

## From the president...

In the years I have been involved with SAAD, I cannot remember a busier time. The Trustees and SAAD admin team have not had the luxury of the usual post annual symposium lull! I am aware that this state will be reflected in many of our members activities also.

In addition to the usual tasks, SAAD have recently been asking for a lot of feedback and this can seem onerous when your schedule is full.

I want to reassure you that all the opinions you share are appreciated, read, collated and discussed at Board level to inform the direction of the society going forward.



Sadie Hughes  
SAAD President

With a huge stroke of bad luck, and for the second consecutive year, this year's Annual Symposium held at the Royal Society of Medicine, London, was hit by another train strike. My sincere thanks to those who battled the travel chaos to attend. As always, we were delighted to see you. Thanks to Ashleigh Stamp and her team of organisers for an interesting and thought-provoking programme.

This year we said goodbye to our Treasurer, Kellie Downie, and SAAD veteran, Steve Jones, who we wish all the best for his retirement. Thanks to both for their work for SAAD. My thanks to Paul Howlett who has agreed to step into the Treasurer role and to Frank Clough who will be the new Communications Secretary. Laleh Sharifian will be joining the board as a co-opted member, and we welcome back Zahra Shehabi and Thomas Lees following their re-election. Imran Suida is a newly elected addition to the SAAD Board of Trustees. Those SAAD members who attended the brilliant joint SAAD / BAOS study day in June, organised by Thomas Lees, will recognise Imran as one of the speakers. In SAAD tradition, you will be able to read his biography in the 2024 SAAD Digest and thanks to Nigel Robb, Yi Kwan Loo and the members of the Editorial Board for compiling the items for SAAD's journal.

Carole Boyle and the SAAD faculty have been working hard to develop a programme to offer conscious sedation life support training for dental sedation providers and their teams. This one-day course will be IACSD compliant and equivalent in content to the Resuscitation Council (UK)'s Immediate Life Support (ILS) training. It fulfils the current regulatory requirements with the addition of the management of sedation complications and clinical scenarios and is taught by experts in dental sedation.

With the formation of the new Integrated Care Boards (ICBs), the SAAD Safe Sedation Practice Scheme (SSPS) team have been supporting sedation practices to meet the required standard, as NHS sedation contracts are negotiated. Thank you to Chris Holden who leads this sub-group and for more information about the benefits of having a sedation practice evaluation please see page 17.

I hope you enjoy this edition of the SAAD newsletter. If you have any burning clinical queries you can contact Manni Deol, our clinical advisor. If you have any other query please contact our highly efficient behind the scenes team, headed up by someone who needs no introduction, SAAD's fabulous Fiona, at [fiona@saad.org.uk](mailto:fiona@saad.org.uk).

Wishing you all a lovely Christmas period and we look forward to seeing you in January 2024 for the winter webinar series.

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# SAAD Noticeboard

## Subscriptions

It is possible to renew your subscription by setting up a direct debit. This is the most cost-effective method for the society to collect subscriptions. To set up a direct debit please email [anna@saad.org.uk](mailto:anna@saad.org.uk)  
Please remember that the membership subscription rate has increased to £60 for UK based, and to £70 for international dental & medical professionals.

## Online CPD

There are up to eight hours of sedation CPD available online from the SAAD website. This is complimentary to members and costs £15 for non-members. Simply log on as a member, set yourself a username and password for the CPD section, answer the multiple-choice questions relating to the latest volume of the Digest and download your certificate!

## SAAD Prizes

SAAD offers three essay prizes.  
The closing date for submissions is 31 March 2024.

*Dental Students - £500*

*DCPs - £500*

*Drummond-Jackson Prize - £750*

Further details are at [www.saad.org.uk](http://www.saad.org.uk)

## Research Grants

Grants are available to aid research in pain and anxiety control in dentistry.

[Further details.](#)

## SAAD Training

SAAD has been running courses for over 40 years. The courses are hugely successful due to the combination of skills and knowledge of a faculty of medical and dental disciplines. Above all, SAAD teaches safe and sensible procedures based on science and independent of the emotional politics so often associated with these subjects. SAAD courses are practical, rewarding and fun!

- *National Course in Conscious Sedation for Dentists & Dental Nurses*
- *SAAD Assessed Sedationist (SAS) scheme*
- *SAAD Assessed Sedation Nurse (SASN) scheme*
- *SAAD Assessed Sedation Hygienist/Therapist (SASH/T) scheme*

**Online registration**

### Course dates:

2024

In person: 2 & 3 March

Blended: 18 May & 8 June

In person: 2 & 3 November

## SAAD AGM

Saturday 28 September 2024  
during the lunch break of the symposium.

Further information is available at [www.saad.org.uk/agm](http://www.saad.org.uk/agm)

## SAAD Poster Prize

Submission deadline 8 September.

[Further information.](#)

## SAAD Events

We have included some SAAD events in the newsletter however, for a full list of events, and to keep up with SAAD activity please visit [www.saad.org.uk](http://www.saad.org.uk)

## SAAD Safe Sedation Practice Scheme

Have your practice evaluated in accordance with the [SAAD Safe Sedation Practice Scheme.](#)

[Further details](#) are on the website or page 17

## From the SAAD Editor...

Dear Members,

SAAD Digest continues to grow in popularity. I am sure you will have noticed the increasing volume of articles in recent years.



Nigel Robb  
Editor  
SAAD Digest

Given that the trend for submissions seems to be consistent, the Editorial Board have taken the view that we should move to publish two editions per year. We consider that this will have a number of advantages. Firstly, it will reduce the lead time for authors between submission and publication, this will be of particular advantage to those earlier in their careers for whom having articles published will help their applications for career progression.

Secondly, readers will not have such large numbers of papers all at once. Dividing the papers and the CPD over the year will hopefully make the task of reading the Digest and completing the CPD less daunting.

Thirdly, readers will have less time to wait for publication of articles, meaning the content is current.

We are still committed to publishing physical editions of Digest, but there is the option for any member who wishes to, to opt to only receive Digest digitally.

As we move to the two editions per year, we will be looking to revise the appearance with a new style of front cover, as well as looking to see how we can reduce unused space on the pages, reduce the weight of the paper without compromising readability and reduce postage and packaging costs.

