



Journal of the Irish Dental Association

Iris Cumainn Déadach na hÉireann

Health and Safety Special edition

Health and safety
conference proceedings

Licensing of X-ray
equipment

Future employment
trends

Status of EU accession
countries

IDA annual scientific
conference

contents

The Journal of the Irish Dental Association

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Make health and safety a priority

Not so long ago, health and safety issues in dentistry seemed very simple and straightforward. Wearing a mask, gloves and eye protection, and using an autoclave was considered progressive. Today, health and safety issues are increasingly complex. European directives are being transposed into Irish law and many dentists may not be aware that they are in breach of current Irish law. This is particularly the case with respect to waste management and, more recently, to the licensing of radiological dental equipment. Other areas that are becoming increasingly regulated include waterlines, amalgam separators, and autoclave types and their uses.

As dentists operating on patients, we are very aware of the importance of health and safety issues with respect to patient management. The use of disposable needles, the taking of medical histories, the sterilisation of instruments, hand-pieces and burs, and the disinfection of impressions have all become standard practice.

However, keeping abreast of other health and safety issues is increasingly more difficult, which is in no small part due to the absence of any mandatory dental education. Each year brings with it new research, updates, recommendations, policies and European directives, some of which are transposed into Irish law and directly affect us, often without our knowledge.

- How is the profession informed of changes in the law with respect to health and safety issues?
- Is anyone responsible informing us of these changes?
- Is not being informed and inadvertently being in breach of the law through lack of information a defence if prosecuted?
- Did you know that you should have a health and safety statement for your practice?
- Did you know that your radiological equipment requires a licence?
- Did you know that you are responsible for separating your waste and disposing of it appropriately and knowing the Environmental Protection Agency licence number of the site to which it is delivered?
- Did you know that some local authorities are targeting dental practices in search of documentation of correct waste disposal?

I am thankful and pleased that the Journal of the IDA is devoting this issue to the very important subject of health and safety in the dental practice. It is now 15 years since the Postgraduate Medical and Dental Board published the booklet *Health & Safety in the Dental Practice* in 1989, the European year of health and safety.

In the intervening period, there have been many changes in knowledge and a greater emphasis on health and safety in the dental practice; these include EU legislation and regulations. It is essential that Irish dentists are aware of these developments, which also have medico legal implications.

For this reason, the South and Mid-West Committee of the Postgraduate Medical and Dental Board, at the suggestion of Chairman, Dr Maurice Delaney, decided to hold a conference on health and safety in November 2003, in Limerick. I am happy to present the proceedings of this conference. Some

For most dental practitioners, this information is acquired through dental supply companies and friends on an ad hoc basis. This is not acceptable and, while we can access laws on various internet websites, not everyone has access to this. I believe the responsibility for the dissemination of information with respect to changing laws lies with the Department of Health and statutory bodies.

Given the dearth of information available to the profession on health and safety issues, I have decided to dedicate this issue of the Journal to health and safety. I am very grateful to the Post Graduate Medical and Dental Board and to Professor Louis Buckley for allowing us publish the proceedings from an excellent health and safety conference held recently. I am also grateful to the authors for preparing the articles.

And so for the 'health warning' - this issue is by no means comprehensive but should bring your attention to some of the new European law regulations on various areas of dental practice that have been enacted into Irish law and which we are legally bound to adopt.

The readers may remember we featured an update on bleaching in the previous issue. Given the considerable confusion caused by the EU Cosmetic Directive and varied opinions as to what is and is not currently legal in Ireland, I have sought clarification on this issue from the Department of Health, the EU Commission, as well as Dental Protection in the United Kingdom. Hopefully, I will have sufficient information to address this issue in the next Journal.

Finally, the conference in Limerick was a huge success and congratulations to Michael Galvin on a fantastic programme, both academic and social.



Aisling O'Mahony
Editor

papers have been edited with the permission of the authors to which we owe a debt of gratitude.

Do retain this publication for your perusal.

We are particularly grateful to the Editor, Dr Aisling O'Mahony, and to the Deputy Secretary General, Ciara Murphy, for their help and cooperation in producing this publication.



Professor Louis Buckley
Course Organiser
Postgraduate Medical and Dental Board

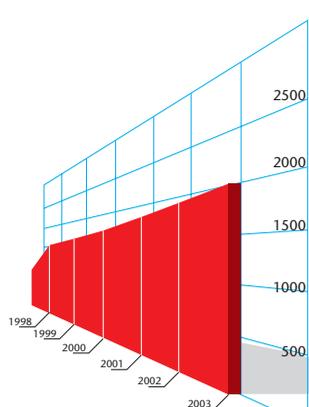


FIGURE 1: Employment trends of dentists 1998 to 2003

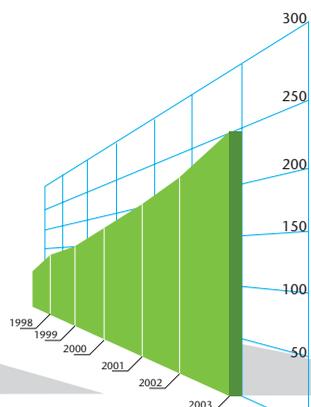


FIGURE 2: Employment trends of dental hygienists 1998 to 2003

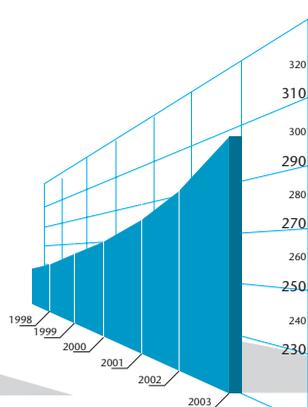


FIGURE 3: Employment trends of dental technicians 1998 to 2003

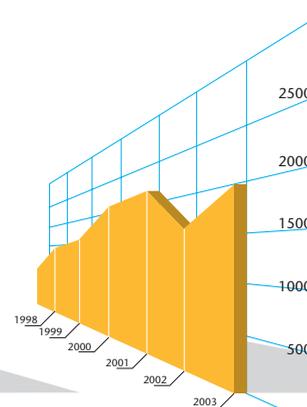


FIGURE 4: Employment trends of dental nurses 1998 to 2003

Current and future employment trends within the dental profession

The interim results of a report commissioned by the Department of Health, which are exclusively published here for the first time, predict there will be a shortage of dentists by 2015. The report suggests that the solution to this problem may be to increase the number of dentists coming to work here from both within and outside of the EU.

The report, which analyses the current and future demand for dental occupations, aims to determine how any imbalances between demand and supply will impact on workforce planning.

Dentists

The interim report predicts that the supply of dentists in Ireland will fall by five per cent from the current 1,947 to 1,849 in 2015. By using four scenario models, it also forecasts that between 400 and 900 additional dentists will be required in 2015.

The report also notes that

- Dentists dominate the dental labour force. The majority work in private practice (71 per cent) as sole practitioners and are self-employed.
- The number of dentists practising in Ireland has been steadily rising and was 1,960 in 2003 (see **Figure 1**).
- Although dentistry is male-dominated, the number of females has increased (29 per cent in 1996 to 36 per cent in 2002).
- The average dentist works 36.8 hours per week, which is 1.1 hours less than in 1998.
- There are 163 dentists from other EU countries and 12 from non-EU countries temporarily registered with the Dental Council.
- Around 80 students graduate from Ireland's two dental schools annually. Of these, 43 per cent emigrate.

Dental hygienists

The report projects that the number of dental hygienists will increase from the current 235 to 379 by 2015 — a 61 per cent increase. However, although there has been an annual growth in the number of dental hygienists in employment since 1998 from 131 to 248 in 2003 (see **Figure 2**), the report predicts that by 2015, there will be a surplus of dental hygienists.

The report also notes that

- This sector of the dental profession is female dominated, and increasingly so — in 1998, 94 per cent of hygienists were female, in 2003, it was 98 per cent.
- Almost all dental hygienists work in private practices.
- Approximately 20 hygienists in total graduate each year from Ireland's two dental schools.
- 75 per cent of graduate hygienists find work in Ireland.

Dental nurses

No mandatory qualifications are required to work as a dental nurse in Ireland. Although there is no statutory registration system currently in place, mandatory registration is planned.

There has been an increase in the number of dental nurses from 1998 to 2003, with the exception of 2002 (see **Figure 4**).

As with dental hygienists, dental nursing is female-dominated and currently stands at 97 per cent women.

Dental nurses work an average of 35 hours per week, although a high per cent (71) work part-time hours.

In Ireland, there is a ratio of one dental nurse to one dentist, which is lower than many other EU countries.

Dental technicians

In line with other areas of the dental profession, the number of technicians employed has increased from 250 in 1998 to 300 in 2003 (see **Figure 3**). Because Ireland has fewer technicians relative to its population (7.4 per 100,000 population) than most other EU countries (the highest being Italy with 87 per 100,000), it is expected that the number of technicians here will continue to rise.

The report also notes that

- No qualifications are required to be a dental technician in Ireland.
- This sector of the profession is male-dominated and currently stands at 75 per cent men.
- Approximately 80 per cent of technicians are self-employed.
- Ireland has the lowest ratio of dental technicians per number of practicing dentists in the EU (Portugal excepted).

Status of dentists from EU accession countries remains unclear

The Dental Council has confirmed that it has not yet received notification from the European Union on the status of dentists from the 10 new member states that joined the EU on May 1.

Clarification has been sought from the EU Commission on the admissibility/acceptability of dental degrees from the new states, and whether or not their training complies with the standards laid down in the dental directives.

EU nationals (excluding Irish qualified dentists) must possess a scheduled dental qualification to register with the Dental Council. A list of scheduled qualifications from institutions in other member states is specified in the Directive 78/686/EEC. Scheduled qualifications from the 10 new member states have not yet been identified.

Candidates with a scheduled dental qualification seeking to register

with the Dental Council in Ireland must undergo a vetting procedure to ensure good standing as a dentist in their country of origin.

The Dental Council is assuming that applicants from the new accession countries hold qualifications that are not compliant unless informed otherwise by the competent authority in the state from which they come.

EU nationals with a dental qualification that is not compliant may apply for registration with the Dental Council under the Acquired Rights Provision if they can produce evidence of having practiced dentistry lawfully and continuously for a period of three years during the previous five year period.

Non-EU nationals who wish to register in Ireland must pass a special Dental Council examination.

To date, the Dental Council has received a number of enquiries regarding registration from Accession Country dentists but no formal applications have yet been processed. Currently, there are 163 dentists from other EU countries on the dental register in Ireland.

Third party dental insurance schemes to enter the Irish market

At the recent National GP Group meeting, which took place at the Annual Scientific Conference in Limerick, Michael Walsh, CEO, DeCare International, confirmed his company's intention to provide dental indemnity insurance plans for consumers in Ireland in the coming weeks.

DeCare International wrote to all dentists in April advising them of the following aspects of their scheme:

- there are no dental networks;
- the patient pays you;
- DeCare International reimburses the patient;
- dentist/patient relationship not compromised;
- availability of oral health materials; and,
- prompt service.

However, concern was expressed by the majority of members at the GP meeting that DeCare International would evolve gradually into a preferred provider organisations (PPO) scheme, similar to those that

operate in the USA. Mr Walsh said that the scheme his company was proposing was an indemnity scheme whereby the patient would deal directly with the insurance company. He indicated that there would not be any contracts between DeCare International and dentists; however, the patient may seek the dentist's assistance in filling out the claim form to confirm the exact work done.

Despite this, Dr Cameron Jayson, a dentist practising in Minnesota with 30 years' experience of dental insurance companies, advised the meeting that it was his belief that the insurance scheme being proposed by DeCare International would evolve into a PPO in due course.

Donal Atkins, Secretary General of the Irish Dental Association, highlighted the use of the phrase 'At this time...' in DeCare's correspondence to dentists when referring to its future intentions with the operation of the scheme.

A series of branch meetings have been arranged to take place throughout the country in early June. All dentists are urged to attend their branch meetings to discuss the entry of third party dental insurance companies into the Irish market.

IDA welcomes Minister's announcement of DTSS review date

Following a series of meetings between representatives of the Irish Dental Association and Minister Ivor Caelely, Minister of State at the Department of Health and Children, a commitment was given that the long overdue review of the Dental Treatment Services Scheme (DTSS) would commence on October 1, 2004.



Ivor Caelely, Minister of State at the Department of Health and Children, has given a commitment to review the DTSS.

Following his address to the 2003 IDA Annual General Meeting in December 2003, Minister Caelely worked with the Association in implementing the final stage of the 1999 Revised Procedures in the DTSS, the establishment of the Examining Dentist Scheme. These posts are expected to be filled in September.

The IDA DTSS negotiating team will be undertaking a survey of all DTSS contractors to seek members' views of the medical card scheme.

Review of Dental Treatment Benefit Scheme concludes

Independent Chairman, James Doran, has published the final report in respect of the Dental Treatment Benefit Scheme review.

The Chairman of the GP Group, Dr Tom Houlihan, highlighted the salient points arising from this review at the recent National GP Group meeting held in Limerick.

The Association sought the application of open grant-in-aid with respect to prosthetics and extractions. The Department did not dispute any of the evidence provided by the Association in support of its claim but were unable to concede this claim as no authorisation was given by the Department of Finance.

In relation to prosthetics, the Association reminded the Department that a clause in the 1992 contract already provided that: "...the contracting dentist shall be entitled to draw up and offer to the qualified person, an alternative form of treatment which will provide that person with a degree of choice in regard to the level and standard of treatment to be provided."

In relation to the annual fee increases, it was agreed that the parties (IDA and DSFA) would enter immediate negotiations on the deficiency in the current formula, i.e., the deficiency in relation to inflation of dental materials and supplies.

It is agreed that the 1992 contract should be amended to permit hygienists to provide treatment for which they are qualified to provide under the scheme.

Benefits of IDNA membership

As part of its commitment to continue to develop and adapt to meet the needs of dental nurses, the Association launched its own website, www.idna-ireland.com, which has already become a valuable resource for dental nurses and dentists. Employment notices and vacancies, which can be posted by dentists, and recommended salary scales continue to receive the most hits.

The Association also publishes a quarterly newsletter, which incorporates news and updates from the Dublin Dental School and Hospital, informs members of courses being provided by the continuing education programme, covers current and past events, Dental Council reports, vacancies and much more.

Additional benefits for members of the IDNA include group memberships with VHI Health Insurance and the Lynx Group, a professional finance company. The Association also has an employment officer who works with dentists and nurses and has made some very successful placements.

The Association has made the recruitment of new members a priority and it would welcome the support of dentists in encouraging and supporting their nurses in this regard.

In 2002, the Association attained registration by the Dental Council. This was in recognition of the key role played by dental nurses in the delivery of dental services in the state. Dental nurses are important members of the dental team and those properly trained and qualified are invaluable assets to any practice.

