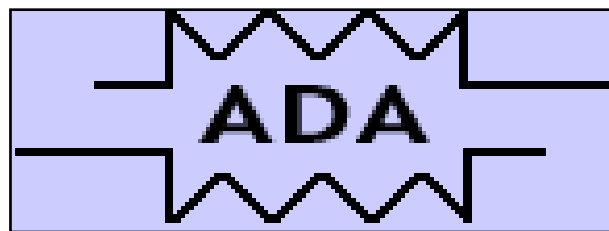


Association of Dental Anaesthetists



Proceedings

2010 -2011

www.dentalanaesthesia.org.uk

Proceedings of the Association of dental anaesthetists

The officers and Council Members

President: Dr Christine Arnold
Immediate past president: Dr Diana Terry
Hon Secretary: Dr Rachel Pollard
Hon Treasurer: Dr Ian Fletcher
Hon Membership Secretary: Dr Christine Arnold
Proceedings Editor: Dr Harry Ashurst

Council Members

Dr George Hamlin
Dr Yusof Omar
Dr Neil Oastler



Dr Christine Arnold



Dr Ian Fletcher



Dr Harry Ashurst



Dr Yusof Omar



Dr Diana Terry



Dr Rachel Pollard



Dr George Hamlin



Dr Neil Oastler

Association of Dental Anaesthetists 8th November 2011

AGM Minutes 2011—76 Portland Place

Apologies- none

Presidents Address

Dr Terry stated that the ADA has close working relationships with the DSTG and SAAD and this is good for all societies and hoped it would continue in the future.

The ADA would work to creating a uniform standard of anaesthesia provision via the RCA level 3 matrix.

The ADA has many functions including allowing the discussion of different problems which vary from the varying paths of access of patients to dental services, and the variety of medical problems of this patient group.

Evidence based practice is important and this has been one point which was noted to be deficient in the NICE guidelines for Paediatric Exodontia which was discussed in our 2010 meeting.

The ADA should be involved in setting standards for sedation and general anaesthesia for dentistry, and also providing a forum for debate and discussion. This could facilitate national audit and research, increase communication via the website, and possibly develop training and e-learning via the website.

In 2012 we hope to act on continuing feedback from members and this month there will be an online survey of ADA members about what content they would like the meetings to have in the future.

Treasurers Report

Dr Fletcher

The accounts have decreased by £7000 from this time last year, due to the loss made on the last meeting and also annual administration costs of the AAGBI which amount to £4000pa. Currently there is a reservoir of £42000 of ADA funds. The AAGBI costs were the reason for increasing the annual fee for members.

The Accountants Birch Littlemore was approved to continue for the next year.

Membership report

Dr Arnold announced that the ADA now has 180 members, 21 left this year and we had 5 new members.

In 2009 we had 260 members.

This downward trend is concerning and Dr Arnold urged delegates to encourage their colleagues to join.

Elections to Council

Dr Andre du Plessis was proposed by Dr Omar and seconded. He was welcomed on to the council.

Presidential Office

This was formally handed over from Dr Terry to Dr Arnold. Dr Arnold Chaired the rest of the meeting.

AOB

Dr Omar asked members to state of the feedback forms which day was most suitable for them to attend a conference.

Dr Pollard mentioned that some delegates had no email reminders of the ADA activity and asked delegates to put their email address on the feedback forms.

Meeting closed after this discussion.

Dr Rachel Pollard
Honorary Secretary
ADA

ADA 2011 Conference Speaker List

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Dr Amrana Qureshi
Consultant Paediatric Haematologist
Oxford Radcliffe hospital

*

Dr Audrey Quinn
Consultant Anaesthetist
Leeds General Infirmary

*

Dr David Craig
Consultant/Head of Sedation & Special Care Dentistry
King's College London Dental Institute

