

Question 27 evidence tables

Question 27: What is the best method to improve oral health after stroke?

NB Any discrepancies between reviewers in evidence quality and comment were discussed at the corresponding evidence review meeting

OHC = oral healthcare, OHAT = Oral Health Assessment Tool, BOE = bedside oral examination, BOP = bleeding on probing, FIM = Functional Independence Measure, FILS = Food Intake Level Scale, MNA-SF = Mini Nutritional Assessment Short-Form, OHI-S = Oral hygiene Index Simplified, FOIS = Functional Oral Intake Scale, AGNB = anaerobic gram-negative bacilli.

REF ID	Source	Setting, design & subjects	Intervention	Outcomes	Results	Evidence quality (SIGN checklist score) and comment
928	S. F. Kothari et al (2021). Effectiveness of Standard Oral Care Plan During Hospital Stay in Individuals With Brain Injury. <i>Frontiers in Neurology</i> . 12. 714167.	Standard oral care programme Longitudinal observational Study Danish Single centre n=61 Acute Brain Injury admitted to a single centre in a 4-month period in 2019. Mean age 55.1 years	Healthcare professionals followed the standard oral care programme. Based on the Danish national clinical guidelines for oral care. Duration 5-week period. Split into self-oral care and oral care given by caregivers. No control.	BOE score (bedside oral examination) and BOP assessment (bleeding on probing). Reduction in dental plaque Frequency of tooth brushing. Reduction in calculus.	Statistically significant reduction in plaque (P=0.01) and improvement in BOE score (P=<0.001). BOP, calculus, and frequency of tooth brushing did not reach statistical significance (P=0.06 0.30 and 0.06 respectively).	-/0 Single centre Small sample size Only looked for improvement over 5-week period (ABI is a long-term condition). TBI patients studied rather than stroke patients.
919	R. Dziewas et al (2021). European Stroke Organisation and European Society for Swallowing Disorders guideline for the diagnosis and treatment of post-stroke dysphagia. <i>European Stroke Journal</i> . 6: 3. LXXXIX-CXV	Meta-analysis by experts from 7 European Countries. All experts covering a broad spectrum of professionals involved in dysphagia care. Created a European Society guideline. 4 separate working groups answering 20 PICO questions. 189 studies of PSD included	Screening, assessment and treatment for post stroke dysphagia.	Impact of post-stroke dysphagia on stroke outcomes Effect of dysphagia and nutritional screens on functional outcome and survival Does the type, frequency or timing of dysphagia assessment reduce	21 recommendations 2 with high quality of evidence the rest are low/moderate. 6 - strength of recommendation strong.	++ Met the SIGN methodology checklist. The vast number of PICO questions makes the paper difficult to follow.

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				aspiration or improve outcome Do the variety of treatment strategies for dysphagia improve outcomes.		
919	R. Dziewas et al (2021). European Stroke Organisation (ESO) and European Society for Swallowing Disorders guideline for the diagnosis and treatment of post-stroke dysphagia. European Stroke Journal. 6: 3. LXXXIX-CXV	3 group leaders from 3 European countries nominated 11 experts with representation from wider MDT. Group agreed on PICO questions and outcomes (patient, intervention, comparator and outcome) Group selected eligible studies, 4 searches completed across several databases. Meta analysis performed Cochrane software and tools.	Seeks to develop guidance to support MDT management of post stroke dysphagia. Uses ESO (European Stroke Organisation) standard operating procedure. Authors followed the Grading of Recommendations, Assessment, Development and Evaluation (GRADE) approach. RCT, observational and epidemiological studies included.	Authors report finding relatively few RCTs and systematic reviews with generally a finding of low to medium quality evidence often from few, small, heterogeneous studies.	Makes a number of recommendations often based on consensus as a result of the limited evidence. Makes recommendations where the risk of the intervention is low even if limited evidence to support.	- Rigorous approach however recommendations often based on expert consensus rather than available high quality evidence.
920	P. Campbell et al (2020). Interventions for improving oral health in people after stroke. Cochrane Database of Systematic Reviews. 2020: 12. CD003864.	Systematic Review 15 RCTs (22 randomised comparisons) involving 3631 participants with data for 1546 people with stroke.	Interventions designed to improve the cleanliness and health of the mouth, tongue and teeth in people with a stroke who received assisted OHC led by healthcare staff. assessment tool; equipment (e.g. toothbrush);	The primary outcomes were presence of dental plaque or denture plaque. Secondary outcomes included presence of oral disease, presence of related infection and oral opportunistic pathogens related to OHC and pneumonia, stroke survivor and providers' knowledge and attitudes to OHC, and	Low-to very low-quality evidence suggesting that OHC interventions can improve the cleanliness of patient's dentures and stroke survivor and providers' knowledge and attitudes. There is limited low-quality evidence that selective	++ High quality

