Improving the provision of mouth care in an acute hospital trust

Poor oral health has cumulative negative effects on health, and good oral health is very much a part of general health and wellbeing (Public Health England, 2017; Department of Health, 2014). Mouth care is an integral part of nursing practice, but it is often seen as a low priority (Mouth Care Matters, 2016; Salamone et al, 2013; Rohr, 2012; Malkin, 2009). In 2017, we conducted a project to assess and improve mouth care on two acute orthopaedic wards at Southend University Hospital Foundation Trust.

Why oral health is important
The World Health Organization defines oral health as “a state of being free from chronic mouth and facial pain, oral and throat cancer, oral infection and sores, periodontal (gum) disease, tooth decay, tooth loss, and other diseases and disorders that limit an individual’s capacity in biting, chewing, smiling, speaking, and psychosocial well-being” (WHO, 2018). It is determined by diet, hygiene, smoking, alcohol use, stress and trauma (Sheiham and Watt, 2000). In hospitals, it is imperative to give good mouth care to patients, both to reduce their risk of infection and improve their experience and comfort (Salamone et al, 2013). Patients who are unable to maintain good oral hygiene and those requiring diets high in carbohydrates are most at risk of preventable problems such as periodontal disease and tooth decay (Bit.ly/1000LivesMouthCare). Periodontal disease is known to be associated with disorders of the cardiovascular, gastrointestinal and respiratory systems, and may also be associated with memory loss and confusion (Harvard Health Publishing, 2016).
Barriers to mouth care in hospital

Older people are commonly admitted to hospital for longer periods with acute injuries (such as fractured neck of femur) and/or co-morbidities associated with long-term conditions (Wårdh et al, 2000). They often take several drugs, many of which may induce xerostomia (dry mouth) – this is the case with opioids, diuretics, steroids, antidepressants, antihistamines and oxygen (Bakhtiari et al, 2018). Many will be unable to clean their teeth due to impaired mobility.

Hospitalised older people will often have pre-existing conditions such as cardiovascular disease, respiratory disease, hypertension, cancer and diabetes (Petersen and Yamamoto, 2005). Sheiham and Watt (2000) have argued in favour of a ‘common risk factor approach’ to oral health (Fig 1) to address risk factors common to many long-term conditions.

Numerous barriers have been encountered when trying to improve mouth care in hospital, including:

- Mouth care being considered a low-priority nursing task;
- Lack of materials such as toothbrushes and toothpaste;
- Uncooperative patients;
- Disruptions to care due to high turnover of care staff;
- Staff’s lack of awareness of the importance of oral health, its connection with the rest of the body and its association with systemic disease (Kessler, 2017).

Our project

In 2017, we conducted a service evaluation to assess and improve mouth care on two acute orthopaedic wards employing approximately 70 staff between them. Our aim was to include all staff involved in patient care, not only nurses. Ethical approval was secured from the local ethics committee.

We started by conducting an online survey to gain baseline data on staff knowledge of, current practice in, and barriers to, mouth care. In a second phase, a dental hygienist, supported by a student dental hygienist, delivered a training workshop providing staff with information on mouth care, how to conduct it and how to record it. Finally, after all staff had completed the training, ward staff conducted an audit to review practice in their clinical area.

Baseline survey

We invited 70 members of staff from the two wards to reply to the baseline survey between January and February 2017. They were contacted via emails sent to their work email addresses. We received 37 responses (52% response rate). A majority of respondents were registered nurses (53%), followed by healthcare assistants (HCAs) (35%); the remaining respondents included two patient flow officers and one rehabilitation assistant.

Among the 37 respondents, 64% had been in practice for more than 10 years and 27% for 6-10 years; 59% had worked on their ward for more than five years and 27% between one and five years. The majority (97%) had not received mouth care training in the previous year; one respondent had, but that person had recently trained as an assistant practitioner at the local university.

Respondents were asked what mouth care resources were available from the following: 82% said the ward provided manual toothbrushes; 74% said it provided fluoride toothpaste; 38% said mouthwash tablets; 38% said foam swabs; 38% said glycerol swabs; 3% said mouthwash; and 3% said denture cleansing tablets.

