

Pink, Perfuse and Clean Little Mouths!

Measuring the Impact of Paediatric SLT through Pilot of New Oral Hygiene TOM Scale in Development

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Background and Aim

Oral hygiene has an evidenced impact on general health and wellbeing and is severely affected in patients admitted to hospital for acute medical conditions. Poor oral hygiene can lead to pain, infection, reduced oral nutrition and lowered quality of life. Children with dysphagia, and those at risk of aspiration, are particularly vulnerable to the negative impacts of poor oral hygiene. Speech and Language Therapists (SLTs) assess and support management of oral hygiene for children with dysphagia in hospital. There is a need for standardised oral health measures for these patients, and so our aim was to develop and trial an outcome measure to capture outcomes of SLT intervention.

Method

Development of tool

The Paediatric SLT team at Royal London Children's Hospital (RLCH) developed a new oral hygiene outcome measure tool using evidence informed practice. With permission from Pam Enderby the tool was based on the Therapy Outcome Measures (TOMs) (Enderby and John, 2015). The tool was reviewed by Dentists from the RLH Dental Hospital before use.

Why TOM?

The Therapy Outcome Measure (TOM) enables professionals to describe the abilities and difficulties of a patient over time. The patient is rated from 0 (worst impairment) to 5 (no impairment) in the four domains of impairment, activity, participation and wellbeing, in line with the International Classification of Functioning, Disability and Health (WHO, 2007). TOM has been rigorously tested for reliability and clinical validity and was selected as the 'best fit' outcome tool by the Royal College of Speech and Language Therapists (RCSLT).

New Oral Hygiene TOM Scale in Development Captures Improved Participation and Wellbeing Following SLT Intervention



SLT assessment identified 60% of children required more than one specialist mouth care protocol

Before SLT intervention

86% were **unable** to brush their teeth or had **limited participation** in mouth care

73% showed **severe-moderate distress** in relation to mouth care

After SLT intervention

73% were **mostly confident** or **achieving potential** with mouth care

73% showed **mild-occasional** or **no inappropriate distress** in relation to mouth care

Conclusions

This small scale local pilot study demonstrates early evidence that the Oral Hygiene TOM in Development Scale is suitable for use with children with dysphagia in hospital, particularly those with a neurological diagnosis. The Scale proved sensitive enough to demonstrate change following intervention in all four domains and captured improved participation and wellbeing in most patients. This highlighted the impact of and need for SLT oral hygiene intervention for children with dysphagia in hospital.

Future Considerations

Recent publication will now enable trials across wider patient populations and settings. We promote use of the OH TOM Scale in Development and welcome feedback from SLTs in other settings. It would be beneficial to more rigorously test the scale for clinical reliability and validity. Further exploration of how oral hygiene intervention impacts dysphagia and wider health outcomes is also necessary.

References

Department of Health. (2017) *Delivering better oral health: an evidence-based toolkit for prevention*, Third Edition. London: Public Health England.
Enderby P, John A. (2015) *Therapy outcome measures for rehabilitation professionals*, Third Edition. Guildford: J&R Press Ltd.
Hanne, K., Ingelise, T., Linda, C. and Ulrich, P. (2012) 'Oral status and the need for oral health care among patients hospitalised with acute medical conditions', *Journal of Clinical Nursing*, 21(19pt20), pp. 2851-2859.
World Health Organisation. (2001) *International Classification of Functioning, Disability, and Health* : ICF. Geneva: World Health Organization.
Doshi, M. (2016) *Mouth Care Matters: A guide for hospital healthcare Professionals*. Leeds: NHS Health Education England
Peck, M., Jones, K. and O'Dwyer, E in consultation with Paediatric Dental Team, Royal London Children's Hospital (2019). 'Oral Hygiene Therapy Outcome Measure Scale in Development' in Enderby, P. and John, A. *Therapy Outcome Measure User Guide*, Guildford UK, J&R Press Ltd. pp. 216-218.
Petersen, P. E. (2003). *The World Oral Health Report 2003, Continuous improvement of oral health in the 21st century - the approach of the WHO Global Oral Health Programme*. Geneva: World Health Organization.

Oral Hygiene (Identify, describe what is 'best fit' for the patient/child/young person who has to have each feature mentioned. Use 0-5 to indicate if patient/child/young person is slightly better or worse than a descriptor and as appropriate to age.)

