

Summary of: Estimating the need for dental sedation. 2. Using IOSN as a health needs assessment tool

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FULL PAPER DETAILS

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Aim This service evaluation assessed the need for sedation in a population of dental attenders (n = 607) in the North West of England. **Methods** Using the novel IOSN tool, three clinical domains of sedation need were assessed: treatment complexity, medical and behavioural indicators and patient reported anxiety using the Modified Dental Anxiety Scale. **Results** The findings suggest that 5% of the population are likely to require a course of treatment under sedation at some time. All three clinical domains contributed to the IOSN score and indication of treatment need. Females were 3.8 times more likely than males to be placed within the high need for sedation group. Factors such as age, deprivation and practice location were not associated with the need for sedation. **Conclusions** Primary care trusts (PCTs) need health needs assessment data in order to commission effectively and in line with World Class Commissioning guidelines. This study provides both an indicative figure of need as well as a tool by which individual PCTs can undertake local health needs assessment work. Caution should be taken with the figure as a total need within a population as the study has only included those patients that attended dental practices.

EDITOR'S SUMMARY

While the development of the Indicator of Sedation Need (IOSN) is significant and to be welcomed, one suspects that it will be regarded as a next step in a process of improving patient care, as the authors themselves hint. The use of the word 'need' is often misleading and as is pointed out in these two companion papers the gap between that which patients need and that which would make their treatment experience the more palatable is a slim one.

As with the requirement to assess orthodontic treatment 'need' the advent of guidance of this sort is partly to assist decision making, and certainly not to replace clinical judgement, but also as a tool for helping to more reasonably measure the rationing required. This is not only by the NHS but by third-party

paying schemes everywhere especially in these tough economic times.

The three-pronged approach to the assessment, almost a triathlon of sedation appraisal, very pragmatically encompasses the patient's obvious needs as well as taking into consideration their less apparent and possibly previously underestimated frailties and comforts. In all this there is a small sense still that, like its general anaesthetic forbearer, sedation may on occasions be akin to reaching for an easier option than treading the route of behavioural management and the psychological approach, as pointed out by Professor Newton in his Commentary. However, it is hoped that with better considered treatment options, the choice of behavioural therapy will begin to emerge further as a genuine alternative rather

than a thought passing on the fringes. Certainly, bring commissioning bodies into the decision-making process by using an assessment tool of this sort can only be for the best in terms of equitable allocation of resources and raising awareness of the value of properly mediated sedation.

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

- The overall need for sedation appears to be around 5% of dental attenders.
- Referral of those who usually do not need sedation may be appropriate for complex treatments or particular medical needs.
- Medical history, patient reported anxiety and treatment complexity are important to consider when referring for sedation.
- The IOSN system can be deployed by commissioners within populations to assess treatment need.

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.

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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?**

Commissioning of healthcare services is an enduring part of the NHS, ensuring that services are sensitive to local needs and are responsive to them. Dental practitioners in England and Wales are used to this form of 'purchasing'. A robust health needs assessment is the basis of any healthcare planning system. As sophistication in commissioning develops there is a need to ensure that there are tools available to measure the needs of populations for more complex interventions – such as sedation. Sedation is often described as a demand-led service as there are few data on real needs within a population. The authors decided to see if the IOSN tool would be able to develop a health needs analysis for sedation in a population of attending patients. The ability for the tool to provide these data would mean that commissioners could simply assess the level of need for sedation and hence could procure an appropriate level of service based on evidence.

2. What would you like to do next in this area to follow on from this work?

The data suggest that the IOSN is an appropriate tool to measure the need for sedation in populations. The research team would like to employ the device within differing populations, perhaps based on socio-economic status, geographical location or access to dentistry. There is also a need to disseminate the tool and provide opportunities for commissioning organisations to utilise it in their oral health needs assessment work.