hypochlorite and metal dentures or dentures with metal parts in chlorhexidine solution for 20-30 minutes.
- ▶ Clean dentures with individual brush under running water over a sink of cold water.
- ▶ Rinse dentures after meals.
- ▶ Use a small quantity of cream/powder fixative if required. Always ensure that this is removed daily, cleaned off and replaced before meals if necessary, and removed last thing at night.

#### Care of natural teeth

- ▶ To prevent dental decay and gum disease, and maintain oral comfort:
  - Clean teeth twice daily and after meals with fluoride toothpaste and toothbrush (DH/BASCD 2009).
  - Nursing staff should be aware that some people will need assistance in brushing – this would have been highlighted by the OHRA.
  - Provide additional plaque control if needed using mouthwash, spray or gel.

#### Care of oral mucosa

- ▶ To provide a moist, comfortable, fresh oral environment and reduce the risk of infection:
  - Inspect in a good light.
  - Report anything unusual in the mouth.
  - Clean with water-moistened gauzed fingers, artificial saliva or special-care toothbrush.

(Based on Best Practice Statement NHS Quality Improvement Scotland (2005))

overcome these barriers. Caring for Smiles provides helpful practical guidance (NHS Health Scotland (NHS) 2010).

### Education, training and evaluating learning

A limited number of studies have shown that education and training can raise awareness of the importance of oral hygiene (Clarke 2009). Oral care training programmes should be up to date and evidence based. Box 7 gives some examples of training programmes and further resources, and Box 8 highlights relevant organisations. Nurses should be aware of the potential significance of age-related changes and the impact of disease and medication on oral health (Fitzpatrick 2000).

NHS Quality Improvement Scotland (2005) recommends that content should include:

- ▶ Recognition of a healthy mouth.
- ▶ The importance of good oral health.
- ▶ Person-centred assessment of the mouth and teeth.
- ▶ Caring skills in oral health.
- ▶ Nursing care of the oral mucosa, lips, natural teeth and dentures.
- ▶ Care of the person with an oral infection.
- ▶ Care of the person with a dry mouth.
- ▶ Simple screening of ability to swallow.
- ▶ The effects of medications on oral health.
- ▶ Interdisciplinary working to promote oral health.
- ▶ Guidance on effective record keeping.

It is important to evaluate the effectiveness of learning from training programmes and the real impact that the learning is having on everyday care practices (Miegel and Wachtel 2009), as well as the experience of the older person.

## Oral health promotion

Promotion of oral health and prevention of disease are the responsibility of the whole team, not just that of the dental professional. This can be achieved by:

- ▶ Training and education of nursing and care staff in oral health.
- ▶ Use of OHRAs.
- ▶ Access to dental healthcare professionals for

advice and oral care if required.

- ▶ Promoting the benefits of oral health for health and wellbeing, nutrition and socialising.
- ▶ Encouraging the patient to maintain the daily oral hygiene habit.
- ▶ Providing advice and support on teeth and gum care, and assisting the maintenance of any specific oral hygiene practice such as flossing, interdental brushing or mouth rinses,

### BOX 5

#### Assisting with tooth-brushing – example of good practice

The technique will vary depending on the individual. Generally, the easiest method of assisting with tooth brushing is:

- ▶ Seat the person on a dining-style chair.
- ▶ Stand behind the person with his or her head cradled against the carer's body by an arm to provide neck support and control over head movements.
- ▶ Gently pull back the cheek with the other hand to improve vision and access.
- ▶ Brush the teeth using a damp small-headed, medium-textured toothbrush or a cloth wrapped around a finger.
- ▶ With a damp cloth wrapped around a finger, gently remove any food trapped in the cheek pouches or under the tongue.
- ▶ If the person can rinse his or her mouth, use a fluoride toothpaste.
- ▶ If the person cannot rinse, dampen the brush in fluoride mouth rinse (use an alcohol-free rinse to avoid discomfort) or in chlorhexidine mouth rinse; alternatively, just use a damp brush.
- ▶ If the person has difficulty with co-operation in opening the mouth or biting onto the brush, finger guards or another toothbrush may help to prop open one side of the mouth while the other side is brushed.
- ▶ Staff should wear disposable gloves while carrying out mouth care to maintain good cross-infection control.

### BOX 6

#### More specialised/intensive procedures for oral health care

##### Care of the person with xerostomia

- ▶ Oral health risk assessment will identify xerostomia, and the person will be referred to the dental team for specialist advice on oral health care. This will include:
  - Advice to provide oral hydration in the form of frequent sips of water or crushed ice.
  - The use of oral products specifically for people with xerostomia.
  - Provision of appropriate oral hygiene materials.
  - Use of high-dose fluoride toothpaste prescribed by a dentist.
  - Ensuring that all food debris is regularly removed from the mouth.

##### Care of patients on oral nutritional supplementation

- ▶ Follow All Wales Special Interest Group/Special Oral Health Care Oral Nutritional Supplementation Guidelines for Oral Health Care (2010).

