

Sink your teeth into your health care

Researchers have found that lack of dental care may have life-threatening implications.

New research from the University of Bristol shows that admissions for the surgical treatment of dental abscess have doubled in the last 10 years despite the fact that these serious infections are preventable with regular dental care.

The findings, published in the *British Medical Journal* today, could reflect a decline of oral health, changes in access to dental treatment or changes in attitudes to dental care.

The analysis was conducted by Dr Steve Thomas and colleagues from the Division of Maxillofacial Surgery and Department of Oral and Dental Science using routine NHS data on hospital admissions and was prompted by three complex cases of dental abscess that presented over a six-month period in 2006. The case studies, provided in full below, highlight the serious and potentially life-threatening consequences of dental abscesses. In two of the cases the patients needed to be admitted to a hospital critical-care unit; none of the three was registered with a dentist.

Recent surveys report improvements in oral health, so an explanation for the increase in hospital admissions is required. The paper suggests it could be linked to changes to dentists' remuneration in the 1990s, which led many to reduce their NHS workload, and a corresponding decline in the number of adults in England registered with an NHS dentist from 23 million in 1994 to approximately 17 million in 2003/04. These changes may have resulted in reductions in the provision of routine dental care and reduced access to emergency dental care and may explain the rise in surgical admissions.

An alternative explanation is that the problem lies with people not seeking dental care but a recent survey of 5,200 members of the public and 750 dentists, conducted by the Commission for Patient and Public Involvement in Health, found that 22% of people had declined treatment because of high cost, and 84% of dentists felt that their new contract had failed to improve access to NHS services.

The authors recommend that access to routine and emergency dental care be reviewed and formal and robust systems of referral established to ensure that GPs can be confident that patients presenting to them with acute dental sepsis will receive appropriate dental treatment.

Speaking about the findings, Dr Thomas said:

'Dental abscess is a serious problem and can be life threatening. In the past 10 years, the incidence of dental abscesses requiring surgical drainage in hospital has doubled. The reasons for this increase need to be identified and robust measures taken to ensure the epidemic is controlled.'

Further information:

Case study 1

In March 2006, a 48-year-old woman was referred by her GP to the A&E department of Bristol Royal Infirmary with a swelling beneath the jawbone in her neck that was diagnosed as an abscess. She was prescribed antibiotics and the abscess drained. Two days later she was breathing rapidly, had low blood pressure and low urine output. A scan showed she had fluid from the neck to the diaphragm. She underwent surgery and pus was drained from around her trachea and heart. She was transferred to the Critical Care Unit for treatment and was diagnosed as having Adult Respiratory Distress Syndrome. She spent 22 days on the Critical Care Unit and a further 22 days on the surgical ward. She was not registered with a dentist.

Case study 2

In May 2006, a 48-year-old-man presented to the A&E Department at Frenchay Hospital, Bristol with a swelling beneath the jawbone in his neck that was diagnosed as a dental abscess. He was not registered with a dentist. He was advised to find a dentist and request treatment. He was unable to find a dentist and returned to the same A&E department three days later. He was given antibiotics and again advised to seek dental treatment. A day later, his partner found him in a coma. He was admitted to the Critical Care Unit where he was diagnosed with diabetic keto-acidosis (a diabetic condition that can lead to coma) and the neck abscess drained. He was ventilated and dialysed and spent three weeks in the Critical Care Unit.

Case study 3

In July 2006, a 41-year-old woman saw her GP because of swelling on the left side of her face. It was diagnosed as mumps. One week later, she presented to the A&E department of Bristol Royal Infirmary with an abscess. The wound was cleaned and drained and antibiotics were prescribed. The patient was not registered with a dentist.

The paper, *Is there an epidemic of admissions for surgical treatment of dental abscesses in the UK?* by Steven J. Thomas, Charlotte Atkinson, Ceri Hughes, Andrew R. Ness is published today in the *British Medical Journal*.

The study looked at Hospital Episode Statistics (HES) data on all admissions to NHS hospitals in England for each year from 1998/99 to 2005/06. This dataset includes information on private patients treated in NHS hospitals, patients who were resident outside of England, and patients where care was funded by the NHS but delivered by treatment centres (including those in the independent sector).

These national data are consistent with a recent audit carried out at the Hull Royal Infirmary that showed an increase in the number of patients presenting to oral and maxillofacial surgery services with dental sepsis (from 17 to 25) between 1999 and 2004. A similar audit of services at Leeds General Infirmary, conducted between 2000 and 2005, did not show such an increase. Both audits were based on small numbers of cases.

The National Institute for Clinical Excellence recommends that adults should have regular dental check ups every three to 24 months.

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