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			<p>agent (e.g. mouthwash); staff, volunteer or family carer training; OHC promotion.</p> <p>OHC interventions compared with usual care</p> <p>OHC interventions compared with placebo</p> <p>OHC intervention compared with another OHC intervention</p>	patient satisfaction and quality of life.	decontamination gel may be more beneficial than placebo at reducing the incidence of pneumonia. Improvements in the cleanliness of a patient's own teeth was limited	
920	P. Campbell et al (2020). Interventions for improving oral health in people after stroke. Cochrane Database of Systematic Reviews. 2020: 12. CD003864.	<p>Setting: Hospital (ICU, Acute Stroke, Stroke Rehab, Outpatient) Nursing Home, Home (Hospital-outreach home care) in France, Hong Kong, China, Japan, Malaysia, S.Korea, Taiwan, UK, USA.</p> <p>Design: Systematic Review of 15 RCTs (22 randomised comparisons).</p> <p>Subjects: 3631 participants with data for 1546 people with stroke. Subjects were adults (aged 18 years or greater) with a diagnosis of stroke who received assisted Oral Health Care (OHC) led by healthcare staff.</p>	<p>OHC compared with:</p> <p>a) usual care for people after stroke (7 trials including educational and multi-component OHC protocols)</p> <p>b) placebo for people after stroke (3 trials including Orabase Gel, povidone-iodine rinse, Saengmaeg-san extract)</p> <p>c) other OHC for people after stroke (12 trials including multi-component OHC interventions)</p> <p>OHC included:</p> <ul style="list-style-type: none"> assessment tool; 	<p>Primary outcomes</p> <ul style="list-style-type: none"> Dental plaque. Denture plaque. <p>Secondary outcomes</p> <ul style="list-style-type: none"> Presence of oral disease: gingivitis, denture-induced stomatitis, periodontal disease. Presence of related infection and primary oral opportunistic pathogens related to OHC and pneumonia: pneumonia, anaerobic Gram-negative bacillus (AGNB), Candida and Staphylococcus aureus. Oral health knowledge and attitudes. 	<p>a) OHC vs usual care:</p> <ul style="list-style-type: none"> Low and very low-quality evidence showed that: * OHC interventions could improve denture plaque one month after training which was maintained six months after the intervention was delivered; * OHC interventions could improve stroke survivor and providers' knowledge up to 6 months after training. 	<p>SIGN Checklist Score for Systematic Reviews and Meta-analyses: ++ High Quality.</p> <p>The clinical question is clearly addressed. Methodological quality was assessed using the Cochrane 'Risk of bias' tool. Meta analysis was performed with outcome data. Quality of evidence for each outcome assessed using GRADE (Grading of Recommendations, Assessment, Development and Evaluations). All studies were assessed for risk of</p>

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			<ul style="list-style-type: none"> • equipment (e.g. toothbrush); • agent (e.g. mouthwash); • staff, volunteer or family carer training; • OHC promotion. 	<ul style="list-style-type: none"> • Patient satisfaction and quality of life: care received, oral comfort and appearance, quality of life. Outcome measurements taken up to 12 months post intervention. 	<p>* OHC interventions could improve stroke survivor and providers' attitudes to OHC one month after training, but this improvement was not sustained longer term (greater than one month).</p> <p>b) OHC vs. placebo</p> <ul style="list-style-type: none"> • Low-quality evidence showed no benefit or harm for OHC interventions compared with placebo on the incidence of pneumonia; however, people with stroke treated with gel for selective decontamination of the digestive tract had a lower incidence of pneumonia compared with placebo gel. <p>c) OHC vs. other OHC intervention</p> <ul style="list-style-type: none"> • Low-quality evidence showed no benefit or harm for enhanced 	<p>bias against 9 quality criteria. Overall, studies were judged to be low or very low in quality, often due to incomplete reporting of randomisation and blinding and high risk of attrition bias.</p>