*

Dr Diana Terry
Consultant Anaesthetist
Bristol Hospitals

*

Dr Bill Hamlin
Consultant Anaesthetist

*

ASSOCIATION OF DENTAL ANAESTHETISTS

WINTER MEETING, TUESDAY 8TH NOVEMBER 2011



@
76 Portland Place
London
W1B 1NT



ACCREDITED WITH 5 CPD POINTS

08.30-09.30	Registration and refreshments	
09.30-09.35	Welcome from the President	Dr Diana Terry
	<u>Session 1: Have Your Say</u>	<i>Chaired by Dr Rachel Pollard</i>
09.35-09.50	Current CPD for Dentists –what now?	Dr David Craig
09.50-10.10	The level 3 CPD Matrix for Anaesthetists-ADA specialist input	Dr Diana Terry
10.10-10.30	Members forum- planning the ADA specialist curriculum for Multi-professional CPD	Faculty Panel
10.30-10.45	Break	
	<u>Session 2: Issues in Dental pre- operative assessment</u>	<i>Chaired by Dr Christine Arnold</i>
10.45-11.45	Preoperative screening for haemoglobinopathies and clotting disorders. 2D02	Dr Amrana Qureshi, Key Note Speaker
11.45-12.15	<i>Annual General Meeting of the Association of Dental Anaesthetists</i>	
12.15-13.15	Lunch	
	<u>Session 3 : Airways National and International</u>	<i>Chaired by Dr Neil Oastler</i>
13.15-14.00	National Audit Project 4 on airway safety: essential information for all 1C02	Dr Audrey Quinn, Key Note Speaker
14.00-14.30	Extending airways practice –experience of Noma 1C01 2A01	Dr Bill Hamlin.
14.30-15.00	<u>Session 4: Free papers - ADA prize submissions</u>	<i>Chaired by Dr Harry Ashurst</i>
15.00-16.00	Research in dental anaesthesia and Sedation; Initiatives and needs; open forum. 2D02	



'A Guide to Maintaining Professional Standards in Conscious Sedation for Dentistry ?'

Dr David Craig

Consultant/Head of Sedation & Special Care Dentistry
King's College London Dental Institute



In 2007 the Standing Committee on Sedation for Dentistry at the Faculty of Dental Surgery, RCS Eng published guidance on the use of 'alternative' conscious sedation drugs and techniques. Since then a number of expert groups have sought to advance training by developing a syllabus. The Intercollegiate Advisory Committee for Sedation in Dentistry (IACSD) succeeded in reaching agreement on the majority of outstanding issues relating to alternative adult techniques and also guidelines on sedated-related CPD. Unfortunately the IACSD was disbanded before the work could be completed.

Because the need for progress in this area remains pressing and further delays pose a threat to the proper governance and provision of dental conscious sedation a group comprising many previous members of the IACSD elected to continue the work as an 'independent expert group'.

The Independent Expert Group on Training Standards for Sedation in Dentistry (IEGTSSD) has now finalised both the adult and paediatric syllabi and also CPD recommendations. Publication of all these documents was announced at the Society for the Advancement in Anaesthesia in Dentistry's Annual Symposium held at the Royal Society for Medicine on 24th September 2011.

The IEGTSSD's syllabi for adult and paediatric advanced conscious sedation techniques in dentistry seek to formalise training for those practitioners who wish to commence the provision of advanced sedation and to facilitate the development of practical training programmes. The syllabi describe the requirements for entry to training, the training objectives, the syllabus, models of learning, supervision and assessment. They define the knowledge, skills, attitudes and behaviours required of dental and medical practitioners wishing to undergo training in advanced sedation techniques for dentistry.

The adult and paediatric syllabi are based on recommendations contained in three publications: *Conscious Sedation and the Provision of Dental Care – Report of an Expert Group on Sedation for Dentistry*, Department of Health Standing Dental Advisory Committee (2003), *Standards for Conscious Sedation in Dentistry: Alternative Techniques*, the Standing Committee on Sedation for Dentistry, Royal College of Surgeons of England (2007) and *Sedation in children and young people*: National Institute for Clinical Excellence (2010). All these documents have been accepted by healthcare professions, however, none provides a training syllabus for either basic or advanced conscious sedation techniques.

IEGTSSD's *Guide to Maintaining Professional Standards in Conscious Sedation for Dentistry* makes recommendations on sedation-related CPD. It was written in response to the large number of queries received by SAAD relating to the amount and nature CPD required by sedationists. The document contains detailed guidance on the amount of verifiable CPD, non-verifiable CPD, management of complications, clinical audit, recording adverse events and regular checks of clinical facilities and team training.

IEGTSSD and SAAD hope that sedationists will find these three documents helpful - a valuable guide to continuing dentistry's excellent record of providing safe and effective pain and anxiety management for our patients. The documents can be downloaded from: www.saad.org.uk/documents.

From IEGTSSD—A Guide to maintaining Professional Standards in Conscious Sedation for Dentistry.

Table 1: Summary Guidance for Maintaining Professional Standards in Conscious Sedation for Dentistry.