The submission dates for the editions will be 31 December and 30 June, and we would welcome submissions by 31 December 2023 for the second 2024 issue.

Kind regards,  
Nigel

*Professor Nigel Robb  
Editor of SAAD Digest*

## News from SAAD members

### **Congratulations to Christine Arnold on her retirement!**

Christine contacted SAAD to say...

*'I have enjoyed being a member and have received much support and education from the society. I wish SAAD all the best in the future'*

**With all best wishes for a happy and healthy retirement from SAAD!**

If you have any news you would like to share with the SAAD membership, please send it to [kiera@saad.org.uk](mailto:kiera@saad.org.uk)



## Caring for an increasingly complex population:

### *personal insights and personalised care*

Saturday 30 September 2023  
The Royal Society of Medicine



Report by:  
Imran Suida  
SAAD Trustee

This year's symposium was held at the Royal Society of Medicine in London. The meeting was opened by the SAAD President, Sadie Hughes, welcoming 153 attendees. Thereafter, Sadie handed over to Ashleigh Stamp, who chaired the morning session and Leah Adams, who chaired the afternoon session.



SAAD President, Sadie Hughes



SAAD Trustee, Ashleigh Stamp

## Incorporating remimazolam into care provision a primary and secondary perspective

### *A primary care perspective from GDP Frank Clough*



This talk discussed some of the practical implications of incorporating remimazolam into a primary care sedation service and included feedback from both patients and clinicians.

Frank has completed 48 cases of conscious sedation with remimazolam as both operator-sedationist and as a dedicated sedationist, covering a variety of procedures with the maximum procedure length being 70 minutes.

When considering a new conscious sedation drug, the key points to consider include its ease of use, its fidelity in comparison to midazolam, patient and clinician choice, its value for money, its effect on efficiency, and also how innovative it is.

Some of the practical considerations include:

1. Training requirements: IACSD have released [interim guidance](#) highlighting that remimazolam adheres to the same training requirements as midazolam. Those who meet the requirements for sedation training will need to attend a relevant CPD course in line with IACSD standards but will not require further supervised clinical practice.
2. Policy and Standard Operating Procedures (SOPs) should be appropriately updated with a separate section for remimazolam, covering the key areas of its use including indications,



contraindications, reconstitution, dosing and administration and reversal. Record keeping templates can be useful.

3. Audits of practice: use of audits can help to identify the success rate, complication rate and aid local comparison between the use of midazolam and remimazolam.
4. Controlled drugs record: keeping two separate records is preferred rather than combining records for both midazolam and remimazolam.
5. Ordering is relatively simple in primary care, via setting up an account with Paion / Clinigen
6. Cost: a local cost comparison highlighted that remimazolam was 4.8x more expensive compared to midazolam, with a cost per case of £26.15 for remimazolam (one ampoule), and £5.41 for midazolam (two ampoules). This can equate to a cost increase of just over £7,881 per year, based upon 380 cases.
7. Storage and reconstitution: there are no further storage requirements compared with midazolam. However as reconstitution is required with saline, sufficient storage for additional saline ampoules is required. Reconstitution is straightforward, it dissolves easily and is ready to be drawn up within 20 seconds. Once remimazolam has been reconstituted it should be used immediately or stored in a controlled temperature drugs fridge between 2 and 8 °C.
8. Titration protocol: the manufacturer, Paion, recommends reconstitution with 8.2 ml saline, resulting in 2.5 mg / ml within the syringe.
  - a. The recommended bolus dose for those aged under 65 is 7 mg. However, an alternative of 5 mg was discussed to reduce the risk of oversedation. For those aged over 65, the bolus dose is set as 2.5 - 3 mg
  - b. Top up doses may be required after 7 to 10 minutes, with 2.5 mg recommended for those under 65 years old and 1.5 mg for those over 65 years old. More than one ampoule (20 mg) is rarely required for most procedures.
  - c. Deviation from the recommended reconstitution and titration protocols should be justified and documented within local policy documents and clinical records where applicable.



Frank explained that remimazolam has been useful for short cases with discrete aims, due to its rapid onset and recovery. This may also prove beneficial in a high paced, primary care sedation service where the onset and recovery time can help to reduce clinical time and lag between patients.

There are also clear benefits for elderly and frail patients, where time to discharge can be as short as 10 minutes after the final dose. It was discussed that patients are more lucid and feel less dazed in the post operative period compared with midazolam and are more likely to remember the post operative instructions.

Where remimazolam is used for prolonged cases, a dedicated sedationist may be preferable due to the frequent top-ups, that could otherwise interrupt treatment. It was highlighted that no additional team set up was needed if midazolam was already used within a service.

A retrospective analysis of 22 patients via telephone interview had highlighted that 73% had no memory of the operative dentistry. The majority of patients remembered waking up in the dental chair following treatment and 100% of patients remembered leaving the practice and feeling completely normal by bedtime on the same day. 14% of patients experienced side effects such as headache, nausea, hiccups or a hangover like feeling, however this could be due to the dental or surgical treatments. 82% of patients highlighted that their experience of remimazolam sedation was 10/10 and the remaining 18% rated it as 8 to 9/10. Some patients perceived the sedation to be lighter, possibly as there were fewer after-effects and faster recovery.

Clinician observations during the same period, highlighted that operating conditions were equivalent to midazolam sedation, with patients seeming to be more lucid more quickly, and hence a reduced onus on escorts to remember all of the postoperative instructions.

In conclusion, it was highlighted that remimazolam constitutes definite progress for conscious sedation in dentistry and was easy to integrate into a primary care setting, with both good patient and clinician experience. However, the cost to utilise this drug is significantly higher and its benefits are clearer in short cases, elderly and frail patients and in prolonged procedures as a dedicated sedationist.

