ASSESSING MOUTHCARE STANDARDS ON THE MOPRS WARD AT A DISTRICT GENERAL HOSPITAL

VIKASH PATEL, DENTAL CORE TRAINEE 2

NHS Portsmouth Hospitals NHS Trust

BACKGROUND

WHY IS MOUTHCARE IMPORTANT

Good oral health can be defined as: being free from oral disease, pain or infection that limits an individual's ability to eat, speak and socialise[1]. A deterioration in oral health can result in a lower quality of life[2]. People are living and retaining their teeth for longer, therefore, providing mouth care is becoming increasingly important. In 1968, 37% of the population were edentulous, this dropped to only 6% in 2009[3]. Patients most at risk of deterioration to oral health are: Chemotherapy, Head & Neck Radiation, Frail Elderly, Ventilated, Oxygen Therapy, Learning Disability, Immunocompromised, Stroke & Palliative Care Patients[4]. Oral health has been strongly associated with: Physical & Mental Health[5] ,Cardiovascular Disease[6], Diabetes[7]. There is some association between oral health and Infective Endocarditis[8], Dementia[9], Oropharyngeal Cancer[10].

POOR ORAL HYGIENE & HOSPITAL ACQUIRED PNEUMONIA (HAP)

Aspiration of oropharyngeal secretions (including dental plaque) is associated with HAP, particularly in supine and older patients with a reduced level of consciousness. Oral hygiene interventions are proven to: reduce the risk of pneumonia and mortality by reducing the number of febrile days and microbial colonization[11]. Ultimately, this reduces: patient malnutrition, length of stay & hospital costs[12].

MOUTH CARE MATTERS (MCM) INITIATIVE, 2015

MCM is a Health Education England funded guidance, to improve the oral hygiene of inpatients and identify high risk patients to limit further complications. The guidance focuses on standardizing care, educating hospital staff and promoting oral health. MCM was born following a CQC inspection report of Surrey & Sussex Healthcare Trust (2014), which highlighted the provision of mouth care was not clearly recorded. The toolkit highlights to all medical professionals; how to assess, record and manage mouth care[13].

AIMS, OBJECTIVES & STANDARDS

AIMS:

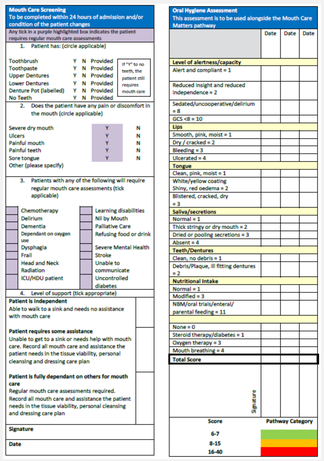
- To ensure a high standard of oral care is being appropriately assessed, recorded and provided
- To ensure at risk patients are identified

OBJECTIVES:

- To audit ward record keeping of oral healthcare against hospital guidance
- To assess if hospital admission has negatively impacted oral hygiene routines
- Devise and implement strategies to improve best practice

MOUTHCARE STANDARDS AT QUEEN ALEXANDRA HOSPITAL, PORTSMOUTH (QAH)

- 100% of patients should have an assessment form completed within 24hrs of admission (figure1). This categorizes them into High, Medium or Low risk for appropriate management (figure 2)
- Patients wearing dentures should have denture identification placed above their beds
- Currently, MCM ESR training is mandatory only for F1 ward staff (Stroke). MCM training for others are completed by individual ward teams



Mouth Care Screening
To be completed within 24 hours of admission and/or condition of the patient changes
Any tick in a purple highlighted box indicates the patient requires regular mouth care assessments