Asked how often they assessed patients’ oral hygiene, 59% said daily, 18% said “very rarely” and 15% said “not at all”. On an acute orthopaedic ward, patients’ ability to perform mouth care will vary according to turnover of care staff;
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their condition, comorbidities and pace of recovery; 59% of respondents said they assessed patients’ ability to perform mouth care daily. Assessing the mouth is necessary to identify any potential problems, initiate oral health interventions and evaluate their progress (Rohr, 2012).

A small majority (56%) said they made a note of mouth care assessments in the care round record (a record of different care interventions provided in a 24-hour period). This is currently where the matron expects to find that information. However, the care round record consists of tick-boxes, so it does not allow recording of any details about mouth care. Some staff did not directly specify care round records. This revealed a need to educate staff about record-keeping.

In the case of patients unable to perform mouth care, staff were asked how often they thought patients’ teeth needed to be brushed; 46% said once a day; 44% said twice a day; and 10% said 3-4 times a day. The DH (2014) recommends toothbrushing should be done twice a day. Belal (2004) suggests time constraints and/or lack of knowledge as possible reasons why staff may not comply with this recommendation.

In the case of patients with dentures, all respondents said they were involved in cleaning dentures; 24% said they cleaned dentures once a day and 21% said they did so after every meal. According to 83% of respondents, dentures were kept in a denture pot at night, but 17% said they did not remove patients’ dentures at night (this may be related to their role). The Oral Health Foundation states that it is important to remove dentures at night to allow the gums to rest and promote oral health (Bit.ly/OHFDentures).

In the case of patients who were able to clean their teeth, staff were asked what they did to help patients and 42% said they provided a bowl of water. The remaining 58% indicated patients could self-care or were assisted to the bathroom. Regarding how patients cleaned their teeth, 12% of respondents said they did it with a toothbrush and toothpaste; and one said they used a foam swab. It should be noted that the heads of foam swabs may detach from the stick during use and should not be used as an alternative to toothbrushing. This was reported as a safety issue presenting as a choking hazard for patients (Medicines and Healthcare products Regulatory Agency, 2014).

Regarding mouth care training, 84% of respondents thought ward staff were not trained enough and 81% said they would like to receive more training.

Box 1 summarises the barriers to mouth care provision identified from the responses to the baseline survey.

### Training workshop

In the second phase of the project, a training workshop was designed, piloted and adjusted, and then delivered to the 70 staff who were invited to participate in the baseline survey as well as other healthcare staff that were able to attend, including nurses, doctors, HCAs, rehabilitation staff, managers and student nurses on placements. To make it easier for staff to attend, the workshop was kept short (one hour), delivered on site and run once a week during six weeks between March and May 2017. Training was tailored to meet education and training needs and included:

- Education on oral health assessment and documentation of mouth care;
- Guidance on positioning, notably when providing mouth care in bed;
- Practical demonstrations and provision of toothbrushes and toothpaste;
- Signposting to further resources.

During the workshop, staff received information on how to conduct oral health assessments and gauge patients’ ability to perform mouth care. Some agreed that these assessments could and should be done on the ward, but others felt that they were the responsibility of the pre-admissions team (another group of hospital staff who could benefit from mouth care training). However, if these assessments were to be done in the pre-admission phase, emergency and non-elective patients could be overlooked.

Staff were asked to record mouth care in the care round record and add details in the patient notes. However, some staff felt this would be too time-consuming, while HCAs explained they were not allowed to write anything in the patient notes unless this was signed off by a registered nurse, who may not always be available.

On completion of the workshop, staff filled in an evaluation form. Most found it pitched at an appropriate level, easy to follow and sufficiently rich in content. Some nurses found it too basic, with four stating that the toothbrushing activity was “not useful”, “uncomfortable” and “irrelevant to their role”; however, these staff were not all directly involved in patient care. Most staff found the toothbrushing activity useful, saying that it made them more aware of “what it is like for the patient”. Modelling toothbrushing techniques has been found beneficial in teaching children (American Academy of Pediatric Dentistry, 2011) and children with special needs (Brown, 2012).

Among the 70 participants, 63% expressed the wish to learn more about mouth care and stated that they would find a mouth care tool useful, especially if it was placed in the patient’s bedside notes or daily hygiene assessment. However, during these workshops there was debate around there being too much paperwork already.

