NATIONAL INSTITUTE FOR HEALTH AND CLINICAL EXCELLENCE

Centre for Clinical Practice

Review of Clinical Guideline (CG19) – Dental recall: recall interval between routine dental examinations

Background information

Guideline issue date: 2004

4 year review: 2008 (first review)

8 year review: 2012 (second review)

National Collaborating Centre: National Clinical Guidelines Centre (formally National Collaborating Centre for Acute Care)

Review recommendation

- The guideline should not be updated at this time.

Factors influencing the decision

Literature search

1. Through an assessment of abstracts from a high-level randomised control trial (RCT) search, new evidence was identified relating to the following clinical areas within the guideline:
    - Dental recall intervals
    - Risk factors for dental caries
    - Threshold for intervention
    - Effectiveness of dental health education and oral health promotion.

2. No new evidence was identified in these areas which would invalidate the current guideline recommendations.

3. From initial intelligence gathering, qualitative feedback from other NICE departments, the views expressed by the Guideline Development Group, as well as the high-level RCT search, an additional focused literature search was conducted for the following clinical area:
    - Dental recall intervals: evaluation of routine dental checks at 24 month recall frequencies.

4. The identified new literature from the additional focused search did not demonstrate a detrimental effect of a 24 month dental recall interval, compared to shorter intervals, on oral health in adults. As such, there is currently insufficient new evidence available to invalidate the current guideline recommendations.

5. Three clinical trials were identified, two of which (a feasibility study and a follow-on RCT) compared the clinical and cost-effectiveness of three forms of dental recall strategies (6 month recall, risk-based recall, and 24 month recall). The feasibility study has been completed and the RCT is expected to be completed by 2018. The third trial is evaluating NHS Bradford and Airedale's new model of dental service provision and is expected to be completed by July 2015. The results of these trials may potentially inform guideline recommendations in the future.

Guideline Development Group and National Collaborating Centre perspective

6. A questionnaire was distributed to GDG members and the National Collaborating Centre to consult them on the need for an update of the guideline. Three responses were received with two respondents indicating that there is no new relevant literature that would potentially change current recommendations. Nonetheless, respondents indicated general concerns about the lack of an evidence base to inform the recommended recall intervals and the deviation from the 6-monthly intervals to a more variable interval. However, a relevant ongoing trial (expected completion date - mid 2018) evaluating the effectiveness and

cost effectiveness of 6 month recall, risk-based recall, and 24 month recall intervals was highlighted (as '5' above) as the results may potentially inform guideline recommendations in the future.

7. Overall, one respondent felt that it would be premature to update the guideline at this time until the results of pilots testing new dental contractual arrangements are reported. Conversely, two respondents felt that the guideline should undergo an update.

Implementation and post publication feedback

8. In total 70 enquiries were received from post-publication feedback, most of which were routine. Two key themes emerging from post-publication feedback were, queries about oral cancer checks and enquiries from patients seeking clarification on why interval periods have changed in their own personal circumstances.

9. Feedback from the NICE implementation team included:
    - A briefing for dentists and practice teams, available March 2011, on the NICE guideline on dental recalls and oral health. Results compiled by NHS Dental Services (Business Services Authority) found that when recall intervals were reviewed at PCT or SHA levels, the recall rates were: 13% (for under three months) and 58% (for 3-9 months). A total 71% of people were re-attending within a nine month period.

10. No new evidence was identified through post publication enquiries or implementation feedback that would indicate a need to update the guideline.

Relationship to other NICE guidance

11. NICE guidance related to CG19 can be viewed in Appendix 1.

Summary of Stakeholder Feedback

Review proposal put to consultees:
The guideline should not be updated at this time.
The guideline will be reviewed again according to current processes.

12. In total eight stakeholders commented on the review proposal recommendation during the two week consultation period. The table of stakeholder comments can be viewed in Appendix 2.

13. Six stakeholders agreed with the review proposal, one disagreed with the review proposal and one stakeholder did not state a definitive decision.

14. Stakeholders commented that:
    - A 24 month recall interval is inadequate in relation to oral cancer detection, particular since studies have indicated that the human papilloma virus (HPV) can be a cause of oral cancer. However, through the review of the guideline a literature search was conducted focusing on the effectiveness of routine dental checks at 24 month recall frequencies in improving quality of life, reducing the morbidity associated with dental caries, periodontal disease and oral cancer, and reducing the mortality associated with oral cancer. No evidence was identified which would invalidate the current guideline recommendations. Furthermore, the results of an ongoing clinical trial (expected completion date - mid 2018) evaluating the effectiveness and cost effectiveness of 6 month recall, risk-based recall, and 24 month recall intervals may potentially inform guideline recommendations in the future. In addition, the guideline mentions that viral infections can be a risk factor, amongst others, for oral cancer and currently states that:

- Cases of oral cancer have been reported in young persons (below the age of 45 years) with little or no exposure to tobacco or alcohol
- Clinicians should maintain a high index of suspicion for mucosal lesions that appear unusual. This vigilance is especially important for isolated lesions occurring in locations at higher risk for the development of squamous cell carcinoma, such as the lateral and ventral surfaces of the tongue and the floor of the mouth.