	VERIFIABLE CPD 12 HOURS / 5 YEARS	NON-VERIFIABLE CPD	LIFE SUPPORT TRAINING	COMPLICATIONS OF SEDATION	CLINICAL AUDIT	CHECKS OF CLINICAL FACILITIES	TEAM TRAINING
LEV EL 1	ATTENDANCE AT REGIONAL / NATIONAL COURSES / MEETINGS AND/OR VERIFIED JOURNAL QUESTIONNAIRES	STUDY OF PUBLISHED ARTICLES RELEVANT TO PAIN AND ANXIETY CONTROL IN DENTISTRY	BASIC LIFE SUPPORT	REGULAR PRACTICE IN DEALING WITH COMMON SEDATION-RELATED COMPLICATIONS.	AUDIT OF SEDATION ACTIVITY (IN PROPORTION TO PRACTICE ACTIVITY),	COMPLETE CHECKLIST FOR FACILITIES WHERE SEDATION IS CARRIED OUT.	ENSURE WHOLE TEAM HAS UNDERGONE APPROPRIATE TRAINING AND MAINTAINS CPD
LEV EL 2	AS ABOVE BUT TO INCLUDE ADVANCED SEDATION TECHNIQUES	AS ABOVE BUT TO INCLUDE SEDATION ADVANCED TECHNIQUES	IMMEDIATE LIFE SUPPORT	MANAGEMENT OF COMPLICATIONS SPECIFIC TO THE TECHNIQUES USED	MAINTAINING A LOG OR DATABASE DIARY FOR ADVANCED TECHNIQUES.	CHECKLIST OF FACILITIES (E.G. SAAD CHECKLIST) SPECIFIC TO ADVANCED TECHNIQUES (UPDATED AS FOR LEVEL 1)	TRAINING AND CPD SHOULD BE SPECIFIC TO ADVANCED SEDATION TECHNIQUES.
LEV EL 3	AS FOR LEVELS 1 AND 2 BUT TO INCLUDE PAEDIATRIC ADVANCED SEDATION TECHNIQUES	AS IN LEVELS 1 AND 2 BUT TO INCLUDE PAEDIATRIC ADVANCED SEDATION TECHNIQUES	ADVANCED PAEDIATRIC LIFE SUPPORT	REGULAR REHEARSALS OF THE MANAGEMENT OF SEDATION-RELATED COMPLICATIONS IN PAEDIATRIC PATIENTS	AS LEVELS 1 AND 2 ABOVE, BUT TO INCLUDE AUDIT OF PAEDIATRIC CASES	AS FOR LEVEL 2	TRAINING AND CPD SHOULD BE SPECIFIC TO PAEDIATRIC ADVANCED SEDATION TECHNIQUES.

The Level 3 CPD Matrix for Anaesthetists— ADA specialist input.

Dr Diana Terry, FRCA, President ADA 2009-2011

Consultant Anaesthetist

Bristol Hospitals



Revalidation; The Continuing Professional Development for Doctors and Dentists with practice within Dental Anaesthesia and Sedation services.

The General Medical Council has confirmed that the formal system of Relicensing and the associated appraisal is to be commenced during 2012. The Royal College of Anaesthetists has set up a detailed matrix to guide practitioners in the requirements to successfully re-license. The General Dental Council has not defined the requirements for CPD in so much detail as yet.

The matrix is in three sections, general requirements for all anaesthetists, and levels 2 and 3 relevant to the appraisal and Job planning process for each doctor seeking to retain a License. ADA Members are advised to study the information provided by the GMC and RCOA and to prepare their portfolio of evidence in the manner suggested.

www.rcoa.ac.uk

www.gmc-uk.org

www.gdc-uk.org

As a recognised Specialist Society, the Association of Dental Anaesthetists was asked to advise professionals what skills, knowledge and attitudes should be demonstrated within the specialist clinical areas relevant to Dental practice. The Specialist societies are deemed to have a realistic knowledge of what constitutes good practice and can update the elements in Level 3 for each Specialist area, avoiding the need for expensive central editing of the whole Matrix process. The RCOA requests that each Specialist Society agree the criteria which should be listed on a level 3 Matrix and have this available on the website , so that Practitioners can plan appropriate Postgraduate activity to fulfil the re-licensing requirements.

The Council of ADA has discussed some suggested topics for Level 3 but it was thought important to take into account the views of the ADA Members, so we can agree an initial framework for the revalidation process for Doctors and Dentists. The Doctors working in Dental Teams will need to seek supporting evidence, from Dental colleagues, so although Dental Practitioners have slightly different requirements as stated by the GDC, they will need to understand what their medical colleagues are required to do.

The presentation was derived from- (with Permission) the excellent presentation available on the RCOA website by Dr Andy Tomlinson.

A discussion from the floor followed the presentation , and the Council of ADA will now draw up a suggested Matrix level 3 to be published on the website early in 2012. It is assumed that this matrix will be updated to reflect current recommendations, guidelines and best practice as the revalidation system rolls out .

Diana Terry

January 2012



Pre-operative Screening for haemoglobinopathies and clotting disorders.

Dr Amrana Qureshi

Consultant Paediatric Haematologist

Oxford Radcliffe hospital



Anaemia and normal values in children:

Please note that children have different normal values:

Age	Hb g/dl
Neonate	13.7- 20
3 months	9.5-14.5
1 ½ - 6 yrs	10.5-14
7-12 yrs	11-14

Haemoglobinopathies

- Current neonatal screening programme. Universal screening programme to detect newborns with “No HbA”- i.e Sickle cell disease and thal major. In all centres since 2007. GP should have result.

Why screen newborns for sickle cell disease?

- Most common inherited genetic disorder in UK
- Early administration of prophylactic penicillin markedly reduces the incidence of pneumococcal sepsis
- Clinical monitoring reduces morbidity and mortality

Demographic and ethnic incidence: From the UK universal neonatal screening programme the incidence of SCD is 0.1% in London and 0.05% countrywide

Table I. Ethnic groups with a clinically significant prevalence of haemoglobin S and α^0 and β thalassaemia.