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					multi-component OHC interventions compared with other OHC interventions for dental plaque.	
921	R. Suzuki et al (2020). Assignment of Dental Hygienists Improves Outcomes in Japanese Rehabilitation Wards: A Retrospective Cohort Study. Journal of Nutrition, Health and Aging. 24: 1. 28-36.	Retrospective cohort study Japanese Rehabilitation wards 656 patients with hip fracture or stroke (n=430) admitted to convalescent rehabilitation wards	Ward-assigned dental hygienists.	Functional Independence Measure (FIM), the Food Intake Level Scale (FILS), and the home discharge rate.	ADL and swallowing function were significantly improved at discharge and the home discharge rate was higher among patients in rehabilitation wards with dental hygienists. Having a ward-assigned dental hygienist may lead to better rehabilitation outcomes in rehabilitation wards There were no statistically significant between-group in FIM, FILS and MNA-SF (mini nutrition assessment scale – short form) at admission. Among stroke patients, FILS score at admission was lower in the no dental hygienist group (P=0.02). Among stroke patients, FILS, FIM	+ Acceptable post hoc power analysis

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					and MNA-SF score at discharge were significantly higher in the dental hygienist group.	
921	R. Suzuki et al (2020). Assignment of Dental Hygienists Improves Outcomes in Japanese Rehabilitation Wards: A Retrospective Cohort Study. Journal of Nutrition, Health and Aging. 24: 1. 28-36.	Setting: Registry data from the Japanese Rehabilitation Nutrition Database. Design: Retrospective Cohort Study Subjects: 656 pts aged over 20 with hip fracture or stroke admitted to 10 convalescent rehabilitation wards (430/65% stroke)	Dental Hygienists providing oral interventions, care plans, training, dysphagia rehab, and participation in MDT's (4/10 sites) Vs No Dental Hygienists (6/10 sites)	FIM - Functional Independence Measure (Activities of Daily Living) FILS - Food Intake Level Scale (Swallowing Function) MNA-SF - Mini Nutritional Assessment Short-Form (Nutritional status) Home discharge rate	Results suggest some benefit of dental hygienist interventions in stroke patients in terms of ADLs, swallow function and nutritional status. However, these results are not relevant to the clinical question.	0 SIGN Checklist for Cohort Studies: Reject. Study does not look at methods for improving oral health after stroke. It examines whether the intervention of dental hygienist improves ADLs, swallowing function, nutritional status or home discharge rate.
922	A. Chick; A. Wynne (2020). Introducing an oral care assessment tool with advanced cleaning products into a high-risk clinical setting. British journal of nursing (Mark Allen Publishing). 29: 5. 290-296.	Setting: 28 bed acute stroke unit at Chelsea and Westminster Hospital, London Design: According to the SIGN Algorithm – non randomised controlled trial. Subjects: 324 Patients from an acute stroke ward. 144 from June-Sept 2017 (comparison) and 180 from June-Sept 2018 (treatment). The number of these pts with stroke diagnosis is unknown.	Intervention group divided into 2 sub-groups. One group (Cat C – high risk) were given an oral care kit (The Stryker q4° Q:Care kit*). The other group received unspecified oral care. Both groups also had an oral health screening and assessment tool. Staff delivering oral care to both groups received education and training. * Kit costs approx £9.60 comprises 6 packs to be used every 4 hours, in	Primary outcome(s) not explicitly stated. Authors listed 7 objectives for the project including: <ul style="list-style-type: none"> • Determine whether the oral care assessment tool is fit for purpose; • Compare oral care before and after the introduction of the oral care kit; • Determine whether improved oral care would reduce non-ventilator hospital-associated pneumonia 	Introduction of the kit increased compliance with 'good oral care' by more than 4 times (20% in 2017 versus 82% in 2018) However a) no definition or data relating to compliance-referring to staff? Patients? Or both? b) data included ALL patients in the given time period not just those receiving the kits c) no definition of 'good oral care' is offered.	0/- SIGN Checklist for controlled trials: Unacceptable. Unknown % subjects with stroke diagnosis. Ward OHC regime prior to intervention not stated. Authors claim care kit & assessment tool increased compliance with OHC across groups but no compliance data included for either group. They failed to explicitly acknowledge that the intervention also included