### ***A secondary care perspective from Consultants Stacey Clough and Zahra Shehabi***



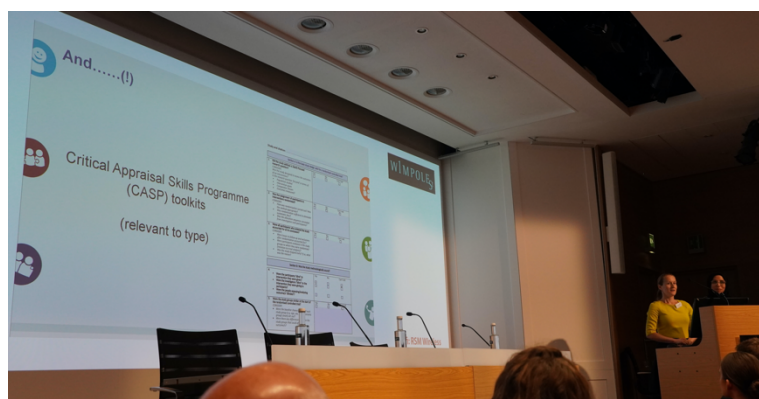
The second part of this talk was delivered by Stacey Clough and Zahra Shehabi who are both Consultants in Special Care Dentistry at the Royal London Dental Hospital, Barts Health NHS Trust.

When considering the introduction of a new drug to an NHS hospital trust formulary, the importance of understanding the key processes of the local therapeutics committee was highlighted, including making connections with the Lead Pharmacist and the Integrated Care Board's Formulary and Pathways Group.

As part of any new drugs application, some of the key areas for consideration include:

- Evidence of a unified consensus
- Medication details and intended use
- Prevalence of the linked condition(s)
- Current management (i.e. midazolam in this case) including the unmet needs
- Other treatment options
- Selection and exclusion criteria
- Clinical outcomes and how they will be measured
- Links to national policies
- Whether the medication will be part of an existing treatment pathway
- Estimated cost per year (linked to number of cases)
- Supplementary patient information
- Risks and risk reduction measures
- Information relating to reduction of carbon footprint and toxicology.

An injectables risk assessment may also need to be completed, including looking at reconstitution of the drug, training and assessment of competency for staff members and use of aseptic technique. A literature review is also required, covering the key evidence relating to the use of the drug, its safety profile, efficacy and any common side effects. The Critical Appraisal Skills Programme “CASP” checklist is ideal for this.



The speakers described an analysis of 26 patients treated with remimazolam in their service, with a dedicated sedationist. All procedures were short, with a maximum dose of 10 mg, and top-ups were often required at approximately 5-minute intervals, often with 2 to 3 top-ups required. It was noted that there was a rapid onset of 50 to 70 seconds between bolus and commencement of treatment. All patients were safe to discharge within 30 minutes, which is beneficial for patients with additional needs and physical issues. In these cases, flumazenil was not required, even where special care patients would have normally required flumazenil after midazolam administration to allow for a safer recovery. The speakers also noted a reduction in the bolus dose to 5 mg (from the recommended 7 mg).

Qualitative staff feedback highlighted a preference for remimazolam in short cases; that it was better for patients with liver or renal issues as metabolised by tissue esterases; and that, anecdotally, it could be successful in cases where midazolam had not worked in the past. In conclusion, the authors suggested that some next steps would include considering national data gathering for the use remimazolam to lead to a large publication, highlighting its safety profile and to share learning with other specialties and disciplines.



*Delegates enjoying their break!*

## ***Childhood sexual abuse and its impact upon dental care***

**Viv Gordon**

**Child Sex Abuse (CSA) Survivor Artist Activist and Artistic Director of the Viv Gordon Company.**

This talk started off with a monologue from Viv's show 'ORAL', highlighting the trauma response that can occur in survivors of child sexual abuse (CSA) in relation to dentistry. This highlighted the emotional and psychological challenges a survivor can experience, with potential triggers from sounds, smells and dental treatment generally. Some of the key feelings from CSA survivors included feeling as if they 'didn't matter', 'humiliation' and 'not cared for or understood', alongside the 'fight or flight' type reaction and feeling unable to move.





Viv Gordon,  
Viv Gordon Company Ltd

CSA is defined as ‘...the use of a child for any form of sexual activity or behaviour by an adult or adolescent and is a betrayal of trust by someone who has power over the child.’ Approximately one in six people in the UK are estimated to be survivors of CSA, with very few disclosing this information and many not being able to remember it. Dentistry can be a ‘re-traumatising’ environment, leading to a cycle of shame, avoidance and deteriorating dental health in survivors.

Viv described a research pilot in conjunction with Bristol Dental School, and Briggstow Institute, which aimed to improve access to dental treatment for adult survivors of CSA abuse by understanding the key areas that are challenging about dentistry.

Some of the key issues include: lying in the prone position; the need to stay still; time pressure and the feeling of physical invasion. Closing the surgery door, the gender of the dentist and certain smells such as latex and aftershave can also trigger a response.

The ‘social access model’ was suggested to help improve the experience for CSA survivors and reduce barriers to access. This includes understanding that the ‘trauma response’ is normal and that employing a problem-solving approach can be helpful. This includes carefully approaching patients with curiosity and openness, ascertaining what they find comfortable, and difficult, aiding patients to feel in control and empowering them in their experience.

The second part of this talk was led by Akhila Muthukrishnan. Akhila is a Consultant in Special Care Dentistry and the Clinical Lead of the Community Dental Services at Swansea Bay Health Board. This talk highlighted the oral health impact of CSA on adult survivors, patterns of behaviours that could suggest a potential history of CSA and key techniques to embed trauma-informed care (TIC) in dental practice.



Akhila Muthukrishnan

There is evidence that CSA survivors are four times more likely to suffer from severe dental anxiety compared to the wider population. The likelihood of this is higher when survivors were subject to multiple episodes of abuse. This can manifest in coping strategies such as turning up late, putting appointments off or even substance misuse. Certain key features can also be present



in this patient group such as appearing to be dissociated, being hypervigilant and the need to be in control.

TIC nurtures a culture of compassion and kindness for all and seeks to avoid re-traumatising people. The Survivors Trust “check with me first” campaign has highlighted three key approaches as part of being trauma informed:

1. *Check that the service user is happy before proceeding with, and during, each step of the appointment / procedure.*
2. *Explain what you need to do at each step and give the person opportunities to ask questions.*
3. *Reassure the person that they can stop the procedure at any time. Let them know that they are in control.*

As part of this, dental teams need to be considerate by making reasonable adjustments, being competent in TIC, being aware of the influence of staff behaviour, building a safe relationship, arranging a secure treatment situation with patients and exploring individual triggers. When considering sedation for survivors of CSA, the advice was to employ an acclimatisation period and thereafter assess whether sedation is needed. Some survivors feel the need to be in control, hence may prefer no sedation or only light sedation for this reason. Inhalation sedation hoods may also be an issue for certain patients.

