Summary of: Estimating the need for dental sedation. 1. The Indicator of Sedation Need (IOSN) – a novel assessment tool

P. Coulthard,[1] C. M. Bridgman,[2] L. Gough,[3] L. Longman,[4] I. A. Pretty[5] and T. Jenner OBE[6]

VERIFIABLE CPD PAPER

FULL PAPER DETAILS

[1]Professor of Oral and Maxillofacial Surgery & Immediate Past Chairman, Dental Sedation Teachers Group, School of Dentistry, The University of Manchester, Higher Cambridge Street, Manchester, M15 6FH; [2]Consultant in Dental Public Health & Primary Care Commissioning Advisor, NHS Manchester, Parkway 3, Parkway Business Centre, Princess Road, Manchester, M14 7LU; [3]Consultant in Dental Public Health, NHS Liverpool Headquarters, 1 Arthouse Square, 61-69 Seel Street, Liverpool, L1 4AZ; [4]Senior Lecturer in Restorative Dentistry & Chairman, Dental Sedation Teachers Group, School of Dental Sciences, The University of Liverpool, L69 3BX; [5]*Professor of Public Health Dentistry, The Dental Health Unit, School of Dentistry, The University of Manchester, Skelton House, Manchester Science Park, M15 6SH; [6]Former Deputy Chief Dental Officer & Head of Oral Health Policy, Department of Health, Dental Health Consulting, Dorset, SP8 5EW
*Correspondence to: Professor Iain A. Pretty
Email: iain.pretty@manchester.ac.uk; Tel: +44 (0)161 226 1211; Fax: +44 (0)161 232 4700

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While the control of pain and anxiety is fundamental to the practice of dentistry, the use of conscious sedation in dentistry is very variable among dentists. The need for conscious sedation could be considered by assessing and ranking a combination of information on patient anxiety, medical history and the complexity of the anticipated clinical treatment. By undertaking this systemtic assessment an indication of sedation need may be developed which would act as an aide to decision making and, potentially, referral management. Such a tool could also be used by commissioners who need to identify patients who need conscious sedation for dental treatment in order to plan, commission and deliver appropriate sedation services.

EDITOR'S SUMMARY

Bends in roads, especially of the old country variety, are often a mystery. Why do we have to go round the corner here and turn almost through one hundred and eighty degrees there when the logical route would be directly in a Roman-road straight line? The answers are of course lost in the depths of history, buried with the memory of the last person who knew the reason. An oak tree once stood on the curve; Lord Munchpenny refused permission for the highway to cross his land.

What possible relevance has this to sedation? General anaesthesia. The growth of sedation as an adjunct to dental treatment and oral surgery has come about because of the historic dismissal of general anaesthesia in general dental practice in the 1990s. New tranches of recently qualified colleagues will have no idea, or only a passing sense, of this bend in the road but it was a decision of great significance and some boldness which left something of a hole in the carriageway for a considerable time.

At the time, having a general anaesthetic was at least considered a regular, if not a commonplace option and it was not unusual to hear people, patients, express the opinion that they would only ever consider having dentistry 'done' while they were 'knocked out', often supposedly humorously illustrated with the mime of being hit over the head with a mallet. In many ways it was an appropriate gesture, a hammer to crack a walnut. With the development of sedation services and far greater knowledge and expertise as a result, the provision of operative dentistry under co-operative and consensual restraint is a far safer alternative to general anaesthesia as well as being a further, virtually totally overlooked example of the dental profession acting substantially in the interests of patients and not necessarily of themselves. Thus, the development of this indicator is a welcome next step in straightening out the road and making our journeys safer and more direct.

The full paper can be accessed from the *BDJ* website (www.bdj.co.uk), under 'Research' in the table of contents for Volume 211 issue 5.

Stephen Hancocks
Editor-in-Chief

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IN BRIEF
- There is need to have a tool to support clinicians in their decision making about conscious sedation.
- Commissioners need to identify patients who need conscious sedation for dental treatment in order to plan and deliver appropriate sedation services.
- Conscious sedation need could be assessed by ranking a combination of information on patient anxiety, medical history and the complexity of the clinical treatment.

COMMENTARY

These articles describe the development and preliminary validation of the Indicator of Sedation Need (IOSN). Essentially there are four groups of patients who it is suggested are likely to benefit from referral to sedation services: those who are extremely anxious (phobic) about dental treatment; those who have specific fears, phobias or behavioural difficulties which mean that treatment would be more comfortably performed under sedation; those who, while they are not necessarily anxious, are due to receive extensive invasive treatment which it would be kinder to perform under sedation; and cases where invasiveness of treatment and anxiety interact such that an individual with a moderate level of anxiety may wish to be sedated for a moderately invasive treatment. It is the latter group where the index's ability to balance the relative contributions of fear and invasiveness becomes most apparent – making explicit what has heretofore been a clinical judgement. While the index is not designed to replace such judgement, it does provide a set of objective observations to guide it.

This is an invaluable piece of work that will be of great benefit to commissioners and will provide clear guidance on assessment for referral to sedation. I would suggest, though, that as it stands this is primarily a tool for rationing a particular service, rather than determining how a patient should be treated. For example, where a patient has no urgent dental treatment need, a psychological approach offers long-term benefits over sedation. A meta-analysis of 38 studies indicated that psychological interventions for dental phobia, most notably graded exposure to the feared stimulus, significantly reduced self-reported dental anxiety and increased dental attendance; with medium to large effect sizes, 77% of participants were seeing the dentist regularly after four years or more.[1] Thus it appears that psychological approaches to the treatment of dental anxiety are a potential alternative or adjunct to sedation and general anaesthesia. However, sedation services are more widely available than psychological support for people with dental fear. This of course is not necessarily the concern of the authors, but rather reflects a difficulty in identifying methods for commissioning psychological services for people with dental fear.

Future work could explore the role of this index in the development of a care pathway for individuals with moderate and high levels of dental anxiety, incorporating the full range of possible management strategies based on the available evidence of effectiveness.

T. Newton
King's College London

1. Kvale G, Berggren U, Milgrom P. Dental fear in adults: a meta-analysis of behavioural interventions. *Community Dent Oral Epidemiol* 2004; **32:** 250–264.

AUTHOR QUESTIONS AND ANSWERS

1. Why did you undertake this research?
As the NHS continues to look to savings there is a need to justify robustly the need for services, therapies and treatments. Those for which there is little evidence, or which are led by demand rather than need, are vulnerable. Our research group believed not only that sedation is an important adjunct to clinical treatment and needs to be preserved, but that, as a scarce resource, it may be allocated to those who do not need it (but rather demand it) and not offered to others for whom it could be sorely needed. The development of a tool to measure sedation need is the start of a piece of work aiming to provide clinicians, commissioners and patients a robust evidence base around this topic.

2. What would you like to do next in this area to follow on from this work?
Indices of treatment need are popular: they can help make complex decisions a little easier and they can guide, but rarely ever replace, clinical judgment and good diagnoses and assessment. However, in order for such indices to gain popularity, there is a need for further research on the validity of the tool (is it really measuring need?) and its use in practice, as a referral tool and also a health needs assessment device.