

Do patients keep up their dental health during orthodontic treatment? An audit

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INTRODUCTION

A two-centre audit was carried out in the orthodontic department of the maxillofacial unit at Furness General Hospital and at the Abbey Orthodontic Specialist Practice, Dalton-in-Furness, Cumbria, to investigate whether patients under our care for specialist orthodontic treatment keep up with their routine dental care at the same time.

BACKGROUND

Child oral health has been improving and far fewer children experience tooth decay than they did 30 years ago. Older children in England now have the best oral health in Europe. However, in spite of this overall improvement, national surveys still highlight inequalities which are strongly associated with social background. There are also variations according to other factors, such as water fluoridation.⁽¹⁾

In general dental practice, teams have clear national guidelines in order to deliver better oral health for their patients.⁽²⁾ These include principles of tooth brushing for oral health, increasing fluoride availability, healthy eating advice, identifying sugar-free medicines and putting this into practice by assessing the appropriate recall interval for each individual patient based on their risk. The purpose of the dental recall is to review and measure the effectiveness of the previous advice or intervention and to diagnose any new lesions or progression of pre-existing lesions or conditions.

Orthodontic consultation and treatment is normally delivered by qualified orthodontic specialists, either in hospital or specialist orthodontic practice. Orthodontic specialists have undergone additional postgraduate specialist training following their initial undergraduate dental qualification. Whilst orthodontic specialists have knowledge of general dental practice, the oral care previously mentioned and dental treatment are most appropriately delivered in general dental practice by dental professionals, including dentists, hygienists and therapists.

Patients are referred for orthodontic consultation by their dentist. This may take place either in the local hospital or local specialist orthodontic practice, depending on the severity of their malocclusion. If orthodontic treatment involving fixed or removable appliances is to be provided, the patient will remain under the care of their dentist for routine regular dental care, additionally attending appointments with the specialist for provision and adjustment of the appliances. Normally, orthodontic treatment will take between 18 months and two years to complete, with appointments every six to eight weeks for adjustments to the appliances.

Anecdotal evidence suggests that some patients do not visit their general dental practitioner regularly for examinations during a course of orthodontic treatment. This is potentially serious since the patient's general dental health could be at risk.

Six-monthly dental check-ups have been customary under the General Dental Service (GDS) in the United Kingdom since the inception of the NHS.⁽³⁾ The NICE guideline on dental recall interval (2004) contains evidence-based guidelines to be used when setting a dental recall interval.⁽³⁾ A comprehensive checklist of modifying factors should be taken into consideration, and includes plaque-retaining factors such as orthodontic appliances.

There are well-accepted risks associated with orthodontic appliances and, in particular, fixed appliances. These risks include plaque retention, decalcification, caries, gingival inflammation and devitalisation of teeth. Regular dental check-ups during orthodontic treatment should, therefore, continue throughout the orthodontic treatment.

Orthodontists will normally advise their patients to continue attending for regular dental check-ups during their orthodontic treatment. This is part of the consent process and the patient will receive this advice both verbally and in written form.

AUDIT

Aim

The aim of this audit was to find out if patients keep up with their general dental health during orthodontic treatment.

Standard

One hundred per cent of patients under active orthodontic treatment should continue to attend their dentist for regular routine dental check-ups.

Method and data collection

The audit was prospective, with data collected for 100 patients in each of two centres (see above). The clinician or dental nurse recorded the answers to three questions on the data collection sheet. Data was anonymous and analysed centrally. Table 1 details some of the questions on the data collection sheets.

| Question | Answer |
|--|------------|
| 1 Do you know that you need to continue to visit your dentist for routine check-ups during your orthodontic treatment? | Y/N |
| 2 When was your last dental check-up? | Month seen |
| 3 When is your next check-up at the dentist due? | Month due |

Table 1 Some of the questions on the data collection sheet

| | |
|--|---|
| Q1 | <i>Do you know that you need to continue to visit your dentist for routine check-ups during your orthodontic treatment?</i> |
| Yes | 81 patients |
| No | 7 patients |
| Summary | 92% of patients knew to visit their dentist during their orthodontic treatment. 8% did not know this |
| Q2 | <i>When was your last dental check-up?</i> |
| Responses | 66 patients knew the date or the month of their last check-up 22 could not remember; didn't know or gave various other answers including 'ask my mum', 'ages ago', 'when teeth were extracted' |
| Summary | 75% knew when they had last had a check-up |
| Q3 | <i>When is your next check-up at the dentist due?</i> |
| Responses | 66 knew when their next check-up was due 22 did not know or gave various other responses including 'mum knows', 'they will send for me nearer the time' |
| Summary | 75% knew when their next check-up was due |
| Table 2 Hospital orthodontic department patient responses (n=88) | |

| | |
|---|--|
| Q1 | <i>Do you know that you need to continue to visit your dentist for routine check-ups during your orthodontic treatment?</i> |
| Yes | 92 patients |
| No | 8 patients |
| Summary | 92% of patients knew to visit their dentist during their orthodontic treatment. 8% did not know this |
| Q2 | <i>When was your last dental check-up?</i> |
| Responses | 56 patients knew the date or the month of their last check-up 22 could not remember or didn't know 22 gave various other answers including 'ask my mum', 'ages ago', 'when teeth were extracted' |
| Summary | 56% knew when they had last had a check-up |
| Q3 | <i>When is your next check-up at the dentist due?</i> |
| Responses | 61 knew when their next check-up was due 16 did not know 5 gave various other responses including 'mum knows', 'they will send for me nearer the time' |
| Summary | 61% knew when their next check-up was due |
| Table 3 Specialist orthodontic practice patient responses (n=100) | |

Results

Data was collected prospectively from 88 patients in hospital and 100 patients in specialist practice. The results are shown in tables 2 and 3. Ninety-two per cent of hospital patients and 92% of specialist practice patients knew they should be visiting their dentist regularly for check-ups. There were varying responses to questions two and three (see tables 2 and 3). Seventy-five per cent of hospital patients knew when they last saw their dentist and when they should next see them. However, in specialist practice, 56% remembered their last visit, but 61% knew when their next visit was due.

Summary

The standard was set to ensure that patients were receiving the dental care that they needed to support the specialist care they were receiving. Although the age of the patients was not recorded, all the patients included in the audit were under the age of 18 years. One hundred patients from specialist practice and 88 patients from hospital were asked the dental recall questions. Ninety-two per cent of patients in the hospital and 92% in specialist practice knew they should be attending for regular dental check-ups. Three quarters of hospital patients knew when they would next see their dentist and two thirds of specialist practice patients also knew. The audit standard was, therefore, not met.

Changes to practice

It is recommended that clinicians emphasise the need for regular check-ups as part of the consent process. Also, remind patients during treatment. A re-audit is planned later this year, linked to a proposed audit of medical history updates.

CONCLUSION

A timely reminder from all dental professionals involved in a patient's orthodontic care would be most helpful.

ACKNOWLEDGEMENTS

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