Where patients disclose key information about their past, it is important to acknowledge this, and highlight the individual adjustments that can be made to help, avoiding patronising language, reacting negatively or ignoring the disclosure. It is also important, as a healthcare professional, to avoid carrying the patient’s burden, to practice self-compassion and to utilise strategies to overcome ‘compassion fatigue’.

Some recommendations to dental professionals made in this session included raising awareness of TIC and signposting to the Survivors Trust and the Trauma Informed Wales network. Whilst it is impractical to screen every patient for CSA, where patients are displaying signs of distress, anxiety and phobia it may be appropriate to consider asking open questions and focusing on what the patient may need. Both good communication and acknowledgment are key for this to be successful.

### ***When is out of hospital sedation not appropriate?***

**Dave Booth**

Dave Booth is a Consultant Anaesthetist at The James Cook University Hospital in Teeside. He has prior experience providing sedation techniques in a primary care setting alongside his main interests in anaesthetic pre-assessment and providing anaesthetic support for orthopaedic, dental and scoliosis surgery.



*Dave Booth*

This talk discussed key areas of assessing a patient's suitability for conscious sedation, including airway assessment, ASA grading, obesity and sleep apnoea and key medical areas including epilepsy and diabetes. The talk was aimed at dentists providing conscious sedation in primary care settings.

When assessing an airway, it is important to have an overview by looking at multiple assessment measures, rather than relying on a simple tool. These include the Mallampati score, inter-incisal opening, thyromental distance and the Wilson risk score. Other important anatomical features include whether the patient has a beard, has a significant receding mandible, has a short immobile neck, a high arched palate and if their abdomen is higher than their nose when they lie flat.

The ASA grade has some limitations, including poorly accounting for patients who are obese and those with frailty.

A method of being able to see whether a patient is suitable for treatment in primary care (ASA I and II) includes employing a holistic approach to individual patient risk assessment. This should include assessing their medical conditions, the complexity of treatment and the time required under sedation.

Carrying out conscious sedation for those with obesity can be complex with many factors that need to be considered. These can include considering chair weight limits, IV access, airway issues and co-existing diseases including obstructive sleep apnoea (OSA), diabetes, hypertension and gastro-oesophageal reflux. Commonly the 'STOP-BANG' score is utilised to assess a patient for potential OSA, however it has its limitations, including where all males over the age of 50 with hypertension score highly enough to warrant an assessment. Hence an Epworth score can be utilised as an alternative tool, with a sleep services assessment referral required for patients scoring above the threshold. Patients with sleep apnoea are contraindicated for primary care conscious sedation, however where a patient mentions that they are intolerant of CPAP (Continuous Positive Airway Pressure) this should raise a red flag as they may have untreated OSA.

When considering patients with diabetes, it is important to understand their level of control via their HbA1c score, which should be below 69 mmol/ mol ideally (8.5%). There are national guidelines in relation to perioperative care for patients with diabetes, however drugs rarely need stopping for dentistry. Many insulin-dependent diabetics have continuous glucose monitoring and linked insulin pumps. This often controls their blood glucose better than other methods and they are safe to proceed for treatment with the pump activated, unless treatment is prolonged and there is a chance of the patient missing a meal (>60 minutes). Where there are any queries about a diabetic patient in relation to perioperative management, it is recommended to speak to the patient's specialist diabetic nurse.

For patients with epilepsy, it is important to ascertain the type of epilepsy, if there was a causative factor i.e. tumour, stroke or trauma, and how the patient experiences a seizure. Certain epileptic patients do not lose consciousness during a seizure, so it is important to understand how a fit normally presents. An important question to ask during history taking is whether the patient with epilepsy is allowed to drive. The DVLA will only allow an epileptic patient to drive if they have been not experienced a fit for over 12 months, only fit in their sleep or there is no functional impairment during a fit. Similarly, if a patient who drives experiences a fit during treatment, advice may need to be sought from the DVLA. Before considering conscious sedation in primary care for a patient with epilepsy, the clinician should consider the procedure type, method of sedation, what help is available and what they would do if the patient suffered from a prolonged fit, or reversal was required due to oversedation.

In summary, a clinician should think holistically and use an integrated assessment approach when assessing a patient for sedation in primary care. This includes considering the procedure type, its length and complexity; patient assessment: airway, body shape and medical comorbidities; the team carrying out the treatment and their expertise and what help is available if there is a complication.

### ***Research update - SAAD funded PhD***

#### ***'The short and long-term effects of nitrous oxide/oxygen sedation as compared with general anaesthesia on children's future level of dental anxiety and acceptance of dental treatment.'***

**Marija Borisovaite-Petruliene**

Marija is a PhD student at the University of Leeds where she is focusing on her research project funded by SAAD. The aim of this study is to evaluate the short and long-term effects of nitrous oxide / oxygen sedation as compared with dental general anaesthesia on children's future level of dental anxiety and acceptance of dental treatment. This talk provided an update on the progress of this research project.



*Marija with SAAD President, Sadie Hughes and Past President, Stephen Jones*

The parameters of this study include measurement of the faces version of the Modified Child Dental Anxiety Scale (fMCDAS) before treatment and after treatment, with physiological readings taken 5 minutes before and after treatment via an E4 wristband, measuring real time data.

The current data relates to 37 patients, with a mean age of 8.25. 81.1% were treated under GA and 18.9% were treated under inhalation sedation (IHS). The average heart rate pre-operatively was higher in the IHS group and was higher post-operatively in the GA group. However, it was explained that it would be expected that the physiological response to a GA would normally lead to a higher heart rate post-operatively. Pre-operative anxiety scores were found to be higher in the IHS group, however it was found that after 12 months, anxiety scores decreased for the IHS group and increased for the GA group.