Anti-discrimination and equalities considerations

15. One GDG member queried whether special care dentistry (a relatively new specialist field first introduced in 2008 focusing on providing care to individuals or groups who have a sensory, mental, intellectual, emotional or social disability or condition) was considered in the development of the original guideline. However, the guideline includes recommendations for patients of all ages (both dentate and edentulous patients) and covers primary care received from NHS dental staff (dentists, independent contractors contracting within the NHS, dental hygienists and therapists) practising in England and Wales. The guideline takes into account the potential of the patient and the dental team to improve or maintain quality of life and to reduce morbidity associated with oral and dental disease.

Conclusion

16. Through the process no additional areas were identified which would indicate a significant change in clinical practice. There are no factors described above which would invalidate or change the direction of current guideline recommendations. However, the results of an ongoing clinical trial (expected completion date - mid 2018) evaluating the effectiveness and cost effectiveness of 6 month recall, risk-based recall, and 24 month recall intervals may potentially inform guideline recommendations in the future.

Relationship to quality standards

17. This topic is not part of the library of NICE Quality Standard NHS healthcare topics.

18. This topic is not currently related to a published quality standard or a quality standard in development.

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Centre for Clinical Practice
31 July 2012

Appendix 1

The following NICE guidance is related to CG19:

Guidance	Publication date
Public health guidance: Oral health: guidance for dental health practitioners on promoting oral health, including making a visit to the dentist a positive experience.	Publication date: TBC.
Public health guidance: Oral health: guidance for local authorities on commissioning programmes to promote oral health, particularly among vulnerable groups.	Publication date: TBC.
Public health guidance: Oral health: guidance for nursing and residential care homes on promoting oral health, preventing dental health problems and ensuring access to dental treatment.	Publication date: TBC.

Appendix 2

National Institute for Health and Clinical Excellence

Dental recall
Guideline Review Consultation Comments Table
25 June – 9 July 2012

Stakeholder	Agree with proposal not to update?	Comments	Comments on areas excluded from original scope	Comments on equality issues	Responses
Lancashire Care NHS Foundation Trust	Yes, we agree it does not need updating.	I think CG19 is a good working document and ideal framework and supports our care pathways that we use so all in all I would leave it alone given the choice! It is easy to use etc.			Thank you for your comment.
BDA	Yes	It seems to us that any review of the guideline is premature until we have the results of the pilots currently taking place, which are testing new contractual arrangements and preventive practices, including the adoption of oral health assessments and standard care pathways. These pilots will affect care delivered in the general dental services and salaried services.			Thank you for your comment.
BDA		We know anecdotally that many dentists are concerned about extended recalls and in particular that a 24 month recall is inadequate in relation to oral cancer			Thank you for your comment. Through the review of the guideline a literature search

		detection. Guidance is needed on oral cancer risk assessment in view of the rise in case numbers, change in epidemiology and the lack of pathway-based detail from the pilots mentioned above.			was conducted focusing on the effectiveness of routine dental checks at 24 month recall frequencies in improving quality of life, reducing the morbidity associated with dental caries, periodontal disease and oral cancer, and reducing the mortality associated with oral cancer. However, no evidence was identified which would invalidate the current guideline recommendations. The results of an ongoing clinical trial (expected completion date - mid 2018) evaluating the effectiveness and cost effectiveness of six month recall, risk-based recall, and 24 month recall intervals may potentially inform guideline recommendations in the future. This area will be examined again in the next review of the guideline.
BDA			We are not aware if special care dentistry was considered in the development of the original guideline and		Thank you for your comment. The guideline includes recommendations for patients of all ages (both dentate and

			suggest that this should be reviewed with input from appropriate specialists. The original guidance states that it excludes recall for routine scale and polish. This exclusion is an example of where the guideline may not be appropriate for special care patients.		edentulous patients) and covers primary care received from NHS dental staff (dentists, independent contractors contracting within the NHS, dental hygienists and therapists) practising in England and Wales. The guideline takes into account the potential of the patient and the dental team to improve or maintain quality of life and to reduce morbidity associated with oral and dental disease.
BDA				There are funding issues relating to the ability of some salaried services to cater for a significant proportion of their patients, who should now be recalled every three months. Some services have never funded this increase in activity and so it is not complied with.	Thank you for your comment. This information will be passed onto the NICE Implementation Team.

