

Since the implementation and evolution of *Delivering better oral health*, application of fluoride varnish to the teeth of children is a required element of the assessment process. No increase in UDA value has been noticed. Even if all of the cost of the examination appointment is attributed to the application of the fluoride varnish, this puts the maximum cost at £50 for two applications per year.

Remembering that dental practices received no additional fee for the inclusion of this process in the examination, the cost to the NHS is actually £NIL. The not inconsiderable costs of the varnish, applicators, disposable suction equipment, cotton wool rolls etc, and the time necessary, is borne by the dental team. If there is an improvement in oral health relating to the application of fluoride varnish, then this must be solely to the credit of the dental profession, and a concrete example of altruism and putting the welfare of the patient before personal considerations.

J. Aukett, by email

1. Research Insights. Outcomes and costs of pre-school based fluoride varnish pilots. *Br Dent J* 2017; **222**: 591–594. Reported in *Br Dent J* 2017; **222**: 669.

DOI: 10.1038/sj.bdj.2017.521

Dental radiography

Plain film radiographs

Sir, the mandible is the most commonly fractured facial bone in humans and is easily identified by a plethora of signs and symptoms. However, radiographic imaging is required to confirm and assess the position and the severity of the fracture. Depending on the resources available to the hospital, a variety of imaging techniques are currently employed.

The mandibular series (MS) and the orthopantomogram (OPG) are the most common plain radiographs used in diagnosis. Three dimensional imaging with computed tomography (CT) is also employed.

The MS consists of a right and left lateral oblique, a reverse Towne projection and an anterior-posterior mandibular view (PA).¹ These plain radiographs are technique sensitive, time consuming, difficult to interpret and expose patients to high levels of radiation.² In comparison to the MS, OPG radiographs are superior in identifying mandibular fractures.^{2,3} The MS offers one advantage over the OPG: they are more suitable for uncooperative patients and patients who unable to stand upright and motionless for short periods.

The OPG and PA are generally considered the gold standard due to their low cost and ease of technique. Some hospitals do not have access to an OPG machine or these are not available for use outside of normal working hours. Therefore despite the advantages of an OPG, patients attending overnight or presenting to smaller emergency departments are having an MS for suspected mandibular fractures.

Although the MS can be diagnostic, it is our experience that many patients receive a further OPG once they reach the oral and maxillofacial referral centre. This aids planning pre-operatively and provides a baseline radiograph for post-operative follow up. However, this exposes the patient to unnecessary and high doses of radiation. This can be avoided if patients with a high clinical suspicion for a mandibular fracture are referred to the nearest oral and maxillofacial hospital for the appropriate radiographs.

Although CT imaging provides more detail, it involves higher costs, more radiation exposure and the possibility of artefact generation.³ Therefore, CT imaging may be reserved for patients with head injuries or multiple maxillofacial fractures and patients with a high suspicion for a mandibular fracture which was not identified on 2D imaging.

Due to the multitude of disadvantages of the MS, we propose that patients with a high clinical suspicion for a mandibular fracture should have a minimum of an OPG and a PA to confirm the diagnosis. If an OPG machine is not available, a referral to an appropriate centre should be considered. This would limit the patient's radiation exposure and also standardise radiographic examinations.

C. P. Devine, B. Srinivasan, P. Ramchandani, by email

1. Freimanis A K. Fractures of the facial bones. *Radiol Clin North Am* 1966; **4**: 341–363.
2. Nair M K, Nair U P. Imaging of mandibular trauma: ROC analysis. *Acad Emerg Med* 2001; **8**: 689–695.
3. Mackway-Jones K. Towards evidence based emergency medicine: best BETs from the Manchester Royal Infirmary. *J Accid Emerg Med* 2000; **171**: 46.

DOI: 10.1038/sj.bdj.2017.522

OMFS

Rare condition

Sir, I read with interest the letter from Kharazmi and colleagues regarding mandibular osteonecrosis following general anaesthesia.¹

I am a foundation dentist and during my first nine months in practice I have seen

two similar cases, which were, however, not related to general anaesthesia.

I was unsure how to manage these cases but my trainer had fortunately heard of a condition named 'lingual mandibular sequestration and ulceration' and was able to point me in the right direction.

The condition is of uncertain aetiology, but is thought to be caused by a combination of poor blood supply to the lingual mandible and the tendency of this area to respond to trauma by forming bony exostoses. This results in necrosis and sequestration of the bone fragment. Healing follows spontaneous exfoliation of the fragment or surgical removal.²

I would like to share this reference with your readers as I hope they will find it interesting; in five years of dental school this condition was never mentioned.

N. Foster, by email

1. Kharazmi M, Nilsson U, Hallberg P. Case report: Osteonecrosis as a complication of GA. *Br Dent J* 2017; **222**: 645.
2. Peters E, Lovas G, Wysocki G. Lingual mandibular sequestration and ulceration. *Oral Surg Oral Med Oral Pathol* 1993; **75**: 739–743.

DOI: 10.1038/sj.bdj.2017.523

Mishandled elevators

Sir, I read with interest the letter *Mishandled Luxators*¹ that paints a picture of dentist incompetence through ubiquitous use of Luxators. I would like to add further to this by highlighting the misuse of elevators.

(R) and (L) Warwick James ideally used for maxillary third molars can often break while luxating a bulky third molar with multiple roots. An ideal approach would be to use a straight elevator that can combine a downward and distal rotation, thereby uniformly luxating the tooth. The blade of Warwick James or a Cryer's are designed to apply only distal rotation which in due process can risk the fracture of the maxillary tuberosity.

The no. 9 Molt periosteal elevator, as the name suggests, is ideally used to reflect a mucoperiosteal flap but is as often misused as Luxators and elevators. They often become blunt, bent or can traumatise the soft tissues due to inadequate finger rest.

This letter focuses on the specific use of elevators rather than diversifying its applications for all surgical procedures.

S. S. Shetty, by email

1. Parmar P, Majumdar A. OMFS: Mishandled luxators. *Br Dent J* 2017; **222**: 745.

DOI: 10.1038/sj.bdj.2017.524