The DSFA sought the inclusion of additional cohorts, i.e., approximately 120,000 additional young people and the abolition of the €45K income ceiling. The Association upheld the current position indicating that it was not agreeable to change at this time but that in the context of future changes being made to the operation of the scheme, favourable consideration would be given to these proposals. The Association has also agreed to the regularisation of an anomaly relating to approximately 400 spouses of self-employed persons where s/he earns less than €76.18 per week. This anomaly will be implemented only at the time the revised formula reflecting dental costs are introduced, i.e., July 2004.

Copies of this report are available on the members' section of www.dentist.ie or alternatively by contacting IDA head office. A copy will also be circulated to the Secretary of each Group and Branch of the Irish Dental Association.

IDA accredits Orbit products



Following the accreditation of several Orbit products, the Irish Dental Association President, Michael Galvin, meets with Jo Hartop, Head of Communications, Wrigley Oral Healthcare in Action; and Diarmuid Kennedy at the recent IDA Conference.

In response to the increasing public interest in dental health and awareness of the benefits of dental care, and as a service to members of the public who seek guidance on consumer dental products, the Irish Dental Association accredits some consumer dental products that can demonstrate safety and efficacy and that the claims made by the manufacturer are justified and based on sound advice.

Wrigley's has recently successfully completed this stringent application process and contract negotiations were finalised earlier this year.

Therefore the Irish Dental Association has formally accredited Orbit Spearmint Stick, Orbit Peppermint Stick, Orbit Ice White Pellet and Stick and Orbit Professional Pellet.

IDA seeks creation of new senior posts in the Health Board Dental Service

The 1999 Health Board Dental Surgeons Restructuring Agreement provided for further negotiations in relation to the introduction of a grade of Director of Oral Health.

In Section 6.1(a) of the 1999 Agreement Restructuring to enhance Dental Services in the Health Service (Appendix A), it was agreed as an interim solution that: "One (or where necessary more) principal dental surgeons in each health board area will take responsibility for the evaluation and development of the dental services in that area."

The 1999 Agreement provided for future discussions relating to the development of the posts of Directors of Oral Health. It was envisaged that these directors would be responsible for the planning and evaluation of oral health services, but would have no role in operational management of services.

The Irish Dental Association and IMPACT wrote to the HSEA in May 2003 and, following some brief discussion, the HSEA advised that any submission in relation to the introduction of a grade of Director of Oral Health should be submitted to the Secretary General of the Department of Health and Children, Michael Kelly.

The need to further develop and enhance the management function within high-level dental posts arises from three major sources:

- The health service reform agenda.
- The unfinished element of the Dental Restructuring Agreement (1999) concerning the posts of Directors of Oral Health.
- The evidence that dental service delivery is fragmented across the country with different levels of access to services being available to a patient according to the health board in which that patient receives their treatment services.

The Irish Dental Association and IMPACT believe that the optimal model would be to have an office of Chief Dental Surgeon (in addition to the Chief Dental Officer post in the Department of Health and Children) attached to the Health Service Executive.

In addition, the creation of five posts of Assistant Chief Dental Surgeon has been sought. These would comprise one post in each region, with regional duties and national duties as assigned; the fifth post would have specific responsibility for the DTSS.

The joint submission has been sent to the Department of Health and Children for its consideration.

Expert body on fluorides and health established



Dr Seamus O'Hickey, Chairman of the newly established Expert Body on Fluorides and Health.

The Minister for Health and Children, Michael Martin, has announced the establishment of the Expert Body on Fluorides and Health as recommended in the Report of the Forum on Fluoridation (2002).

The terms of reference of the Body, which will be chaired by Dr Seamus O'Hickey, are to:

- oversee the implementation of the recommendations of the Forum on Fluoridation;
- advise the Minister and evaluate ongoing research, including new emerging issues, on all aspects of fluoride and its delivery methods as an established health technology and as required; and,
- report to the Minister on matters of concern at his/her request or on own initiative.

The Expert Body has broad representation, including dentistry, public health, toxicology, engineering, management, environment and the public, as identified within the Forum on Fluoridation Report.

Commenting on the appointment of Dr O'Hickey as Chairman of the new body, the Minister stated that: "Dr O'Hickey's mix of scientific knowledge, awareness of fluoridation issues and experience of administrative issues leave him well placed to chair the Body."

Dr O'Hickey is a Senior Lecturer in the Department of Public and Child Dental Health, School of Dental Science, Trinity College, Dublin. He is former Chief Dental Officer at the Department of Health and Children, Dublin, and, until recently, was Editor of the *Journal of the Irish Dental Association*.

Dr O'Hickey brings a wide range of expertise and experience, both national and international, to the Chair of the Expert Body.

For further information on the new body, contact Deirdre Sadlier on 01-4780466 or email secretariat@dentalhealth.ie.

Increase in registrations

Figures released by the Dental Council have revealed that there was a further increase in the number of new registrations last year. The increase, of 135, brings the number of dentists registered with the Council to its highest level ever.

The number of dentists on the Register has maintained an upward spiral. In 1989 there were just 1,242 names registered. Ten years later that had risen to 1,794. Last year's increase brought the number to within close reach of 2,200.

Although the origins of the new registrations are mainly from Dublin, Cork and the UK, there were 17 registrants from other EU countries and 11 from non-EU states last year.



General meeting of the Metro Branch of the Irish Dental Association

The evening included a lecture from Dr Anita Nolan: "Candida, Coldsore and Mouth Ulcers - Current Management". This was followed by the Presidency changeover and the AGM. There were approximately 90 members of the Metro branch in attendance.

The meeting was supported by GlaxoSmithKline Consumer Healthcare.

From left: Dr Eamon Croke, the new President of the Metro Branch of the IDA, is pictured with Liz Rowen and Mairead MacNamara of GlaxoSmithKline and Dr Ed Cotter, outgoing President of the Metro Branch.

IDA concerned over processing of X-ray licence applications

Against a background of concern expressed to the Irish Dental Association (IDA) by the suppliers of X-ray equipment, a meeting between the IDA, the Association of Irish Dental Industry (AIDI) and the Radiological Protection Institute of Ireland (RPII) was convened in order to address these concerns.

The implication of the new regulations is that a dentist is unable to use a dental X-ray unit for some time after taking delivery of it, as the initial licence is for custody only. The RPII advised that the correspondence sent to the suppliers of dental X-ray units merely reiterated the licensing requirements for new dental X-ray units and pointed out that the requirement for the commissioning of new units has been in place since the early 1990s and is clearly stated in the RPII's Code of Practice for Radiological Protection in Dentistry. During the meeting, the IDA highlighted a number of concerns to the RPII, and sought written guidelines/criteria to be used to ensure that the dental surgery planning is adequately to house a dental X-ray unit. The RPII advised that, while it has not published any formal guidelines for the planning of new dental surgeries, some basic information is included in its Code of Practice. Each application is assessed in its own right by the staff of the RPII.

The IDA sought further information regarding the review of plans for proposed dental premises and the risk assessment and what the criteria are to comply with this risk assessment. The RPII advised that this review is carried out by staff of the RPII. Although there is a requirement to comply with the design dose constraint of 0.3 millisieverts per year for members of the public, how this can be achieved in practice is not indicated and can vary considerably from practice to practice depending, for example, on the thickness of walls, etc. Each assessment is carried out on a case-by-case basis. Concerns in relation to the length of this process were highlighted. The RPII pointed out that it is a requirement of S.I. No. 125 of 2000 that an application for a licence shall be made at least one month before the proposed date of commencement of the practice. A

delay may occur in the processing of the licence application if the RPII requires additional information. Members of the AIDI advised that sometimes delays of up to two-to-four weeks could take place in receiving the results of the test pack from the NRPB in the UK. The RPII suggested that these delays might be attributed to the NRPB phasing in their new Dental RPA service in the UK. However, where testing is carried out by an RPA/Medical Physicist, the results should be available more quickly. Processing the application for the removal of the restriction on use will normally take up to five working days. However, where there is clearly an urgent need to put the machine into clinical use, the RPII will ensure that an amended licence to include use on patients is issued with the minimum delay.

The IDA requested a list of RPAs so that members can avail of this service. The RPII advised that currently, there is no register of RPAs but that it is intended to establish one by the end of 2004. RPAs are usually available in any hospital where there is a Medical Physics Department. This includes most hospitals with nuclear medicine facilities and all radiotherapy hospitals.

Arising from the meeting, it was agreed that the RPII would compile guidelines for dentists outlining the stages involved in the licensing of dental X-ray units. These guidelines would also include some general radiation protection information. Guidelines currently exist to assist dentists in completing a risk assessment and the Irish Dental Association would liaise with the RPII in this regard.

In the interim, pending resolution of the problem of the lengthy delays with the NRPB in processing test packs, it was agreed that the IDA would seek to compile a list of known RPAs for members to avail of to carry out performance tests and radiation protection assessments.

(See Licensing of dental X-ray equipment on page 84 for further details.)

Public dental health project awards

The annual prizes for the fourth year public dental health projects, which are sponsored by Colgate Palmolive (Ireland) were awarded recently. In their fourth dental year, students in the Dublin Dental School

and Hospital undertake community-based research projects over two terms. These research projects aim to provide students with a broad experience of public health and, in particular, public dental health, its operation and philosophy, as well as obtaining an insight into career opportunities in the service. In addition, the students obtain practical experience in planning, implementing and analysing a minor research project. Through the projects, the students are also exposed to different social and cultural issues within the community. During the terms, the students complete a group report of their research and also present a poster of their findings as a group. There are two prizes — one each for the best poster and the written report which received the most marks. The posters were

judged by Professor John Clarkson, Dean and Chair in Public Dental Health; Dr Denise McCarthy, and Dr Catriona McAllister.

This year's prize for the best poster went to Group 4.1 with a poster entitled "The Great Warfarin Debate". This group was supervised by Dr Ruth Gray from the South West Area Health Board. The students involved were Sarah Al Awadi, Jacqueline Bracken, Brid Brett, Desmond Byrne, Donal Carroll, Seung-MinCha, Eimear Clayton, Ruth Collins and Ciara Connolly.

The best report was from Group 4.4 whose project was entitled "Erosion Explosion". This group was supervised by Dr Conac Bradley from the East Coast Area Health Board. The students involved were: Patrick Meehan, Lucia Mothei, Eustice Motshome, Ali Al Shehhi, Slaine Ni Shuilleabhain, Michelle Obine and Derval O'Connell.

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THE DENTAL MAGNIFICATION SPECIALISTS



Valerie Kiernan, professional relations manager, Colgate Ireland, with Dr Michael Galvin, President of the IDA at the recent scientific conference.

Colgate and the IDA – partners for Oral Health Month

Colgate Oral Health Month is a major consumer initiative, now in its second year, and this year's programme will be even more comprehensive, including an outreach programme through members of the Irish Dental Association. During the month, Colgate will also be giving away 100,000 sample products throughout Ireland. Oral Health Month 2004, due to take place in September, was officially

launched at the Irish Dental Association Annual Scientific Conference by the President, Dr Michael Galvin. Colgate will work in partnership with IDA members to maximise the value of this initiative to dentists and their patients. The Colgate toothpaste range is Ireland's market leader, led by Colgate Total and reinforced by Colgate Sensitive, which provides relief from the pain of sensitive teeth. Colgate also provides a wide range of toothbrushes, including Colgate Total Professional and Colgate Actibrush. As the brand of toothpaste most often chosen by Irish dentists and their families, Colgate is proud to support the work of the Irish Dental Profession in Ireland with initiatives like Oral Health Month. It gives everyone more to smile about.

For further information contact Colgate on 01-4039800 or White & Associates PR consultants at 01-2697736.

business news

Listerine winners



Roseanne Dunne (centre), Listerine Marketing Development Manager at Pfizer Consumer Healthcare, presents prizewinners, Angela Thurlow and Dr Tom Munroe at Dr Munroe's dental surgery in Dublin, with their prize of a luxurious trip for two to the Lodge and Spa at Inchydoney Island. They were two of the 12 winners of a promotion that Listerine ran both in-store and amongst the dental trade.

Polident rebranding



GlaxoSmithKline Consumer Healthcare has amalgamated its range of products under one, new brand name: Polident.

Poligrip, denture fixative cream; Corega, denture cleansing tablets; Wernets, denture fixative powder; and Dentu-Creme, denture cleansing toothpaste, will now all retail under the single umbrella

brand name, Polident, while maintaining their current formulations. Coupled with new consistent packaging across the range, this initiative will communicate Polident's positioning as the complete care solution for denture wearers, says the company.

The perfect picture

4Square Healthcare has launched a new 'taking the perfect picture' brochure, which contains details of all the essential accessories required by clinical photographers. It contains details of the company's range of photographic mirrors, both rhodium and metallic, and cheek retractors. Plus some of the more exotic items designed to solve the particular problems associated with clinical photography. These include parallelism mirrors and combination tongue protectors.



Student award

Tariq Bashir is presented with the 2004 Wrigley Oral Healthcare in Action Dental Student Award for his design of an imaginative and eye-catching leaflet, aimed at educating Asian patients about oral health.



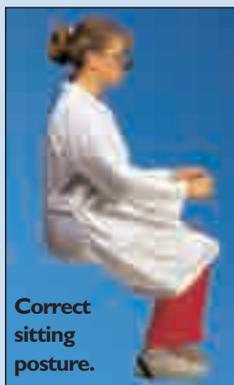
Neck and back pain

Many dentists suffer from back and neck pain due to poor working postures, which could be improved by the use of surgical telescopes (loupes).

Important factors to consider when buying loupes are:

- Maximise the angle of declination to avoid excessive head tilt.
- Choose the correct working distance for your height and working methods.
- Choose the lightest weight available.
- Choose loupes with a triple hinge adjustment.

Surgitel, a leading manufacturer of surgical telescopes and fibre optic headlight systems, has developed innovative solutions to this silent yet serious career threat.



Correct sitting posture.



Incorrect posture.

Appointment

PURI-DENT UK has appointed Andrew Carr as its Sales Manager for its Metasys Compact Dynamic and SolmeteX ranges of amalgam separators. In the light of the new Hazardous Waste Regulations, which will require practices to



effectively eliminate mercury pollution from amalgam entering the sewerage system or the atmosphere, his role will be to promote the benefits of the Metasys Compact Dynamic and SolmeteX Hg5 central amalgam separator to dentists throughout the UK and Ireland.



Dental cabinets

Endo Direct has launched its new range of Classic Dental Cabinetry. Designed to meet stringent budget criteria in modern dental practices, without compromising on form or function, it features quality post-formed worktops, pvc edged doors and carcass fronts, quality sinks and mixer taps: all designed on a bespoke basis to satisfy the demands of any potential or existing surgery space.