##### Patients who are dependent or dysphagic or fed through percutaneous endoscopic gastrostomy (PEG) or nasogastric (NG) tubes

- ▶ A person who is nil by mouth or receives nutrition through PEG/NG tubes requires regular oral care at least twice a day or more frequently. Seriously ill patients confined to bed should be turned on their side and/or their head propped with pillows to avoid aspiration during oral care (BSDH guidelines [www.bsdl.org.uk](http://www.bsdl.org.uk)).

## BOX 7

### Training programmes and resources

#### Training packages

- ▶ Caring for Smiles: Better Oral Care for Dependent Older People – NHS Scotland 2010: [www.healthscotland.com/uploads/documents/12356-CaringForSmiles\\_Unit1and2.pdf](http://www.healthscotland.com/uploads/documents/12356-CaringForSmiles_Unit1and2.pdf)
  - ▶ Better Oral Health in Residential Care – The Australian Government Dept of Health and Ageing. [www.health.gov.au](http://www.health.gov.au)
  - ▶ Keep Smiling: Dental Care and Oral Health for Older People in Care Homes – Relatives and Residents Association: [www.relres.org](http://www.relres.org)
  - ▶ Making Sense of the Mouth – training package including DVD and many images available from Petrina Sweeney, Glasgow Dental School, 378 Sauchiehall Street, Glasgow G2 3JZ
- #### Further resources
- ▶ Griffiths J, Boyle S (2005) *Holistic Oral Care: A Guide for Health Professionals*. Second edition. Stephen Hancocks, London.
  - ▶ Fiske J, Frenkel H, Griffiths J *et al* (2006) Guidelines for the development of local standards of oral health care for people with dementia. *Gerodontology*. 23, Supp 1, 5-32.
  - ▶ British Society of Gerodontology (2010) Guidelines for the Oral Healthcare of Stroke Survivors. [www.gerodontology.com](http://www.gerodontology.com)
  - ▶ Fiske J, Griffiths J, Jamieson R *et al* (2000) Guidelines for oral health care for long-stay patients and residents. *Gerodontology*. 17, 1, 55-64.
  - ▶ Griffiths J, Lewis D (2002) Guidelines for the oral care of patients who are dependent, dysphagic or critically ill. *Journal of Disability and Oral Health*. 3, 1, 30-33.
  - ▶ British Society for Disability and Oral Health (1999, Revised 2004) *Multidisciplinary Guidelines for the Oral Management of Patients Following Oncology Treatment*. [www.bsdh.org.uk](http://www.bsdh.org.uk)
  - ▶ British Society for Disability and Oral Health (2000) *Oral Health Care for People with Mental Health Problems: Guidelines and Recommendations*. Report of BSDH Working Group. [www.bsdh.org.uk](http://www.bsdh.org.uk)

## BOX 8

### Organisations

- ▶ British Dental Association. The professional association and trade union for dentists in the UK. [www.bda.org](http://www.bda.org)
- ▶ British Dental Health Foundation. An independent charity working to bring about improved standards of oral health care in the UK and around the world. Helpline: 0845 063 1188. [www.dentalhealth.org.uk](http://www.dentalhealth.org.uk)
- ▶ British Society for Disability and Oral Health. The aim of the society is to bring together all those interested in the oral care of people with disabilities. Offers a range of guidance documents. [www.bsdh.org.uk](http://www.bsdh.org.uk)
- ▶ British Society of Gerodontology. The aim of the society is to protect, maintain and improve the oral health of older people. [www.gerodontology.com](http://www.gerodontology.com)

as advised by the dental professional.

- ▶ Providing advice and support on care of dentures.
- ▶ Providing advice on appropriate equipment, including adapted handles, specialist brushes and choice of toothpaste.
- ▶ Providing illustrated oral health promotion information and oral hygiene prompts appropriate to the specific needs of the person.
- ▶ Being aware of the relevance of oral health on nutrition, and the relevance of nutrition on oral health.

## Conclusion

Oral health is fundamental to general health, wellbeing and quality of life. Improving oral health for older generations will have cost implications, but the prevention of deterioration in people's teeth and mouths will be less costly than the treatment of the oral and systemic diseases that occur as a consequence of poor oral health (Haumschild and Haumschild 2009). Evidence shows that preventive oral hygiene interventions are effective, including using small soft toothbrushes; high fluoride-containing toothpastes, chlorhexidine gluconate-containing gels, sprays or mouthwashes; saliva replacement gels and rinses; dental floss or interdental micro-brushes; and denture fixatives (Chalmers and Pearson 2005, Clarke 2009).

We now need to be proactive in removing barriers that have a negative effect on oral health outcomes. Multiple approaches are needed, including the development and implementation of oral health education programmes, screening and assessment tools, care plans, documentation and the supply of oral hygiene aids. The potential exists

to develop multidisciplinary teams, including specialist nurses working with dental hygienists, to support care delivery and training (Coleman 2005, Haumschild and Haumschild 2009, NHS 2010). The appointment of oral care 'champions' has also been suggested (Miegel and Wachtel 2009).

New generations are coming into older age. It is estimated that three quarters of 'baby boomers' will enter long-term care facilities with the majority of their own natural teeth and that this trend will continue (Haumschild and Haumschild 2009).

The provision of effective oral care is a fundamental and essential element of nursing practice. It is neither highly technical nor massively expensive in terms of resources, but it can make a huge difference to a patient's health, comfort, wellbeing and quality of life.

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