The next steps for this study include continuing to collect data, and carrying out qualitative semi-structured interviews, considering if there is a benefit of IHS for reduction of dental anxiety over the long term in comparison with GA.

## NHS England Clinical Guide for Dental Anxiety Management

### Carole Boyle and Jennifer Hare



Carole Boyle



Jennifer Hare

Carole Boyle is the Clinical Lead in Sedation and Special Care Dentistry and Jennifer Hare is a Consultant Health Psychologist and Clinical Lead of the Dental Psychology Service. Both work at Guy's and St Thomas's NHS Foundation Trust in London.

In this talk, the speakers aimed to put the clinical guide into context, and discuss the relevant behavioural and pharmacological management options, including referral for treatment under general anaesthesia.

This document is a clinical guide, which acts as a standardised framework to support decision making, rather than a guideline to be implemented. The last *guideline* 'Service Standards for Conscious Sedation in a Primary Care Setting' was published in 2017 and is yet to be replaced.

The clinical guide is aimed at tier 1 and 2 providers in primary care and looks at the level of anxiety, comorbidities (ASA), invasiveness of procedure, urgency of care and level of care provision.

When considering dental anxiety, there are two key types to consider: trait anxiety and state anxiety. Trait anxiety can be described as a globally anxious and stable trait, that can endure and differs between people. The Modified Dental Anxiety Scale (MDAS) can be a useful tool for assessing this. State anxiety is specific, short-lived and temporary, with the presenting features being similar across different people. In these cases, asking about specific triggers can help to identify the issue and assist in creating a plan to address it. The guide discusses anxiety management techniques for low, moderate and high trait anxieties and links these with tiers 1, 2 and 3 and urgency of care. This ranges from simple measures such as rapport building and enhancing control, to utilising the 'letter to dentist' and longer appointment times and finally the use of cognitive behavioural therapy (CBT) for dental anxiety.

Patient assessment should be individualised, looking at each patient's needs and creating a specific treatment plan. As part of this, the trait anxiety, treatment urgency and health status of the patient should be considered when planning the relevant anxiety management technique and level of care required.





Sedation is only one part of the package of services that enable patients to access care, and should be utilised for complex and advanced treatments, patients with special care needs and those with disproportionate anxiety. Pharmacological anxiety management techniques should also not be utilised sequentially i.e. only offered where behaviour management has failed. Instead, they should be considered as part of a wider plan that is in the patient’s best interests. The guide also highlights that multi-drug sedation will not be commissioned within the NHS for use in primary care or community settings for both adults and children.

When considering referral for a general anaesthetic (GA), there are key areas that should be included alongside the patient’s full history and reason for referral. These include the details of what treatment has been carried out; what anxiety management techniques have been considered; the patients’ expectations and what treatment needs have been identified. The guide also discusses what is expected of the GA team, including having the appropriate training and competency to complete the treatment required.

When considering implementing the guide, those present were advised to take a ‘step-by-step’ approach and share good practice with managed clinical networks. In the future, it is envisaged that the clinical standards will be updated, providing a full guide for implementation.

***What’s the use in knowing about misuse?***  
**Hamza Hossenally**

Hamza is a Consultant in Special Care Dentistry at The Royal London Dental Hospital, which is part of Barts Health NHS Trust. This talk highlighted the impact of drug misuse on conscious sedation; how to assess and identify patients with substance misuse; the impact of these drugs on the body and tips for management.



*Hamza Hossenally*

In the UK, 8.4% of adults are reported to have used illicit drugs and up to 34% of 15-year-olds have admitted to their use. In relation to patients who may take these drugs and conscious sedation, there can be a risk of being a poor historian, lack of full disclosure, unsuitable escorts, drug tolerance and interactions with medications.

It is vital to take a clear and thorough history, utilising an honest and non-judgemental approach, assessing the social situation and also looking for signs of being under the influence of a substance.

High alcohol intake can result in patients being tolerant of midazolam, and if under the influence, can potentiate its action. Consequent liver disease can also result in impaired metabolism of midazolam, increased bleeding risk and immunosuppression.

Cannabis has the main chemical constituent 'THC', and its use can result in sedation, hallucination, paranoia and changes in perception. There are also effects on the lungs, appetite, hypotension and bradycardia. Use of midazolam sedation can be unpredictable in those who use cannabis, and IHS is a viable alternative. Cannabinoids are fat soluble and hence can accumulate in fat, resulting in a half-life between 28 and 56 hours, and even up to 7 days. It is suggested to ensure patients refrain from use for at least 72 hours prior to IV sedation.

Cocaine is a short acting CNS stimulant, resulting in euphoria, increased heart rate and blood pressure and increasing the risk of hallucinations and psychosis. Cocaine users may have chronic effects on both respiratory and cardiac function, risk degradation of the nasal septum and can have difficult venous access..

Heroin is a highly addictive derivative of diamorphine, causing both euphoria and relaxation and drowsiness. Its added constituents can cause venous necrosis and fibrosis, and the risks include infective endocarditis, hepatitis and HIV from shared needle use and venous thromboembolism. Often patients can have an unsuitable social situation, and a high tolerance of midazolam, alongside difficult venous access. Respiratory depression can be a risk due to both tolerance and concomitant use. Inhalation sedation is often the preferred method of treatment.

Nitrous oxide is increasingly becoming a popular recreational drug, with its low price and ease of access (whipped cream canisters). Upcoming UK legislation may restrict retail access in the near future. This drug is mainly used by 16 to 24-year-olds, causing instant euphoria and relaxation. However, there is a risk of hypoxia, asphyxiation, addiction, Vitamin B12 deficiency, myeloneuropathy and brain development issues. Use of this drug illicitly can lead to tolerance if IHS is attempted.

Where IV sedation is contraindicated in patients taking recreational drugs, alternatives can include inhalation sedation, hypnosis, acupuncture, use of virtual reality and psychological support such as CBT.

In summary, it is important to understand the substances being misused and their effects, be able to carry out a thorough assessment and understand the alternatives to IV sedation.



## ***Beginning with ABC*** ***a more detailed look at airway, ventilation and venous access*** **Heather Rodgers**

Heather Rodgers is a Consultant Anaesthetist at Aneurin Bevan Health Board, regularly providing anaesthesia for dental procedures and has taught on the Cotswold sedation course. This talk gave a detailed look at airway assessment, ventilation and venous access.