Update on waste management for the practice of dentistry

Checklist

- My waste is classified as hazardous under current environmental legislation
- My waste is segregated and packaged in the correct containers
- My waste is removed from site by a collector licensed under the Waste Management (Collection Permit) Regulations 2001, using Hazchem trained drivers, vehicles equipped to ADR requirements, and insured to carry the waste
- I know the location of the disposal site and the licence number of the site, issued by the Environmental Protection Agency
- When waste is removed from my premises I sign the appropriate C1 documentation as required under the Waste Management (Movement of Hazardous Waste) Regulations 1998

Hazardous waste is an issue each of us faces in the practice of dentistry. Until recently, the safe disposal of biohazardous waste was for the most part a matter of making the best of the situation. This was entirely due to the lack of suitable facilities available to safely dispose of materials that can otherwise present a risk in the ordinary commercial waste stream. Recent incidents where latex gloves and swabs have been found scattered in the street from household black bags awaiting collection highlight the danger posed by this practice and raise the awareness of this issue in the general public domain. In certain areas, county councils have requested documented evidence from dental practices of disposal of their biohazardous waste. So what are our legal requirements in this area, what materials should we dispose of through licensed waste management companies and what can be placed in the regular black sack?

All waste producers are required to exercise a 'duty of care' when disposing of unwanted items, be this innocuous material such as paper and cardboard, or higher risk materials such as used syringes or mercury-bearing amalgam waste.

Waste Management Act 1996

The Waste Management Act 1996, forms the basis of environmental legislation governing waste management within Ireland, with emphasis for compliance being placed firmly on the shoulders of the waste producer. Perhaps the most significant Regulations arising from the act include the Waste Management (Movement of Hazardous Waste) Regulation 1998, based on the EU directive 91/689/EEC, and the Waste Management (Collection Permit) Regulations 2001.

It is the dentist's responsibility to ensure a safe and traceable route for the disposal of hazardous waste without causing harm to the environment.

As dentists and as producers of hazardous waste, we have a legal responsibility and a duty of care to ensure the correct management of waste within our practices, a safe and traceable route for the disposal of hazardous waste to the environment, and that all waste is disposed of in accordance with current environmental legislation.

It is the dentist's responsibility to ensure a safe and traceable route for the disposal of hazardous waste without causing harm to the environment.

Classification of biohazardous materials

Classification of waste materials is often an issue of great debate amongst the dental profession. Whilst the majority of dental professionals ensure that used hypodermic needles and other 'sharps' are disposed of as hazardous waste, there are varying levels of standards concerning other clinical wastes from the surgery. Some dental professionals err on the side of caution and dispose of all surgery waste as potentially hazardous. As the waste producer, it is the dental professional who has the duty of care and who must make the assessment. Infection risk would be deemed to be the largest single hazard attributed to this type of waste but, without analysing every single item requiring disposal, the infection risk is, to a large degree,

Dental wastes classified as hazardous in the European Waste Catalogue that should be collected and disposed of in a controlled manner

- Dental amalgam and spent amalgam capsules should be segregated, safely stored in mercury suppressant containers and ultimately processed for the full recovery of mercury. If mercury contaminated waste is incinerated, this releases free mercury into the atmosphere, which is strictly prohibited.
- Fixer and developer solutions contain toxic amounts of silver and other chemicals, which are extremely harmful to the sewerage treatment process. For this reason, water authorities are opposed to having silver contaminate the effluents that they treat. Fixer and developer must be collected and stored in secure containers for

treatment by a licensed waste management facility.

- Prescription only medicines and out-of-date drugs must be stored in designated and clearly marked sharps bins for incineration.
- Lead foil should be collected and stored separately to avoid being mixed with waste for incineration.
- The movement of hazardous waste is governed by the Council Directive on Hazardous Waste (91/689/EEC) and controlled by the Waste Management (Movement of Hazardous Waste) Regulations, 1998. As with all hazardous waste, a Consignment Note (C1 Form) must accompany the waste when transferred from the producer to a licensed disposal facility by a registered contractor. A copy of the C1 Note must be kept on record for three years, providing an audit trail for inspection if required, by the local authorities.

Dental amalgam waste

- Do not dispose in yellow bags, sharps boxes or household rubbish
- Do not rinse suction traps and filters containing amalgam sludge into sinks or drains.
- Store all amalgam wastes in clearly labelled mercury suppressant containers for recycling.
- Amalgam separators should be fitted in accordance with International Organisation Standard ISO 11143 that requires 95 per cent amalgam recovery efficiency from dental wastewater.
- Contact a licensed waste management company for advice on the collection and recycling of dental amalgam waste.

unquantifiable. Expert advice on the classification of hazardous material is available from a number of sources including the EPA, the Department of Health and local authorities.

Once classified as a hazardous material, it is important that the material is deposited and stored in correct containers. In order to satisfy the requirements of road haulage legislation, the material must be stored in containers which are certified by passing stringent tests as defined by the United Nations, commonly known as UN approved packaging. The type of material that will be deposited in the container will determine the most appropriate container. Sharps containers, for example, are specifically designed containers, which the needles cannot penetrate and have locking mechanisms to prevent unauthorised access to the container. General surgery waste should be deposited in specific yellow bags, and amalgam and developer/fixer waste should be stored in specifically designed and appropriately labelled containers.

It is also important to train staff and ensure that waste is not inadvertently placed in incorrect containers, e.g., that 'sharps' are not deposited in yellow bags.

Waste collection

Once packaged and segregated an authorised waste collector can then collect the waste from the dental surgery. Waste collection in Ireland is a Permitted Activity regulated by the Waste Management (Collection Permit) Regulations 2001. Collection Permits are issued by the relevant Local Authorities and are only issued to contractors who can satisfy certain criteria relating to their business activity including appropriate public liability insurance, and evidence of motor vehicle insurances specific to the activity of waste collection. All dental professionals should determine that the person collecting waste from their premises is in possession of the appropriate collection permit. It is an offence to pass waste to anyone without such a licence.

Waste deposit sites

All wastes should be deposited at an appropriately licensed waste facility, licensed by the Environmental Protection Agency in accordance with The Waste Management (Licensing) Regulations 2000 (S.I. No. 185). This licence will be specific to the type of waste removed from the surgery. It is illegal not to know the location and EPA license number of the waste site to which the waste is taken. If waste is disposed of illegally the waste producer will be prosecuted as well as the person making the illegal deposit. Dental professionals should insist on having the licence number of the disposal facility as issued by the EPA.

Enforcement

The recently appointed Office of Environmental Enforcement (OEE) within the Environment Protection Agency (EPA) is responsible for the implementation and enforcement of environmental legislation in Ireland.

Under current environmental law, the EPA and OEE have significant powers to take enforcement action against breaches of environmental protection legislation and prosecute the offenders.

The powers of enforcement have recently been strengthened by the Protection of the Environment Act 2003.

Local authorities are also carrying out checks of dental premises to determine the disposal methods of all waste produced. This has become more common since the discovery of illegal deposits of waste at various locations throughout the country. Hazardous waste movements must be accompanied by a C1 document as specified in the Waste Management (Movement of Hazardous Waste) Regulations 1998 and copies of these documents are forwarded to the relevant Local Authorities. A copy of the C1 must be kept on record in the dental practice for three years, providing an audit trail for inspection if required, by the local authorities.

Conclusion

Whilst seemingly onerous, good waste management practice is largely a matter of common sense for the dental professional. Advice on best practice is available from specialist contractors, local authorities and the Environmental Protection Agency. Remember we all have a 'Duty of Care' to protect the environment, are you playing your part in protecting our future?

This article was compiled with assistance from Howard Myers, Transafe Limited, Brian Rogers, Rogers Healthcare Ltd and John Harvey from Eco Logic Solutions Ltd.



Tough Questions

What matters to you? Really, stop and think about it for a moment: What is most important in your life?

Most people put their family's wellbeing first. Secondly their own health and then their home and positions built over years of time and effort. OK, next question: How will you protect your family, home and business if suddenly unable to work because of illness or injury?

It's a sobering statistic. One in three of us will suffer from cancer during our lives, but like most people, former RTE newsreader Vere Wynne-Jones never thought he would be diagnosed with the Big C.

Early 2002, Vere was diagnosed with bowel cancer and everything changed. He had to undergo surgery and chemotherapy for liver cancer. Luckily for the journalist turned-PR consultant, he had taken out a personal health insurance policy two decades before. This policy helped keep financial worries to a minimum as he fought back to recovery. "When you're a sole trader, as I am, it's so important that the policy meant I didn't have to return to work. Without it, I might have had to work through this to support myself and my family".

Vere Wynne-Jones's last scan was clear and he is confident about the future. "I would urge people to take out Permanent Health Insurance cover. It's not something that

people like doing but you never know what's round the corner."

Most medical professionals have disability cover under a Permanent Health Insurance (PHI) policy. For years, dentists in Ireland have looked to the Dentist Provident Society's PHI plan. Until recently, it was the only arrangement specifically aimed at dentists. Now Liberty Asset Management, have introduced the "Irish Dentists Protection Plan" which is specifically designed for Irish Dentists. It offers guaranteed premium rates, a higher level of cover and income tax relief on the premiums (not available on the UK policy!).

It is important to compare costs: The premium offered under Liberty's policy is more competitive (as detailed in the table below). This is underlined by the fact that the Dentist Provident Society premium will actually increase with age whereas Liberty's policy is guaranteed to remain level.

There is no need to ask if you're interested in protecting what is important to you, of course you are. However, ask yourself: Are you getting the best PHI cover available?

If you have existing cover or currently have no cover in place and you would like a quotation, please contact Chris Carlile or Paul Doherty on 01-6362700.

Eddie Hobbs Comments

"There is potentially a catastrophic risk to your investible assets, the pot that you have accumulated in property, equities and other investments, if your

future earned income stream is cut off due to ill health. In simple terms, going around without your assets protected in this way is a bit like driving a car without adequate third party insurance - it's that simple. In over 14 years as a financial planner I can safely say that this is perhaps the most important risk product missing or underutilised by medical and other professionals.

Tax relievable PHI at the maximum level available must sit side by side with professional negligence cover if your investible assets are to be protected. There is a very simple reason. In the event of you being unable to work (over 50% of the reasons for which are accounted for by stress and back injuries) you will attempt to maintain a reasonable lifestyle by eroding your assets. The rate of asset erosion could be very dramatic or alternatively the drop in lifestyle to accommodate a small pot of assets could be the stuff of nightmares.

It is, unquestionably, essential that, in the event of ill health, you replace up to 75% of your earned income, escalating each year for as long as is possible, which is to age 65, thereafter to be replaced by your investment assets. I cannot strongly recommend enough that you vigorously explore this aspect of your financial planning since hard experience has shown that a minority of medical professionals have the gap adequately sealed with PHI.

Finally, for the record, I am making this comment entirely voluntarily having been asked to do so by Liberty Asset Management with whom I have no commercial links."

Eddie Hobbs,
Authorised Advisor.

Comparison of Premium Costs			
Age Next	Weekly Benefit	Monthly Premium	
		Dentist Provident Society (DPS)	Liberty Asset Management
30	€945	€83.25	*€64.91
32	€945	€84.00	*€72.28
35	€945	€99.75	*€84.47
40	€945	€99.75	*€107.86

- Liberty's PHI, Guaranteed rates, 26 weeks deferred and ceasing at age 60
- Assumes Male Non-Smoker Rates

*Premiums qualify for tax relief, thereby reducing the cost by 42%

Legal aspects of oral radiology



Radiographic exposures must be achieved by keeping the dose as low as reasonably achievable.

Introduction

The underlying principal of radiation protection is the ALARA concept, namely to keep the dose *as-low-as-reasonably-achievable*. The use of radiation for medical and dental purposes is controlled by several agencies including the Radiological Protection Institute of Ireland (RPII), the Medical and Dental Councils, the Department of Health and Children and the Faculty of Radiology of the Royal College of Surgeons in Ireland. The RPII is responsible for the controls in relation to radiation workers, members of the general public and installations that use X-ray equipment. The RPII gets its legal authority from statutory instruments in Irish law and from directives issued by the European Parliament.

The RPII indicates that, while there are many uses of ionising radiation that are clearly beneficial to society, there is an inherent risk associated with any such use and, therefore, the RPII is responsible for the inspection and licensing of X-ray installations as well as the monitoring of doses to radiation workers.

Dental staff are monitored by the use of

radiation monitoring badges, which should be worn continuously by all staff involved in work with ionising radiation and changed every eight weeks. Should a staff member become pregnant, the badge needs to be changed every two weeks between weeks eight to 15 in the pregnancy. There is an inferred responsibility on the part of the staff to declare pregnancy to the person responsible for radiation protection in a timely manner so that arrangements can be made to monitored adequately.

In October 2002, the Government introduced the European Communities (Medical Ionising Radiation Protection) Regulations, 2002 (S.I. 478 of 2002). This new instrument replaced the previous legislation S.I. No 189 of 1988 and requires practitioners to undertake a process of justification before prescribing a radiographic image. Justification is the process of showing that a particular use of ionising radiation produces sufficient benefit to the exposed individuals or society to offset the radiation detriment it may cause. Following justification, the next processes are

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Proceedings from Health and Safety Conference

optimisation - the process of keeping all exposures as low as reasonably achievable, economic and social factors being taken into account; and dose limitation - the process of keeping the sum total of all relevant doses received whether by workers or members of the public within specified limits.

Dental assistants and hygienists exposing radiographic images

The previous legislation (S.I. No 189 of 1988) was very clear in connection with a dental nurse or hygienist making a dental radiographic image. They had to: first complete a course in dental radiography approved by the Dental Council; and, second, be supervised by the dentist. Section 13.2 of the legislation (S.I. 478 of 2002) appears to create some confusion when it states that: an individual performing a medical radiological procedure in accordance with paragraph 13.1 shall ensure that a radiographer is in attendance at all times during the procedure. The legislation also suggests that a person who works in a dental practice (a non-radiographer) cannot develop a film unless supervised by a radiographer.

Initial reading of this legislation might also suggest that it is not permitted for a dentist to supervise an assistant or hygienist. It is certainly not practical to have a radiographer present in dental practice for dental radiographic procedures.

The legislation also states that the physical conduct of a medical exposure and any supporting aspects including handling and use of radiological equipment, and the development of films may be delegated by the practitioner to one or more individuals entitled to act in this respect in a recognised field of medical specialisation. Dentistry is not a recognised medical specialty and there appears to be some confusion here.

Dentists

Dentists are now required to write prescriptions when requesting radiographic images. A prescriber shall state in writing on each individual prescription his or her reason for requesting that particular procedure and the practitioner shall make arrangements to satisfy himself or herself that the procedure as prescribed is justified. The legislation defines justification as follows: medical exposures shall show a sufficient net benefit, weighing the total potential diagnostic or therapeutic benefit it produces, including the direct health benefits to an individual and the benefits to society against the individual detriment that the exposure might cause, taking into account the efficiency, benefits and risks of available alternate techniques having the same objective but involving no or less exposure to ionizing radiation.

A prescriber is a person whose name is entered on the register established under Section 26 of the Dentists Act 1985. The prescriber shall also seek, where practicable, to obtain previous diagnostic information or medical records relevant to the planned exposure and consider these data to avoid unnecessary exposure. This infers that radiographic images will have to be made available to other practitioners. It will be necessary to have a named medical physicist assigned to a dental practice who will be involved in monitoring,

advising and conduct tests on the X-ray equipment in the dental practice. The recent legislation also specifically refers to the making of a radiographic image in a pregnant patient. In the case of a female of childbearing age, the prescriber, the practitioner, the radiographer, and persons referred to in regulations 13 and 16 shall inquire whether she is pregnant and record her answers in writing. This subject can present problems in a dental practice especially with adolescents accompanied by their parents.