Department of Health		No substantive comments to make regarding this consultation.			Thank you for your comment.
Centre for Evidence-based Dentistry	Yes	I would agree with the findings of the review consultation document that at this time there is no new evidence which would invalidate the guidelines recommendations.			Thank you for your comment.
RCGP	Yes	It is difficult to agree a standard time between checkups and it is helpful to consider other than RCT evidence. 1. The carious lesion takes usually 6-12 months to develop-at an early stage re-calcification and arrest is possible. Prophylactic fluoride applications and fissure sealants probably need to be done at 6 monthly intervals in children with a high level of dental caries although the evidence is only fair. 2.People differ considerably in their "caries" rates and the dental surgeon needs to take account of this in setting a recall date 3.Caries after the age of 25 years is much less common but periodontal disease all important 4.Attention to oral hygiene, scaling etc may for patients who produce heavy calculus means a six month recall is appropriate	Periodontal disease		Thank you for your comments. The guideline currently recommends the following: • The shortest interval between oral health reviews for all patients should be 3 months. • The longest interval between oral health reviews for patients younger than 18 years should be 12 months. • The longest interval between oral health reviews for patients aged 18 years and older should be 24 months. • For practical reasons, the patient should be assigned a recall interval of 3, 6, 9 or 12 months if he or she is younger than 18 years old, or 3, 6, 9, 12, 15, 18, 21 or 24

		5. In young children when the aim is to come without fear and accept dentistry regular checks and thus often no work to be done helps build confidence 6.Thus check-up intervals are guidelines and the present system is reasonable			months if he or she is aged 18 years or older. In addition, the guideline provides clinical scenarios to illustrate how recall interval selection will work in practice when the guidance is followed. The results of an ongoing clinical trial (expected completion date - mid 2018) evaluating the effectiveness and cost effectiveness of 6 month recall, risk-based recall, and 24 month recall intervals may potentially inform guideline recommendations in the future.
RCPCH	Yes	No comments	Preventative measures against caries suggest twice daily tooth-brushing. However, there are no comments on technique and quality of the process of tooth-brushing itself. From personal/professional experience we would argue that a lot of children are asked to brush their teeth without supervision		Thank you for your comment. The guideline states that regular brushing with a fluoride containing toothpaste reduces caries risk. However, specific advice on tooth brushing technique is outwith the scope of the dental recall guideline, CG19.

			and without assessing their fine-motor and developmental skills to perform effective tooth-brushing.		
Faculty of General Dental Practice (UK), The Royal College of Surgeons of England	Agree with the proposal not to update at this time	Current evidence around the most clinically appropriate dental recall period is limited and inconclusive. Therefore, we recommend not reviewing the guidance until we know more (hopefully in 2018 with the conclusion of the INTERVAL Dental Recalls Trial (Investigation of NICE Technologies for Enabling Risk-Variable-Adjusted-Length Dental Recalls Trial/ Pitts/Clarkson study). The review should therefore, be deferred until then. However: Current guidance allows dentists to use their clinical judgement to recall patients at higher risk more often – between 3 months or up to two years for patients with good oral health and no signs of disease. However, FGDP (UK) believes that a 2-year recall is generally too long. It assumes that the oral health of a patient on a two-year interval remains static within this period. Actually early signs of oral disease, including serious disease, can be missed during this long interval and could have been treated effectively if observed at a shorter recall period. For this reason, to err on the side of caution and in the absence of	None	None	Thank you for your comments. Through the review of the guideline a literature search was conducted focusing on the effectiveness of routine dental checks at 24 month recall frequencies in improving quality of life, reducing the morbidity associated with dental caries, periodontal disease and oral cancer, and reducing the mortality associated with oral cancer. However, no evidence was identified which would invalidate the current guideline recommendations. The results of the ongoing clinical trial (expected completion date - mid 2018) evaluating the effectiveness and cost effectiveness of 6 month recall, risk-based recall, and 24 month recall intervals may potentially inform guideline recommendations in the