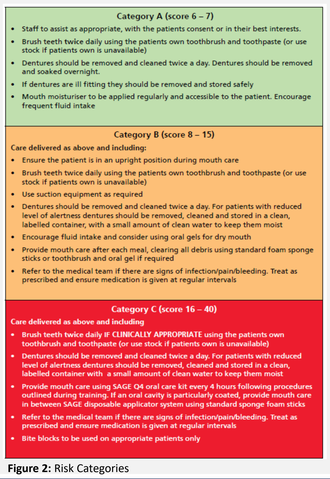
1. Patient has: (circle applicable)
Toothbrush Y N Provided
Toothpaste Y N Provided
Upper Dentures Y N Provided
Lower Dentures Y N Provided
Denture Pot (labelled) Y N Provided
No Teeth Y N Provided
If "Y" to no teeth, the patient still requires mouth care
2. Does the patient have any pain or discomfort in the mouth (circle applicable)
Severe dry mouth Y N
Ulcers Y N
Painful mouth Y N
Painful teeth Y N
Sore tongue Y N
Other (please specify)
3. Patients with any of the following will require regular mouth care assessments (tick applicable)
Chemotherapy
Delirium
Dementia
Dependent on oxygen use
Dysphagia
Frail
Head and Neck Radiation
ICU/HDU patient
Learning disabilities
Nil by Mouth
Palliative Care
Refusing food or drink
Severe Mental Health
Stroke
Unable to communicate
Uncontrolled diabetes
4. Level of support (tick appropriate)
Patient is independent
Able to walk to a sink and needs no assistance with mouth care
Patient requires some assistance
Unable to get to a sink or needs help with mouth care. Record all mouth care and assistance the patient needs in the tissue viability, personal cleansing and dressing care plan
Patient is fully dependant on others for mouth care
Regular mouth care assessments required. Record all mouth care and assistance the patient needs in the tissue viability, personal cleansing and dressing care plan
Signature
Date

Oral Hygiene Assessment
This assessment is to be used alongside the Mouth Care Matters pathway

	Date	Date	Date
Level of alertness/capacity			
Alert and compliant = 1			
Reduced insight and reduced independence = 2			
Sedated/uncooperative/delirium = 8			
GCS <8 = 10			
Lips			
Smooth, pink, moist = 1			
Dry / cracked = 2			
Bleeding = 3			
Ulcerated = 4			
Tongue			
Clean, pink, moist = 1			
White/yellow coating			
Shiny, red oedema = 2			
Blistered, cracked, dry = 3			
Saliva/secretions			
Normal = 1			
Thick stringy or dry mouth = 2			
Dried or pooling secretions = 3			
Absent = 4			
Teeth/Dentures			
Clean, no debris = 1			
Debris/Plaque, Ill fitting dentures = 2			
Nutritional Intake			
Normal = 1			
Modified = 3			
NBM/oral trials/enteral/ parental feeding = 11			
None = 0			
Steroid therapy/diabetes = 1			
Oxygen therapy = 3			
Mouth breathing = 4			
Total Score			
Signature			

Score	Pathway Category
6-7	
8-15	
16-40	

Figure 1: Mouth Care Screening Form



Category A (score 6 – 7)
- Staff to assist as appropriate, with the patients consent or in their best interests.
- Brush teeth twice daily using the patients own toothbrush and toothpaste (or use stock if patients own is unavailable)
- Dentures should be removed and cleaned twice a day. Dentures should be removed and soaked overnight.
- If dentures are ill fitting they should be removed and stored safely
- Mouth moisturiser to be applied regularly and accessible to the patient. Encourage frequent fluid intake

Category B (score 8 – 15)
Care delivered as above and including:
- Ensure the patient is in an upright position during mouth care
- Brush teeth twice daily using the patients own toothbrush and toothpaste (or use stock if patients own is unavailable)
- Use suction equipment as required
- Dentures should be removed and cleaned twice a day. For patients with reduced level of alertness dentures should be removed, cleaned and stored in a clean, labelled container, with a small amount of clean water to keep them moist
- Encourage fluid intake and consider using oral gels for dry mouth
- Provide mouth care after each meal, clearing all debris using standard foam sponge sticks or toothbrush and oral gel if required
- Refer to the medical team if there are signs of infection/pain/bleeding. Treat as prescribed and ensure medication is given at regular intervals

