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Dubious discrepancies

Sir, we read with interest the results of the data on maxillofacial services provided by Professor Avery and his colleagues (*BDJ* 2005; **198**: 756). There are, however, some further comments and questions we would like to raise in response to this letter. We were surprised that Professor Avery as Dean of the Faculty of Dental Surgery and President of the British Association of Oral and Maxillofacial Surgeons (BAOMS) could only provide an estimate of the total number of consultant maxillofacial surgeons practising in the UK.

There was no mention of the number of questionnaires distributed and it would have been advantageous to see a copy of their validated questionnaire. Professor Avery comments that there are only 13 vacant consultant posts in maxillofacial surgery while the more recent and thorough BDA survey reveals that there are three times as many consultant vacancies and a further two dozen unfilled specialist registrar posts. This discrepancy may result from the approximately 75 non-responders to the BAOMS survey.

The comments on waiting lists are of interest, as it would appear that the present number of consultants is coping with the clinical demand. Are we to infer from this that there is therefore no need for any maxillofacial consultant expansion? The main difficulties would appear to lie with the provision of dentoalveolar surgery and certainly we would concur with this finding.

Professor Avery and his colleagues describe the results of a questionnaire study into the scope of practice of 197 Staff Grades and Associate Specialists (SAS). These data were also presented at a recent meeting of BAOMS and a more careful analysis reveals a rather different picture from that they describe. While there are some discrepancies between the numbers presented at conference and in the *BDJ* letter the figures show that 107 of the 197 SAS staff questioned (54%) undertook on-call duties for the hospital management of maxillofacial trauma. This number is comparable to the total number of specialist registrars in oral and maxillofacial surgery in the UK, who share this type of work. This emphasises the crucial role played by the SAS grades in the management of facial injuries and supports our view that proper training in this field of work must be provided for this group of clinicians in the future.

We agree that the GDC has a difficult task in reconfiguring the specialist lists relating to the dental specialities and wish them well in this enterprise. We do not think, however, that this hard undertaking will be made any easier by using such soft data. J. Parker

President, British Association of Oral Surgeons at The Royal College of Surgeons of Edinburgh

Authors of the letter B. Avery, C. Kerawala and A. E. Brown respond: Thank you for providing us with the opportunity to reply to Mr Parker's comments prompted by our original letter. Some of the issues raised are complex but we hope the following comments are helpful.

In attempting to quantify any workforce an organisation can only hope to provide an estimate of numbers which by their very nature fluctuate. The cohort of oral and maxillofacial surgeons employed within the NHS is no exception. By way of illustration two consultants were appointed in the first week of August and 13 specialist registrar candidates successfully interviewed in July.

We would draw issue with Mr Parker's suggestion that the BDA survey was 'more recent and thorough' and indeed it was concerns regarding the accuracy of this data that prompted our own survey which involved contacting consultants, specialist registrars and staff grades/associate specialists directly. Information was gathered for the BDA via CCHDS by postal questionnaire and few maxillofacial surgeons were surveyed.

We are not aware that the CCHDS survey results have been circulated widely and we sought to redress this by at least drawing our information into the public arena.

Mr Parker's suggestion that consultant expansion may not be necessary based

upon an apparent ability to cope with current clinical demand is erroneous. Modest expansion is necessary to cope with expected future demand, the effects of the European Working Time Directive and to permit more flexibility in job planning with respect to audit and teaching commitments within the new consultant contract. Expansion is also integral to the reconfiguration of services and improved sub-specialisation.

Although staff grades and associate specialists at present play a role in the management of maxillofacial trauma, the impact of initiatives such as the 'hospital at night' scheme may change this. As Mr Parker suggests, proper training in this field of work must be provided for any clinicians who may be working as part of the consultant led team responsible for patient care. To date there has been no suggestion that the specialty of oral and maxillofacial surgery cannot provide such trauma care in a timely and appropriate manner. Some deficiencies in the provision of dento-alveolar surgery have been revealed. The increase in demand is due in part to the apparent deskilling of recent dental graduates in many aspects of routine exodontia and surgical dentistry. There is no doubt that many patients could still be treated in primary care if satisfactory facilities were available. With this in mind we watch with interest the possible development of 'dentists with a specialist interest' (DwSIs) who might be able to carry out much of this work in future, hopefully linked to hospital departments for continuing education and clinical aovernance cover.