The future

The legislation calls for clinical audit of dental practices and the Dental Council along with the Faculty of Radiology at the Royal College of Surgeons in Ireland will be involved in this process. The potential problem issues have been highlighted to the Department of Health and Children and it is expected that there will be amendments made to the legislation to take account of some of the difficulties the legislation appears to present to the practice of dentistry. And, whereas there may be some difficulties with the legislation, the underlying thrust of the legislation is to make sure that all radiographic exposures are justified; are likely to have a beneficial outcome for the patient; and, are achieved by keeping the dose as low as reasonably achievable.

dental health
DENTAL HEALTH SERVICES
teeth for life

SENIOR EXECUTIVE ROLE

Dental Health Services (DHSV) is the leading provider and purchaser of public dental services in Victoria. Services are provided to 170,000 patients every year and a further 130,000 patients are treated through services purchased from other providers. These services are set to grow and expand following a substantial increase in financial support from the State Government.

- Victoria's Lead Dental Organisation
- Senior Executive Role - Melbourne Based
- Services Set for growth

**GENERAL MANAGER
CLINICAL SERVICES**

The GM Clinical Services is responsible for the leadership and management of all dental services provided by DHSV and manages a budget in excess of \$30M. These services currently include the new 140 chair Dental Hospital, the School Dental Service and a Community Dental Clinic.

With DHSV set to grow, the successful candidate will be a key member of the Executive Team at its exciting base.

This is a challenging new role for a qualified dentist with senior management experience and qualifications to lead the integration of clinical services, training and research in Victoria.

To apply for this role, please send your resume to:
Suea Kubalika, Human Resources Director, DHSV, GPO Box 12031, Melbourne VIC 3001.
Australia or by e-mail to: skubalika@dhs.vic.gov.au

For further information please contact Mr Robert Gault, General Manager - (Human Resources and Corporate Communications) on 461 3 9241 1300.
To obtain a copy of the position description contact Suea Kubalika via:
skubalika@dhs.vic.gov.au 3 9241 1122.

Applications close: **Wednesday, 30 June 2004**

Coping with the unexpected

DR JOHN KEOGH outlines modern theory of accident causation and suggests practical strategies for the prevention and management of adverse events. He also gives a basic description of the more common emergencies and their management.



Dental personnel are not widely experienced in dealing with unexpected medical emergencies. However, with the increasing life span of patients and the emphasis on tooth conservation, dental personnel are increasingly likely to treat older patients in whom the likelihood of encountering unexpected adverse events is greater. Therefore, I recommend that a basic emergency drug pack for the dental surgery is made.

Documenting near-miss incidents

One can be reasonably certain that many incidents of a trivial nature occur frequently in Irish dental practices. We know from various studies that there may be many incidents of a trivial nature before a serious incident occurs. Many studies show the value of recording these incidents as part of a quality approach to modern practice. Such

monitoring causes increased awareness, staff alertness and patient safety.

In December 1999, the Institute of Medicine (IOM) in the USA released a report titled "To Err is Human: Building a Safer Health System". The report estimated that between 44,000 and 98,000 people die each year in hospitals as a result of preventable medical errors. The IOM report carried four core messages:

- the magnitude of harm that results from medical errors is great;
- errors result largely from systems failures, not people failures;
- voluntary and mandatory reporting programs are needed; and,
- a concerted national effort is needed now to improve patient safety.

The main message of the IOM report, and the conceptual underpinning of the

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Proceedings from Health and Safety Conference

Counter measures

There are five avenues through which we can initiate counter measures.

Management	System defect	Operating error	Mishap	Result
<ul style="list-style-type: none"> ■ Training and education ■ Motivation ■ Task design ■ Collection and analysis of information ■ Design, revision and implementation of policies 	<ul style="list-style-type: none"> ■ Task revision via standard operating policies ■ Regulations ■ Policy statements ■ Proper monitoring 	<ul style="list-style-type: none"> ■ Engineering of tasks and workspace ■ Training of staff ■ Motivation of staff 	<ul style="list-style-type: none"> ■ Protective equipment ■ Barriers ■ Separation of hazardous procedures 	<ul style="list-style-type: none"> ■ Containment ■ Firefighting ■ Rescue ■ Evacuation ■ First aid

recommendations, is that errors almost always result from poorly defined systems, not from careless providers. Thus, prevention of errors and injuries requires redesign of systems, not punishing of individuals. The IOM report was not an attack on individuals or a profession, but on faulty systems. Taking the lead from cognitive psychology and human factors, the IOM defined error as a failure of action or plan, not as a failure of a person. This is a fundamental part of the report.

The IOM report recommended two types of reporting systems:

- voluntary reporting of errors that result in very minimal or no harm; and,
- mandatory reporting of errors that result in death or serious permanent injury.

This approach is modelled after highly successful reporting efforts in the aviation industry, where incidents or "near misses" are reported to a non-regulatory entity (NASA's Aviation Safety Reporting System), while accidents that result in death or serious injury or substantial damage to aircraft are reported to investigative and regulatory entities (the National Transportation Safety Board and the Federal Aviation Administration).

Modern theories of causation

These theories say that operating errors occur not because people make mistakes, but more importantly, they occur because of system defects. Systems defect analysis has revolutionised accident prevention by highlighting weakness in the design or operation of a system or program or an office and avoiding emphasis on the culpability of the personnel involved. They also emphasise that small errors in management high up in the causation chain can result in major mishaps further down, especially in complicated systems. Procedures that occur in the dental/medical arena can all be considered complex systems.

Some examples of systems defects that are applicable in dental practice include:

- improper assignment of responsibility, e.g., expecting inexperienced personnel to assume certain duties without training or experience;
- improper climate of motivation, e.g., attitudes of fear, bullying or sarcasm towards other personnel;
- inadequate training and education;

- inadequate equipment and supplies; and,
- improper procedures for the selection and assignment of personnel.

Practical measures for dental personnel

Even though the above model was devised to describe industrial accidents, its lessons can clearly be applied to dental practice. To be involved in a serious professional incident and to be the subject of a subsequent inquiry is one of the most stressful circumstances that could befall you. A serious defence is to show that you have planned for the management of such a possibility, rare though it may be. The contribution of your staff to the overall standard of practice safety will be invaluable. Emphasis should be placed on incentive and innovation in a non-recriminatory atmosphere. These opinions should be sought on a regular and formal basis and a register of their opinions and actions decided on should be kept. Surveys have also shown the value of seeking the opinion of your customers/clients/patients, many of whom will have helpful suggestions.

All adverse incidents and accidents should be recorded. Formal decisions on changes should be agreed, recorded and formally conveyed to the staff

The size and complexity of your practice will obviously determine your management protocols and the degree to which formal arrangements are necessary, but most practices can implement at least some of the following suggestions.

Scope of the problem

Look at your practice; decide where the problem areas are and put a plan in place to implement change. It is not necessary or desirable to attempt large change all at once. For instance, you may decide that you need a policy for dealing with a circumscribed problem such as diabetic patients. A simple, brief statement of perceived difficulties would be drawn up, responses to the difficulties decided upon and a formal policy decided upon. Responses to emergencies, e.g., hypoglycaemia, should be carefully but briefly described. The role of the staff in such emergencies should be assigned. It is important that staff know whom to call and where the emergency equipment and drugs are kept. Staff should be delegated to the maintenance of the equipment and the currency of the drugs.

Any plan is an iterative process and must be revised and rehearsed on a regular basis. Planning without rehearsal will be waste of time.

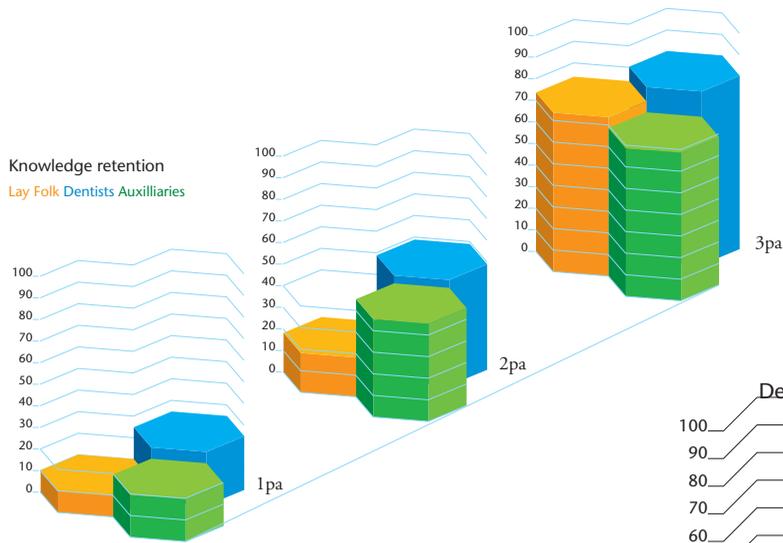


Figure 1: The value of re-acquiring knowledge on a regular basis.

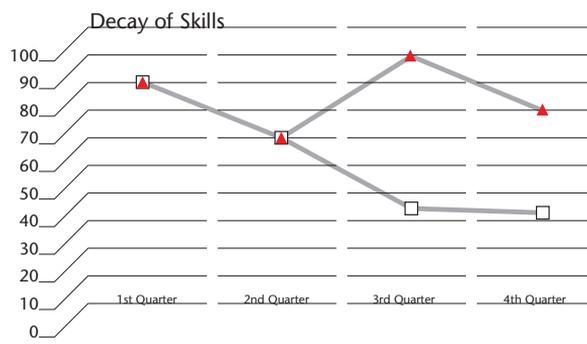


Figure 2: The value of updating skills e.g. CPR on a regular basis

Figures 1 and 2 illustrate the value of regular training and rehearsal. To cope with the unexpected it is helpful to know what reasonably common emergencies might occur and what realistic preparations one ought to have made. I am often surprised at the large range of drugs I have seen in dental surgeries. Many of these drugs are of doubtful value, are not current, need experience and training to utilise safely and often have short shelf lives. I will give guidance on basic drugs and equipment that ought to be in every dental practice. To construct a practical emergency pack, you need to consider what emergencies you are likely to encounter. It is not practical or necessary to prepare for the esoteric.

Emergencies that you are most likely to see

- | | | |
|----------------------------------|--------------------|------------------|
| Common | Less common | Uncommon |
| ■ Psychological | ■ Angina | ■ Hypoglycaemia |
| ■ Faint | | ■ Cardiac arrest |
| ■ Local anaesthetic difficulties | | ■ Anaphylaxis |

Psychological

Dental treatment causes a lot of distress to some people in whom the usual signs of anxiety are seen. This could be termed 'normal' anxiety and is usually managed extraordinarily well by Irish dentists without recourse to drugs. There is a group of patients in whom dental treatment is intolerable and these will benefit from an anxiolytic. Temazepam is drug that I have used a lot for this purpose. It is a short to medium acting benzodiazepine. It is rapidly absorbed by mouth. It

is quickly eliminated from the body. The usual dose for an adult is 10 to 20mg with appropriate doses for children. Like all benzodiazepines, it can have an uncommon paradoxical reaction, causing the patient to behave aggressively. One should be very cautious in sedating diabetic patients unless in a specialised environment. The Dental Council guidelines regarding sedation should be followed.

Fainting

This is caused by activation of the vagal nucleus in the brain, causing slowing of the heart, peripheral pooling of blood, decrease in venous return to the heart, a decrease in blood perfusing the brain, black out and fall to the ground, whereupon venous return recovers and the above sequence is reversed. It is essential that victims are not maintained in the upright position. All victims should be laid flat as soon as possible. Well meaning efforts to give them cups of water or to place the head between the knees should be discouraged.

The following are some of the signs and symptoms. The victim will often tell you they are unwell or nauseated and will look pale and sweaty. Women especially will tell you that they are about to faint. Men on the other hand will deny all discomfort until they fall down. So, paradoxically, although more women faint than men, men suffer more trauma.

Victims can go unconscious, usually briefly, but this varies in depth and duration and can be confused with a cardiac arrest. There are no confusional sequelae from fainting and if there are, the victim should be referred for further investigation.

Victims of fainting can sometimes manifest convulsions and can be confused with an epileptic attack.

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The victim will have a slow pulse and a low blood pressure and can have shallow respirations so that confusion can occur with a cardiac arrest.

How do you make the diagnosis of a simple faint?

It can be simple: where the victim tells you that they are about to faint, promptly does so and equally promptly recovers. This usually is the case with the younger patient.

It can be more difficult in the middle aged to elderly where recovery may not be as rapid. If you are worried, response to a painful stimulus should be sought. Any response implies intact brain function and time is available for further assessment. If there is no response then full cardiopulmonary resuscitation should be initiated until a response or recovery is obtained.

Treatment

Place the victim in a supine position. If unconscious but responsive then position the victim on the side. No active treatment is usually required

Local anaesthetic difficulties

Not surprisingly the commonest patients that I see referred for assessment are those that have had a problem with local anaesthetics. These referrals are often worried about the possibility of anaphylaxis to the local anaesthetic. A local anaesthetic allergy testing service is available at the Cork University Hospital for those practitioners that are concerned that their patients are allergic to local anaesthetics. I have never seen a genuine case of allergy to a local anaesthetic although many cases of putative allergy have been referred. This experience is confirmed in the world literature where true anaphylaxis to the amide local anaesthetics is extremely rare.

Most patients referred have one of the following.

Anxiety attack

Severe anxiety or panic attacks can cause hyperventilation causing tingling in the lips and fingers, tachycardia and sweating, which can easily be confused with an allergic reaction

Toxicity

Some patients are given too much local anaesthetic and manifest toxic symptoms or an inadvertent intravascular injection is made. It is important to understand what your conservative toxic limits should be. To be able to calculate the toxic dose you must know the patient's weight, i.e., you must weigh the patient or get an accurate indication of their weight from the patient.

The following applies to lignocaine only and is a conservative, safe approach.

Upper limit in one session for Lignocaine = 3mg/kg (4.5mg/kg with adrenaline). Therefore: for a 70kg patient (3x70) = 210mg (315mg)
2 per cent lignocaine = 20 mg/ml (42 mg/cartridge) = 5.0 cartridges

Unexpected reactions

Horner's syndrome either partial or complete is not uncommonly seen following various dental blocks and always resolves.

Anxiety and miscellaneous

These are usually related to the presence of adrenaline in the local anaesthetic solution. I believe that most of the vague worrying cases that I investigate are caused by adrenaline. I have on occasions provoked similar symptoms in sceptical patients by administering minute doses of adrenaline to a patient convinced that they are allergic to lignocaine and who refused to accept the results of the negative tests. By contrast with the small levels of normal resting

Suggestions for a basic first aid kit

- Adrenaline 1:10,000 10 ml ampoules - Minijets are the cheapest.
- Glyceryl Trinitrite (GTN) Sublingual spray
- Temazepam
- Aspirin
- Sugar
- Range of small syringes and needles

- Antihistamines (Chlorpheniramine) Piriton
- Hydrocortisone

- A pocket face mask of the Laerdal variety.