Impairment

- 0 **Healthy** healthy oral mucosa, with evidence of widespread wet or dried, thick mucous and/or blood plaques or food debris. Open ulcerations/bleeding, blunted tongue. Clinical signs of infection.
- 1 **Severely unhealthy** oral mucosa, with evidence of persistent generalized plaques, food debris, thick coating of mucus or blood on oral structures, recurrent ulcers/blisters. High and constant risk of infection.
- 2 **Severely/moderately unhealthy** status of oral mucosa has specific severe difficulty in maintaining more than one element of healthy oral mucosa e.g. widespread oral thrush, cracked lips, inflammation, food debris. At regular risk of infection.
- 3 **Moderately unhealthy** status of oral mucosa requires regular oral hygiene programme. May have specific more severe difficulty in maintaining one element of healthy oral mucosa e.g. food debris, coated tongue, dry lips, localized oral thrush or debris to one structure.
- 4 **Mild** status of oral mucosa, 'healthy' oral mucosa but may require increased frequency of mouth care.
- 5 **Healthy** oral mucosa, pink, perfuse, moist and clean.

Activity

- 0 **Medicated specialist high frequency** oral hygiene programme to meet oral hygiene needs. 2 hourly mouth care programme using multiple medicated and non-medicated specialist protocols e.g. medicated mouthwash, topical medication, oral brush medication, oral saline replacement gel or spray, ABC suction toothbrush and/or penicillin suction.
- 1 **Non-medicated specialist high frequency** oral hygiene programme to meet oral hygiene needs. 2 hourly mouth care programme using multiple oral hygiene products e.g. suction toothbrush and/or penicillin suction, non-fluoride toothpaste.
- 2 **Specialist/moderate frequency** oral hygiene programme to meet oral hygiene needs. 4-6 hourly mouth care programme using more than one specialist protocol e.g. suction toothbrush and/or penicillin suction, non-fluoride toothpaste.
- 3 **Adapted oral hygiene programme** to meet oral hygiene needs. 2-3 times daily mouth care programme. Requires one specialist protocol e.g. non-fluoride toothpaste.
- 4 **Regular oral hygiene programme** to meet oral hygiene needs e.g. increased frequency.
- 5 **Universal oral hygiene plan only** e.g. 2 times daily tooth brushing with fluoride toothpaste.

Participation

- 0 **Unable** to fulfil any social/educational/family role. Not involved in decision-making/has no autonomy, no control over environment, no social integration.
- 1 **Low self-confidence**, poor self-esteem, limited social integration, socially isolated, contributes to some basic and limited decisions. Cannot achieve potential in any situation.
- 2 **Some self-confidence**, some social integration, makes some decisions & influences control in familiar situations.
- 3 **Some self-confidence**, autonomy emerging, makes decisions and has control of some aspects of life. Able to achieve some limited social integration/recreational activities. Occasional control over the needs/encouragement to achieve potential.
- 4 **Mostly confident**, occasional difficulties integrating or in fulfilling social/family activity. Participating in all appropriate decisions. May have difficulty in achieving potential in some situations occasionally.
- 5 **Achieving potential**. Autonomous and unrestricted. Able to fulfil social, educational and family role.

Pilot study method

A pilot study was carried out to review the effectiveness of the new Oral Hygiene TOM in Development Scale and evaluate the impact SLT intervention has on children's oral hygiene in hospital. The 9 month pilot study recorded age, medical diagnosis and initial and final TOM scale scores for children referred requiring mouth care intervention during hospital admission. RCSLT Online Outcome Tool (ROOT) data was collected and thematic analysis of this data was carried out.

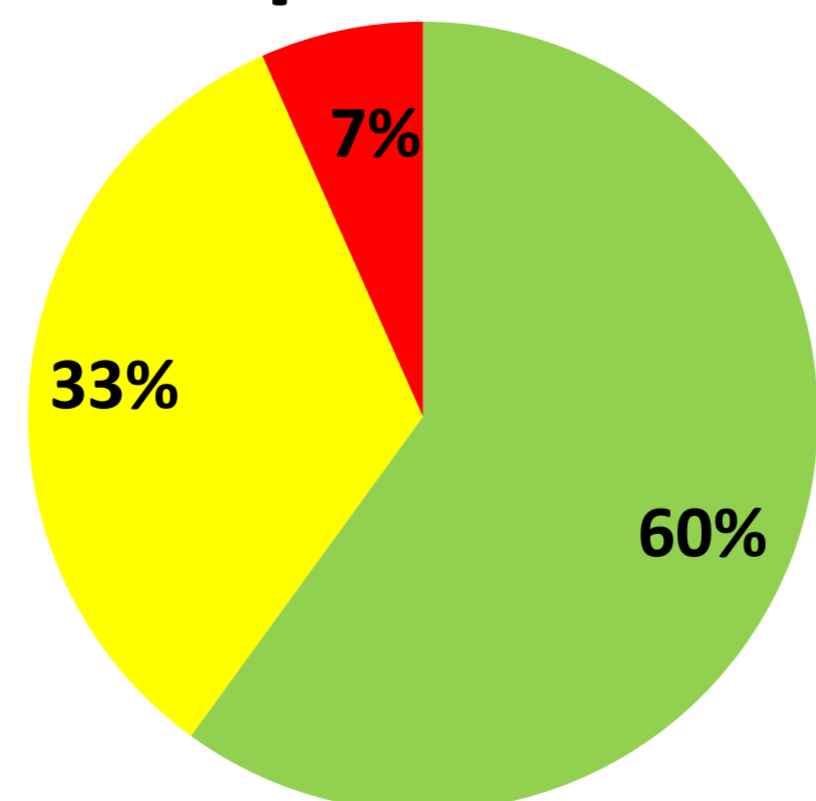
N=15 Age range: 4 months - 15 years
Medical diagnosis : 3 tracheostomy, 4 ABI, 3 progressive neurology, 5 congenital neurology.