Haemoglobin S	African including North Africans, African-Caribbeans, African-Americans, Black British and any other African ethnicity (e.g. Central and South Americans of partly African ethnicity), Greeks, Southern Italians including Sicilians, Turks, Arabs, Indians
α^0 thalassaemia	Chinese, Taiwanese, South-East Asian (Thai, Laotian, Cambodian, Vietnamese, Burmese, Malaysian, Singaporean, Indonesian, Philippino), Cypriot, Greek, Turkish and Sardinian
β thalassaemia	All ethnic groups other than Northern Europeans

- **Sickle patients are at anaesthetic risk due to hypoxia- painful/chest crisis/stroke**
- **Pre operative transfusion practice varies in the UK**
- **MRC funded RCT: Transfusion Alternatives Preoperatively in Sickle Cell Disease(TAPS) 2007**
- **To discover whether the administration of a blood transfusion pre-operatively to patients with sickle cell disease (HbSS/Sβ0thal) increases or decreases the overall rate of significant peri-operative complications**
- The policy for preoperative transfusion at Great Ormond Street is a three-tiered approach dependent on the severity of the child's disease and the nature of the surgery, such that
- **Children at low risk have NO transfusion (group 1)**
- **Group 1** - Children with no special risk factors, having short procedures with low risk of perioperative complications, e.g. insertion of grommets.
- **Action:** No transfusion as long as child is well, stable and Hb close to child's baseline. Consider top-up transfusion if Hb <6g/dl.
- **Children at intermediate risk have TOP-UP transfusion (Group 2)**
- **Group 2** - Children with no special risk factors, having intermediate risk surgery, e.g. herniorrhaphy or (adeno) tonsillectomy.
- **Action:** Top-up transfusion to Hb 9-11g/dl; %HbS level will remain elevated. Total Hb should not exceed 12 g/dl
- **Children at high risk have EXCHANGE transfusion (Group 3)**
- **Group 3** - Children who have a history of stroke (usually on a regular transfusion programme), acute chest syndrome or suffer frequent painful crises (requiring 3 or more hospital admissions/year)* or children having major or high-risk surgery, e.g. thoracic, neurosurgery or intra-abdominal (including laparoscopic) surgery.

NICE guidelines state that children should be screened for sickle cell disease prior to surgery:

Preoperative tests

The use of routine preoperative tests for elective surgery Clinical Guideline 3 June 2003

(Tests for the sickle cell gene in adults and children)

Appropriateness of testing in patients from the following ethnic groups:

North African Yes

West African Yes

South/sub-Saharan African Yes

Afro Caribbean Yes

Should informed consent be obtained? Yes

Test not recommended

Consider this test

(see page 2)

Test recommended

- It is important to offer to test all patients in these ethnic groups, and people of other ethnic groups

considered to be at risk. The sickle cell gene is found in many nationalities including families that come from Africa, the Caribbean, the Eastern Mediterranean, Middle East and Asia. It has also been detected in Cypriot people and a few other white ethnic groups.

- It is important to offer to test patients before they have an anaesthetic, if there is any uncertainty about whether they have the sickle cell gene. This is especially important for patients who have a family history of homozygous sickle cell anaemia or sickle cell trait and who do not have a surgical history where it may have been detected previously.
- People of ethnic origin considered to be at risk should be offered screening, with genetic counselling before and after screening.
- Some patients may not know their ethnicity, for example those who have been adopted.
- Appropriate counselling for this test is important so that patients are able to give their informed

Consent, as there may be implications for patients who discover they are carriers of the sickle cell gene. The results of testing, even when negative, should be reported to families, with the patient's consent, and documented in the patient's medical record to avoid unnecessary repeat testing. Counselling should be offered if the result of the test is positive.)

National Audit Project 4 on airway safety: essential information for all.

Dr Audrey Quinn
Consultant Anaesthetist
Leeds General Infirmary



Dental Anaesthetists are accustomed to sharing the airway during surgery. Sometimes the surgery can result in challenging airway problems and obstruction by blood, a foreign body and/or oedema. This talk will outline these problems and the important sections from NAP4 with learning points and information from some dental cases reported.

The NAP4 two week snapshot indicated that approximately 2.9 million general anaesthetics are administered in the UK NHS each year. Airway management involves a supraglottic airway device (SAD) in 56% of cases and a tracheal tube (TT) in 38%. The NAP4 report had recurrent themes in the cases reported:

Poor airway assessment contributed to poor airway outcomes- ranging from complete omission, incomplete assessment or a failure to alter the airway management technique in response to findings at assessment. Assessment to predict both potential airway difficulty and aspiration risk were equally important and poor planning contributed. When potential difficulty with airway management is identified a strategy is required.