- Only stock what you are competent, confident and trained to use
- Only stock what you are likely to require
- Regularly review drugs and equipment
- Keep in a prominent position
- Review the contents with your staff



Cardiac arrest

Cardiac arrest is a sudden cessation of cardiac output. It is usually a consequence of ischaemic heart disease and is generally caused by ventricular fibrillation, an uncoordinated electrical activity of the heart. Ventricular fibrillation is treatable and has a high recovery rate if there is quick access to a defibrillator. The aim of cardiopulmonary resuscitation (CPR) is to maintain as good as possible a cardiac output until a defibrillator becomes available. In the absence of a defibrillator the outcome is poor.

The diagnosis of cardiac arrest is based on lack of responsiveness of the victim to a painful stimulus. In a non-specialised context traditional signs such as lack of a pulse, dilated pupils and pallor are

unreliable. The first response should be to alert the emergency services to obtain a defibrillator. If a second rescuer is available CPR should be immediately started.

What to do

- Check responsiveness
- Phone emergency service(s)
- Ensure the airway is clear using head tilt
- Breathing } 15 compressions : 2 breaths
- Circulation } @ 100 compressions/min

No specialised equipment is needed for CPR but a pocket mask makes rescue breathing more acceptable.

endogenous catecholamine, the amount of endogenous catecholamine in 5ml of 1:80.000 adrenaline is enormous and it is surprising that we do not see more of such reactions. If practitioners were to change to the non vasoconstrictor containing solutions these types of reactions would disappear and the clinical performance of local anaesthetic blocks would not be adversely affected.

Angina

This pain is of cardiac origin, brought on by exertion or anxiety. The patient will often know of his/her condition and will carry drugs to treat it. Glyceryl trinitrate (GTN) is the drug used, usually as a spray given sublingually in 400 microgram doses. It is a useful diagnostic drug where you have a patient who complains of chest pain that doesn't go away. If the pain is relieved by the GTN then a reasonably confident diagnosis of angina can be made and the patient referred for investigation. Where the patient is known to suffer from angina and needs dental treatment it is better to give GTN before commencing treatment.

Hypoglycaemia

Patients can die from low blood sugar, but not immediately as with a

cardiac arrest. High blood sugar will cause no damage in the short term, so there is no need to stock insulin. Remember that the patient is an expert in managing their illness and will need little assistance and no interference from you.

Plan the treatment carefully. Get the patient to attend when they are likely to be stable for the longest period. This is generally early in the morning. Ensure that the patient follows their usual routine. Try to keep the treatment periods as short as possible. Remember that low blood sugar can come on suddenly and can manifest as changes in behaviour, e.g, a previously cooperative patient becoming obstreperous.

No damage will be caused if you give unnecessary sugar and where necessary one should err on the safe side and give the patient a small amount of oral sugar. Sugar is rapidly absorbed by mouth. There is no place for parenteral sugar.

Great care should be exercised if you employ sedation with diabetic patients as their recognition of hypoglycaemia will be blunted.

Latex allergy

This seems to be increasing in incidence and any patient showing sensitivity in response to handling with latex should be referred for investigation.

Treatment of anaphylaxis

Stop all precipitating allergen administration.

In mild to moderate cases you may decide to maintain alert vigilance, as many cases are self limiting. This can be difficult and the urge to do something can be overwhelming. If you do feel compelled to give a drug then either an antihistamine such as Chlorpheniramine (Piriton) 10-20mg I.M. or Hydrocortisone 100mg I.M. is safe to give but of limited use. These are adult doses and doses for children should be appropriately scaled down.

In life threatening anaphylaxis, adrenaline is the drug of choice.

Anaphylaxis- signs and symptoms

- Pallor
- Limpness
- Apnoea (especially in children)
- Hoarseness and stridor (from airway oedema)
- Retrosternal tightness
- Dyspnoea, wheeze
- Tachycardia (occasionally bradycardia)

- Hypotension, weakness, collapse
- Urticarial skin rash
- 90% of victims lose consciousness
- 90% have cardiovascular collapse - due to hypotension and loss of plasma from leaking capillaries
- 30% have bronchospasm
- 25% have airway oedema
- 50% have pulmonary oedema

Dosage of adrenaline in adults

0.5 - 1 ml (1:1000) im/iv/sc or intraglossally

or

5 - 10 ml (1:10,000) im/iv

■ Scale down dose appropriately for children

■ Repeat as necessary

■ You know its working when the symptoms improve and the signs revert to normal.

- Document the allergy history of patients and staff.
- Maintain records of all materials used in clinic and laboratory procedures.
- Recognise the possibility of cross sensitisation.
- Refer for patch test of suspected allergies.
- Wear gloves for dealing with allergenic materials.
- Maintain a latex-free environment for rubber protein allergy.

Hazardous waste

Hazardous wastes may be generated in the dental surgery relating, in particular, to the use of dental amalgam but also to certain materials relating to radiograph processing. Such wastes should only be disposed of in a controlled manner. Professional advice is recommended regarding the full identification, storage and disposal of such wastes as is the implementation of a hazardous waste management plan (see article on page 62).

Health and safety aspects of dental restorative materials



Introduction

Patients and clinical personnel are exposed to an ever increasing range of dental restorative materials. Such materials include resins, plastics, metals, metal alloys and other materials such as rubber products. These materials are used in a variety of applications including restorative dentistry, fixed and removable prosthodontics, endodontics, periodontics and implant dentistry.

Adverse reactions

Reports in the dental literature indicate adverse reactions to at least some of these materials. Moreover, certain media and anecdotal reports suggest that some types of materials might be systemically toxic, e.g., amalgam. The question of adverse reactions to restorative materials is best addressed by attempting to identify the incidence rates of such reactions according to:

type and severity of the reaction;
the principal risk material and/or device; and,
the principal risk population.

It is also prudent to identify precautions which might be appropriate. Such investigations are best carried out, where possible, through systematic reviews of the dental literature and through the investigation of registers of adverse reactions to dental materials.

- 1) **Type and severity of adverse reaction** There is little evidence for systemic toxicity with any of the commonly used restorative materials. The principal adverse reactions are allergic in nature (types I and IV) requiring prior exposure to a relevant allergen. Skin and mucosal reactions of moderate severity are most common, for example, oral

lichenoid lesions adjacent to restorations. Such reactions generally cease when the source is removed. However, instances of more severe reactions have been reported.

- 2) **Principal risk materials** While results are difficult to compare, it is clear that the principal risk materials include certain rubber products, metals and metal alloys, and uncured materials relating to plastic tooth restoratives and dentures. Cross-sensitisation may be relevant in some cases, particularly relating both to rubber products and to epoxy components in restorative materials. Possible adverse reactions to devices should also be recognised, e.g., exposure to high-intensity light-curing units.

- 3) **The principal risk population** The principal risk populations is dental personnel, specifically clinical and laboratory staffs. Patient populations appear to present the least risk. However, sub-populations may exist in each case, such as male/female and individuals who are medically compromised.

Reducing the incidence rate of adverse reactions

The incidence rates for all populations can be reduced through suitable simple precautions. Allergy histories of both patients and dental personnel should be maintained, as should records of materials used in both clinical and laboratory procedures. The possibility of cross-sensitisation should be recognised, particularly in the case of latex products and epoxy-based materials, respectively. In cases of suspected allergies, patch testing may be prescribed. A latex-free environment should be established and maintained in cases of rubber protein allergy. PVC, nitrile or 4H gloves should be worn when placing plastic restorations (clinical personnel) and processing acrylic dentures (laboratory). Other precautions may be appropriate depending on the particular allergy involved.

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Sterilisation and disinfection in dental practice



One of the essential parts of infection control is the safe and efficient use of sterilisation and disinfection.

Introduction

Infection control procedures are an essential part of modern dental practice. They prevent cross contamination and ultimately cross infection. One of the essential parts of infection control is the safe and efficient use of sterilisation and disinfection. These two terms that are often confused: sterilisation is the destruction of all living forms including prions; while, disinfection is the removal of some micro-organisms but usually not spores. The use of disinfection or sterilisation in dentistry has to be based on an assessment of the risk of cross contamination and infection.

Sterilisation

Any instrument or device that is used repeatedly in the treatment of patients and is significantly contaminated with blood and saliva needs sterilisation. Any instrument or equipment that is not significantly contaminated, or cannot be sterilised, is disinfected. The choice of disinfectant depends on the nature of the instrument or equipment and the risks of transmission.

The process of sterilisation is made up of three distinct parts: pre-sterilisation cleaning, sterilisation and aseptic storage.

Pre-sterilisation cleaning

If any debris or fomites are left on an instrument then it is unlikely to be sterilised. During the sterilisation, any residual material will act almost like an 'asbestos blanket' and the micro-organisms present will remain viable. Pre-sterilisation cleaning can be achieved by four methods: manual, enzymic, ultrasonic and thermal disinfection.

Manual cleaning is by far the most common method used for cleaning used instruments. It is also the most inefficient and dangerous method. Sharp injuries occur frequently and research has shown that manual cleaning methods always leave debris on the instruments. Consideration should be given to not using this method routinely.

Enzymic cleaning is useful, particularly if the enzyme solutions contain a mixture of proteolytic and carbohydrate-degrading

enzymes. Enzyme cleaners are particularly useful if the instruments are contaminated with blood as immersion reduces the possibility of sharps injuries. Enzyme cleaners take at least 15 minutes to work, which may be inconveniently long in a busy dental practice.

Ultrasonic cleaners are widely used in dental practice and are often frequently abused. After loading, ultrasonic cleaners should be allowed to complete their prescribed cycle before any further instruments are added. They should not be overloaded. Ideally an ultrasonic cleaner should contain a detergent not a disinfectant, as it is a cleaning instrument. Disinfectants in ultrasonic machines can change the structures of proteinaceous material and make it more difficult to remove.

Thermal disinfection is the ideal method for pre-sterilisation cleaning. The machine is basically a dishwasher, which can hold the temperature above 60°C. They are efficient safe and give reproducible cleanliness.

Sterilisation

Autoclaving is the preferred method of sterilisation. It is efficient, safe and reproducible. There are two types of autoclave available: vacuum and non-vacuum. Vacuum autoclaves are preferable to non-vacuum because they are designed to sterilise instruments with small lumens such as handpieces. For most dental procedures however, a non-vacuum autoclave is probably sufficient. Instruments must be placed into autoclaves in a manner to allow free circulation of steam.

Cold sterilisation

The immersion of instruments into strong disinfectants is not recommended. This does not sterilise instruments. It is dependent on the degree of cleanliness of the instrument, the time of immersion and the amount and properties of the disinfectant. Cold sterilisation procedures are often not followed properly and this method is not recommended.

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Aseptic storage

The best way to store sterilised dental instruments is when they are dry and in closed trays. Pouches can be used, but must be thoroughly evacuated of air prior to sterilisation, e.g., in a vacuum autoclave. They are an excellent method of storage for infrequently used instruments.

Disinfection

There are four main uses for disinfection in dental surgeries: surfaces, drains, impressions and appliances, and dental unit water supplies.

1. Surfaces

Disinfectants used for surfaces should contain a detergent or surfactant together with an antimicrobial substance. The most important part of the disinfection of a surface is the cleaning of the area. The usual method is to spray the disinfectant onto the surface, wipe it off with lots of elbow grease and then repeat the process. This method does not rely on the cidal action of the disinfectant but more on the progressive dilution below the minimum infective dose of any pathogens present. If the surfaces touched during surgery are limited then disinfection can be done quickly, safely and efficiently.

2. Drains and tubing

Drains and tubing become heavily contaminated during operative procedures. They should be disinfected after every session. Again a disinfectant/detergent combination is ideal as the tubing may contain biofilms (see below). A strong caudal disinfectant should be used together with appropriate protective clothing.

3. Impressions and appliances

It is an ethical duty of every practitioner to ensure that all material that leaves the surgery is in a safe condition. Blood-stained impressions are not acceptable in a laboratory, as it must be remembered that the technician has to work on them! After removal from the mouth the impression or appliance should be washed prior to immersion in disinfectant. Immersion is important, as it has been found that spraying doses not kill the micro-organisms present. The disinfectant for this purpose has to be chosen with care, as it must cause minimum distortion.

4. Dental unit water supplies

Dental unit water supplies (DUWS) often become heavily contaminated with micro-organisms. The European standard for drinking water is <100 colony forming units (cfu) of bacteria with no enteropathogens. Tests on DUWS often reveal counts of >500,000 cfu/ml. DUWS with high bacterial counts have caused infections in compromised patients. It is unethical to use such poor quality water for treatment of patients. The micro-organisms in dental units are present as tenacious biofilms on the inside of the tubing. The biofilms seed the planktonic phase and high counts result. Flushing does not remove biofilm. The only methods found to be successful in the removal of biofilms is chemical disinfection. The only two products that are able to satisfactorily remove biofilm are Alpron and Optident Sterilox.

Dental practice safety – an inspector's viewpoint

TOM DONNELLY gives the lowdown on what Health and Safety Authority Inspectors are looking for when they make practice visits.



Isolator switches for electrical appliances should be labelled and easily accessible.

When Health and Safety Authority inspectors visit a dental practice they first ask for the safety statement. If this is present, they verify that it applies to that particular surgery. Ideally, a summary safety policy statement should be displayed similar to a dentist's registration with the Dental Council. The safety statement should be signed, dated, and have an appendix that lists any safety meetings or walk through surveys carried out since it was first developed.

The inspector will then carry out a walk through survey starting from the perspective of a dental patient.

The reception area and hallway

The entrance and or stairways should be free of tripping hazards. It is important to avoid the storage of flammable material under or near the stairway because it would impede egress if a fire started.

Fuse boards

These are often located near the entrance and should have a special sensitive trip switch called residual circuit breakers (RCB) or earth leakage circuit breakers (ELCB). This trip switch should cover all outlet sockets where portable equipment is used or appliances with a higher risk of electrocution, e.g., domestic electric showers. The switch is easily recognised by the test button located beside the trip switch element. Ideally, the test button should be checked or tested each month to ensure the spring is not broken.

Violence at work

If surgeries are situated in busy city or town locations, precautions against violence at work should be considered, e.g., a controlled entry system with a buzzer and viewing window or close circuit television allows staff to screen people before entering, avoiding unnecessary hassle.

The reception counter or hatch should also function as a partial barrier to allow time for staff to egress the area if a person has gained entry with the intent of causing a violent outburst. Ideally, there should be a safe refuge to which staff can retreat, i.e., any room with a lock that

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would gain time prior to the arrival of the Gardai. Procedures should be in place for staff to use a means of communication to summon help. This could be as simple as alerting another staff member, using a phone or panic button to summon help. In volatile situations which have not escalated to violence, referring the person to a manager or dentist may gain time allowing the person to calm down. Developing a code word to alert the dentist/manager to the possibility of violence can be helpful.

