complications with implications for quality of life during and after therapy[2]. Survival rates following cancer treatment have significantly improved in the last three decades. Dentists are increasingly likely to find that they have children in their care that may have been treated for malignant disease. At the Bristol Children's Hospital (BCH) the patients and parents/carers receive written advice regarding long-term effects of the anti-malignancy treatment they have received. However, patient information leaflets do not include advice regarding the current practices or warnings about the long-term dental effects of treatment.

Aim The current audit was carried out to ascertain the level of oral health knowledge and access to continuing oral health care for patients who have been treated for childhood malignancies at Bristol Children's Hospital.

Standards (i) Patients should have access to dental follow up after treatment for malignancy (NICE Guidelines, 2005)[3]; (ii) fluoride mouthwash should be used by patients over 6 years of age who are at high risk to caries (RCS Guidelines, 2004)[4]; and (iii) high fluoride containing toothpaste must be used by patients over 6 years of age who are at high risk to caries (BSPD publication, 1996)[5].

It was expected that the above standards should be met in 100% of the cases.

Methods A questionnaire relating to oral health awareness and current oral care practices was sent out to children who had undergone treatment for childhood malignancy at the Bristol Children's Hospital between the ages of 4 and 16 years and who were currently in remission. Of 125 questionnaires sent out, 40 were returned, of which 38 were included in the audit. Two questionnaires were excluded, as the forms were incomplete. A copy of the questionnaire is available at http://www.bspd.co.uk.

Results From the sample of 38 patients, six were 6 years of age or younger. Thirty-two children had assistance from their parents in completing the questionnaire. Twelve of thirty eight patients reported they had experienced problems with their teeth or gums as treatment for childhood malignancy had begun, of which five found it difficult to access dental care. Fifteen of thirty-two patients who were over 6 years old used high fluoride toothpaste and 4/32 used a fluoride mouthwash.

Only one patient had received information on the long-term effects of cancer treatment on his/her teeth and this was not provided by Bristol Children's Hospital.

Discussion These results suggest that the NICE and Royal College of Surgeons of England guidelines are not being followed for the children who are being treated for childhood malignancies at the Bristol Children's Hospital. Only one patient had received information on the effects on their oral health, and this was not from United Bristol Healthcare Trust. At least three of the children were not registered with a dentist. This audit shows that patients and their parents/carers do not have easy access to important information about oral health care.

Action plan An information leaflet containing information regarding oral hygiene practices, prevention of decay, monitoring and access to dental care has been produced, and is given all patients prior to discharge. Re-audit is planned after 1 year.

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A prospective audit of paediatric patients attending London Dental Hospitals with dento-alveolar trauma

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Introduction The purpose of this audit was to record the treatment carried for the management of dento-alveolar trauma by health care professionals compared to the gold standard of management as set out in local, national and international guidelines.

Aim The aim was to audit referrals made to the London Dental Hospitals, the source of the referrals and the management received up to the point of attending the dental units.

Standards (i) National guidelines: management and root canal treatment of non-vital immature permanent teeth[1]; treatment of avulsed permanent incisor teeth in children[2]; treatment of traumatically intruded permanent incisor teeth in children[3]; and (ii) International guidelines: Guidelines for the management of traumatic dental injuries I. Fractures and Luxations of permanent teeth[4] and Guidelines for the management of traumatic dental injuries II. Avulsions of permanent teeth [5].

Methods Over a 6-month period, children under the age of 16 years who were referred for the management of dento-alveolar trauma had details of their injuries and their management to date entered on a proforma. The types of injuries were classified into mild, moderate and severe for data analysis (Table 1). Data recorded included: delay in presentation, type of injury sustained, number of Health Care Professionals (HCP) seen and treatment received.

Results Eighty patients were audited of whom 29% were female and 71% male. Thirty-seven per cent of injuries were to primary teeth and 63% to the permanent dentition (Figs 1 and 2). The source of referral were; general dental practitioners = 55%, general medical practitioners = 4%, emergency dental service = 8%, hospital medical service = 24%, community dental service = 9%. Fifty-nine per cent of the injuries were seen in dental units within 24-hours further delay was between 24 and 3 months. The severities of the injuries as defined in Table 1 were mild (37%), moderate (28%) and severe (34%). Referral following

Table 1. Classification of dento-alveolar injuries according to severity[6].