Category C (score 16 – 40)
Care delivered as above and including
- Brush teeth twice daily IF CLINICALLY APPROPRIATE using the patients own toothbrush and toothpaste (or use stock if patients own is unavailable)
- Dentures should be removed and cleaned twice a day. For patients with reduced level of alertness dentures should be removed, cleaned and stored in a clean, labelled container with a small amount of clean water to keep them moist
- Provide mouth care using SAGE Q4 oral care kit every 4 hours following procedures outlined during training. If an oral cavity is particularly coated, provide mouth care in between SAGE disposable applicator system using standard sponge foam sticks
- Refer to the medical team if there are signs of infection/pain/bleeding. Treat as prescribed and ensure medication is given at regular intervals
- Bite blocks to be used on appropriate patients only

Figure 2: Risk Categories

METHODOLOGY

This audit prospectively collected data from the Medicine for Older People, Rehabilitation & Stroke (MOPRS) wards (F1, F2, F3, F4) taken across one week of December 2019. 2 Pro Forma's were generated and distributed to patients (figure 3) and staff (figure 4). In total, 21 Patient responses & 33 Nursing staff responses were gained. The data was input into an excel spreadsheet and analysed.

Inclusion criteria: All patients and staff members on the ward.

Exclusion criteria: No consent or communication difficulties

How many times a day do I brush my teeth?	At Home 0 / 1 / 2 / 3 / 4	In the Hospital 0 / 1 / 2 / 3 / 4
When do I brush my teeth?	At Home Morning / Afternoon / Evening	In the Hospital Morning / Afternoon / Evening
Toothbrush brought in?	Yes / No	
Do I need help brushing my teeth on the ward?	Strongly Disagree / Disagree / Neutral / Agree / Strongly Agree	
Does anyone help me brush my teeth on the ward?	Never / Rarely / Sometimes / Often / Always	
Do I wear dentures on the ward?	Never / Rarely / Sometimes / Often / Always	
How many times a day do I clean my dentures?	At Home 0 / 1 / 2 / 3 / 4 / not applicable	In the Hospital 0 / 1 / 2 / 3 / 4 / not applicable
When do I clean my dentures?	At Home Morning / Afternoon / Evening	In the Hospital Morning / Afternoon / Evening
What do I use to clean my dentures on the ward?	Toothbrush / Denture cleaning solution / Nothing	
Do I need help cleaning my dentures on the ward? If you answered 'Yes' to the above, does anyone help you brush your dentures?	Strongly Disagree / Disagree / Neutral / Agree / Strongly Agree Never / Rarely / Sometimes / Often / Always	
Do I sleep with my dentures in at night whilst on the ward? If you answered 'No' to the above, where do you place your dentures at night?	Never / Rarely / Sometimes / Often / Always In water / denture box / in denture solution/ in tissues / under pillow	
Am I offered a mouthwash to use whilst being on the ward?	Never / Rarely / Sometimes / Often / Always	
Do nurses look inside my mouth whilst being on the ward?	Never / Rarely / Sometimes / Often / Always	
Please circle any of the following if you have experienced these since being admitted	Dental pain / Denture problems / Dry mouth / Sore mouth	
Has anyone cleaned inside/outside of my mouth whilst being on the ward?	Never / Rarely / Sometimes / Often / Always	
Do I feel it is safe to keep my dentures on the ward?	Strongly Disagree / Disagree / Neutral / Agree / Strongly Agree	