An airway plan suggests a single approach to management of the airway.

A strategy is a coordinated, logical sequence of plans, which aim to achieve good gas exchange and prevention of aspiration.

Failure to plan for failure. When difficulties arose some airway management was unexpectedly difficult the response was un-structured.

All *anaesthetic departments* should have an explicit policy for management of difficult or failed intubation and for impossible mask ventilation and for other airway emergencies. *Individual anaesthetists* should use such strategies in their daily practice.

Awake fiberoptic intubation: numerous cases where (AFOI) was indicated but not used suggesting lack of skills, lack of confidence, poor judgement and a lack of suitable equipment being immediately available. AFOI should be available and used whenever it is indicated.

Multiple repeat attempts at intubation. Problems arose when difficult intubation was managed this way and regularly deteriorated to CICV. It is well recognised a change of approach is required rather than repeated use of a technique that has already failed.

SADs were used inappropriately. *Non aspiration cases:* In patients who were markedly obese, often managed by junior trainees. *Aspiration cases:* Numerous cases during use of a first generation SAD, in patients who had multiple risk factors, emergencies and cases undertaken by junior staff.

Head and neck surgery featured frequently in cases reported to NAP4.

Obesity: complications in obese patients were twice that in the general population, this finding was even more evident in the morbidly obese

Emergency cannula cricothyroidotomy There was a high failure rate (60%) numerous mechanisms were proposed but the root cause not determined

Aspiration was the single commonest cause of death in anaesthesia events

Failure to correctly interpret a capnograph trace led to several oesophageal intubations going unrecognised in anaesthesia.

Capnography: Failure to correctly interpret a capnograph trace led to several oesophageal intubations going unrecognised in anaesthesia.

Emergence or recovery. One third of events occurred during this phase.

ICU or the emergency department. At least one in four major airway events reported to NAP4 occurred here. Most events in the emergency department were complications of rapid sequence induction.

Although a large proportion of cases for the dental anaesthetist are carefully selected for the daycase unit there will always be more complex cases with potentially difficult airways in medically compromised patients and inevitably some will occur at unpredictable times outwith the safety of the operating theatre environment.

NAP4 should provide impetus to changes that can further improve the safety of airway management in the UK in anaesthesia, intensive care and the emergency department. The goal should be to reduce serious complications of airway management to zero.



Extending airways practice— experience of Noma

Dr Bill Hamlin

Consultant Anaesthetist



Noma. Airway experiences with Facing Africa.

Noma is a disease that affects approximately 200,000 children a year, mainly in a band round the world near the equator, from Sub Saharan Africa through India, Burmah and South America. It is a little known disease which has only been recognised by WHO in the last two years. Noma carries an 80% mortality. Noma or Chancrum oris is not a new disease. It has been described by the Greeks; Cornelius Celsus in his description even recognised it as a disease of childhood. There is even a specimen in the Hunterian Museum showing Noma in a London child.

Surgery on Noma was described in European books dated between 1771 and 1860. Noma however left Europe at the end of the 19th Century as nutrition improved. It was only seen again in Holland at the end of the Second World War as a result of starvation.

The Causes of Noma are Poverty, chronic severe malnutrition and poor oral hygiene which results in a high oral bacterial count. A recent severe infection such as measles which alters and reduces the immune response. Minor oral trauma then breaches the oral mucosa and lastly bad luck. Infection results in a rapid necrosis of one side of the face with marked loss of facial tissue and bone. In the survivors this resolves to give severe facial distortion often with complete trismus.

Facing Africa sends two surgical teams a year to Addis Ababa to help the survivors of the disease. Problems with intubation can be varied. With complete trismus, fibreoptic intubation is the usual option. This may be done through the nose but if this is largely lost to disease then oral fibreoptic intubation may be used, using the hole created by Noma in the affected side of the mouth. Intubation may be awake or asleep. Asleep intubation may be necessary because of the age of the patient or co operative levels, bearing in mind with more than 40 languages in Ethiopia some patients may not understand what we are doing and finding a translator may be difficult. If the oral defect is large enough a "Glide scope" may be used and may be easier than attempting oral fibreoptic intubation. The glide scope also works well in neck contractures due to burns.

Surgical technique and post operative care is also advancing, allowing the recent evolution of surgical grafts to cover the facial defect, moving from the tube pedicle formed from Pectoralis major, to the current free radial forearm flap and the increasingly popular sub mental flap which has the advantage of being both of a large pedicle flap and a having a good skin colour match.

Facing Africa also treats other major facial deformities, including osteomyelitis of the jaw, dental cysts and ameloblastoma.

If you are interested look on Facing Africa's website.

Dr George Hamlin

Consultant Anaesthetist

14.12.11

The future role of The Association of Dental Anaesthetists?