Waiting area

The waiting area should have a radio, television or magazines to distract patients from the frustrations of waiting. All areas should be safe for children to play in; televisions should be bolted, potted plants should have plastic containers. This also limits their use as potential weapons.

Sharps containers

Sharps containers which are usually yellow and visually attractive to children should be elevated on a bench or locked in a cupboard. Children have been known to stick their hands into such containers and sustain multiple needlestick injuries leading to unnecessary worry and litigation.

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Cross-infection control

Dentists should wear gloves when working intraorally and masks should be worn when working close to the patient (15cm from mouth) or when using drills that produce aerosols. Powder-free gloves may minimise the risk of latex allergy. Universal precautions and the safe needle system should be used for all patients including high risk patients.

Vaccinations and needle stick injuries

All staff should be vaccinated against blood borne infections such as Hepatitis B. Staff who refuse vaccination should do so only after appropriate informed consent as the modern recombinant vaccines are extremely safe.

Protocols should be established for the management of a needlestick injury and should address issues such as post exposure prophylaxis, patient testing after obtaining consent.

Health hazards

Mercury should not be used by pregnant employees unless it is done in an enclosed system. Glutaraldehyde disinfectant should not be used by staff who are asthmatics. Its use as a spray surface steriliser should be avoided if possible.

Radiation

Reference to RPII standards for ionising radiation protection should be referred to in the safety statement.

Autoclaves

Autoclaves should have valid pressure and maintenance records.

Anaesthetic gases

Any anaesthetic gases used should have an associated scrubbing system/exhaust system for disposal of exhaled gas from patients.

Safety data sheets and accident notification forms

An appendix to the safety statement should contain safety data sheets and accident notification forms (Form IR1 from HSA).

Fire extinguishers

Fire extinguishers should have valid annual checks and records should be kept of any fire drills carried out.

Computer visual display units

Computer visual display unit guidelines should be followed with regard to the secretary's or receptionist's chair. Wrist supports should be provided if required and the VDU adjusted for optimal positioning.

Anti-bullying statement

An anti-bullying statement included and refer to stress at work.

Finally, and most importantly, all new employees should read and sign the safety statement. Encourage all employees to add additional hazards to health and safety in the practice to the existing statement.

Old bugs and new: classical and emerging pathogens – relevance to dental practice

DR JOAN POWER considers pathogen/disease relevance, reviews classical pathogens and considering emerging trends in infectious agents and disease transmission with a view to proposing an approach to future practice guidance.



Needle stick transmission risk for HIV is of the order of 0.3 per cent, but this is increased in the case of deep injury and direct blood contact.

Introduction

Among the number of factors which determines relevance of pathogen/disease are epidemiological pattern, relevant population immunogenicity, associated pathogenicity of the infectious agent, transmission route, pathogen load, cell association, the presence of potential risk reduction measures, and availability of the successful treatment.

Surveillance of nosocomially and occupationally acquired infections, continues to highlight the risks associated with multiple use of needle and syringes, contamination of iv tubing, percutaneous injury, contaminated materials (including haemostatic gauze) and aerosolised oral fluids notwithstanding the now public guidance, in relation to strict hand antisepsis, aseptic techniques, barrier precautions and instrument decontamination.

The well characterised classical pathogens are now joined by pathogens identified by the viral genomic project seeking disease and new diseases (or diseases new to specific population), seeking pathogens or challenging us to understand the changing trends. The latter circumstances are not surprising in the face of increased global trafficking and cross species transmission for a number of reasons.

These changes are in the setting of improved access to information for both professionals and the general public.

The classical triad

HIV, Hepatitis B and Hepatitis C viruses constitute the significant triad of classical pathogens in the circumstances under discussion.

HIV is an enveloped retrovirus with a direct cytopathic affect together with depression of cell-mediated immunity. Viraemia persists after infection and up to 70 per cent may be co-infected with Hepatitis B and 40 per cent

with Hepatitis C, impacting on disease progression. Novel and emerging approaches to treatment include RNA based gene therapy techniques with retro/lenti viral vectors containing therapeutic constructs (Colorado). Needle stick transmission risk is of the order of 0.3 per cent, increased in the case of deep injury, direct blood contact among other settings with a post exposure prophylaxis risk reduction rate of 80 per cent. Multi-centre (Seattle) vaccine trials are underway using an adeno virus vector.

HBV, a DNA enveloped virus, may also be associated with delta super infection.

There is a worldwide prevalence of 350 million cases with one million deaths per year. Prevalence varies from one per cent in the US, EU and Australia, increasing through the Mediterranean areas and Eastern EU, to eight per cent in Africa and Asia, making it the most common serious liver infection in the world. Acute disease has a risk of fulminant infection, but in 95 per cent of immune competent patients infection resolves. Most recent approaches to treatment use Peg Interferin, μ -2a, with Cooksley in Brisbane, noting a response rate of 28 per cent (vs 12 per cent previously). Needle stick transmission risk is of the order of 30 per cent and hyperimmune globulin is available for post exposure prophylaxis. Vaccination programmes are well established for those at risk, including in the occupational setting.

HCV, like HIV, is an RNA enveloped virus with 150 million cases worldwide: four million in the US and three million in the EU. More recent trends in intravenous drug users in the UK has shown an increasing prevalence in newly identified IDA (15 per cent in '01 vs eight per cent in 1998), rising to 33 per cent in the chronic IDA population. Reports of persisting viraemia after infection vary from 40 to 70 per cent, depending on a number of identified variables. There is a unique cohort

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of female patients in Ireland, exposed by the tragic contamination of BTSB intravenous Anti-D Immunoglobulin. The approach to treatment includes interferon alpha plus Ribovirin, Limitin. An early virological response (EVR) is indicated by a greater than 2 log₁₀ copies/ml reduction in viral load in a 12-week period. Treatment is recommended post exposure but a vaccine is not yet available.

Emerging trends of concern

Among the emerging trends of concern are, pathogen seeking disease, disease seeking pathogen, old bugs in unexposed populations and new variants of known disease.

GBV/HGV, HH-8, TTV, are among the agents where a significant pathogenicity is not yet identified, while markers may be present at significant levels of the population (e.g., GBV 17.7 per cent marked in the dentist population).

Severe acute respiratory syndrome (SARS) exemplifies disease seeking a pathogen that is identified in a relevantly short period as an RNA coronavirus, originally a zoonosis with aerosol transmission but no known transfusion transmission to date.

Intimate human/wild animal contact and global trafficking are both significant factors in the spread of this infection. Significantly, the World Health Organisation (WHO) took a prominent position in guiding public health protection and risk reduction measures, and these are readily accessible to both professionals and the general public via the Internet. AVI Biopharma have a neugene anti sense compound in pre clinical development and the National Institute of Health (NIH) are engaged in vaccine development with Baxter and Aventis Pasteur.

West Nile Virus is an arbo virus (arthropod-borne) where humans are accidentally infected when ticks are feeding on them. First recognised in the late 1930s, this RNA enveloped flavivirus is widely distributed throughout Africa, West Asia, Europe and Australia since 1999 and annual epidemics, in parallel with the life cycle of the mosquito occurrence in U.S. and Canada, with increasing case numbers by year and secondary transmission by blood transfusion and organ transplantation. Fifty-five cases were reported in 1999 (associated with an 11 per cent mortality rate), and this has increased to 6,507 cases during 2003 to the time of presenting this paper, (with an associated two per cent mortality rate). Eighty per cent of infected humans are symptomatic, 20 per cent develop West Nile Disease, pyrexial illness of the central nervous system some with encephalitis which is potentially fatal especially in the elderly patients in less than one per cent of observed infections. NIAID is in clinical trial as a therapy and hyperimmune globulin is in development by Acanbis and Cangene. An IDA has been filed for Phase I trial with Chimerivax as a vaccine. Preventative measures also include vector control. In this case the Centre for Disease Control (CDC) in the U.S has made available the pattern of emerging disease by state accessible to all on its website.

Increased globalisation has also raised concern for other pathogens in new populations, including the parasite **Leishmania** (Sandfly vector) causing Leishmaniasis, the clinical spectrum of which includes mucocutaneous syndrome (includes the hard/soft palate, gingival

oedema, periodontitis), and viruses such as Japanese Encephalitis virus (Mosquito vector).

Creutzfeldt Jakob Disease (CJD) has been described since early last century as one of the transmissible spongiform encephalopathies with one case per million of population. More recently, iatrogenic transmissions has been described in over 250 cases worldwide, the majority associated with pituitary tissue extract, > 100 associated with exposure to contaminated dura mater graft, seven by direct intra cerebral contact with surgical instruments and possibly three by cornea graft with contact with the optic nerve. The incubation period varied from an average of 18 months in the case of direct intra cerebral contact to 6 years for dura allograft onto the brain surface and 12 years in the case of intravenous administration of tissue extracts.

In 1996, the CJD surveillance unit at Edinburgh, described a new variant (vCJD) associated with the zoonosis bovine spongiform encephalopathy (BSE). To the time of presenting this lecture over 100 cases have been described in the UK, a further six in France and one in a small number (including Ireland) of other countries, expected to relate to patient residency in the UK in times relevant to the BSE epidemic. This variant differed from classical CJD in respect of age of onset, duration of illness, and clinical and histological features. While classical CJD is a disease of the elderly, who succumb in a short few months to this fatal illness, the immediate age of onset of vCJD is 28 years with immediate duration of illness of 14 months. A genetic predisposition has been identified with homozygosity for codon 129 in 100 per cent of the 120 cases of vCJD tested to date. PrP^{sc} is identified as the infectious agent.

Measures to control the spread of BSE have been relatively successful with the incidence of new cases per year of vCJD in the UK reaching a peak of 28 in 1999, some six years after the peak of BSE cases. The trend has been a decline in new cases since 1999, with 10 new cases identified in 2002. Tissue infectivity is graded as high for central nervous system tissue, with other ocular and lymphoreticular tissue of medium risk and blood and other tissue of low risk. At the time of this presentation, the 'theoretical' risk of transmission by blood transfusion was being actively managed by risk reduction measures. (Subsequently, in December 2003, the probable transmission by blood transfusion of a single case in the UK was a 69-year-old male patient who presented some six years post transfusion in the surgical screening.) Screening of liver donors/patients for CJD is limited by assay sensitivity, whereas splenic and tonsillar tissue can be used for screening in the post mortem setting. Pentosan, polysulphate, is under investigation for therapeutic response. Clearly, there is much yet to be learned and understood about this new variant disease.

Conclusion

In conclusion, in the setting of developments in the understanding of classical pathogens, the emergence of new agents of concern to the Irish population and associated need for understanding in implementing risk reduction measures, it would appear prudent to have a formalised information source assisting practice guidance, including a rapid alert system, for the dental profession in Ireland.

Update on steam sterilisation and bench-top sterilisers (autoclaves)

HUGH O'CONNOR provides guidance on the types and uses of bench-top sterilisers.



A sample of the variety of autoclaves currently on the market.

Photographs courtesy of Promed

Introduction

Saturated steam under pressure, at the highest temperature compatible with the product, is the preferred method for the sterilisation of medical devices.

Steam sterilisation requires direct contact between dry saturated steam and all surfaces of the load at a specified temperature, pressure and time (134°C at 2.12 bar gauge for three minutes). Direct contact can be prevented by blood, mucous or tissue on load items and/or by the presence of air in the sterilising chamber. Therefore, it is critical that all instruments are thoroughly cleaned and air removed to enable steam penetration of the pack or lumen and sterilisation of the load.

In the absence of centralised sterilisation facilities, bench-top steam sterilisers (autoclaves) are often used in dental practice. Users must ensure that the equipment complies with safety requirements, is installed and maintained appropriately and is operated in accordance with the manufacturer's instructions. Users should be aware that it is not possible to ensure adequate steam penetration into wrapped or porous loads (fabrics, swabs, dressings) and instruments with lumens or cavities (e.g., hand pieces) unless there is an effective air removal system. Loads such as these cannot be sterilised unless they are processed in an autoclave equipped with an effective pre-sterilisation vacuum stage. Inadequate processing of instruments may also lead to the steriliser itself becoming a source of stored energy and is thus potentially dangerous if not correctly used and maintained.

The purpose of this article is to provide guidance on the types and uses of these autoclaves. This article consolidates advice from the Medical Devices agency and previous publications, as well as providing some further guidance and presenting it in a single document.

Most of the bench tops utilised by dentists for

dental device reprocessing are divided into two categories, which are covered by three main pieces of legislation: PREN 13060, db9804, and HTM 2010 series.

Dental sterilisation and advisory guidance

According to the European Standard PREN 13060, there are three classes of bench top steriliser cycles: N, S and B.

Type N classification autoclaves are non-vacuum autoclaves and are intended for the sterilisation of unwrapped instruments and utensils for use in the immediate patient environment.

Type N non-vacuum sterilisers are not recommended for:

- the processing of wrapped loads;
- the processing of instruments and utensils with lumens or cavities; and,
- the processing of porous materials.

It should be noted that the Type N sterilisers do not meet the essential requirements of the EU directives concerning medical devices.

Type S classification autoclaves are assisted vacuum autoclaves and should not be confused with or used for the same processes as a Type B cycle vacuum autoclave. Type S autoclaves are not suitable for porous items or cavity retentive devices, e.g., dental hand-pieces and should only be used on items for which manufacturers specify the S cycle.

Type B classification autoclaves are the only class that provide safe sterilisation of all types of loads, hollow, porous, bagged and single/double wrapped. The Type B steriliser is the only autoclave that can be programmed to provide all three classes of cycles B, S, and N (which has cost implications). They have all the technical features listed for Type N classification but additionally have a pre- and post-vacuum cycle to assist steam penetration, sterilisation contact drying and effective drying.

An added advantage of the Type B sterilisers is that bagged sterilised instruments can be stored for long periods and maintain sterility.

Author
Hugh O'Connor IHEM
 Authorised Decontamination Engineer
 Bio-engineering and
 Medical Physics Department
 St James's Hospital
 James's Street
 Dublin 8

Advice and personnel training

The safe and efficient operation of bench-top steam sterilisers is dependent on knowledge of and training in sterilisation, supported by professional advice.

Authorised persons (sterilisers)

Authorised sterilisers provide independent auditing of steriliser performance and advice on all aspects of sterilisers and sterilisation processes. Users are strongly recommended to obtain professional advice from one. A register of qualified authorised persons (sterilisers) is maintained by the Institute of Healthcare Engineering and Estate Management.

Manufacturers also offer valuable support and advice on bench top steam sterilisers.

Health Technical Memorandum 2010 (HTM 2010) also provides comprehensive advice and guidance on the design, installation, validation and operation of sterilisers.