Mild	Moderate	Severe
Enamel infraction	Complicated crown fracture	Complicated crown-root fracture
Enamel fracture	Uncomplicated crown-root fracture	Root fracture in cervical one-third
Enamel-dentine fracture	Root fracture in apical or middle one third without luxation of coronal fragment	Root fracture in middle or apical one-third with luxation of coronal fragment
Concussion	Subluxation (vertical movement)	Extrusion luxation
Subluxation (horizontal movement)		Intrusion luxation
		Lateral luxation
		Avulsions

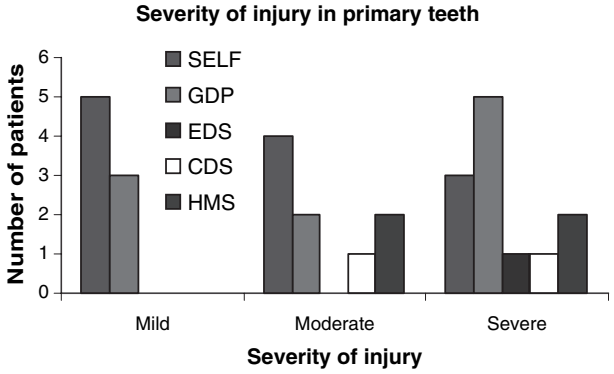

Fig. 1. The number of patients referred from different sources by severity for the primary dentition.
GDP = general dental practitioner; EDS = emergency dental service; CDS = community dental service; HMS = hospital medical service.

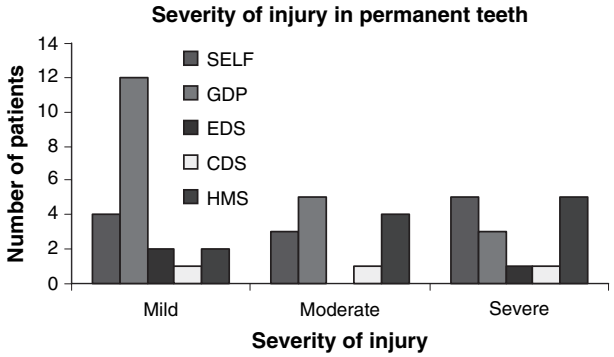

Fig. 2. The number of patients referred from different sources by severity for the permanent dentition.
GDP = general dental practitioner; EDS = emergency dental service; CDS = community dental service; HMS = hospital medical service.

trauma to the primary dentition consisted of mostly severe injuries whilst in the permanent dentition the referral pattern consisted of mild to moderate injuries (Figs 1 and 2). Most of these referrals were from dental colleagues. The management of all trauma was deemed inappropriate in 56% of cases seen by both medical and dental HCP (Fig. 3).

Discussion The results of this audit suggest that, in cases of trauma to a primary tooth, it is the more severe injury types which are being referred to the hospitals for management. However with injuries associated with the permanent teeth all three categories of mild, moderate and severe injury are all being referred to the hospital with a higher percentage in the mild group. This may be due to a lack of knowledge amongst dental colleagues in the primary care setting regarding the acute management of dental trauma (especially mild). A lack of knowledge amongst medical colleagues as to where to refer dento-alveolar patients may also have accounted for a delay in patients receiving specialist dental care. In broad terms, the findings of this audit would suggest that national and international guidelines on initial management of dento-alveolar trauma are not always adhered to in the Pan Thames region.

Action plan (i) Dissemination of information regarding care pathways for children who sustain dento-alveolar injuries; (ii) improving the undergraduate teaching to dental students in the correct management of dental trauma, especially mild trauma; (iii) improving dissemination of trauma guidelines to all HCP, via

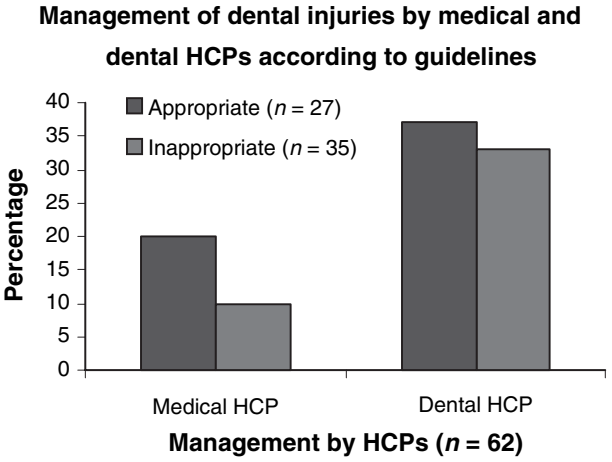

Fig. 3. The appropriateness of management of dento-alveolar trauma and the source of referral.
HCP = health care professional.

postgraduate education and Section 63 meetings; and (iv) education of medical colleagues on the initial management of dental trauma and where to refer children who have sustained dento-alveolar trauma.

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Paediatric dental emergency referral patterns: before and after the new dental service contract

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Introduction Under the 'fee per item' system, children undergoing dental treatment in NHS practice were remunerated under a Capitation Scheme. In this system children were defined as: under the age of 18 years or students under 19 years and in full time education. In April 2006, a new primary dental care remuneration system came into effect, a banding system (Table 1). This applies to both adults and children, with the dentist receiving a fee from the commissioning Primary Care Trust (PCT) for the treatment.
Potentially, these changes may influence the number of patients being referred to the Paediatric Emergency Dental Department for routine work with or without pain. For example, if a young child requires multiple fillings and extractions, the dentist will receive