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			<p>the numbered sequence (1 to 6): Packs contain suction toothbrushes, suction swabs, applicator swabs, and pouches containing chlorhexidine, hydrogen peroxide and mouth moisturiser. Kits do not contain fluoride.</p>	<p>(NV-HAP) rates, antibiotic usage and mortality rates.</p>	<p>Decline in total antibiotic doses and costs for managing non-ventilator healthcare associated pneumonia, and reduced non-ventilator healthcare associated pneumonia deaths. However, the number of patients reported as having non-ventilator healthcare associated pneumonia in both groups is exactly the same as the numbers of pts in Cat.C suggesting a large coincidence or incorrect data reporting. No effort made to exclude or control for other healthcare associated pneumonia risks as no demographic data given.</p>	<p>education and training, and that the assessment tool was used for all patients, not just the Category C who may have had the care kit. No information given on what oral care the non-category C patients received during the intervention period. Data includes all patients, not just those using the care kits so the contribution of the different types of oral care to the results is unknown. Authors suggest the intervention caused a drop in non-ventilator healthcare associated pneumonia antibiotic doses and costs, however their data seems to suggest that ALL high-risk patients in both groups had non-ventilator healthcare associated pneumonia which is either a coincidence or incorrect reporting. They also claim that use of the oral care kit is associated with better oral health (but oral health changes are not explicitly measured in this study) and subsequently to a</p>

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						reduced number of non-ventilator healthcare associated pneumonia related deaths. No mention is made of other healthcare associated pneumonia risk factors (e.g age, severity of stroke, associated dysphagia or other comorbidities) or efforts made to control for these. No demographic information for either group is given. The poor design, lack of identification or control of confounding variables, unclear research question, lack of data, potential data incongruencies, and high risk of bias makes it difficult to ascribe validity to any of the research outcomes.
923	M. Obana et al (2019). Effect of a collaborative transdisciplinary team approach on oral health status in acute stroke patients. Journal of oral rehabilitation. 46: 12. 1170-1176.	Setting: University hospital in Japan. Design: Case Series. Subjects: N=115 consecutive patients with acute stroke between 1/4/2016-3/10/2017 who received transdisciplinary oral health care. 15 patients were excluded due to incomplete data.	OHAT (Oral Health Assessment Tool) completed on admission, weekly, and at discharge. Nurses provided 'daily oral health care' * Dentists provided treatment according to OHAT results*	OHAT scores compared from initial examination to discharge to a) clarify the oral health of acute stroke patients b) to clarify the effects of collaborative transdisciplinary oral health care and c) to predict the prognosis of oral health status.	OHAT scores generally high on admission. Median total score=4 Median total on discharge=3 This represented significant improvements from the initial examination in all OHAT categories, except for dentures and dental pain	No checklist completed for uncontrolled case series. Inclusion and exclusion criteria clearly stated. Inclusion was consecutive. Inclusion was 88%. Oral Health was measured using the OHAT which has only been evaluated as a reliable and valid screening assessment tool in

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			<p>Dentists/Dental Hygienists provided oral health care once or more a week*</p> <p>SLT conducted daily swallowing exercises</p> <p>Weekly oral health MDT.</p> <p>Oral Health Care Sheet for each patient</p> <p><i>*no detail given of nature and content or frequency of these interventions</i></p>	<p>NB: OHAT assesses lips, tongue, gums and tissues, saliva, natural teeth, denture(s), oral cleanliness, dental pain.</p> <p>0=healthy 1= changes 2=unhealthy (max score of 16)</p>	<p>Patients then grouped into 'good' and 'poor' oral health depending on their OHAT score at discharge (if they were lower than or equal to, or above the median total OHAT score of 3 points). The 'poor' group had significantly worse OHAT scores on admission, were significantly older, had significantly fewer teeth and required significantly more frequent dental interventions.</p> <p>Multivariate analysis with high OHAT scores as dependent variable found tongue, dentures and oral cleanliness on admission were factors preventing improvement in oral health status on discharge.</p> <p>No significant differences between the two groups in terms of type of stroke, level of consciousness, whether they received SLT intervention and the</p>	<p>residential care facilities. Case series so no comparison group (risk of bias).</p> <p>No specific detail included about severity of stroke, co-morbidities, usual oral care routine. No details given of any of the interventions e.g type or frequency. Unclear whether patients received consistent and standardised oral care from the nurses. Unclear type and frequency of SLT swallow exercises or how these may have contributed (or not) to the outcomes. Outcomes were clearly reported, but it is difficult to draw conclusions as to the significance of each aspect of the intervention on the outcomes due to lack of data.</p>