Regulations for bench-top steam sterilisers

Bench-top sterilisers are classified as a medical devices under the European Directive (93/42/EEC). This directive was transposed into Irish law (June 1998) by amending the Consumer Protection Act via the Medical Devices Regulations (SI 1994 No. 3017). Under those regulations, bench-top steam sterilisers intended by their manufacturer to be used for the re-processing of medical devices are considered to be accessories to medical devices and are regulated to the same extent as their related devices.

Maintenance

There is a requirement under BS EN 554:1994 for preventive maintenance. Owners of bench-top sterilisers should ensure that the steriliser is subject to a planned and documented schedule of preventive maintenance either under the manufacturer's guidelines or as drawn up by an authorised engineer (decontamination). Guidance on maintenance is given in parts two and four of HTM 2010.

The user should follow the manufacturer's recommendations for the quality of water used to charge the reservoir, frequency of changing the water and routine maintenance of the reservoir.

Safety features should be checked regularly in accordance with the manufacturer's instructions and incorporated into the autoclaves planned programme of maintenance. Particular attention should be paid to closure mechanisms and seals. Door locking mechanisms should be tested weekly and inspected for wear. There are documented incidents of doors opening under pressure and poor door seals allowing discharge of steam.

Quarterly and annual testing

These tests should be conducted by a test person (sterilisers), as they require the use of specialised equipment. Guidance on quarterly and annual testing should be sought from an authorised person (sterilisers).

Legal and insurance considerations

Users should be aware of the legal implications in the event of infection that may result from invasive procedures using devices processed inappropriately. It should be noted that the Type N sterilisers do not meet the essential requirements of the EU directives concerning medical devices.

An ideal autoclave should comply to:

- Classification Type B steriliser designed in anticipation of PREN 13060.
- CE marked to MDD93/42/EEC.
- Pressure vessel (316 sl stainless) designed to ASME V11 or equivalent.
- Complies to BS EN61010-1.
- Complies to BS EN61010-2-041.
- HTM2010 and DB9804 sterilisation conditions.
- Microbiologically tested.

Users acting negligently in circumventing safety features may put themselves and others at risk of:

injury (or even death);

legal liability in respect of injury or damage to property and to the people injured, or committing a criminal offence; and,

invalidating insurance cover taken out to indemnify users and their employers against such events.

Owners of bench-top steam sterilisers should also consider taking out insurance cover for third party liability.

Summary of bench-top steriliser's requirements

So an overworked dental practice requires a reliable autoclave to guarantee a reproducible sterilisation process. The dentist is also concerned about the issue of liability and non-compliance to pending statutory requirements. The question is, what to buy?

Well, here is the list of desirable features of an autoclave and advice for the minimum requirement for sterility assurance.

Design

- Vacuum technology, to enable you to confidently sterilise all (including lumens and wrapped instruments).
- Lightweight and easy to clean.
- Chamber and heater with a 10-year guarantee or 25,000 cycles which ever comes first.
- All servicing, calibration and testing (four times a year with Type B) can be conducted through the front of the autoclave.
- Advance clean water management system.
- Pressure door locks, electrical door locks, testable pressure relief valve and dual solenoid opening and closing device.
- The unit measures and records (to desktop pc) pressure, time temp, cycle status, date, time and cycle count (at least 25,000 cycles).
- Printer to download measured parameters and cycle phases for tracability.
- Easy to change door seal.
- Automatic filling and draining or manually easy to fill and drain.

Cycle and microprocessor requirements

- 121 cycle for 15 minutes.
- 134 cycle for 3.3 minutes (Bowie Dick and process cycle).
- Vacuumless test cycle.
- Software access to customise cycle to authorised user requirements.
- Troubleshooting programme to test electromechanical components (inputs/outputs).
- RS232 port for PC interface for calibration, diagnostics and tracability.

Licensing of dental X-ray equipment

Under Irish legislation, (the Radiological Protection Act, 1991 (Ionising Radiation) Order, S.I. No. 125 of 2000), a licence must be obtained from the Radiological Protection Institute of Ireland (RPII) for radioactive substances and irradiating apparatus including dental X-ray units.

It is expected that a revised licensing system for dentists will substantially improve the standards of radiation protection in dental radiology.



The RPII currently licences almost 800 dental practices for the custody and use of some 1,750 dental X-ray units. These licences are issued to licensees who range from a self-employed dentist with a single X-ray unit to a large health board with up to 50 units. It is a condition of the licence that the licensee complies with the Institute's Code of Practice for Radiological Protection in Dentistry. This code outlines the criteria of acceptability for dental X-ray units and requires the licensee to put in place a full quality assurance (QA) programme that will assess the equipment against these criteria every two years. Each application for an X-ray licence is assessed in its own right and where necessary, the RPII will contact the applicant dentist to discuss any anomalies in the application or to seek additional information. When the RPII is satisfied with the application, a licence will be issued initially for custody and commissioning purposes only, i.e., to enable the dentist to legally hold the unit and switch it on for the purpose of assessing its performance but not for use on patients.

The next stage of the application process involves testing the performance of the installed X-ray equipment. Testing may be carried out using the National Radiological Protection Board (NRPB) postal test pack or by engaging the services of a medical physicist.

Upon receipt of the commissioning report, the dentist should forward this report to the RPII. Assuming that the RPII is satisfied with the test results, the restriction on using the equipment for commissioning purposes only will be lifted and a licence that permits the dentist to use the equipment for clinical purposes, will be issued. Licences for dental X-ray units are currently normally valid for period of four years at a fee of €126. These fees are due to be revised.

Appointment of an RPA

It is a requirement of article 19 of S.I. No. 125 of 2000 that a dentist, in common with other users of ionising radiation, shall

appoint a Radiation Protection Adviser (RPA) from a register established by the Institute.

The RPII intends to fully implement this legislation by requiring dentists to formally appoint an RPA who may be either an individual medical physicist with extensive experience in radiological protection or a corporate body such as the NRPB referred to above.

Dentists shall consult their RPA on all matters relating to the shielding and design of the dental X-ray facility prior to licence application for new equipment. It will be at the discretion of the RPA to decide if he/she needs to visit the facility to make this assessment. Dentists shall also consult with their RPA in drafting a set of radiation safety procedures where appropriate. It should be noted that, under current licence conditions, dentists are not obliged to draft their own safety procedures/local rules if they agree to adhere to the Code of Practice. However, if the RPA is of the opinion that, due to the specific nature of the dental facility and/or work practices a set of local rules is required, then these should be drafted.

The RPA will be required to ensure that:

- all new dental X-ray equipment is commissioned prior to clinical use by performing measurements to confirm that the unit is operating correctly within agreed performance parameters (this is subsequent to the installation examination which the installer will carry out);
- ongoing routine performance testing is carried out; and,
- the results of all equipment testing is reviewed/monitored and advice is given on the corrective action(s) required.

The performance examinations/tests may involve the use of the NRPB postal pack or the undertaking of measurements by the medical physicist. In all cases compliance with the Code of Practice and any relevant published national guidelines will need to be demonstrated. The Dental Code of Practice requires testing and commissioning of new X-ray equipment and subsequent QA testing every two years

thereafter and associated record keeping.

A dentist is obliged keep a record of the dates and results of all checks and servicing as the RPII will require objective evidence that performance checks and servicing have been carried out before issuing or renewing a licence.

Implementation

The medical and dental RPA register will be established by the end of 2004. All current dental licences are due to expire at the end of September 2005. The Regulatory Service will write to all dentists at the start of 2005 notifying them of the requirement, under S.I. No. 125, to appoint an RPA from the register and advise them that this will be a prerequisite to licence renewal. This process is intended to ensure that each dental practice will have appointed an RPA by September 2005. For all licence renewals after the September 2005 renewal the Regulatory Service will require confirmation from the dentist that their RPA is satisfied that the requirements of the Code of Practice are being upheld.

From January 2005, all new dental licence applicants will be required to demonstrate they have appointed an RPA and that the RPA is satisfied with the radiation protection standards in the facility.

Distributors of dental X-ray equipment will be required to

demonstrate, by December 2004, that their installers are suitably trained to perform an installation examination as specified by the Institute. From January 2005, it will be a condition of all distributor licences that an installation examination is performed and that a report of that examination is provided to the dentist.

Inspections

An inspection is normally undertaken by the Regulatory Service of the RPII where:

- it has received a complaint in relation to a dental practice;
- an incident has come to its attention;
- it suspects that a dental X-ray unit is being operated without a licence; and,
- concerns have arisen with regard to documents submitted in support of a licence application/amendment.

Conclusion

It is envisaged that the revised licensing system for dentists will substantially improve the standards of radiation protection in dental radiology through a combination of RPA involvement, new licensing obligations on distributors of dental X-ray equipment and enforcement of the requirements of the Code of Practice.

NEW

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against dental pain.

- Advil® Liqui-gels can work up to 41 % faster than conventional tablet forms of ibuprofen.
- Proven efficacy in the treatment of dental pain.††

Advil
STRONGER THAN PAIN

Conference success

Dr Michael Galvin, President of the Irish Dental Association, regards this year's Annual Scientific Conference (ASC) as one of the best conferences ever organised by the IDA. With overwhelmingly positive feedback from speakers, delegates and tradeshow exhibitors, many feel his assumption is correct.

The range of topics covered, and the outstanding reputation of this year's conference speakers, confirmed to many in the Irish dental profession that this was to be an event not to be missed. "Prior to the conference, members thought I was exaggerating about the standard of the speakers the organising committee had selected," says Michael. "I am glad to say, by the comments made to me since, that it was no exaggeration. One very experienced prosthodontist came up to me at the very first coffee break and said he thought he had just heard the greatest lecture ever."

But, as the President points out, it was not just the international speakers that attracted applause. "It was wonderful to hear so much praise for our home-grown speakers, for example 'we don't have to go abroad anymore'."

Building upon a successful formula is always a challenge: does one leave the format alone and risk the success of previous years being lost as the event becomes predictable and stagnates? Or does one evolve the concept and introduce new ideas, which may add to the conference's success, or not? This year, the organisers decided to implement new ideas - a decision that was not taken lightly. "Every year changes to the programme are made and, as a committee, you wonder will they work?" explains Michael. "The new Lunches for Learning appear to have been a great success. Once the delegates realised what they were about, they proved very successful and were way over booked for the second day. I think they are here to stay." With more than 500 delegates attending the ASC, and with feedback



The presidents meet, including James Reilly, President, IMO; Paula O'Connor, President, Irish Dental Hygienists Association; with IDA President, Michael Galvin; Mary O'Donnell, President of the Irish Dental Nurses Association; speaker, Garry Heavey, President of the Dental Council; and, Tom Clifford, President of the Northern Ireland Branch, BDA.



North Munster Branch Delegates.



IDA President, Michael Galvin with Clare McDonald, Sheila Galvin and Mary Galvin.



Minister Tim O'Malley, with Fionnuala Bateman, Eamon Farrell; IDA President, Michael Galvin and Mary Galvin.

IDA conference

being overwhelmingly positive, it seems the conference was a huge success. But, as Michael explains, the event could have been even bigger. Although the attendance was in line with the expectations of the organising committee, one of the limiting factors for the conference is the venue. "There are not too many venues in Ireland that can facilitate two lecture theatres and an exhibition area running concurrently," explains Michael. "This will create problems in the near future and will limit the ASC to four or five regions."

Tradeshaw breaks all records

Running alongside the scientific programme was the largest trade exhibition show for the dental profession in the country. This year's trade exhibition attracted more exhibitors than ever before and, as Michael points out, feedback is already indicating it was a major success for all concerned. "The ASC committee does a post-mortem on the conference, where we write to the exhibitors with a questionnaire on all aspects of the event. However, a number of them have been in touch with me already saying how pleased they were, confirming it was their most successful conference," said the President. "One very notable feature is the quality of the purpose

build stands by the conference partners, they are to be lauded for their efforts."

Guinness, songs, banquets and heated debates

To provide an opportunity for new acquaintances to be made and old ones to be strengthened, the organising committee block booked Bunratty Castle Medieval Banquet for the speaker's dinner. Having started on Guinness and oysters at the trade show, kindly sponsored by the South Court Hotel, the 120 delegates who took up the offer to travel to the medieval castle took full advantage of the opportunity to relax. As Michael reveals: "The rendition of the Fields of Athenry by the entire group will live long in our memories."

But, as most delegates found, it was the standard of the speakers that provided the conference highlight. "If I was asked for a particular highlight, I would have to say it was the GP meeting for a number of reasons," explains the President. "It was the first time the meeting was opened to all disciplines in dentistry, not just general practitioners. The debate on managed care between Dr Cam Jayson and Michael Walshe was, to say the least, thought provoking, with both 'contestants' delivering strong presentations, albeit in different styles!



President's Prize competitors with winner, Dr Pat Cleary (centre).



Elaine Banfield (left) and Mary O'Donnell, President of the Irish Dental Nurses Association, with IDA President, Michael Galvin.



RIGHT: Dr Paddy Crotty presents Brian Dunne with the Dental Health Foundation 2004 Moloney Award alongside IDA President, Michael Galvin.



The King of the Castle, Dr Gerard Chiche, toasts his success as his admiring queen, Dr Aedin Ní Dhonnabháin, looks on.



Ambulance at the ready (thankfully not required) for the hardy group of delegates who got up early to prepare for the fun run.

Indeed Dr Jayson displayed admirable restraint.”
Of course as President, Michael was involved heavily in the organisation of the conference, but he also put in a huge amount of personal time and effort into ensuring its success. Therefore, it will remain a highlight of his term as President for many years. “On a personal level, the entire conference was a wonderful experience. I was overwhelmed by the good wishes, generosity and kindness shown to me. I will cherish the memories forever.”

What the delegates thought

“From a lecture aspect, I thought Dr G Chiche was superb: excellent photography, superb content, clarity of explanation and clinical relevance,” John Walsh.

“Highlights: the lecturers, especially Gerard Chiche: he was very informative and entertaining and his topic was very topical,” Maeve O’Connor.

“Ciara Murphy (IDA Assistant General Secretary) gave a lecture about contracts of employment, which, as an employer, gave me information that I should have known sooner and has led to a change as to how I manage the employees in my practice,” Robin Foyle.



Members of the North Munster Branch who attended the annual gala ball.



Dr Walter Allwright with Donal Atkins IDA Secretary General and Barry Harrington (right).

Around the stands



Representing AIB at the conference were Bill Doyle and Emma Cummerford.



ABOVE: 3i was represented by Mark Pattinson and Olivia Kirway.



LEFT: Eamon Farrell at the Nobel Biocare stand.

BELOW RIGHT: Sensodyne Brand Manager, Ronan McClafferty, with the first edition of the re-launched Journal of the Irish Dental Association.



ABOVE: On the Wrigley Oral Healthcare stand were (from left): Lauren Strivens; Jo Hartop, Head of Communications, Wrigley Oral Healthcare in Action; Sarah Howitt and Diarmuid Kennedy.



RIGHT: Dr Michael Galvin, IDA President, with JIDA Editor, Aisling O’Mahony, and Ciara Murphy, IDA Assistant General Secretary (right), discussing the latest Journal.