Figure 3: Patient Questionnaire

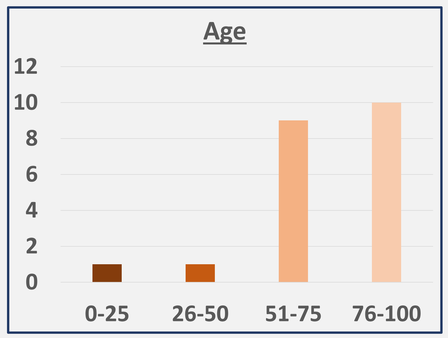
Do I use the mouth care screening sheet for newly admitted patients?	Never / Rarely / Sometimes / Often / Always
Do I think helping patients to brush their teeth is important? If you answered 'Yes', how many times a day do you help them to do so?	Strongly Disagree / Disagree / Neutral / Agree / Strongly Agree 1 / 2 / 3
Do I think helping patients to clean their dentures is important? If you answered 'Yes', how many times a day do you help them to do so?	Strongly Disagree / Disagree / Neutral / Agree / Strongly Agree 1 / 2 / 3
Do I remind patients to brush their teeth whilst being on the ward?	Never / Rarely / Sometimes / Often / Always
Do I provide a bowl/toothbrush to patients to aid in tooth brushing?	Never / Rarely / Sometimes / Often / Always
Am I aware of the consequences of patients sleeping with their dentures in at night?	Not aware/Slightly aware/Moderately aware/Very aware/Extremely aware
Do I offer a mouthwash for patients to use whilst being on the ward?	Never / Rarely / Sometimes / Often / Always
Do I examine/clean patient's mouths whilst they are on the ward?	Never / Rarely / Sometimes / Often / Always
How often do patients lose their dentures whilst on the ward?	Never / Rarely / Sometimes / Often / Always
Do I feel comfortable giving oral hygiene advice? Have I been trained to give oral hygiene advice?	Strongly Disagree / Disagree / Neutral / Agree / Strongly Agree Yes / No
Have I noticed patients complaining of dental pain/denture problems?	Never / Rarely / Sometimes / Often / Always
Have I noticed patients with redness/cracks at the corner of their mouths?	Never / Rarely / Sometimes / Often / Always
Have I noticed patients with sore mouths/tongues?	Never / Rarely / Sometimes / Often / Always
Have I noticed patients complaining of dry mouth?	Never / Rarely / Sometimes / Often / Always
Have I noticed patients with ulcers in/around their mouths?	Never / Rarely / Sometimes / Often / Always
Have I noticed patients drooling?	Never / Rarely / Sometimes / Often / Always
Do I take any measures for patients with: mouth soreness, redness in the corner of their mouths, dry mouth, oral ulcers or drooling?	Never / Rarely / Sometimes / Often / Always

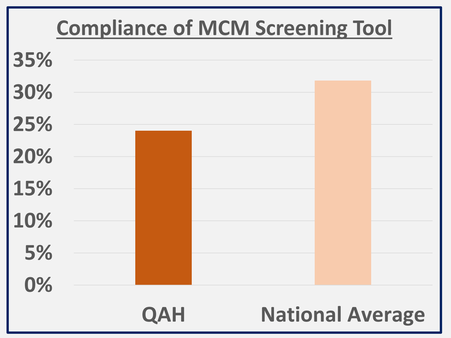
Figure 4: Nursing Questionnaire

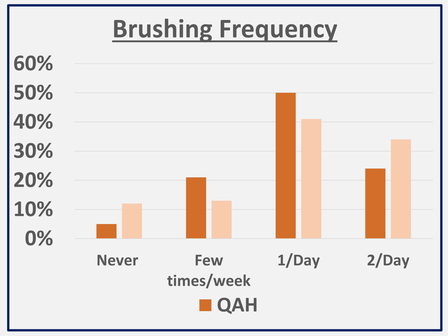
RESULTS

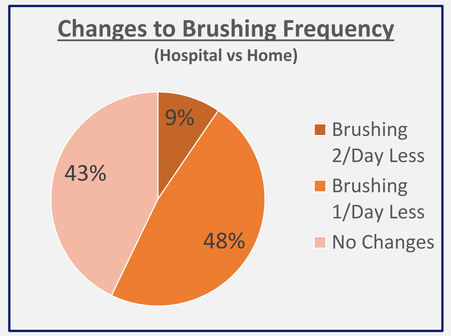
NURSING DATA RESULTS	YES	NO
Do You Routinely Examine Patients Oral Hygiene?	45%	55%
Have You Received Sufficient Oral Hygiene Training?	48%	52%