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					duration of hospitalisation	
924	M. C. Brady et al (2020). A pragmatic, multi-centered, stepped wedge, cluster randomized controlled trial pilot of the clinical and cost effectiveness of a complex Stroke Oral healthcare intervention plan Evaluation II (SOCLE II) compared with usual oral healthcare in stroke wards. International Journal of Stroke. 15: 3. 318-323.	<p>Pilot of a pragmatic, stepped-wedge, cluster randomized controlled trial of clinical and cost effectiveness of enhanced versus usual oral healthcare for people in stroke rehabilitation settings</p> <p>Scotland. 4 stroke rehab wards randomly allocated to stepped time points to move from usual to enhanced oral care. Computer based randomisation. All admissions eligible. Nursing staff received 90 min oral healthcare training online.</p> <p>Seeks to assess impact of oral health programme on stroke associated pneumonia, oral health and quality of life 325 patients, median age of 76. 112 nursing staff (37 completed training).</p> <p>Caldicott Guardian approval.</p>	Usual oral care vs enhanced oral care over 13 months. Interventions determined by nursing staff tailored to individual needs rather than a standardised approach.	<p>Outcomes collected at patient, staff and service level. Dental plaque, denture plaque, and oral health-related quality-of-life scores were similar between usual and enhanced OHC. Length of hospital stay and discharge data collected.</p> <p>Statistical analysis Compared the incidence of pneumonia between two time periods—before and during enhanced OHC. No drop outs.</p>	<p>Considerable uncertainty reported regarding the association between pneumonia event rate and enhanced oral care vs usual oral care. Low rate of pneumonia across all.</p> <p>Did not meet predetermined progression criteria to phase III RCT marked between-site diversity reported in admissions, recruitment populations, stroke-associated pneumonia events, training, and resource use.</p>	<p>- Participants were not fully blinded. Includes non-stroke cases, variability noted between patient profiles across the 4 wards.</p> <p>Enhanced oral health care was co-produced with service users.</p>
924	M. C. Brady et al (2020). A pragmatic, multi-centered, stepped	Complex stroke oral healthcare intervention Cluster RCT-unblinded	Usual oral healthcare versus enhanced oral healthcare and the	Incidence of pneumonia in stroke patients.	No evidence of a difference in stroke associated pneumonia	- Did not meet their pre-defined progression

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	wedge, cluster randomized controlled trial pilot of the clinical and cost effectiveness of a complex Stroke Oral healthcare intervention pLan Evaluation II (SOCLE II) compared with usual oral healthcare in stroke wards. International Journal of Stroke. 15: 3. 318-323.	n=325 stroke patients, n=122 stroke nurses. Scotland only. Multi-centred.	incidence of aspiration pneumonia in stroke patients Control =Usual OHC n=135 patients Intervention=Enhanced OHC n=147.		between enhanced versus usual oral healthcare.	criteria. Recruited fewer patients than expected. Lower pneumonia rates than expected. No firm conclusions drawn on pneumonia outcome.
925	B. D. Pasiga; C. Dewi (2019). The effectiveness of the use of special grip toothbrushes" on dental hygiene for indonesian patients with ischemic stroke". Pesquisa Brasileira em Odontopediatria e Clinica Integrada. 19: 1. e4304	30 ischaemic stroke patients with Hemiparesis Dextran; at least 10 remaining teeth; and willing to participate in the study. Makassar Stroke Center, Indonesia. Pre and post-test design.	Special grip design on tooth brush	Oral and oral hygiene was measured using the index of Oral hygiene Index Simplified (OHI-S). The oral hygiene assessment procedure was done in 3 stages before the brush, after brush and on the seventh day.	There was a significant difference in the average OHIS score before and after using a special grip toothbrush ($p<0.01$).	0 Unacceptable – reject Small patient numbers. Unclear blinding of outcome, etc.
926	H. J. Chen et al (2019). Effect of an oral health programme on oral health, oral intake, and nutrition in patients with stroke and dysphagia in Taiwan: A randomised controlled trial.	RCT evaluated the effect of an oral health programme (i.e., sputum assessment, Bass method-based tooth brushing, and tooth coating with fluoride toothpaste) before swallowing therapy on oral health, oral intake and nutrition.	Demographic data, oral health assessment, Functional Oral Intake Scale (FOIS) scores, Mini-Nutritional Assessment-Short Form (MNA-SF) scores, and nasogastric tube removal rates were	Evaluated outcomes using generalised estimating equation analysis FOIS Functional Oral Intake Score	Three weeks post-implementation, the oral care group were reported to have had significant oral health improvements relative to the control group	0