Results

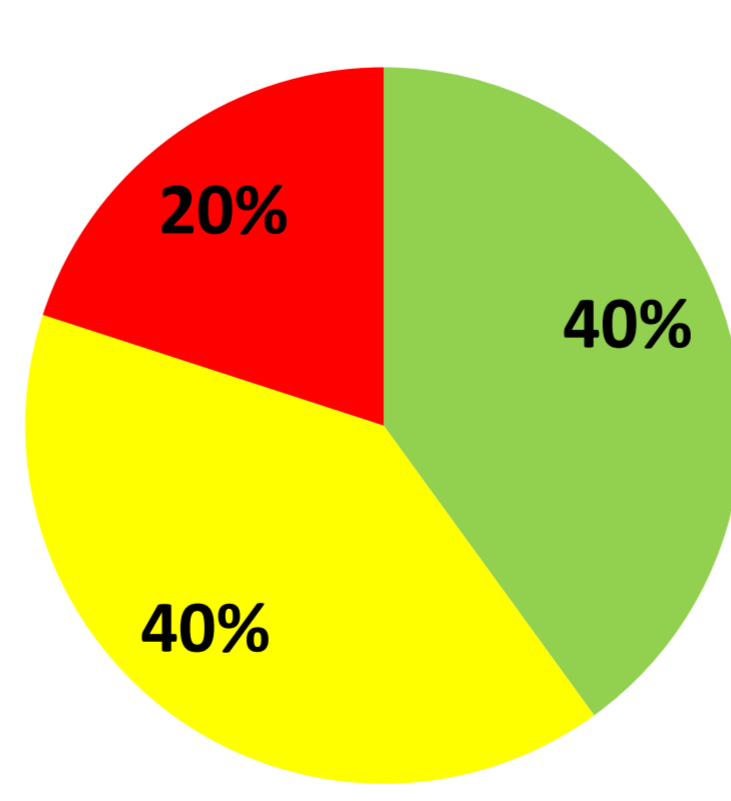
ROOT Analysis

Up ■ Same ■ Down ■

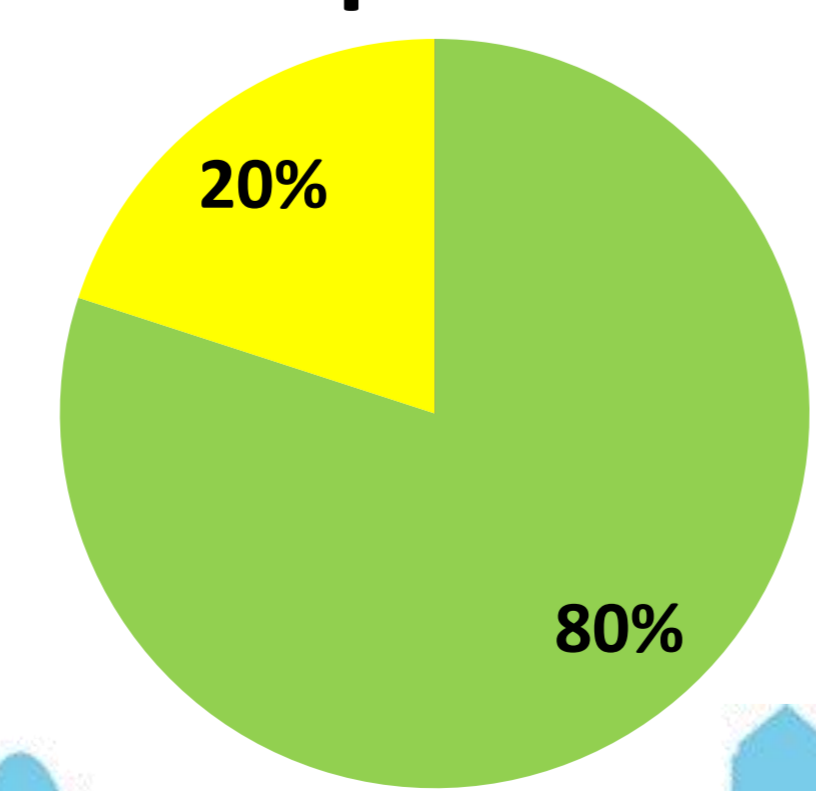
Impairment



Activity



Participation



Wellbeing