*Heather Rodgers*

When assessing an airway, a combination of assessments is useful, rather than one simple tool.

This starts by taking a full history, assessing any issues with prior general anaesthetic episodes or sedation, including whether a patient has a history of a difficult airway or if there have been any major changes since prior treatment (including development of frailty and obesity). Prior radiotherapy or surgery to the neck, or C-spine issues can all increase the difficulty of airway rescue.

An end of bed / chair assessment can therefore help to identify obesity, kyphosis of the spine and ability to lie flat.

When utilising specific assessment tools, consider how it may affect the ability to manage the airway if there is a complication. The most relevant assessments include mouth opening and the presence of a dentition, as these affect the ability to manually ventilate a patient.

Pulse oximetry has a significant lag time of over 30 seconds, and due to the steep dissociation curve, lower readings can be unreliable. Dark skin tones can also cause readings to appear artificially higher, especially when the SpO<sub>2</sub> starts to drop.

Pulse oximetry can also be affected by false nails, dark nail varnish and poor perfusion. Certain patients can have abnormal pulses such as those having renal dialysis, and motion artefact and patient tremor can affect reliability.

Pulse oximetry only measures capillary oxygenation, but not ventilation. The use of supplemental oxygen in patients with lower O<sub>2</sub> saturation readings during sedation can help raise the reading, however this does little to improve the potential poor ventilation. As such, the use of capnography was discussed as an important tool to measure ventilation, respiratory rate, pattern of breathing and cardiac output, with no lag time.

Obesity can be an issue with conscious sedation, due to increased abdominal fat, reduced functional residual capacity, higher oxygen consumption, difficulty with manual ventilation and being more likely to have OSA.

Some simple tricks to help with venous cannulation include warming up the patient's hands, tethering the vein, using the appropriate angle of entry and the use of light-based aids.



## Capnography monitoring within dental conscious sedation

### Paul Brady

Paul Brady is a lecturer and Specialist Oral Surgeon at Cork University Dental School and Hospital.



Paul Brady

In this talk, the benefits of utilising capnography as a monitoring tool during operator-led conscious sedation were discussed. The current IACSD guidelines highlight that the routine use of capnography in ASA I and II patients cannot be routinely recommended until further evidence is available.

There is a continuum of how a patient will respond under conscious sedation and practitioners need to be trained in how to deal with any potential complication. Examples of this include a simple head tilt and chin lift in a patient showing signs of upper airway obstruction (snoring).

When monitoring the sedated patient, pulse oximetry (SpO<sub>2</sub>) has its limitations, including real time lag, inability to measure ventilation, and low reliability in poor perfusion cases.

Capnography is the continuous recording and analysis of expired carbon dioxide. Within dentistry, microstream capnography takes CO<sub>2</sub> sampling from both mouth and nose, via a nasal cannula. The trend, respiratory rate and waveform are very important when interpreting a capnograph. Despite it being measured via a nasal cannula, there is no requirement to give oxygen whilst using a capnography monitor.

Multiple examples were shown, including apnoea, where the capnography monitor highlighted this immediately, but the SpO<sub>2</sub> monitor lagged significantly. Similarly, hypoventilation was immediately identified with a shallower waveform, allowing the team to intervene and ask the patient to take deep breaths before any potential drop in SpO<sub>2</sub> was picked up by the pulse oximeter. Within the speaker's clinical trial, it was noted that only 3% of patients undergoing capnography required supplemental oxygen.

The causes of upper airway obstruction were discussed, including tongue swelling, apnoeic obstruction, foreign body and anaphylaxis. The risk of floor of mouth haematoma was highlighted in anterior mandible implants, caused by the sublingual artery and the risk this could pose in a sedated patient. It was discussed in conclusion that capnography is an extremely useful tool to identify apnoea and hypoventilation. It is best used in patients who may be given oxygen during sedation, either due to comorbidities or due to reduced SpO<sub>2</sub>, in order to assess ventilation appropriately.



*We hope to see you next year!  
Saturday 28 September 2024  
The Royal Society of Medicine, London*





# *Safe Sedation Practice Scheme*

## WHY DO I NEED AN EVALUATION FOR SAFE SEDATION?

IF YOU WORK IN ANY OF THE FOLLOWING SETTINGS THEN A SAFE SEDATION PRACTICE EVALUATION IS APPROPRIATE:

- A GENERAL DENTAL PRACTICE
- A HOSPITAL DENTAL SEDATION SERVICE
- A COMMUNITY DENTAL SERVICE
- A SPECIAL CARE DENTAL SERVICE

## COMMON MYTHS

### ***“I don’t need an evaluation as I’ve used the checklist.”***

The checklist is a good self-assessment, but it isn’t validation. It is a common mistake to assume this is just enough. Historically, services that self-assess reveal deviations from the standard at evaluation. The protocol is designed to help you find areas for improvement in your provision and allow for those to be adjusted to meet the standard. Using self-assessment may be self-affirmation but that is not a robust way forward.

### ***“My service is led by a Consultant Anaesthetist.”***

To meet the national standard agreed by IACSD (The Intercollegiate Advisory Committee on Sedation in Dentistry) a dental sedation service should be dentist-led. The IACSD requirements are no different for dentists and anaesthetists. Some facilities still retain an anaesthetist lead. In those circumstances you should adopt IACSD guidance.

### ***“I only do inhalation sedation”.***

IACSD sets out the requirements for conscious sedation whatever the route used to administer a drug or drugs. The Safe Sedation Practice Scheme is as relevant to inhalation sedation as it is to intravenous sedation or to drugs given by other routes. Many facilities have used the scheme to great benefit, and this has also encouraged discussion particularly about the patient pathway, consent infection prevention and control processes.