		clinical evidence, we would like to see dentists recalling patients at periods of no longer than a year until conclusive evidence is presented to suggest otherwise.			future. This area will be examined again in the next review of the guideline.
British Dental Health Foundation	No	Guidance at Clinical Area 4: Risk Factors for Oral Health. The recommendation guideline is that there is no new evidence to invalidate current guidelines. However this is now out of date, given the recent research results on the link between the HPV virus and Mouth Cancer.	According to a report issued by the American Centers for Disease Control April 2012, of the 26,000 cases in USA diagnosed a year, 70% of oropharyngeal cancers are caused by the Human Papillomavirus (HPV), of these 7,400 case are *oropharyngeal* This new evidence needs to be included in the guidelines, so dentists are aware that there are other causes of oral cancer, other than those stated. Incidence of oral cancer in the UK has increased by 43% in the last decade according to CancerResearch UK. The incidence rate of oral cancers in the UK has risen by around a quarter (26 per cent) in the last 10 years from 6.5 to 8.2 per 100,000 people. Cases in the base of the		Thank you for your comment. The guideline mentions that viral infections can be a risk factor, amongst others, for oral cancer and currently states that: • Cases of oral cancer have been reported in young persons (below the age of 45 years) with little or no exposure to tobacco or alcohol • Clinicians should maintain a high index of suspicion for mucosal lesions that appear unusual. This vigilance is especially important for isolated lesions occurring in locations at higher risk for the development of squamous cell carcinoma, such as the lateral and ventral surfaces of the tongue and the floor of the mouth In addition, the guideline

			tongue have increased from 284 to 595, cases in the tonsil have increased from 573 to 1,052 According to the latest Cancer Research UK study into risk factors for cancer, HPV is thought to be related to approximately 480 (8 per cent) of all oral cancer cases diagnosed in 2010. Tobacco accounts for around 64 per cent of oral cancers while alcohol is linked to about 20 per cent.(Parkin, D M et al., - The Fraction of Cancer Attributable to Lifestyle and Environmental Factors in the UK in 2010 (British Journal of Cancer 2011) doi:10.1038/bjc.2011.474) Of these some 25% are in under 40s with no traditional risk factor and likely to be attributable to HPV. Due to the endemic nature of HPV. All patients potentially therefore now fall into risk for oral cancer and routine opportunistic		currently recommends a range of recall intervals from 3 – 24 months: • The shortest interval between oral health reviews for all patients should be 3 months. • The longest interval between oral health reviews for patients younger than 18 years should be 12 months. • The longest interval between oral health reviews for patients aged 18 years and older should be 24 months. • For practical reasons, the patient should be assigned a recall interval of 3, 6, 9 or 12 months if he or she is younger than 18 years old, or 3, 6, 9, 12, 15, 18, 21 or 24 months if he or she is aged 18 years or older. This area will be examined in the next review of the guideline.

			screening at dental examination remains the best chance of early detection meaning that protracted recall intervals have become less appropriate.		
British Dental Health Foundation	No	Guidance at Clinical Area 4: Risk Factors for Oral Health. The review recommended that dentists remain potentially alert for potentially malignant lesions, while performing each new routine examinations in all patients particularly those who use tobacco or who consume alcohol heavily.	A Cancer Research Paper that was published in the British Journal of Cancer (The Fraction of Cancer Attributable to Lifestyle and Environment UK2010 doi 10.1038/bjc 2011.474), HPV is thought to cause 8 percent of all case of mouth cancer in the UK. The lifestyle risk factors not just tobacco and alcohol, need to be alluded to make dental professionals aware that patients who do not smoke or drink are at risk as well.		Thank you for your comment. The guideline mentions that viral infections can be a risk factor, amongst others, for oral cancer and currently states that: • Cases of oral cancer have been reported in young persons (below the age of 45 years) with little or no exposure to tobacco or alcohol • Clinicians should maintain a high index of suspicion for mucosal lesions that appear unusual. This vigilance is especially important for isolated lesions occurring in locations at higher risk for the development of squamous cell carcinoma, such as the lateral and ventral surfaces of the tongue and the floor of the mouth

					This area will be examined in the next review of the guideline.
British Dental Health Foundation	No	Guidance at Clinical Area 4: Risk Factors for Oral Health. In the summary, it states that no new evidence was identified which would change the conclusion in the guideline, which states that tobacco use and excessive consumption of alcohol are the principle risk factor for oral cancer.	A study by the Ohio State University US National Institute 2012 cites that mouth cancer has risen more that 20 percent in the last 30 years. This was attributed to rise of the HPV virus, where 7 percent of the US population aged 14 -69 were infected with HPV. The guideline needs to acknowledge the rise of cases caused by HPV and the fact that the age and demographic amongst patients has changed. Dentists need to be aware that HPV can cause oral cancer in anyone. And all patients should be routinely checked, not just those with associated risk factors.		Thank you for your comment. The guideline mentions that viral infections can be a risk factor, amongst others, for oral cancer and currently states that: • Cases of oral cancer have been reported in young persons (below the age of 45 years) with little or no exposure to tobacco or alcohol • Clinicians should maintain a high index of suspicion for mucosal lesions that appear unusual. This vigilance is especially important for isolated lesions occurring in locations at higher risk for the development of squamous cell carcinoma, such as the lateral and ventral surfaces of the tongue and the floor of the mouth This area will be examined in the next review of the guideline.