Faculty Panel

Introduction

The Association of Dental Anaesthetists has a long history of providing support, guidance and a forum for those who were involved with the provision of anaesthesia and sedation for dental surgery. The membership of dentists and anaesthetists and non medical staff reflected the commendable multidisciplinary nature of the association



Past and Present Roles and responsibilities

Dental practice and hence dental anaesthesia has evolved over the years. In the last 10 years there has been a strong move to take dental anaesthetic practice out of the community and bring it within the hospital setting, applying all the 'normal' anaesthetic guidelines and policies to this group of patients. Whilst this move to 'hospitalise' dental anaesthesia has been resisted by some it is now established practice in many areas and the 'special status' of dental anaesthesia has been somewhat undermined.

So has the role of the ADA been removed along with the previous 'special status' of dental anaesthesia? Well largely yes, the association struggles to find a niche in this now standardised market. However the management of patients requiring dental treatment under sedation or general anaesthesia still has unique and demanding aspects which the ADA are well placed to take a leading role in. There are other groups providing training and guidance, for those involved in sedation and anaesthesia but they fall short of providing real leadership to anaesthetists and those providing more advanced services and skills. In the new financial market and framework all providers will look for more efficient, safer and higher quality services. The ADA is well placed to develop dental anaesthetic services to meet all these challenges

Whilst we probably agree the delivery of anaesthesia for dental surgery, with few exceptions, is now or shortly will come under the heading of standard outpatient anaesthesia, there are areas where this service is unique to many patients, anaesthetists and dentists. There are under developed areas and needs for this service. The ADA should lead the way in demonstrating excellence in the management for all patients receiving anaesthesia or sedation to facilitate dental treatment.

Dental Surgery involving the sedation or anaesthesia has many unique features:

- Often commissioned services: Primary care transgressing into secondary care settings,
- Shared Governance responsibilities,
- Shared issues for care: eg. pre assessment,
- Ambulant patients, many with special requirements,
- Increasing complexity of treatments on offer,
- Lack of real evidence base for present and advanced treatments,
- Lack of recognised national audits or standards,
- Limited guidance on good practice,
- Potential for highly efficient service.

What are we about and what is the role?

This final session of the ADA meeting this year was to feed back from the mini survey done earlier in the day and discuss what the members would like to see from their association.

Our initial thoughts were that ADA should aspire to provide for its members, patients and the greater anaesthetic and dental community:

- Advice to national bodies on safe and quality dental anaesthetic practice
- Advice to patients regarding their expectations for anaesthesia for dental treatment
- Set standards
- Quality and safety
- Stimulate discussion and debate
- Commission national audit and research
- Communicate to all users
- Patient Involvement / Patient stories
- Training
- Sedation for anaesthetists

Feedback from Members on the day suggested that they needed and thought the ADA could help in the following areas:

For the Dental staff:

Clear Pre op assessment

Standardisation
Clear referral pathways
Anxiety management guidance

Audit

Record of all activity ? Standardised charts
Reporting complications/ incidents: ? central

CPD

12hrs thought to be enough, to satisfy GDC
BLS vs ALS guidance on what would be required
Advanced sedation, how to get training to use it.

Peer Review

Mentorship, networking
Deciding what is appropriate/ acceptable
Multidisciplinary being the norm.

And From the Anaesthetists:

Training

Additional mentorship/shadowing
Anxiety management
Formal advanced sedation training but where from?
Training and understanding o dental, team and anaesthetists role

Team working

Understanding dental requirements
Team training in 'situ'

Safeguarding

Training for all

Equipment

Standardisation
Quality assurance

Clearly the group at the meeting and the council appreciate that the ADA is falling some way below the areas outlined above.

What is being provided by the ADA at present is:

- Advice to national bodies when asked
- Communication networking by web page and newsletters and annual meeting.
- Providing suggestions for suitable level 3 CPD for Anaesthetists using the RCOA Revalidation programme, and updating as required on a 3 year cycle.
- To provide information for Dentists who will be involved in the multi-source feedback for anaesthetists seeking revalidation, as to current standards of CPD for the dental teams.

What can the ADA do to bridge this gap is difficult with limited authority and resources but there was an open discussion regarding the above requirements of the ADA members.

The overriding impression of the session was that there is at present a need for training, guidance and peer review in advanced sedation techniques. This would be something the ADA would look into.

What next

How do we take this forward? Several questions were raised.

1. Does the ADA have a role today?
This seems to be a yes from the present membership
2. Is it sustainable
Yes if we can supply what the members need.
3. What is that role?
As listed above but perhaps there is a speciality requirement in the provision of guidance and training in advanced sedation techniques
4. How are we going to deliver these requirements?
To be discussed by the ADA Council and a further wider survey to all members

Thank you to all members who got so involved in the feedback and discussions.

Session 4—Free Papers. ADA Prize Winner

Miss R B Taute—Medical Student & OMFS Clinical Fellow

Dr H Gorton—Consultant Anaesthetist

The incidence of partial or complete obstruction of the Laryngeal Mask Airway during routine oral surgery procedures

The Laryngeal Mask Airway (LMA) was first developed by Dr Archie Brain in 1981 to bridge the gap between the Endotracheal Tube (ETT) and the face mask¹ and provides an alternative for both spontaneous and controlled ventilation. It has become increasingly popular due to its ease of insertion² and many other beneficial qualities.

