Discussion The focus of the audit was the patient referrals to the paediatric emergency dental department by letter. Overall, the number of written referrals was small (approximately 30) and similar during both periods. Furthermore, it should be noted that the 12 sets of missing records belonged to patients with written referrals in the post-contract period. Had these notes been included in the study, this would have demonstrated an increase of approximately one third of written referrals; compared to the pre-contract period. It is difficult to explain why the trend regarding referrals for trauma and facial swelling was lower and pathology was higher in the post-contract period. Interestingly, an increase in the number of written referrals for children with caries of a vounger average age was noticed. This may suggest that GDPs are reluctant to treat patients below the age of 6 years. However, caution should be exercised in interpreting this finding as the number of written referrals analysed for this audit was small.

It was noted that the majority of the patients attending the paediatric dental emergency clinic were casual attenders; possibly attending on the recommendation of another clinician. In conclusion, a small change in written referrals was noted between the preand post-contract time-frames. Due to the small numbers in the audit, it is not possible to determine the significance of this finding. However, the increase of over 40% casual 'walk-in' patients to the department cannot be ignored. The remit of this pilot audit cannot explain this 'snap-shot' increase and further investigation is warranted.

Action plan (i) The Paediatric Dental A & E daybook is crucial to finding patient details. To ensure that all the data required are recorded, we plan to re-design and update the departmental A & E daybook. A departmental meeting has already been held to re-train staff to complete the daybook more accurately and clearly; (ii) we plan to focus the audit data to include 'walk-in' patients to the paediatric dental emergency service to try and identify if they were they advised to attend by their GDP or another source; and (iii) the next stage of the audit cycle will be undertaken prospectively for the period December 2007 to February 2008. Data collection will be carried out daily to avoid the need to request large numbers of records at any one time.

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Referrals made to the dental hygienist from a specialist paediatric dentistry department

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Introduction This was a prospective audit of the referrals made to the dental hygienist in a 6-month period.

Aims The audit sought to determine whether: (i) the referral was appropriate; and (ii) the treatment to be undertaken had been accurately prescribed.

Standards Appropriate referrals were defined as those: (i) outlined in the GDC extended duties for dental hygienists and therapists¹; (ii) consistent with the local protocol stating that the referral had to be prescribed by a Specialist Paediatric Dentist; and (iii) where the patient must have an increased dental need – e.g. medically compromised, cleft lip and palate, dental anomaly or trauma. **Methods** A proforma was used to record the patients referred to the hygienist. Information recorded included: patient age, medical history, dental diagnosis, reason for referral and referring practitioner. To aid the referrals, a quick-fill referral plan was incorporated into the process. The proforma was made available on the clinic and the appointments made. At each patient visit the hygienist and audit lead evaluated the referral, its compliance with the local and national standards and the quality of referral.

Results Fifty patients were referred with a mean age of 10.6 years (range 2–16). Forty six referrals had accurately prescribed the treatment for the hygienist to undertake, leaving four with no treatment plan. Ninety-two per cent were referred by a Specialist in Paediatric Dentistry (Consultant or Associate Specialist), the remaining 8% coming from SpRs in orthodontics. Medically compromised children made up 62% of the referrals. Children with dental anomalies/trauma made up 62% of patients seen. All the treatments that were prescribed were within the remit of a dental hygienist.

Discussion The majority of referrals were appropriate. Clinicians on the whole appeared to be aware that all treatment plans must be written in nature. When this is not the case, patients are kept waiting for their care whilst the hygienist seeks the referring dentist. The main source of inappropriate referral was the orthodontic SpRs, as they did not comply with the local protocol regarding route of referral and created an unfunded service.

Action plan (i) Training sessions will be arranged to ensure all staff are aware of the national and local protocols; (ii) the current and new orthodontic SpRs will be made aware that all referrals to the hygienist must be through a Specialist in Paediatric Dentistry and meet the requirements of the local protocols; (iii) the hygienist will monitor all referrals with the aid of a log diary and feedback to the department; and (iv) the audit is to be repeated implementing these changes.

Reference

1 General Dental Council. Extended Duties for Dental Hygienists and Therapists 2006. London: General Dental Council, 2006.

An audit of dento-alveolar trauma presenting to five international specialist paediatric dentistry centres GRAEME WRIGHT & RICHARD WELBURY

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Introduction Reporting of the incidence and the prevalence of dento-alveolar trauma varies worldwide. This variation is in part due to the varied methods of data collection¹⁻⁶.

Aim The aim of this audit was to any variation in the presentation of dento-alveolar trauma at five international centres with standardized data collection.

Methods A retrospective case record study of clinical records was carried out. Data were collected using a machine readable data collection sheet in Brisbane (B), Melbourne (M), Sydney (S) and Dunedin (D) during student electives from Glasgow Dental School under the supervision of RW. Data were also collected in Glasgow (G) by GW. Dental trauma cases between 2002 and 2006 were included. A total of 858 clinical records were identified. Data collected included: gender, age at trauma, cause of trauma and classification of traumatic injury (WHO classification).

Results At all centres dento-alveolar trauma was more common in males (Fig. 1). Overall there were two age peaks identified at 0–4 years and 8–11 years for children presenting with dento-alveolar trauma, although there was variation between centres (Fig. 2). Most injuries occurred between July and September in Glasgow, January and March in Sydney, October to December in Melbourne and April to June in Dunedin. Allowing for the

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Fig. 1. The percentage of dento-alveolar injuries occurring in males at five specialist paediatric dentistry centres.



Fig. 2. Percentage of children presenting with dento-alveolar trauma at five specialist paediatric dentistry centres according to age range.

different months in the northern and southern hemispheres these periods mainly equate to summer time and longer daylight hours apart from Dunedin. The cause of the injury was investigated with falls (54% overall) being the most common followed by bicycle injuries (12% overall) and then sport injuries (11% overall). Injuries to the periodontal ligament were the most common form of injury at the different centres: 82% (G), 67% (S), 65% (B), 94% (D) at the different centres. Dental hard tissue injuries occurred in approximately half of the patients: 58% (G), 46% (S), 56% (B), 37% (M), 45% (D).

Discussion A large barrier to collect data for this sample was the wide variation in both quality and quantity of information about the traumatic injuries which was recorded in the patients' case records. This was irrespective of location. The data available, however, have many similarities in the presentation of trauma to the various centres. Injuries were predominantly during summer months in both hemispheres. Standardizing trauma data collection will facilitate future planning of trauma services worldwide. A copy of a standardized collection form is available at http://www.bspd.co.uk. **Action plan** To encourage those collecting and presenting dento-alveolar trauma data to do so in a standardized manner to ensure data collection is contemporaneous and comparable between centres.



Fig. 3. The proportion of the three most common mechanisms of injury for dento-alveolar trauma presenting at five specialist paediatric dentistry centres.

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