IDA conference



Conference sponsor, Colgate, was represented by Jacinta Leech (left) and Valerie Kiernan, professional relations manager, Colgate Ireland.



Elaine Sheehan and Aidan McCormack at the McCormack Dental stand.



Wyeth Consumer Healthcare was represented by (from left): Jennifer Walsh, Aoife O'Keeffe and Tom Ward.



Representing DP Medical at the conference were Douglas Pitman and Edel Quinn.



John Harvey and Kay Bradshaw manned the Eco Logic stand at the conference.



Paddy Horan, Dolores O'Connell, Stella Kobel and Alfred Kobel represented the Limerick Dental Company.



Blauna McDonagh and Amanda King represent Dentsply.



Representing Trophy are Hadyn Knight, Managing Director; and Graham Parker, Irish Sales Manager and Corporate Accounts.



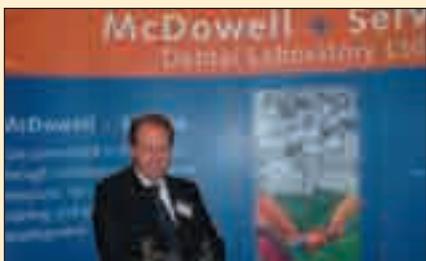
On the Septodont stand is Gerry Lavery.



Representing Oral B are Joanne Tordoff, Regional Manager; and Georgina Turnbull, Marketing Co-ordinator.



Alannah McIntyre and Roseanne Dunne informed dentists at the Pfizer/Listerine stand.



Stephen Ginn manned the McDowell + Service stand.



Representing Bien Air were Chris Bird and Carl Wood.



Transafe was represented by Howard Myers and Tina Keogh.

IDA conference



On the Colène Whaledent stand were Ray Mattingley and the company's Ireland Manager, Brian Jones.



Brian McLean represented Merck, Sharp and Dohme at the IDA conference.



Straumann was represented by Marianne Wyse and Ian Braby.



David Mason (right) discusses J&S Davis with one of the delegates at the IDA conference.



Orla O'Mahony and Claire Madigan at the Aulin stand.



Paul Coughton and Richard Shell at the W&H stand.



Michael Connelly, Richard Kenny, Eve Jordan, Craig Evans, Nicola Kerr and Siobhan Cleary at the well-manned Henry Schein stand.



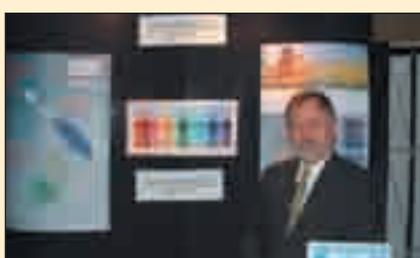
Joanne Rose and Roselyn Gavin at the Casa Schmidt stand.



Representing Promed were Pat Sheehan, Noreen Fitzgerald and Edel Lyons.



Neill Conduit at the QED stand.



Colm O'Shiel director of Celtic Marketing at the company's conference stand.



At the Optident stand was Jonathan Savage.



GSK conference winner

GlaxoSmithKline, a conference partner, sponsored the mini-debate session "Let the audience decide". Pictured are Dr Michael Galvin, President of the IDA, presenting the winner, Dr James Dodd, with his prize of a €500 voucher for Brown Thomas, with Mairead MacNamara on behalf of sponsors, GSK.



Tommy Maguire and Brian Shell at the KerrHawe stand.



Bob O'Driscoll and Grace Kelly represented Bicon Dental Implants at the recent conference.

Classifieds for the autumn issue should be sent to the Irish Dental Association by August 21, 2004.

Full-time positions

Associate required for established dental practice Galway city centre. Full book. Replies to Box Number J204.005.

Dental nurse required (DSA) for busy south Dublin group dental practice. Experience helpful, but not essential. Full/part-time. Excellent salary and working conditions. Please email details/cv to: info@sandymountclinic.com. Or to Helen McGrath (Senior Dental Nurse), 75A Sandymount Rd, Sandymount, Dublin 4. Or phone 01-6689921 (ask for Helen).

Associate wanted full or part-time for busy surgery in Ardee, County Louth. May suit lady dentist returning from maternity leave. Flexible hours offered. Contact 041-6853235.

Full-time position available for two **dentists**, one to start immediately and the other to start in August 2004 in Frinton-on-Sea, Essex, England. Fully computerised practice with a list of 2,000 patients with full staff support. Remuneration up to 55 per cent. For further details contact Sayeed Parker at

0044-77-40067895 or e mail sayeedparker@hotmail.com.

Associate dentist required for north Tipperary to replace departed associate in busy practice. Fully computerised, full digital radiography. Complete clinical freedom. Start immediately. Phone during office hours 0505-23000.

Associate required for a very busy, well-established dental practice, with view to a partnership. 40mins from Dublin, modern, well-equipped surgery. Apply to Box No J204006 or email: norch@eircom.net.

Suffolk, UK. Full-time **associate** required due to expansion. Great location in busy town centre. NHS plus good private potential. New surgery. Excellent remuneration and fully trained support staff. Contact William: tel/fax 0044-1787-473874 or email: dutoit@stansteadhall.fsnet.co.uk

Associate wanted in busy Cavan town dental practice. Ideally mid to end Summer. Tel 049-4332488 or 087-8641990.

Associate wanted for busy

practice in west Dublin. Tel 086-2245017.

Associate dentist required for modern busy practice in the southeast. Fully computerised with full digital radiography. Tel 087-6306768.

Dental **associate** required for well established modern Limerick practice to replace departing associate. Excellent clinical environment and support staff. Full-time preferred but part-time considered. Attractive opportunity. Tel 087-9977763 evenings.

Positions vacant part-time

Part-time associate required to join very busy, well established practice in North Cork. 30 minutes from Limerick, 45 minutes from Cork. Contact 063-81088 (office hours) or 085-7671515.

Orthodontist required part-time for busy, private, south Dublin practice. Reply in confidence to Box Number J204001.

Hygienist required three to four days per week for general practice in the southeast to replace departing colleague. Commencement date end of

June 2004. Contact 087-2507830.

Part-time dentist wanted to replace departing colleague. Midlands town. Tel 044-40579 during office hours.

Locum dentists

Locum wanted for friendly west Cork dental practice. Four to five months from November 2004. Accommodation available. Reply to Box Number J204.002.

Locum dentist required for two weeks June 7 to June 18, 2004. Friendly, modern practice in Dun Laoghaire. Call 01-2842570 for details or 087-8775749 evenings.

Locum required, one hour from Galway. New equipment, computerised, digital, X-rays, etc. Replies to Box Number J204.003.

Locum required for three months starting August 2004 for busy south county Dublin dental practice (Dr PG Heavey). Contact Tara at 01-2801684.

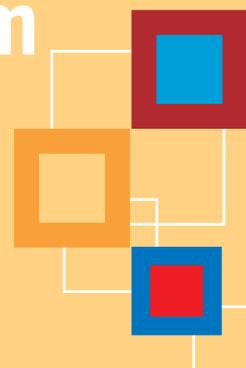
Locum required for busy midlands practice, one hour from Dublin. Tel 087-2570140.

Locum position available in Naas, Co Kildare. Four months –

www.innovativedental.com

- ⇒ 25 practices sold – 25 practices for sale
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Contact 086-8075273 or niall@innovativedental.com.



classified

September to December 2004. Computerised practice. Digital OPG/Hygienist. Telephone 087-9471088 after 8:00pm.

Locum required for three months commencing mid-July 2004 to cover maternity leave. Three days per week. Modern surgery, Edenderry, Co Offaly. Tel 046-9731304.

Positions sought

Irish **dentist** seeks associate position. Currently practising in UK. Available from early August 2004. Has done VT, MFDS and hospital post in restorative. Hard working and enthusiastic. Telephone Mobile: 0044-779-2749008, evenings 0044-2920-748397.

Dentist with eight years' experience returning from London in autumn 2004 seeks full-time post/partnership. Preferably in the Dublin area. Phone 01-2893844 evenings.

German **dentist** seeking employment in Ireland. Eight years' experience in private practice. Registered with Dental Council. Contact Dr David Toukhi, Narzissen Weg 7, 22047 Hamburg, Germany. Tel 0049-40-6939602

Experienced **dental hygienist** looking for position. Contact Caryl O'Brien 087-2800244.

For sale

Practice for sale, South Dublin suburbs. Phone evenings only 01-2895008 or mobile 086-8542894.

Dental **practice** for sale. long established, progressive practice with further potential in growing town, within easy commute of Dublin. Enquiries to Box Number J204.004.

Donegal **practice** for sale: very busy practice with great potential situated in scenic

Inishowen. Contact 087-9098008.

Lease

Orthodontist retiring Leeson Street area, has residential property with **ground-floor surgery** to lease, suit any specialist practice. Equipment in position if required: OPG + cephalometer, chair, etc. Contact 086-8075273.

Luxury new **4 bed house** to rent exclusive area of Costa Blanca, Spain. Alicante airport 50 mins. Valencia airport 60 minutes. Murcia Airport (Ryanair) 100 minutes. Visit the area on line at info-moraira-teulada.com, some summer 2004 dates available. Phone 087-2438312 or email spain@ommail.com for further information.

Consulting rooms available to lease in state-of-the-art medical centre (GP Training Practice) in busy southeast town. Contact Practice Manager at 051-421250 or fax 051-425807.

New **dental surgery** to let in Kingscourt, Co Cavan. Excellent opportunity, no competition in this rapidly expanding town. Only 50 miles from Dublin. For viewing phone 042-9668475 after 7:00pm or by email bronaoreilly@hotmail.com.

Total Wellbeing Clinic. Excellent opportunity exists for a dental practice in a new luxurious 4,599 sq ft **medical centre in Sandyford**, Dublin. Due to the extension of the M50, this area is rapidly expanding. Ample car parking. Contact Catherine Trebble on 01-2951700 or email Catherine@totalwellbeing.ie

Wanted

Wanted second-hand dental **X-ray machine and developing unit**. Contact nutvet@indigo.ie.

Diary of Events**American Dental Society of Europe**

June 22 to 25, 2004
Galway, Ireland

ISDOH annual conference

July 2, 2004
Hamilton Building, Trinity College, Dublin
The Irish Society for Disability and Oral Health is holding its third annual conference later this year. The programme of events includes a range of national and international speakers on topics including autism, oncology, epidemiology and domiciliary care. Previous conferences organised by the society have been oversubscribed and early registration is recommended. For further information contact conac.bradley@dental.tcd.ie.

145th American Dental Association Session

Sept 20 to October 3, 2004
Orlando, Florida
Hosted by Florida ADA

EADPH Annual Meeting

September 24 and 25, 2004
Porto, Portugal
The Portuguese Dental Association is organising the ninth Annual Meeting of the EADPH (European Association of Dental Public Health). For further information e-mail info@eadph2004.org or visit www.eadph2004.org.

Restorative Dentistry - State Of The Art 2004

October 28 to 30, 2004
Royal College of Surgeons, Dublin
Presented by the Faculty of Dentistry, Royal College of Surgeons in Ireland.

Medicare India 2005

April 9 to 11, 2005
New Delhi, India
India's largest medical show is back...
A new state of the art venue in New Delhi will play host to India's premier healthcare show. Once again focusing on healthcare, laboratory and dentistry, Medicare India 2005 is sure to be bigger and better than ever.
For further information contact: Rob Grant: rob.grant@kinexlog.com and see www.medicare-expo.com.

The summer 2004 quiz

Radiology Case 2:

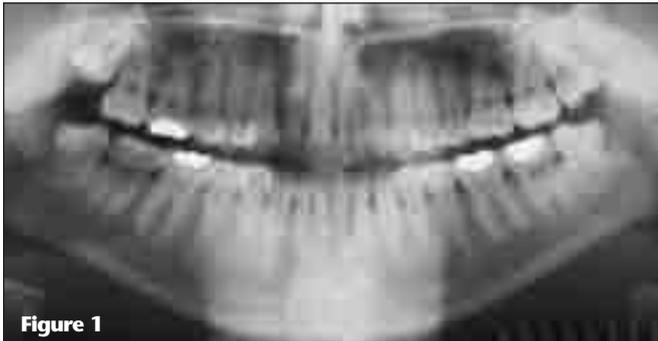


Figure 1

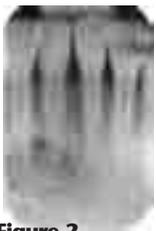


Figure 2

Figure 1 is part of a panoramic image of a 25-year-old white female aged 25 made as part of an assessment for impacted wisdom teeth. Coincidentally there is a well-defined circular radiopacity with peripheral radiolucency below teeth 42-41. A periapical radiograph (**Figure 2**) confirms the presence of the lesion. Both teeth test vital.

**What is your radiographic diagnosis?
How would you manage this condition?**

Congratulations...

... to **Dr Conor Barry**, who is based in the **Dublin Dental Hospital**, who was the winner of the JIDA Spring 2004 quiz. Dr Barry won a case of wine sponsored by Nobel Biocare.



The answer was:
Radiological findings

There is a dome-shaped radiopacity with a black outline to the superior edge above the roots of teeth 17-15. The erupted teeth in this quadrant appear normal with no gross dental disease evident. Two teeth (18 and 13) are unerupted and the follicular spaces are within normal limits and they appear to have no relationship to the radiopacity. The floor of the maxillary sinus appears intact.

Interpretation

The appearances seen here are compatible with a mucous retention cyst of the maxillary sinus. Mucous retention cysts typically occur on the floor of the sinus but may also arise from any of the other walls within the sinus and are occasionally bilateral. The aetiology is unknown but it is presumed that there is a blockage of a mucous gland in the antral mucosa. The presence of a black line to the superior edge of the dome shaped opacity suggests that it is surrounded by air and therefore is in the sinus and not in the alveolar bone.

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Send entries to:

Quiz (2) 2004
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Answers should be submitted by
July 1, 2004.

First correct entry selected will win the prize.

This radiology case has been submitted by:
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Relative to the surrounding air the fluid filled cyst attenuates the X-ray beam more than the air and so appears radiopaque.

Treatment

No treatment is indicated.

Differential diagnosis

The important radiological features that support a diagnosis of antral cyst include:

- Dome-shaped radiopacity with a black line to the upper edge.
- An incidental finding on a radiograph made for some other reason.
- No symptoms or clinical signs.
- Absence of a corticated line to the superior edge of the opacity.
- Normal contour to the antral floor.
- Occasionally bilateral radiopacities.
- One must distinguish between cysts of odontogenic origin from cysts of antral origin as odontogenic cysts require treatment. Odontogenic cysts will typically have a corticated outline, which suggests that the lesion is contained within bone and not within the maxillary sinus. Relative to the surrounding bone the fluid filled jaw cyst now typically appears radiolucent.
- The differential diagnosis might also consider other conditions that affect the sinus, including tumours. Tumours may cause displacement or resorption of teeth and alteration and or loss of anatomical outlines, including the floor of the maxillary sinus.