Summary of: Hospital admissions for dental care in children: England 1997–2006

D. R. Moles¹ and P. Ashley²

FULL PAPER DETAILS

¹Professor of Oral Health Services Research, Peninsula Dental School, The John Bull Building, Tamar Science Park, Research Way, Plymouth, PL6 8BU;

²Head of Unit and Senior Lecturer/Honorary Consultant, Paediatric Dentistry, UCL Eastman Dental Institute, 256 Gray's Inn Road, London, WC1X 8LD

*Correspondence to: Prof David R. Moles

Email: david.moles@pds.ac.uk

Tel: +44 (0)1752 437333

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Objective To determine the pattern of hospital admissions for dental care of children and adolescents between 1997 and 2006. **Design** Retrospective analysis of data from the Hospital Episodes Statistics (HES) database (1 April 1997 to 30 March 2006) if the patient was aged up to 17 years old and their primary diagnosis was a dental condition. **Outcome measures** Primary diagnosis, treatment provided, socioeconomic status. **Results** There were 517,885 NHS episodes of care for dental conditions in 470,113 children. Over half of the admissions were primarily for dental caries and 80% of all the admissions involved extractions. The peak age for caries-related extractions was five years old. There was a steady increase in the annual number of episodes of care with most of the increased activity attributable to a 66% increase in extractions for caries. More episodes of care were provided for children who lived in relatively deprived areas compared to more affluent areas. **Conclusions** Data from the HES highlights a major public health issue. Caries is a preventable disease yet the number of children being admitted for elective extractions of teeth due to caries was increasing yearly. Further investigation to determine some of the underlying reasons for this trend is required.

EDITOR'S SUMMARY

It must be that society has other things to occupy its attention which it considers more important, that makes the scandal of giving half a million young children a general anaesthetic an issue to be reported in the pages of the *BDJ* alone. (Assuming that no one else picks the story up from here, of course.)

In how many other walks of life would we put up with such a situation resulting from a preventable disease? The sadness too is that with the exception of the enlightened guardians of public health in Southampton who have recently voted for fluoridation of their water supply, and others where this measure is already in place, nothing is likely to change in the foreseeable future. In another decade studious researchers will doubtless review similar figures from the 2009–2019 data.

The further lesson is the socio-economic divide shown so clearly by these figures. The lower down the social scale a

child finds him or herself, the greater the chance of ending up having extractions while 'being put to sleep'. Also, preceding that, the greater the chance of having caries gross enough to require such a drastic treatment option. We know too from other research that such a beginning as this to a dental history frequently has later repercussions in terms of dental anxiety, perhaps phobia and often avoidance of further dental care for the individual and invariably their children, thereby perpetuating the cycle.

This study does not report on the morbidity from general anaesthetics, part of the reason why GAs were shifted from dental practices to hospital facilities at the start of this century. Everyone wants maximum safety and minimum mishap but the fact remains that the greater effort we can continue to place on prevention the less likely it is that children under five years of age will have to experience this most unfortunate start to their lifelong oral care.

The full paper can be accessed from the *BDJ* website (www.bdj.co.uk), under 'Research' in the table of contents for Volume 206 issue 7.

Stephen Hancocks,
Editor-in-Chief

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IN BRIEF

- Highlights a disturbing trend of increasing hospital admissions for the treatment of dental conditions in children in England over a nine year period.
- Most of the increased activity was attributable to a 66% increase in extractions due to caries.
- The data highlights a major public health issue requiring further investigation.

COMMENT

Since 2000 all dental treatment under general anaesthesia (GA) must be carried out in hospitals. The Hospital Episodes Statistics (HES) database, investigated by Moles and Ashley, showed that over half a million children (peak age five years) were admitted, some more than once, for dental operations between 1997 and 2006. Fifty-two percent of admissions were for the extraction of carious teeth. The volume of admissions was significantly weighted against those population segments having the highest multiple deprivation (IMD) scores. Most worrying, however, was evidence of a steady increase in the number of episodes, amounting to 28% over nine years. Moles and Ashley noted that, although mean DMFT levels in five-year-olds reported in 1997/1998 and 2005/2006 were the same, the care index (FT/DMFT) had fallen from 15% to 11%. There has been speculation that changes in primary care service provision and a drop in patient attendance could have contributed.

There is no clear way towards an early reversal of the trend through changes in service delivery. However, if a further fall in caries levels from the present more or less steady state were to occur, the picture could change. The current renewed interest in water fluoridation, following fresh legislation in 2003, holds out some promise of a reduction in tooth extraction. It is likely that those major urban areas containing the largest multiply deprived populations would be the main targets

for new schemes. The largely fluoridated West Midlands region, which contains some of the most deprived areas in the country, had a five-year-old mean DMFT in 2006 of 1.02, with a mean of 0.12 missing teeth (MT). In England overall, mean DMFT was, by comparison, 1.47 and mean MT 0.20. The average of 40% fewer extracted teeth in West Midlands five-year-olds suggests that substantial reductions in the removal of young children's teeth under GA could be achieved after six years with new fluoridation schemes.

M. Downer
Honorary Professor,
University of Manchester and
UCL Eastman Dental Institute
Oral Health Consultancy Services
(OHCOS), Bristol, UK

AUTHOR QUESTIONS AND ANSWERS

1. Why did you undertake this research?

We were interested in this topic firstly as a result of related research looking at the use of sedation *vs* general anaesthesia (GA) for the management of anxiety and behaviour in children. In addition we were concerned by the increasing use of hospital services for the provision of dental care to adults, as highlighted by Thomas *et al.*,¹ and the stark socio-economic inequalities in the people accessing these services.²

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

We would like to explore further the reasons for the trend observed.

1. Thomas S J, Atkinson C, Hughes C, Revington P, Ness A R. Is there an epidemic of admissions for surgical treatment of dental abscesses in the UK? *BMJ* 2008; **336**: 1219-1220.
2. Moles D R. Dental abscesses have increased among poorer people. *BMJ* 2008; **336**: 1323.