

Summary of: Sedation for dental treatment of children in the primary care sector (UK)

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FULL PAPER DETAILS

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Objective To audit the clinical practice of a dental sedation service in the primary care sector and determine which services dentists use to manage unco-operative children. **Design** Retrospective analysis and prospective audit. **Setting** Sedation clinic in primary care, 2007, England. **Subjects** Children attending for dental treatment under sedation. General dental practitioners (GDPs) in the Brighton and West Sussex regions. **Interventions** Questionnaire. **Main outcome measures** Clinical service audit, patient satisfaction, referrer satisfaction. **Results** Four hundred children (age range 5–12 years) had been referred for caries (78%), with the remainder for orthodontic extractions. The most common treatment carried out on primary and permanent teeth was extractions followed by restorations. A combination of intravenous (IV) midazolam/ketamine/fentanyl was used in 40% of cases, and IV midazolam/ketamine was used in 34% of cases. Seventy-four percent of parents responded to the satisfaction questionnaire; of these 97% rated sedation as excellent/good and 80% would choose sedation or recommend sedation for others. Only 45% of questionnaires to referrers were returned. Fifty-six percent of dentists preferred general anaesthesia (GA) and 66% preferred IV sedation. **Conclusions** Dental treatment for children was provided under IV sedation with most parents satisfied with the procedure. Little difference was seen between referring dentists' perceptions of IV sedation or GA.

EDITOR'S SUMMARY

Clichés are much maligned and indeed the term is often used in a derogatory way to describe something that is unoriginal and obvious. I have to say that I find clichés useful not necessarily in terms of their absolute content but more in terms of the truth they promulgate. A cliché doesn't get to be a cliché without years of evidence-based testing.

In relation to this topic I believe the cliché would be that when one door closes another one opens. The closed door was that of the banning of the provision of general anaesthesia (GA) in general dental practice by the General Dental Council and its consequential move to centres with facilities considered appropriate. This then prompted the door leading to sedation to be firmly shouldered open from a partially ajar status that it had maintained for many years.

The activity in this field has sharply increased in recent years, as has the research into the methods, drugs and systems employed. This paper looks specifically at sedation in children in the primary care sector using the intravenous route of administration and finds considerable acceptance and advantages to its use, although a high percentage of dentists still expressed a preference for GA.

Looking beyond the immediate findings of this paper, there are two questions that I believe need airing. One is that the need to explore sedation in the absence of general anaesthesia results from a continuing demand for a service which withdraws the conscious compliance with dental treatment, itself a consequence of dental disease and poor co-operation. How can we prevent this need? We trot out the familiar answers on a monotonously regular basis but they do not seem to provide a solution.

Secondly, there is the safety aspect of sedation being provided in primary care surroundings where the level of sedation may actually border on anaesthesia. The ban on GA was a direct response to fears on safety following on from widely publicised deaths in dental practices. I am unaware of any such reports, thankfully, since the ban but we do perhaps need some information on this in order to back up the original decision with an evidence base.

The full paper can be accessed from the *BDJ* website (www.bdj.co.uk), under 'Research' in the table of contents for Volume 208 issue 10.

Stephen Hancocks
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IN BRIEF

- Provides information about patient and dentist perceptions of sedation clinics that is not otherwise available.
- Illustrates that sedation delivered by anaesthetists is well received by patients.
- Highlights the role sedation clinics continue to play in provision of dental treatment to nervous children.

COMMENT

The use of intravenous (IV) sedation in children is very controversial and this subject has not been widely discussed or studied. Hence this audit has certainly brought great value by reporting the use of IV sedation service in the primary care sector and the outcome of this service.

During IV sedation, the child will be in deep sedation, almost close to the state of general anaesthesia, hence during dental treatment, it might seem more dangerous as the airway will not be secured unlike that in GA. However, the audit has shown that there was no adverse outcome from treatment under IV sedation. It would be interesting to know whether rubber dam was placed routinely during treatment under IV sedation, since the airway is not secured and any aspiration could be fatal.

From this paper, it is also interesting to note that although 400 children were audited and most of the treatments carried out were extractions, only 180 patients were given local anaesthesia. Could that be the reason for the 28% of patient complaints of pain after sedation?

In this audit, it seems that majority of the dental procedures were carried out in a single visit, and hence sound very attractive for paediatric dentists who find GA facilities too expensive and hospital spaces too limited. In order to shorten a long waiting list, IV sedation might just be the way forward in treatment of the unco-operative child or in children requiring extensive dental treatment.

In the UK, inhalation sedation is still the choice of sedation in paediatric dental hospitals and postgraduates are taught mainly inhalation sedation, but in some countries the provision of IV sedation in children has been advertised as a value-added service. It would then be worth considering teaching IV sedation in children in the postgraduate course.

In view of the fact that there are so many unanswered questions regarding the use of IV sedation in children, this paper certainly triggers interest in this topic. I hope that this is only the start of a series of studies to report the use of IV sedation in children, because so much more has yet to be known.

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AUTHOR QUESTIONS AND ANSWERS

1. Why did you undertake this research?
Sedation in primary care is often talked about but we know very little about it. We wanted to get an idea from this study of the kind of treatment provided and of dentist and patient perceptions of it.

2. What would you like to do next in this area to follow on from this work?
I would like to audit more clinics around the UK to witness what type of sedation and treatment they are using for treating anxious children. In addition I would like to survey general dental practitioners' opinions around the UK on using intravenous sedation in children under the age of 16. Finally I would like to do more research regarding the safety, the feasibility and the cost-effectiveness of carrying out intravenous sedation for children in the primary care sector.