We acknowledge that both the CCHDS and our surveys essentially provide 'soft' data, but at least they provide some information where hard data are woefully absent. The GDC has a difficult task in reconfiguring the specialist lists relating to the dental specialites and hopefully surveys such as these will help them reach a conclusion based on the needs and realities of clinical practice rather than unsubstantiated opinion.

Further information about BAOMS can be obtained through the website:



www.baoms.org.uk or through the BAOMS office email: office@baoms.org.uk. doi: 10.103 8/sj.bdj.4812817

Academic training model

Sir, The Walport Report published by Modernising Medical Careers in conjunction with Clinical Research Collaboration (CRC) UK has highlighted the need for increasing numbers of clinical academics in dentistry.¹ The shortage of suitably qualified dentists for professorial posts is especially acute in paediatric dentistry, oral medicine, oral pathology, conservative dentistry and prosthetic dentistry. There has been little change in numbers of staff holding clinical academic dental contracts between 2000 and 2003, and the Council of Heads of Medical Schools (CHMS) and Council of Deans of Dental Schools (CDDS) survey of clinical academic staffing levels records that academic dentistry is already operating at the lowest staffing levels for more than a decade!² At the same time the UK Government plans to increase the number of dental undergraduate training places in England by 170 from October 2005.3 Walport makes a number of recommendations including that dental schools develop comprehensive programmes to encourage students into clinical academic dentistry, including the development of BDS-PhD programmes, and development of integrated academic training programmes in dentistry with increased flexibility and partnership in funding for training position. A model for such a programme already exists in oral surgery.

The Academic Advisory Committee for Oral and Maxillofacial Surgery (AACOMS) was formed in the 1990s with the purpose of managing the training of academics. Entry requirements includes a registrable dental qualification, MFDS and PhD and experience at the level of SHO in Oral and Maxillofacial Surgery with evidence of having made contribution to the scientific literature. Once enrolled training is for four years leading to the award of Certificates of Completion of Specialist Training (CCST). Time from achieving basic dental degree to CCST in Academic Oral Surgery is around 10 years. To date 12 specialist trainees have achieved consultant posts after completing this programme: five have achieved personal chairs. Currently there are four trainees in Academic Oral Surgery.

As with any clinical academic training programme, academic training in oral surgery has competing pressures of service, research, teaching and administrative activities and challenges in the areas of funding (lack of NHS funding for junior academic training posts). A concerted effort is needed between the universities, the Royal Colleges and the NHS in the context of the Joint Committee for Specialist Training in Dentistry to address these pressures and to formalise clinical academic training applying the AACOMS model more widely in dentistry. V. Sivarajasingam

Cardiff

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- Modernising Medical Careers. Medically and dentallyqualified academic staff. Recommendations for training the researchers and educators of the future (The Walport Report). UK Clinical Research Collaboration, March 2005.
- Clinical academic staffing levels in the UK medical and dental schools. The Council of Heads of Medical Schools and the Council of Deans of Dental Schools, May 2004.
- 3. http://www.hefce.ac.uk/pubs/circlets/2005/cl09_05/

Career crises

Sir, the career problems revealed by the report on academic dentists and doctors (and featured in the news pages of the *BDJ*) are not unique to the clinical sciences. The fact that subjects as crucial as dentistry and medicine are suffering must act as a call for action across the UK's science and engineering research base. The academic research base is a principal source of evidence for the formulation of public policy, and the ultimate origin of almost all useful inventions, which is why the Prime Minister has called the science base 'the absolute bedrock of our economy'.

Since 1997, the stipends of postgraduate students setting out on academic careers have risen sharply, and the career structure for postdoctoral researchers has received a great deal of attention. But the salaries and prospects of trained academics have not kept pace, leaving the research base at risk, together with those parts of national life that depend on it – including the dental and medical professions.

University professors currently earn between 20 and 35% less than people doing jobs of a similar level of skill and responsibility in other sectors. Academic scientists earn less in the UK that they do in Germany, France, Australia or the USA. The recent report shows that, in a fierce global competition for the best talent, the UK is in danger of losing.

