

with a hypersensitive gag reflex. The concentration of nitrous oxide required to produce suppression of the gag reflex will vary from patient to patient. This may be irrespective of size and weight, therefore each subject should be individually monitored.

References

1. Wright SM. An examination of factors associated with retching in dental patients. *J Dent* 1979; **7**: 194–207.
2. Wright SM. An examination of the personality of dental patients who complain of retching with dentures. *Br Dent J* 1980; **148**: 211–213.
3. Wright SM. Medical history, social habits, and individual experiences of patients who gag with dentures. *J Prosthet Dent* 1981; **45**: 474–478.
4. Chidiac JJ, Chamseddine L, Bellos G. Gagging prevention using nitrous oxide or table salt: a comparative pilot study. *Int J Prosthodont* 2001; **14**: 364–366.
5. Speirs RL, Barsby MJ. Hyperventilation in the dental chair. *Dent Update* 1995; **22**: 95–98.
6. Robb ND, Crothers AJ. Sedation in dentistry. Part 2: Management of the gagging patient. *Dent Update* 1996; **23**: 182–186.
7. Barsby MJ. The control of hyperventilation in the management of 'gagging'. [Comment]. *Br Dent J* 1997; **182**: 109–111.
8. Barsby MJ. The use of hypnosis in the management of 'gagging' and intolerance to dentures. *Br Dent J* 1994; **176**: 97–102.
9. Fiske J, Dickinson C. The role of acupuncture in controlling the gagging reflex using a review of ten cases. *Br Dent J* 2001; **190**: 611–613.
10. Lu DP, Lu GP, Reed JF 3rd. Acupuncture/acupressure to treat gagging dental patients: a clinical study of anti-gagging effects. *Gen Dent* 2000; **48**: 446–452.
11. Bell GD. Review article: premedication and intravenous sedation for upper gastrointestinal endoscopy. *Aliment Pharmacol Ther* 1990; **4**: 103–122.
12. Tomioka S, Uchida D, Eguchi S, Nakajo N. Elimination of hypersensitive gagging reaction to dentistry by propofol at subhypnotic doses. *Oral Dis* 1998; **4**: 279–280.
13. Rosen M. The control of gagging by suggestion and nitrous oxide sedation – a case report. *J Dent Ass S Afr* 1981; **36**: 619–621.
14. Roberts GJ. The efficacy of the laryngeal reflex during relative analgesia (oxygen/nitrous oxide psycho sedation). *SAAD Digest* 1982; **5**: 80–96.
15. Duncan GH, Moore P. Nitrous oxide and the dental patient: a review of adverse reactions. *J Am Dent Assoc* 1984; **108**: 213–219.
16. Roberts GJ. Inhalation sedation (relative analgesia) with oxygen/nitrous oxide gas mixtures: 2. Practical techniques. *Dent Update* 1990; **17**: 190–196.
17. Allen W. Relative Analgesia. *Dent Practice* 1976; **14**: 7–12.
18. Roberts GJ. Relative Analgesia – an introduction. *Dent Update* 1979; **6**: 271–284.
19. Cleaton-Jones P. The laryngeal-closure reflex and nitrous oxide-oxygen analgesia. *Anesthesiology* 1976; **45**: 569–570.
20. Roberts GJ. Inhalation sedation (relative analgesia) with oxygen/nitrous oxide gas mixtures: 1. Principles. *Dent Update* 1990; **17**: 139–146.
21. ADA Council on Scientific Affairs; ADA Council on Dental Practice. Nitrous oxide in the dental office. *J Am Dent Assoc* 1997; **128**: 364–365.
22. Henderson KA, Matthews IP. Environmental monitoring of nitrous oxide during dental anaesthesia. *Br Dent J* 2000; **188**: 617–618.
23. Kaufman E, Weinstein P, Sommers EE, Soltero DJ. An experimental study of the control of the gag reflex with nitrous oxide. *Anesth Prog* 1988; **35**: 155–157.
24. Barber J, Donaldson D, Ramras S, Allen GD. The relationship between nitrous oxide conscious sedation and the hypnotic state. *J Am Dent Assoc* 1979; **99**: 624–626.
25. *Maintaining standards. What the profession expects. Pain and anxiety control.* General Dental Council, 1997; revised 2001; 4.11–4.16. www/gdc-uk.org/pdfs/ms_full_nov2001.pdf
26. Standing Dental Advisory Committee. *Conscious sedation in the provision of dental care. Report of an expert group on sedation in dentistry.* Department of Health, 2003. www.doh.gov.uk/sdac or www.doh.gov.uk/dental

Abstracts

MAKE SURE YOUR DENTAL NURSE READS THIS!

A cleaning protocol for rotary nickel-titanium endodontic instruments. P Parashos, P Linsuwanont and HH Messer. *Australian Dental Journal* 2004; **49**: 20–27.

The cleaning of endodontic files, as with all dental instruments, is a prerequisite prior to sterilization. This study investigated more than 20 methods of cleaning six different endodontic instruments, looking macroscopically and microscopically for stained debris. A range of chairside

procedures, chemical processes and ultrasonic action were compared. New, unused, files were also examined as these are not usually supplied in a sterile condition.

After the various procedures, all the new, un-used files appeared clean to the naked eye but microscopically showed evidence of non-stained debris, with six files (including one brand supplied 'pre-sterilized') showing stained debris. The cleaning success of the used files varied significantly with the various protocols, but the authors conclude that it is, indeed,

possible to render all files microscopically free of debris. The recommended protocol comprised: 10 vigorous strokes in a scouring sponge soaked in 0.2% chlorhexidine solution; a 30-minute pre-soak in an enzymatic cleaning solution; 15 minutes of ultrasonication in the same solution; a 20-second rinse in running tap water. In a busy private practice it would be easy for instrument cleaning to be hurried. It is suggested that this protocol should be followed routinely following full staff training.

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