We would point UK dental professionals to the well-considered public health guidance which basically concludes that, for the best chances of quitting smoking, one should use support and pharmacotherapy and that e-cigarettes can be part of that package. Several recent reviews on this topic are available<sup>4.5.6</sup> which provide references to guidance documents.

> R. Holliday, E. McColl, A. Weke, Z. Sayeed, Newcastle, UK

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# **Dental radiography**

## The dangers of toy magnets

Sir, a four-year-old child recently attended with their mother regarding the loss of a tooth after a fall from a balance bike a few days previously. The child's mother was worried that the tooth could not be found. On examination, the upper right primary central incisor (51) was missing, the socket was healing and the child was not in any pain.

A periapical radiograph confirmed loss of 51 but showed an unusual radiopacity (Fig. 1). I later recalled receiving from my children's primary school a warning to parents about the risks of swallowing small 'ball magnets'. An anterior occlusal radiograph confirmed that the radiopacity remained in situ, and therefore must be a foreign body and not artefactual. I referred the child to hospital, including both radiographic images. They were seen in the Paediatric A&E Department at Royal Manchester Children's Hospital where the foreign bodies were removed in A&E with the help of a head light, crocodile forceps and an angled soft-ended ball probe while the child was held by his mother in an upright position. Resistance was felt while pulling at the foreign bodies, suggesting nasal adhesions or that they were magnetic. Two ball magnets were retrieved, one from each nostril from either side on the nasal septum. They had been there so long that they had corroded, explaining the irregular appearance of their lateral surfaces on the radiographs. They appeared to have caused a small nasal septal perforation. The child's recovery has been uneventful. Their mother still has no idea when these were inserted into the nose and the child had never displayed any symptoms that might have indicated something was wrong. The mother was grateful for their discovery and removal.

The NHS called for a ban on ball magnets as they have been known to cause severe health problems if ingested. They can pinch intestinal tissues, cutting off the blood supply and tearing tissue. The NHS issued a patient safety alert after around 65 children over a three-year period were admitted for urgent surgery after swallowing magnets.1 A UK-wide study of 11 major trauma centres found 51% of children admitted following swallowing such magnets required surgery to remove them, with most of these undergoing extensive laparotomies to manage injuries, intestinal perforations and life-threatening bowel twists.2

In our case, the magnets were found fortuitously and might otherwise have been left undetected. It is feasible that, if left, they could have produced a larger septal perforation, or been dislodged and ingested, leading to the severe complications described above.



Fig. 1 A periapical radiograph confirmed loss of 5 but showed an unusual radiopacity

# UPFRONT

More advice on ball magnet safety can be found at: http:// www.gov.uk/government/news/ opss-raises-awareness-on-magnets-safety. *R. Pridding, H. Mahdi, K. Horner, Manchester, UK* 

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## Anaesthesia and sedation

### Sedation and HIV medication

Sir, as we are aware, many patients are dentally anxious and undergo treatment under intravenous sedation using midazolam. What may be less common knowledge is that numerous drugs used in the management of HIV interact with midazolam.

Curative treatment of HIV with antiretroviral therapy is currently not yet possible; however, drug regimens known as combined antiretroviral therapy aim to reduce morbidity and transmission of disease, whilst increasing survival. A combination of drugs are used, commonly two or three, which are from at least two different drug classes.<sup>1</sup>

Classes of drugs used in the management of HIV include:

- Nucleotide reverse transcriptase inhibitors (NRTI)
- Non-nucleotide reverse transcriptase inhibitors (NNRTI)
- Integrase strand transfer inhibitors (INSTI)
- Protease inhibitors (PI)
- Fusion inhibitors (FI)
- Post-attachment inhibitors
- Pharmacokinetic enhancers
- Integrase inhibitors
- CCR5 antagonists.<sup>1,2</sup>

Saquinavir is a protease inhibitor and a study found that the clearance of intravenous midazolam was reduced by 56% in patients taking this drug. Furthermore, the elimination half-life was increased from 4.1 to 9.5 hours.<sup>3</sup> Hence, sedation is