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	International Journal of Environmental Research and Public Health. 16: 12. 2228.	Rehab ward in-patients with nasogastric tubes across four sites in Taiwan. n = 66 post stroke, 23 female, 43 male, computer randomisation. Research assistant blinded to group allocation.	compared between groups.	Mini-Nutritional Assessment-Short Form (MNA-SF) scores, 5% drop out rate	No difference reported in FOIS and nasogastric tube between groups. The oral care group were reported to have had a higher, but non-significant FOIS score Proposes that routine oral health programmes implemented during stroke rehabilitation in patients with dysphagia may promote oral health and maintain oral intake.	
926	H. J. Chen et al (2019). Effect of an oral health programme on oral health, oral intake, and nutrition in patients with stroke and dysphagia in Taiwan: A randomised controlled trial. International Journal of Environmental Research and Public Health. 16: 12. 2228.	randomised controlled trial Taiwan Sixty-six patients with stroke (23 female, 43 male) in rehabilitation ward, who underwent nasogastric tube insertion, were assigned randomly to an oral care group (n = 33) and a control group (n = 33)	oral health programme (i.e., sputum assessment, Bass method-based tooth brushing, and tooth coating with fluoride toothpaste) before swallowing therapy	Oral health assessment, Functional Oral Intake Scale (FOIS) scores, Mini-Nutritional Assessment-Short Form (MNA-SF) scores, and nasogastric tube removal rate.	3 weeks post-implementation, the oral care group had significant oral health improvements relative to the control group (95% CI = -2.69 to -1.25, Wald $\chi^2 = 29.02$, $p < 0.001$). There was no difference in the FOIS (95% CI = -0.16 to 0.89, Wald $\chi^2 = 1.86$, $p > 0.05$), MNA-SF (95% CI = -0.35 to 0.53, Wald $\chi^2 = -0.17$, $p > 0.05$), and nasogastric tube removal ($p > 0.05$) between groups. The	0 Unacceptable Small patient numbers Random Allocation Software 2.0 to randomly assign patients Outcome - a research assistant blinded to the group allocation.

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					oral care group had a higher, but non-significant FOIS score (3.94 vs 3.52) ($p>0.05$). Routine oral health programmes implemented during stroke rehabilitation in patients with dysphagia may promote oral health and maintain oral intake.	
927	R. Dai et al (2019). Effect of oral hygiene programmes on oral opportunistic pathogens during stroke rehabilitation. Oral Diseases. 25: 2. 617-633.	<p>RCT 3 months duration and 3 month observation, single blind.</p> <p>Evaluation of effectiveness of 'conventional' vs advanced oral hygiene care programme on prevalence and viable count of opportunistic pathogens including yeasts, aerobic and facultative anaerobic gram-negative bacilli (AGNB) staphylococcus aureus</p> <p>N= 94 people undergoing stroke rehab within 6 months of stroke</p> <p>Single hospital setting</p> <p>Block randomised to 2 groups of 47 with similar mean ages and severity:</p>	Comparison - manual tooth brushing and oral hygiene instruction vs powered tooth brushing, mouth rinsing with chlorhexidine and oral care instruction.	<p>Baseline measures 3 months and 6 months</p> <p>Prevalence and viable counts of oral opportunistic pathogens at each measure point</p>	<p>Neither intervention was reported to significantly affect AGNB, yeast or S.Aureus over the study period in terms of prevalence and viable counts</p> <p>Regression analysis failed to detect association between prevalence/viable counts of oral opportunistic pathogens</p> <p>Both oral hygiene programmes significantly improved oral hygiene and reduced gingival bleeding, neither significantly reduced the loads AGNB, yeast or S. aureus in the oral cavity over the study period in</p>	- 20 lost to follow up at 3 months and a further 17 lost at 6 months of the original n=94

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		conventional oral hygiene care prog vs advanced oral hygiene care programme.			terms of prevalence and viable counts.	
927	R. Dai et al (2019). Effect of oral hygiene programmes on oral opportunistic pathogens during stroke rehabilitation. Oral Diseases. 25: 2. 617-633.	RCT-single blinded over 30 days with 3 and 6 month follow up. Hong Kong. Single centre. Stroke patients in the rehab phase but within 6 months of their event.	Conventional oral care programme versus advanced oral hygiene n=94 n=47 in intervention arm versus n=47 control arm	Detection of oral opportunistic pathogens and the viable counts of the pathogens	Both programmes significantly improved oral hygiene and reduced gingival bleeding. No sig difference in the prevalence of pathogens between both groups at 3 months	- Small sample size. Single centre. Patients with cognitive disability and communication difficulties excluded. Some patients were taking antibiotics.