It is probably best suited to short outpatient procedures³, for example dento-alveolar day case procedures as discussed here.

When correctly inserted, the LMA occupies a space behind and around the larynx, where it is retained by inflation of a cuff that presses against the posterior pharyngeal wall, hence avoiding direct contact with the sensitive laryngeal mucosa⁴. Insertion of the LMA negates the need for a laryngoscope and is less likely to cause trauma to the lips, teeth, tongue and pharynx³.

Significantly shorter recovery times have been noted⁵, and there is also a decreased incidence of post-operative complications such as sore throat³, laryngospasm during emergence, hoarse voice and coughing².

'Shared airway surgery' in which the surgeon and anaesthetist share the surgical field presents complications unique to this scenario. Surgery often requires manipulation and movement of the head, neck and mouth, creating the risk of obstructing, transecting, disconnecting or removing the airway⁶. Downward movement of the mandible during dental extractions may be associated with compression of the pharyngeal lumen⁷, and displacement of the LMA causing partial airway obstruction.

There are some reports that a higher incidence of partial obstruction is seen with a LMA and repositioning may be required⁸, although repositioning was not due to obstruction during the operative procedure but as a result of dislodgement of the LMA on transfer from the anaesthetic room to the theatre. Any partial obstruction occurring due to downward pressure on the mandible was easily corrected with counter pressure and no further intervention required.

Methodology

There is limited published information regarding the incidence of LMA obstruction during 'shared airway surgery', and it is this subject we proposed to address through prospective data collection and analysis.

All adult patients (>16 years of age) undergoing dento-alveolar day case procedures with LMAs were included in the study. A total of 61 patients were included, all of which were ASA I and II grades, with no contraindications to LMA use such as gastric-oesophageal reflux.

The patients were pre-oxygenated and the flexible reinforced IntraVent LMA was inserted according to standard operative procedures. The size appropriate to the patient was selected and ranged from size 3 to 5. Anaesthesia was induced with Propofol and Fentanyl, and maintained with spontaneously breathed Sevoflurane and Nitrous Oxide in Oxygen, delivered via the LMA.

The LMA was not taped into position to allow movement of the tube during oral surgery procedures. A throat pack was inserted in all cases.

Appropriate monitoring of heart rate and rhythm, blood pressure, oxygen saturation, carbon dioxide concentration and Sevoflurane concentration was conducted throughout the anaesthetic.

Airway obstruction was categorised as partial i.e. decreased oxygen saturation or tidal volume, or complete. Any required intervention to relieve airway obstruction was undertaken fittingly.

Following surgery the throat pack was removed by the surgeon, the oropharynx suctioned and the LMA removed when the patient awoke.

A data collection sheet was designed and completed for each case (Appendix A) at the time of operation. Data was analysed to ascertain the incidence of LMA obstruction and any correlation between this and the other parameters recorded on the data collection proforma.

Results

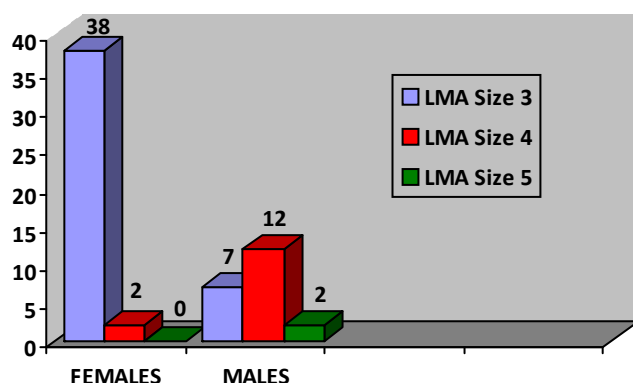
The study included 61 patients, 40 females and 21 males. Patient related factors were recorded prior to administering the anaesthetic (Table 1).

Table 1. Patient Data (mean, (range) or number)

	Females (n = 40)	Males (n = 21)
Age (years)	32 (16-68)	26 (16-51)
Weight (kg)	60.9 (44.1-95.0)	70.0 (45.3-113.8)
Mallampatti Grade 1/2/3	32/7/1	14/7/0

The appropriate size of LMA was then selected for each patient. The majority of females were anaesthetised via a size 3 LMA, and a size 4 LMA was suitable for most male patients (Chart 1). Exceptions were made for some patients allowing for ease of insertion and weight variances.

Chart 1. LMA Size selection



All patients had a gauze pharyngeal pack placed prior to surgery. The length of the pack varied due to patient anatomical factors and was recorded should any correlation with airway obstruction occur (Table 2).