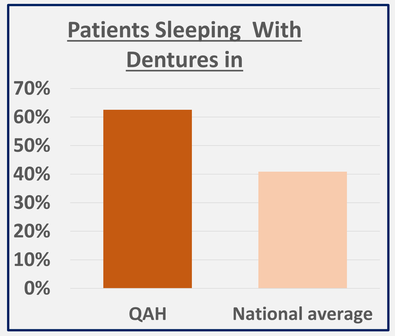
PATIENT DATA RESULTS

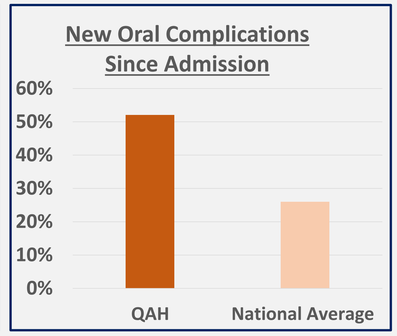












DISCUSSION

BARRIERS TO ORAL CARE:

Policies & Resources were lacking until recent years as there was no standardised provision of oral care or resources[14]. QAH has a clearly defined and publicised protocol and is well stocked in Mouth Care Tools. **Lack of Time** is the most populous reason at QAH for not providing mouth care. Baseline MCM data suggests 24.5% of nurses agree with this. Further national and international studies have evidenced these findings[15] [16]. **Insufficient Training** on oral healthcare is a historical issue amongst doctors and nurses[17]; 86% of nurses feel inadequately training in giving oral hygiene advice. Health Care Assistants are expected to provide mouthcare on the wards, however, their governing body does not include mouth care training for Care Certificates. 38% of Nurses state that **Patient Compliance** is seen as the most common barrier to mouth care[18]. At QAH, many of the patients on the MOPRS ward presented with Dementia, communication and behavioural difficulties.

INTERCEPTIVE STRATEGIES IDENTIFIED:

Local Training sessions for Doctors & Nurses has proved to be successful[19] and as such, was organised at QAH. 100% compliance of MCM screening tool was seen on F1 ward. This highlights the importance of wider mandatory ESR training for all nurses, this was raised to the Induction team for new starters. **Raising Awareness** for Mouth Care is important. As such, we organised regular ward trolley dashes, encouraged wider ward participation at monthly MCM meetings and a project to involve the Hygiene-Therapist in more ward hours was initiated. **Improving Tools** available was highlighted; poor denture storage options meant patients lost their dentures on the ward or wore them to bed. Provision of denture identifiers on bed boards was agreed. 24% of patients did not bring toothbrushes, and the ones supplied by the ward were hard bristled. We agreed with the supplier to provide soft bristled brushes. **Other Dental Issues** identified were a need to Datix lost dentures and promote domiciliary visits by GDPs.

THE IMPACT OF COVID-19 ON MOUTHCARE

Public Health England has published guidance for care of hospitalized patients with suspected/confirm COVID-19, which focuses on minimizing transmission of droplets. This can be achieved by: effective PPE, standing beside/behind patients when providing mouthcare, using oral suction where possible and minimising coughing from the patient. Ventilated patients are more prone to dry mouth/lips and bacterial pneumonia, which can be managed by application of dry mouth products and routinely moistening patients mouths with Chlorhexidine using an oral swab. Preliminary in-vitro studies have shown that some mouthwashes can reduce viral load to Covid-19, however, more/in vivo studies are warranted[20].

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