Dr. Sarah Hulland

Should We All Sleep Now?

> "The increasing level of restriction in sedation guidelines is a move in the right direction."

In a tragic turn of events, a 5-year-old girl from Chicago died following sedation dentistry in September 2006. The operator used a deep sedation approach with a combination of oral, inhalation and parenteral sedation techniques. The child received an excessive amount of medications for her weight, which resulted in multiorgan failure and ultimately death. In this case, the same individual provided both the anesthetic and the dental care. Although the practitioner had successfully used the same technique on several occasions, this is an unfortunate example of how easily events can turn from good to very bad.[1]

This year, the American Academy of Pediatric Dentistry (AAPD) introduced new guidelines for the monitoring and management of pediatric patients during and after sedation for diagnostic and therapeutic procedures.[2] The guidelines, endorsed by the American Academy of Pediatrics, address the safe administration of in-office, minimal, moderate and deep sedation or general anesthesia to the pediatric patient.[3–5] Of particular significance, the new guidelines dictate an increased level of competency for persons providing these levels of sedation and anesthesia, as well as the delineation of 3 separate individuals working as a team — one operator providing the anesthesia, a second providing the dental care and a third available in a supportive capacity.

The implications of the new AAPD guidelines must be considered within the context of the primary goals of sedation in dentistry, namely to guard the patient's safety and welfare; to minimize physical discomfort and pain; to control anxiety, minimize psychological trauma and maximize the potential for amnesia; to control behaviour or movement so as to allow the safe completion of the procedure; and, above all, to return the patient to a state in which safe discharge from medical supervision is allowable.[3]

These goals are particularly important in the management of children, since the metabolism of pharmacological agents is altered in the immature body. As well, local anesthetics act as cardiac depressants, which may cause enhanced central nervous system excitation or depression in the sedated child. Combined with the fact that a child's airway and cardiopulmonary physiology are different from an adult's, the complexity of sedation procedures in pediatric patients becomes clear.

In Canada, we defer the development and policing of minimal, moderate and deep sedation or general anesthesia guidelines to the individual provinces and territories. Ontario and Alberta revised their guidelines in 2005 and 2006 respectively, while British Columbia is finalizing the acceptance of its guidelines in March 2007.[6–9] While all 3 provinces require advanced training in deep sedation techniques, there is no requirement for a separate operator and anesthetist. However, all 3 provinces have clear and strict policies requiring an accredited, advanced level of training beyond that received during dental school.

Does this mean that dentists providing inhalation or single agent oral sedation are going to be restricted further in the use of these techniques? The increasing level of restriction in sedation guidelines is a move in the right direction and will help to ensure that our profession continues to maximize public safety. However, as more patients present with co-morbidity factors, is it time we consider revising our guidelines to the same level as the AAPD?

I leave you with the idea that perhaps our dental organizations could help market dentistry as a pleasant experience, not one that conjures up fear and anxiety. It is incumbent upon us as health care professionals to place the overall well-being of our patients first and foremost. From a safety perspective, it is definitely better to have one doctor as the operator and one doctor as the anesthetist, as is standard in medical practice. Why should it be different in dentistry?

Sarah A. Hulland, BSc, DDS, Dip Ped Dent, MSc, FRCD(C)
President
Canadian Academy of Pediatric Dentistry

References

The complete list of references is available in the electronic version of this article at www.cda-adc.ca/jcda/vol-73/issue-2/105.html.