Table 2. Use of Pharyngeal Pack

	¼ Pack	½ Pack	¾ Pack	Full Pack
Females (n = 40)	3	20	16	1
Males (n = 21)	1	9	8	3

A Staff Grade surgeon performed the majority of surgical procedures (n = 57). A Consultant surgeon undertook 3 procedures, and a Senior House Officer performed the remaining procedure.

All surgical procedures were dento-alveolar in nature (Table 3).

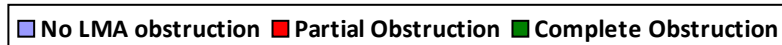
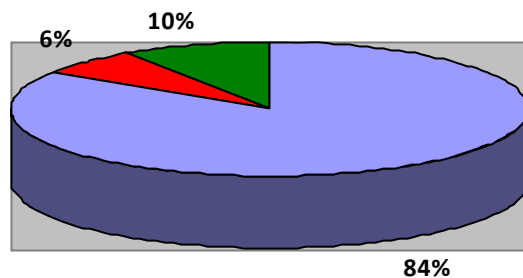
Table 3. Surgical procedures undertaken

Procedure	Number
Routine Extractions	28
Third Molar Extractions	21
Canine Exposure	6
Apicectomy	3
Dental Implants	1
Third Molar Coronectomy	1
Oro-Antral Communication Closure	1

Incidence of LMA Obstruction

During the study, 10 incidents of LMA obstruction were recorded (Chart 2).

Chart 2. Degree of LMA obstruction



Partial airway obstruction occurred in 3 female patients and 1 male patient with size 3 LMAs. Three cases had $\frac{3}{4}$ length packs in situ, the remaining case having a $\frac{1}{2}$ length of throat pack placed prior to surgery. Surgical procedures that involved partial airway obstruction included extractions in the mandible (n = 3) and maxillary canine exposure (n = 1).

There was no correlation in age, weight, Mallampatti grade, or grade of surgeon.

Intervention was required in 3 of the cases of partial obstruction where repeated episodes were relieved by lifting the chin hence opening the airway and reducing external pressure on the LMA which may cause it to be dislodged.

One case of partial airway obstruction spontaneously resolved prior to any intervention being deemed necessary.

One episode of partial obstruction in a male patient having lower third molar surgery progressed to complete obstruction. The size 4 LMA was partially obstructed during downward pressure on the mandible during the surgical procedure. On progression to complete obstruction the gag used during surgery was removed, and consequently the obstruction resolved uneventfully allowing the surgeon to proceed.

Isolated complete airway obstruction occurred in a further 5 patients, (with variable sizes of LMA), 2 female and 3 male. Four of these cases had $\frac{1}{2}$ length throat packs and one case had a full pack placed. Surgical procedures involving complete airway obstruction included extractions in the mandible (n = 3),

extractions in the maxilla (n = 1) and Oro-Antral Communication closure (n = 1).

Again, there was no correlation in age, weight, Mallampatti grade, or grade of surgeon.

All five cases of isolated complete airway obstruction required intervention. Four cases were relieved with a chin lift manoeuvre, the remaining case requiring removal of the gag.

The incidence of LMA obstruction recorded in this study was 10 in 61 i.e. 16.4% of patients. Of those patients that obstructed during surgery, 90% required an intervention to relieve the obstruction.

Discussion

It has been suggested that obstruction of the LMA may be due to downward movement of the mandible⁷. It is thought that opening the mouth narrows the pharyngeal lumen⁹ thereby exerting an external pressure on the LMA and also leading to dislodgement of the tube due to this secondary manipulation of the airway¹⁰.

These theories are supported by our findings in which obstruction occurred during dento-alveolar procedures in the mandible in the majority of patients (n = 7).

There were, however, a significant number of obstructions noted during procedures limited to the maxilla (n = 3), so although LMA obstruction is more probable in mandibular procedures, it is by no means exclusive.

As in previous reports^{3, 8, 10} obstructions noted during surgery presented little problem and were easily corrected with minimal intervention or delay in surgical procedure. All patients included in the study had a surgical procedure completed with no serious or lasting complications noted as a result of LMA obstruction.

The many benefits of LMAs have been discussed in depth in the literature^{2, 3, 4, 5, 6, 10}, and include the avoidance of muscle relaxants, decreased anaesthetic time, reduced risk of trauma to teeth and soft tissues and reduced incidence of laryngospasm to name but a few. This study adds a low incidence (n = 0) of serious or irreversible complications regardless of a number (n = 10) of easily reversible LMA obstructions to the list of benefits of this type of airway, and renders it a safe, viable option for routine day case dento-alveolar procedures.

Further studies with a more extensive sample size could provide greater evidence to support the findings of this study and establish the LMA as the first line airway for 'shared airway surgery'.

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Dr Christine Arnold, President ADA 2011—2013 with Dr Diana Terry, ADA Immediate Past President.

Dr Diana Terry, Immediate Past President ADA



Delegates in the lecture theatre at 76 Portland Place.