### ***“It’s okay we have been assessed by our area dental lead”.***

If the evaluator meets the person specification that is totally acceptable. Assessment by any individual who does not meet the person specification cannot meet SAAD’s requirements for validation. The person specification can be found at:

[SSPS - Quality Assurance programme for implementing national standards in conscious sedation for dentistry in the UK](#)



# *Safe Sedation Practice Scheme*

## HOW IT WORKS

- You can commission an evaluation from SAAD by clicking the button below or visiting [www.saad.org.uk](http://www.saad.org.uk) or e-mail [fiona@saad.org.uk](mailto:fiona@saad.org.uk)

SAAD Safe Sedation Practice Scheme  
Enquiry form

- You can approach your local dental commissioners. Increasingly commissioners are utilising this SAAD scheme to validate dental sedation commissioning. Most ICBs should be aware of the scheme.

The process is straight forward with ongoing advice through the process. Importantly there is minimal disruption to your normal working day at evaluation. The system is not an exam. It is not a form of policing. It is designed to be searching and thorough, but equally, motivating and friendly.

The SAAD Safe Sedation Practice Scheme (SSPS) is a safety net for practitioners and patients alike. Increasingly commissioners and Trusts see the value of independent evaluation as part of a protective shield to prevent harm, whereby should an incident occur, they are able to demonstrate adoption of the appropriate standard.

**SSPS IS AN ESTABLISHED TOOL ASSURING SAFE SEDATION PROVISION.**  
**JOIN THE SCHEME AND DISCOVER THE BENEFITS OF SAAD’S EXPERIENCE TO**  
**IMPROVE YOUR SEDATION PRACTICE.**

*Symposium*

SAVE THE DATE!

Saturday 28 September 2024

The Royal Society of Medicine  
London

[www.saad.org.uk](http://www.saad.org.uk)

- @SAADDental
- @saaduk
- @SAADdentistry
- @saaddentistry



## SAAD AGM Saturday 30th September

**Manni Deol**  
SAAD Honorary Secretary



The SAAD Annual Symposium and Annual General Meeting (AGM) was held at the Royal Society of Medicine, in London, on Saturday 30 September 2023. The AGM commenced after a thought-provoking morning of lectures. All related papers were emailed to the membership prior to the meeting and documents were available on the AGM page of the SAAD website. 28 members of SAAD attended the meeting.

SAAD’s President, Sadie Hughes, opened the Annual General Meeting with apologies for non-attendance from Barry Devonald, Francis Collier, David Craig, Stephen Woolley and Mick Allen.

The minutes of the 2022 AGM were proposed by Nigel Robb and seconded by Paul Howlett and thereby accepted as a true record of the meeting. The President thanked the membership for making time to attend the meeting before commencing her report. Sadie Hughes informed it had been another busy year for SAAD, holding a healthy membership.

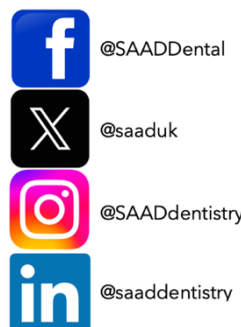
The national courses continue to be popular as are the winter webinars. Dr Hughes thanked Carole Boyle and the SAAD faculty for their innovative approach and commitment to high quality sedation education. Dr Boyle also organized a SAAD Sedation Life Support webinar, which was provided free for SAAD members, and had an impressive 538 registrants.

In line with the charity’s educational aims, SAAD ran a joint course in Manchester with the British Association of Oral Surgery. This was a very well received day with over 205 attendees. Dr Hughes extended her gratitude to Thomas Lees, Fiona Trimmingham and Kiera Essex for making this such a successful day.

Dr Hughes informed the membership that, in addition to teaching, SAAD supports sedation education by providing financial support for various research projects. One of which is the PhD project currently being undertaken by Marija Borisovaite-Petruliene, who had presented an update on her research prior to the AGM.

The President outlined that SAAD had written to the Rt Hon Chris Philp MP as part of an open consultation regarding potential licensing restrictions for nitrous oxide. The recent result of this consultation is that nitrous oxide will be controlled under Class C of the Misuse of Drugs Act 1971. A statement of the findings and their implications will be put on the SAAD website in the near future.

Dr Hughes acknowledged that the SAAD Digest continues to receive an increasing number of articles for consideration and the editorial team will be looking into ways to maximise dissemination of these high calibre articles to the membership, encouraging all to watch this space. The President expressed gratitude to Nigel Robb and the Editorial Board for their ongoing hard work and to Yi Loo for promoting SAAD via its various social media channels.



## From the treasurer...

2023 has proven, again, to be a stable and successful year for SAAD. The charity's resilience and diversification has stood it in good stead to continue with its charitable efforts for the future.

The Board ran a successful annual symposium on 30<sup>th</sup> September 2023 with an exciting programme, providing much needed face to face interactive continuous professional development for our membership. Two poster presentations were awarded for innovation and research in areas of sedation and care for the anxious patient.



*Kellie Downie*  
SAAD Hon. Treasurer

During our annual AGM a new Honorary Treasurer was ratified, and I would like to take the opportunity to congratulate Paul Howlett on his new role. Paul has been an active member of the Board for the past nine years and brings with him a wealth of experience and knowledge. As a long-standing Trustee, he has served as SAAD's Communication Secretary and Prizes Co-ordinator. I am sure he will continue to secure SAAD's financial future going forward.

In 2023, we continued to provide alternate sources of CPD such as our winter webinars (details below), and the online CPD based on the SAAD Digest. For 2024 the faculty is developing a SAAD life support course to further improve safety in dentistry.

I would like to thank the members of all three Boards for their hard work which undoubtedly continues to support SAAD to deliver the quality and robust training it is so well known for. The delivery of educational courses is, year on year, SAAD's main source of income, with 2023 being no different. SAAD is, as ever, grateful to Carole Boyle, Course Director, Emma Lee, SASN Scheme co-ordinator, and the Faculty for their tireless commitment to this cause.

As 2023 draws to a close SAAD is in a healthy financial position. These resources are allowing SAAD to continue to support a PhD research project and three further research projects as well as other sedation-related activities.

Thanks are due to Fiona, and her team at HGE, who amongst many other tasks, monitor the movement of funds and track payments to be made.

Thank you to the other Executive Board members who have been incredibly busy supporting SAAD during 2023 and further thanks to SAAD as it has been a pleasure to have been Honorary Treasurer for the past six years!