No scientific discipline operates in isolation – doctors and dentists depend on chemistry, biology, physics and engineering. So it is important to foster academic work across the spectrum of science and engineering disciplines. Peter Mansfield won the Nobel Prize for Medicine for his part in the development of Magnetic Resonance Imaging, but he is a physicist who solved a physics question, not a medical one.

Over the past seven years, the Government has substantially increased investment in the scientific infrastructure of the university and hospital sectors. If it does not now address the issue of academic careers, in the clinical sciences and elsewhere, it risks the possibility that much of the investment will be wasted. **P. Cotgreave**

Director, CaSE (Campaign for Science and Engineering) London

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Appreciation for Robin Cook

Sir, Gordon Brown in his recent eulogy to Robin Cook noted that 'Robin put all his talents and his life at the service of ... causes of our time, in order to right wrongs, to equalise life chances and to advance opportunity.' One of the many causes that Robin supported was that of water fluoridation.

As Shadow Secretary of State for Health, Robin was responsible for the development of Labour's health policy in the run up to the 1992 general election. In Your Good Health, his health White Paper for a Labour government, he restated Labour's support for water fluoridation, and gave a firm commitment that 'Labour will ensure that water companies implement fluoridation schemes promptly and at reasonable cost, when asked to do so by health authorities.' Labour was not successful in that general election, but we were delighted when Robin accepted our invitation to serve as Vice-President of the British Fluoridation Society, which he did with distinction from 1993 up until his untimely death. Both we and Robin were delighted when his 1992 pledge finally came to fruition with the passing of the Water Act in 2003.

The British Fluoridation Society will always remain deeply appreciative of his support and commitment.

J. Tomlinson M. A. Lennon

M. A. Lennon British Fluoridation Society doi: 10.1038/sj.bdj.4812820

Disability discrimination

Sir, your report of the Queen's Birthday Honours list (*BDJ* 2005; **199**: 7) shows that all those honoured have worked in the field of Special Care Dentistry (SCD). With great help from the BDA librarians I have found that since 1992, of the 61 members of the dental profession honoured, eight were members of the British Society for Disability and Oral Health (BSDH) and two nonmembers – a high proportion.

All had to be nominated and then pass through the rigorous Whitehall sifting system. This amply illustrates the esteem in which those working in this field of dentistry are held outside of the dental profession. Since 1994 those working in SCD have been trying to receive comparable appreciation within the dental profession through specialty status. This summer the GDC reviewed the evidence submitted by BSDH and other bodies, with the possibility that the profession will grant this status and recognise the special expertise required by clinicians in SCD.

In some ways lack of a SCD specialty could be regarded as discrimination against people with disabilities. It is to be hoped that this omission will be rectified later this year. **P. Erridge**

East Grinstead doi: 10.1038/sj.bdj.4812821

Exhausting waste gases

Sir, in the Opinion article Gone to waste, or something to get your teeth into? (BDJ 2005; 199: 9-12) Geoff Dillow addresses the complicated issue of nitrous oxide scavenging during relative analgesia (or inhalation sedation) in a dental setting. While we applaud any effort to inform and educate staff on this extremely complicated subject, it is felt that certain aspects of the article could also serve to confuse. Much of the information and advice given is correct and pertinent to the subject; however, it is quite clear that the author is not completely up to date on the subject of modern dental breathing systems and methods of exhausting the waste gases through dental vacuum and anaesthetic gas scavenging systems.

A particular area of concern is the specified use of receivers (airbrakes) on AGS systems (or self contained scavenging systems such as the Purair 130). As the recognised definition of an active dental scavenging breathing system is an air flow rate of 45 l/min, using an AGS receiver does not meet strict criteria, induced flow rate on (BS6834: 1997) being only 0.5 l/min at the patient connection. These systems are designed to be passive between the patient and receiving unit inlet and are commonly used with dental passive breathing systems. This low level of induced flow is ample opportunity for breathing system leakage. A further area of concern is with regard to the author's viewpoint of nasal masks and active (45 l/min) scavenging systems currently available on the marketplace. The majority of these are extremely efficient if used correctly and are designed to be exhausted either by connection to a dental vacuum or directly into an AGS wall outlet by means of a special adapter, offering the opportunity of setting and visually checking the 45 l/min flow rate via the use of a vacuum control block - available in-line on most of the modern breathing systems There is

a vastly reduced risk of leakage causing ambient surgery pollution from this method if the AGS and vacuum systems are correctly installed, care is taken to ensure a good fit on the nasal mask and the breathing system, including the rebreathing bag, regularly checked.

