Summary of: The effects of NICE guidelines on the management of third molar teeth

FULL PAPER DETAILS

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Background Third molar surgery (TMS) is probably one of the most commonly performed surgical procedures undertaken in the NHS. In 2000, the National Institute of Clinical Excellence (NICE) introduced guidelines relating to TMS. These recommended against the prophylactic removal of third molars and listed specific clinical indications for surgery. The impact of these guidelines has not been fully evaluated and this research hopes to focus the effect of these guidelines over the last ten years. **Methods** Using data obtained from a variety of NHS databases such as HES (Eng & Wales), the NHSBSA and data from NHS Scotland, we looked at the age range of patients requiring third molar removal and the number of patients having third molars removed in both primary and secondary care environments from 1989 to 2009. In addition we looked at the clinical indications for TMS activity in secondary care. **Findings** The mean age of patients increased from 25 years in 2000 to 32 years in 2010, with the modal (most common) age increasing from 26 to 29 years. After the introduction of clinical guidelines the number of patients requiring third molar removal in secondary care dropped by over 30%, however, since 2003 the number of patients has risen by 97%. There is also a significant increase in caries as an indication for third molar removal. **Conclusions** More patients are requiring third molar removal with an increasing number of patients having caries related to their third molars. Patients are, on average, older confirming that the removal of third molars is shifting from a young adult population group to an older adult population group. NICE guidelines did appear to have contributed to a fall in the volume of third molars removed within the NHS post 2000. However, concluding that this reduction demonstrates the success of NICE's guidance would be a premature assumption. The number of patients now requiring third molar removal is comparable to that of the mid 1990s. NICE has influenced the management of patients with third molars but this has not resulted in any reduction in the number of patients requiring third molar removal. Coding and data collection for third molars is not uniform, leading to potential misrepresentation of data. This perhaps raises the issue that an improved universal coding system is required for the NHS and that the NICE guidelines need review.

EDITOR'S SUMMARY

A wise man once said that if you go to law, what you get is law. So if you go to the law seeking justice don't be disappointed if all you come away with is law. I wondered, when first considering this paper for publication, if the same might be true of guidelines. Put in the context of the findings from this paper, which need further studies to confirm or contradict them as they might, could it be the case that the guidelines in this instance on third molar removal provide guidance and not necessarily realistic advice?

One also has to question the motive behind the derivation of the guidelines. Was it, as has been suggested, to save the NHS money rather than being primarily concerned with inappropriate surgery *per se*? Either consideration may be valid and may have been valid in the year 2000 when they were published but perhaps need some reconsideration in the light of what seems to be a slow trend back to where we were, which may have had more of the practical common sense about it than was first realised.

No one wants to have surgery of any sort unless there is a good reason for it and the adage 'if it ain't broke, don't fix it' does have some value. However, if in the light of experience the situation in which things seem to be problem free (ie symptomless third molars) is actually either masking, or merely postponing, the same outcome then perhaps it is better to take action before matters deteriorate. The alternative may be greater supervision or more regular examination but then I think I remember reading some guidelines on that aspect of oral care too!

The full paper can be accessed from the *BDJ* website (www.bdj.co.uk), under 'Research' in the table of contents for Volume 213 issue 5.

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Editor-in-Chief

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IN BRIEF
- Highlights that third molar removal is as common now as it was before the introduction of clinical guidelines.
- Informs that NICE guidelines have altered the dynamics of third molar management with patients on average being older.
- Stresses that dental caries associated with third molars has escalated by over 200% in a ten-year period.
- Suggests NICE guidelines may be flawed and require review.

RESEARCH

COMMENTARY

When the National Institute of Clinical Excellence (NICE) recommended abandoning prophylactic removal of asymptomatic third molar teeth due to a lack of evidence for any benefits of this procedure, the expectation was that this would improve patient care and save the NHS in England and Wales up to £5 million per year.

In the present issue, McArdle and Renton analyse trends in recorded third molar activity in the NHS in England, Wales and Scotland over the past two decades. It should be noted that the interpretation of these administrative data is extremely difficult given the changes in recording third molar activity that have happened over the same time period and also changes to the GDS contract in 2005, which preclude firm conclusions, in particular for England and Wales. However, notwithstanding these important limitations, their data suggest that, following an initial decline after the introduction of NICE guidance, the number of third molar removals has now crept back up to pre-NICE levels, suggesting that the financial benefit of the guidelines to the NHS may have been short-lived. Furthermore, the authors observed an increase in the average age of patients who have impacted third molars removed, and an increase in caries as an indication for third molar removal. Hence, their data are consistent with the idea that by following NICE guidance we simply delay removal of third molars until after they have become symptomatic, without actually reducing the number of third molar removals significantly. Indeed, a recent study from Scotland performed after the introduction of NICE guidance found that the incidence of relevant pathology in lower third molars was relatively high.[1] If indeed the vast majority of third molars develop pathology sooner or later, the practice to wait until pathology develops may be questionable, as this is associated with increased and sometimes irreversible morbidity. For example, 10-20% of referrals for lower third molar assessment in the UK involve teeth associated with distal cervical caries in the lower second molar,[2] which in many cases may require extensive and costly treatment or may result in tooth loss. Furthermore, pericoronitis and pulpal pathologies associated with third molar teeth often require treatment with analgesics and antibiotics, which may have significant cost and health implications. Hence, if the results of this present study can be confirmed in more robust studies, prophylactic removal of selected third molars may be prudent. McArdle and Renton may just have put the first nail in the coffin of the third molar NICE guidance in its current form.

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1. Fernandes, M J *et al.*, Incidence of symptoms in previously symptom-free impacted lower third molars assessed in general dental practice. *Br Dent J* 2009; **207:** E10; discussion 218–219.
2. Allen, R T *et al.*, The mesioangular third molar-to extract or not to extract? Analysis of 776 consecutive third molars. *Br Dent J* 2009; **206:** E23; discussion 586–587.

AUTHOR QUESTIONS AND ANSWERS

1. Why did you undertake this research?

This analysis of the changing nature of third molar surgery was undertaken as part of my PhD research. It is my opinion that the guidance introduced by NICE for the management of patients with third molar teeth is unsatisfactory and detrimental to dental health. Although I subscribe to the notion that third molar teeth should only be removed when problems arise, I, and others, have observed an increase in the number of patients with distal cervical caries (DCC) on the second molar, attributable to an impacted third molar that has remained, in itself, relatively asymptomatic. In addition the number of patients requiring treatment appeared not to have changed. My PhD research is looking at the indications for third molar surgery with the hypothesis that the prophylactic removal of third molars may have a role to play in the management of patients with third molar teeth.

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

I will be researching the demographics of patients requiring third molar removal, particularly linked to the clinical indications for third molar removal in conjunction with the characteristics of the third molar itself. I will also be looking at the characteristics of patients with DCC in their second molar teeth and will assess the microbiology of DCC in comparison with microbiology of other types of carious dental lesions. Finally, consideration of the cost-benefit of clinical non-intervention versus third molar removal for this group of patients will be investigated.