## SAAD Prizes

SAAD offers annual prizes for essays and reports on any subject related to Conscious Sedation, Anxiety Control, General Anaesthesia or Analgesia in dentistry

**Drummond-Jackson Essay Prize - £750**

**Dental Student Essay Prize - £500**

**DCP Report Prize - £500**

Submission deadline 31st March 2024

Further details are at [www.saad.org.uk](http://www.saad.org.uk)





# SAAD PRIZE WINNERS!



## The 2023 SAAD Drummond Jackson Essay Prize

The winner is: **Charlotte Richards** for

***'Dexmedetomidine: pharmacology and its use as a sedative agent'***

## The 2023 SAAD Dental Student Essay Prize

The winner is:  
**Laura Irving** for

***'Do children from more deprived backgrounds have a higher chance of becoming dentally anxious?'***

Unfortunately, Laura was not able to attend the Symposium because of the train strikes!

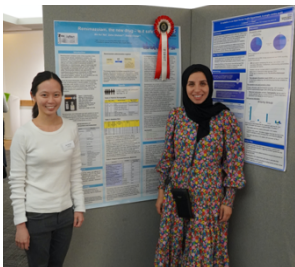


## The 2023 SAAD DCP Report Prize

The winner is:  
**Viviet Makota** for

***'A Special Care Dentistry case study'***

## The 2023 SAAD Poster Presentation Prize



First prize:  
**Xin Hui Yeo** for

***'Remimazolam: is it safe?'***

Second prize:  
**David Drysdale** for  
***'Patient reported outcome measures (PROMs) for intravenous sedation (IVS), Second Cycle'***



## The SAAD Winter Webinars are back!

### Confirmed speakers include:

Jennifer Hare  
Paul Howlett  
Frank Clough  
Emily Sherwin  
Damien Reilly  
Zahra Shehabi



These webinars will be recorded and available to watch for a limited time.

Look out on [www.saad.org.uk](http://www.saad.org.uk) for further information and to book your place!



## SAAD Online CPD

There are currently **up to eight hours** of verifiable sedation CPD available on the SAAD website. Make sure you log on, complete the MCQs based on the refereed papers in the 2022 Digest and download your certificate.

**This is complimentary to members (£15 for non-members)**

Simply log on as a member, set yourself a username and password for the CPD section, answer the multiple-choice questions relating to the latest volume of the Digest and download your certificate!

Go to [www.saad.org.uk](http://www.saad.org.uk) for further information!

## SAAD Research Grants

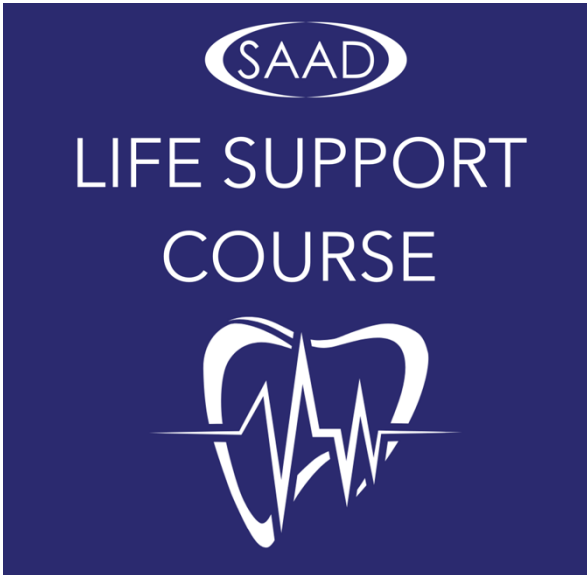


SAAD offers research grants to aid research in pain and anxiety control in dentistry. The award is open to all postgraduates with an interest in pain and anxiety control in dentistry who are working in the UK or Ireland. Individual applications for sums up to £5,000 will be considered.

Further details at [www.saad.org.uk](http://www.saad.org.uk)

### Projects in progress:

- *'Identifying barriers and facilitators to the use of intravenous conscious sedation with midazolam in young people to facilitate surgical dental care.'*  
Ashleigh Stamp, Newcastle
- *'Does the use of self-help Cognitive Behavioural Therapy (CBT) resources reduce dental anxiety in children aged 9-16 years, referred to The Rotherham NHS Foundation Trust Community Dental Services?'*  
Susan Welford, Sheffield
- PhD project  
*'The short and long-term effects of nitrous oxide/oxygen sedation as compared with general anaesthesia on children's future level of dental anxiety and acceptance of dental treatment.'*  
Marija Borisovaite-Petruoliene, Leeds



# SAAD Life Support Course

Saturday 17 February 2024  
QMUL Campus  
London

*We'd like to welcome you to the first SAAD Life Support (SLS) course!*

**Aim:**

To fulfil the IACSD requirement 'Practitioners must be able to provide age-appropriate Immediate Life Support'

**Teaching points:**

- Participants will gain an increased knowledge of medical emergencies, causes and management related to sedation
- They will practice simulated scenarios in small groups
- Learn airway management skills

**CPD hours:** Five hours, 30 minutes fulfilling GDC learning outcomes C.

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**Places are limited, and so please register now to secure your place.**  
This is an in-person event and will not be live-streamed / recorded.

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**The programme can be found on the SAAD website!**



Carole Boyle



David Craig



Leah Adams



Thomas Lees



Mary Hicks



Anthony McKay

Sessions include:

- Causes & prevention of cardiac arrest
- Sedation related complications
- Cardiac arrest algorithm and demonstration
- Four different practical sessions
- Discussions & quiz

Please go to [www.saad.org.uk](http://www.saad.org.uk) to book your place!





There is an up to date list of upcoming events on the SAAD website

You can sign up to the emailing list to receive updates related to the events  
liste on the calendar of events

CALENDAR OF EVENTS  
SAAD Website



Keep up to date  
with social media  
Facebook, X, Instagram &  
Linked In

SAAD has a Facebook page, X feed,  
Instagram page and a Linked In profile!



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Sedation,  
Analgesia and  
Anxiety management for  
Dentistry

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SAAD Editorial Board, 21 Portland Place, London, W1B 1PY 01302 578 835 [fiona@saad.org.uk](mailto:fiona@saad.org.uk)

**SAAD: dedicated to the advancement of knowledge in pain and anxiety control for dentistry**