We strongly suggest that dental surgeries, concerned over scavenging of nitrous oxide seek expert advice on best practice, from a source used to dealing with the specific product – specifically a supplier of said equipment who will be able to advise on exact equipment requirements and therefore minimise ambient surgery pollution and comply with COSHH Regulations.

J. Pickles West Yorkshire

Note: I write from a very informed viewpoint on the subject, frequently being asked to lecture on the subject for organisations and NHS Trusts. I recently spoke to Mr Dillow who was very interested to hear from me, requested some information on the subject and subsequently thanked me for my advice, stating that he would, in the future, acknowledge me as a reference source, where applicable.

I was quite dismayed to see an article published that could, in parts, only serve to confuse the dental professionals, on what, is admittedly, a very complicated subject. As an individual, backed by my company, we have invested considerable amounts of time and energy over the last two to three years educating on this precise subject and feel, without 'pulling punches' that this type of article will not serve to educate, only confuse. This opinion has already been born out by several telephone calls and emails from senior dental staff requiring reassurance on their choice of nitrous oxide scavenging.

The author of the paper G. Dillow responds:

I am always happy to accept correction and criticism where justified and feel that if clarification is necessary this should be brought to everyone's attention. It was pleasing to see that my article was critically examined and obviously stimulated some relevant discussion.

With respect to definitions of scavenging system types, it became clear during conversation with Ms Pickles that 'active' and 'passive' systems could have very different connotations, depending on whether you are a dentist / supplier of dental scavenging systems, or an engineer installing a scavenging system to BS 6834, or to the latest European standard EN 737-2.

To the engineer an active system, as specified in either BS or EN, is one in which a high air flow rate (usually generated by an electrically driven pump) is used to exhaust air through the system's fixed pipework. This air, in turn, entrains waste gases from the patient (or patient ventilator) via a transfer hose and receiver, operating, as Ms Pickles states, at a very low induced flow rate. (Actual system and induced flowrates were stated in my article).

To the same engineer, a passive system, put simply, is nothing more than a pipe through hole in the wall, through which waste gases are driven by patient or ventilator expiratory effort! There is no pump unit involved in such a system.

In the UK, only active systems as defined by the BS or EN Standards above, are considered appropriate for scavenging waste gases from operating areas.

Turning attention now to dental systems, an 'active' system is one in which there is an active flow through the nose mask and this flow carries away the waste gases exhaled by the patient. This flow would, as my article states, be of the order of 45 l/min and obtained by connection of the mask (via a suitable flow-limiting adapter) to either a dental vacuum system or DIRECTLY to an active (BS/EN) scavenging system terminal unit.

A passive system has no such flow through the nose mask and would, as Ms Pickles suggests, lead to considerable spillage of gas, even when connected to the engineer's active (BS/EN) system transfer hose and receiver. This problem was, in fact, stated in my article.

If my article was construed as an encouragement to use (engineer talking) an active system, with its low induced patient flows, in preference to (dentist talking) an active system using a suitable flow controller, then I apologise, for this was not my intention. Rather, the text was intended to highlight possible connections of the nose mask to different types of system and some of the pitfalls (and advantages!) that might occur as a consequence.

Unfortunately, as with many topics, given the unavoidable delay between writing and publishing an article, it was obvious from Ms Pickles' response and my subsequent discussions with her, that practices have moved on somewhat, particularly with respect to the use of 'active' scavenging masks, as understood by most dentists. This is now the 'norm' and, as Ms Pickles states, if used correctly, will offer excellent control over waste gas spillage.

In the light of Ms Pickles' comments, it is my intention to outline the essential features of dental and 'ordinary' active scavenging systems in the forthcoming revision of Health Technical Memorandum 2022, in order to avoid any possible future confusion.

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