Staff expressed concerns about the lack of an on-site dentist, the difficulties they faced in providing mouth care to patients

<table>
<thead>
<tr>
<th>Date</th>
<th>Number of patients for whom mouth care was documented</th>
<th>Number of patients for whom the care round record was completed</th>
<th>Number of patients who received assistance with mouth care</th>
<th>Number of patients who were self-caring</th>
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<td>6</td>
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Box 2. Mouth Care Matters

Mouth Care Matters (Bit.ly/MouthCareMatters) is an initiative funded by Health Education England and launched in 2015 to improve the oral health of adults in settings such as care homes and hospitals. It not only trains hospital nursing staff, but also promotes oral health in other disciplines and in different areas. It provides a coordinated approach from oral health leaders to assist in the training of the healthcare workforce. It offers education programmes (including via e-learning) and tools that have been tested by nursing staff and are adaptable to any hospital. For more information go to: www.mouthcarematters.hee.nhs.uk

with dementia, and a lack of information on oral thrush. These areas could inform further training.

After the training, staff were also asked to do a short quiz to help assess the workshop’s content. Fifteen did not answer the quiz correctly, which indicates that further training may be needed, particularly around recording concerns about oral health and who to refer patients to.

Snapshot audit

The last stage of the project included a snapshot audit of both ward areas looking at mouth care provision over a week in June 2017. Patient notes including admission care pathway notes, care round records and patient notes were looked at retrospectively.

Table 1 shows the results of the snapshot audit. The data suggests that mouth care was occurring and that everyone who needed assistance received it.

Discussion

The literature suggests that mouth care is not always provided in acute hospital settings (Mouth Care Matters, 2016; Salamone et al, 2013; Rohr, 2012; Malkin, 2009). In our baseline survey, a large majority of respondents said they needed more training on mouth care. The workshop evaluation highlighted that there was no mouth care assessment tool, and most staff agreed that such a tool would be useful. The snapshot audit, conducted after staff had received training, showed that mouth care was provided but that it was not consistent or recorded in detail.

In the snapshot audit, the number of patients documented decreased between the first and sixth day. There was no obvious explanation for this, apart from a lack of staff due to the fact that the hospital was busy during the project, which may have influenced the outcomes. The lack of detail in the data meant that it was difficult to draw conclusions. It would have been useful to know:

- Who carried out and who recorded mouth care – to determine the effectiveness of each role;
- Where mouth care was recorded and whether this matched what staff had been asked to do during the training – to gauge the effectiveness of the workshop.

There were other limitations: we could not determine the exact number of staff working on the two wards because of high turnover. Some staff who took part in the baseline survey did not provide direct patient care, which may have affected the results. We further found out that not all staff had been aware of the workshop despite posters and emails (many staff said they lacked time to check emails at work). Participation of senior members of staff was low. The hospital was very busy in the period during which the project took place and availability of staff to attend the workshop was a constant issue. The workshop was not offered during night shifts, which meant that staff working only nights had to attend it in their own time.

Recommendations

In light of the outcomes of our project, we would recommend that acute hospitals:

- Provide mandatory mouth care training for staff in different formats;
- Train doctors in diagnosing and treating mouth conditions;
- Introduce mouth care champions;
- Introduce a mouth care assessment tool on wards;
- Make mouth care resources available on every ward;
- Implement the Mouth Care Matters (Bit.ly/MouthCareMatters) programme (Box 2).

Short-term goals should be to train staff and improve their awareness of patients’ mouth care needs, thereby putting oral health higher on the agenda. Staff training would need to cover mouth assessment and record-keeping of mouth care from admission to discharge. In the long term, oral health needs to be made an integral part of education and practice, of multi-agency relationships and of interdisciplinary approaches. All clinical areas in hospitals need to engage in mouth care improvement and so do community services. Further research is needed to measure the impact of oral health care interventions in acute hospitals. NT

References


Rohr Y (2012) Assessment and care of the mouth: an essential nursing activity, especially for debilitated or dying inpatients. HNE Handover for Nurses and Midwives; 5: 1, 32-34.


For more on this topic online

- Standardising the delivery of oral health care practice in hospitals Bit.ly/NTOralHealth
- Principles of effective oral and denture care in adults Bit.ly/NTOralCarePrinciples
- Selecting the right tools for mouth care delivery in hospitals Bit.ly/NTMouthCareTools