Stroke Rehabilitation
and Oral Health during a Global Pandemic

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Introduction
One in six people will experience a stroke in their lifetime, and 59% of strokes occur in the older person (65+
years). Deaths related to stroke have declined by 49% in the past 15 years due to better prevention and advancing treatment. However, as a result of this strokes account for 2.6 million hospital bed days per year - thus indicating that although survival rates are on the rise there is a long
recovery process. In Wales the prevalence rate of stroke survivors in the community is 2.12%.

Unfortunately many individuals post stroke experience multiple comorbidities. It is estimated almost 2/3 of stroke survivors are disabled and require ongoing care. This will have an impact on oral health through: oral risk factors, access to oral care, ability to communicate, ability to co-operate and legal and ethical barriers.

One case report aims to highlight the importance of a multi-disciplinary approach to oral care in patients within Stroke Rehabilitation Unit (SRU) despite a global pandemic.

Case Report

Medications
- Aspirin 100mg daily
- Levetiracetam 1000mg tds
- Lamotrigine 200mg daily
- Senna (PRN)
- Metformin
- Levetiracetam
- Atorvastatin
- Temazepam
- Rituximab
- CDP (to be used as required)
- CDS pre-Stroke. Unable to
- PEP in place.
- TAD secured.
- TAD Deemed to be

Dental History
Not currently registered with a GDP but was in the process of being referred to DDS pre-Stroke. Unable to recall last dental attendance. Limited experience of complex restorative treatment; multiple extractions.

Table 1. Challenges faced in achieving oral health in patients post-Stroke.

Dental Challenges in Stroke

There are many dental challenges that can act as barriers to achieving good oral health in patients post stroke, these are outlined in Table 1. As a result a multi-disciplinary approach is required to be adopted, and the roles different individuals involved in this patient-centred care are shown in Figure 3.

Discussion

Maintaining optimal oral health in hospital inpatients is important as good oral health can be linked to: pneumonia, poor nutritional intake and longer hospital stays. This can be exacerbated in patients post stroke as they are at higher risk of developing oral related problems due to a combination of medical, cognitive and physical disabilities. It is imperative that good oral hygiene is maintained in these patients, and this has been reflected in national oral care programmes (i.e. 1000 lives plus). Good care can reduce oral bacterial load and maintain oral comfort. In addition, we should be mindful of any loose teeth or restorations that could also be an aspiration risk or affect nutrition intake.

Prior to the COVID-19 pandemic there was a good relationship between SRU and the dental team based within the hospital. Unfortunately, during the pandemic many staff were redeployed and dental service was restricted to emergencies only. Therefore, “high-risk” inpatients were unable to access routine dental care and limited to basic oral hygiene provided by ward staff. We are aware that mouth care is frequently neglected and not prioritised on hospital wards. This can be due to a lack of training, appropriate resources and time. This can cause dental decline and impact on medical issues as a consequence.

An MDT approach is essential in maximising oral care of patients who have experienced a stroke. Improving the education of ward staff, and eventually family/carers upon discharge, is imperative to not only ensure good oro-dental health, but also highlights what role they can play in the process. This case highlight that despite a global pandemic, the MDT approach has allowed good care to be delivered.

Conclusion

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References


Figure 1. International Dysphagia Diet Standardisation (IDDS) Initiative

Figure 2. Dental charting from New Patient Examination

Figure 3. MDT approach for oral care post-Stroke.

Medical History
- Left Frontal Haemorrhage with Mass Effect
- Hypertension
- Hypercholesterolemia
- Stable Angina
- Type 2 Diabetes Mellitus
- Dysphagia

Social History
Patient lives with ex-wife. Has 2 daughters who are
patient’s nieces. Deemed to have ‘Lack Capacity’ by
way of their solicitor. Atorvastatin.

New Patient Examination
Referral made by Senior Sister on SRU due to concern
due to declining food intake, and query aspiration
risk from loose tooth.

Presenting complaint: Loose tooth on the left lower
side, most posterior tooth. Making eating
uncomfortable.

Examination:
C/O: No swallowing, no laryngopharynx, no
nasal. No evidence of clicking, deviation or pain. Good
mobility. No evidence of clicking, deviation or pain.

Figure 4. PATIENT

Hard Tissues - see ‘Gingiva - generalised white plaque (leukoplakia) covering buccal aspects of gingiva in upper and lower arches. Hard Tissues - see ‘Figure 2’ for dental charting.

- Poor oral hygiene with generalised plaque deposits.
- Moderate Klebsiella with Chadburn score of 5.

Stabilisation Treatment Plan
1. Examination - LL7 (Grade III mobile; potential aspiration risk, and cause of reducing food intake).
2. Prevention - High fluoride toothpaste (1.1%).
3. Oral hygiene instructions for staff.
4. Review - 1/52 post XLA to assess healing and patient wellbeing following extraction. On review - patient was eating well and had improved mood.

Multi-Disciplinary Approach

Oral Hygiene
- Reduced Reducty - due to dental discomfort, which patient didn’t verbalise to staff, food intake reduced in increased frailty. Need for exploration of need for artificial feeding.
- High sugar intake - to increase calorie intake build up shakes are prescribed. Increasing the patient’s caries risk.
- Dysphagia - switch to thinner foods/fluids which remain in the oral cavity for longer time periods, increasing caries risk.

Cognitive Impairment
- Consent difficulties - as an impact of the stroke, patient unable to retain information or weigh up the information provided in order to give valid consent. Due to acute loss of capacity no LAR or APC in place.
- Reduced Dental Activity - some generating procedures were stopped for a period, and the service was urgent treatment only; thus routine care (i.e. scaling) was missed.
- Communication - due to increased amount of PPE that is required to be worn good communication is more difficult to achieve.

Nursing Staff/ Health Care Assistants
- Acting provision of oral health care for patient’s who lack dexterity to effectively brush.
- Trained to use specialist oral hygiene aids, such as ‘Appropriating Toothbrush’.
- Vigilant to diet habits.

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Dental input from a ‘Stroke Skilled Dental Team’ during this time may have negated dental-linked issues and should be considered if future restrictions occur.

This case study highlights the importance of an MDT approach to ensure safety of this vulnerable patient group. Engagement of staff members and training so that they feel supported and confident in the delivery of this care is paramount.

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