



**Commissioning Dental
Services:
Service standards for
Conscious Sedation in a
primary care setting**

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Description The Service Standards for Conscious Sedation Services in Primary Dental Care which has been produced to clarify NHS England commissioning direction with regard to conscious sedation in Primary Dental care and clarifies recent guidance issued by the Royal College of Surgeons. It is to support commissioners with the implementation and monitoring of contemporaneous standards in conscious sedation practice and outline NHS England commissioning intentions.

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Contact Details for further information Andrew Taylor
Office of Chief Dental officer England
Skipton House
80 London Street
Se16LH
1138249327
<https://www.england.nhs.uk/commissioning/primary-care/dental/dental-specialities/>

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Commissioning dental services: service standards for conscious sedation in a primary care setting

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1 Foreword

NHS England produced the Five Year Forward View to set out a shared view of the challenges ahead and the choices about health and care services in the future; it applies to all services including dentistry.

This wider consensus on the need for change and the shared ambition for the future is the context in which this Commissioning Standard for conscious sedation has been produced. Clinicians and commissioners have contributed to this work to describe how dental care should develop to deliver patient safety, consistency and excellence in commissioning NHS primary dental care services to benefit patients.

2 Equality and Health Inequalities Statement

Promoting equality and addressing health inequalities are at the heart of NHS England's values. Throughout the development of the policies and processes cited in this document, we have:

- Given due regard to the need to eliminate discrimination, harassment and victimisation, to advance equality of opportunity, and to foster good relations between people who share a relevant protected characteristic (as cited under the Equality Act 2010) and those who do not share it; and
- Given regard to the need to reduce inequalities between patients in access to, and outcomes from, healthcare services and to ensure services are provided in an integrated way where this might reduce health inequalities.

3 Executive Summary

This document has been produced to clarify NHS England commissioning direction with regard to conscious sedation in Primary Dental care. It is to support commissioners with the implementation and monitoring of contemporaneous standards in conscious sedation practice and outline NHS England commissioning intentions.

The dental services described within this commissioning guide are vital in supporting the quality and efficacy of the breadth of dental treatment and oral health care.

Conscious sedation is an important adjunct to the provision of high quality dental care. It has particular relevance where dental treatment may be more advanced or complex or in the case of special care and paediatric dentistry where patients cannot co-operate with routine care. A high level of dental anxiety is also one of the main indicators for the use of conscious sedation.

As Commissioners seek to redesign the delivery of wider dental services in order to meet the future needs of the population, it is necessary to ensure that these services continue to be available to those patients who require them. It is necessary that consideration of conscious sedation capacity and service availability is part of any dental redesign process. The need for conscious sedation services should be understood and be an integrated part of planning, especially when dental services are transferred from an acute setting or transformed in primary care.

Whilst patient involvement has been central to the development of all the commissioning guides, this does not mean that commissioners can omit this vital work as part of service transformation or the re-commissioning of services. Commissioners will need to consider, on a case by case basis, whether consultation and patient engagement activities may be necessary and whether their duty to undertake such a process is triggered by any service transformation or commissioning/ procurement activity. Commissioners need to be aware that a service change which may not result in tendering for a new contract may also require patient involvement and consultation.

NHS England has a legal duty under section 13Q of the National Health Service Act 2006 (as amended by the Health and Social Care Act 2012) to properly involve patients and the public in commissioning processes and decisions.

This commissioning guide focuses purely on the standards and expectations of commissioning sedation services within the primary dental care setting.

4 Introduction

This document sets out the requirements commissioners must adopt for any provider who offers care under conscious sedation within primary care. It does not apply to specialist services provided in secondary care or equivalent settings.

As national guidance, commissioners are required to implement the requirements contained within this document when procuring new sedation services.

The requirements to conform are also relevant for any primary care provided services which already include sedation as part of their delivery. Commissioners need to work with existing providers and agree a timetable for adoption of these new sedation requirements. Commissioners should try to achieve a compliance date as soon as possible, but in any event all providers must be compliant with the standards set out in this document by 2020 at the latest.

5 What is conscious sedation?

5.1 Context

Conscious sedation is important to the provision of high quality dental care for some patients. It has particular relevance where dental treatment may be more advanced or complex or in the case of special care and paediatric dentistry where patients cannot co-operate with routine care.

Dental sedation services offer comprehensive patient-centred care to patients who suffer disproportionate anxiety or phobia in relation to routine dental care and also to those facing potentially distressing dental procedures such as minor oral surgery or invasive diagnostic interventions.

Any dental service which includes the provision of conscious sedation must provide needs assessment and treatment planning for each individual patient. This will include consideration of a range of behavioural and pharmacological options so as to offer the most appropriate treatment at each visit.

Valid consent is necessary for all patients receiving dental care under conscious sedation and this must be confirmed in writing. Consent should follow the principles set out in the GDC's 'Standards for the Dental Team' and with regard to recent developments in case law (*Montgomery v Lanarkshire Health Trust* (2015)).

The law now requires that a doctor, dentist or dental care professional must take *'reasonable care to ensure that the patient is aware of any material risks involved in any recommended treatment, and of any reasonable alternative or variant treatments.'* A patient is entitled to decide the risks that they are willing to run (a decision which may be influenced by non-medical considerations).

5.2 Why conscious sedation?

The provision of adequate anxiety control is an integral part of the practice of dentistry. The General Dental Council (GDC) has indicated that this is both a right for the patient and a duty placed on the dentist. Conscious sedation is one of the management strategies on a spectrum ranging from behavioural techniques (including Cognitive Behavioural Therapy (CBT)) to general anaesthesia which should be considered with the patient.

Conscious sedation is recognised internationally to be an integral element of the control of pain and anxiety and is an important aspect of the modern practice of dentistry. It should be accessible in primary dental care and all clinical dental specialty pathways.

5.2.1 Conscious sedation is defined as:

'A technique in which the use of a drug or drugs produces a state of depression of the central nervous system enabling treatment to be carried out, but during which verbal contact is maintained throughout the period of sedation. The drugs and techniques used to provide conscious sedation should carry a margin of safety wide enough to render loss of consciousness

unlikely. The level of consciousness must be such that the patient remains conscious, retains protective reflexes, and is able to understand and respond to verbal commands²

In the UK, the most commonly used dental conscious sedation techniques (titrated intravenous midazolam or titrated inhaled nitrous oxide and oxygen) have an excellent safety record. For many patients, conscious sedation combined with effective local anaesthesia (LA) is an acceptable alternative to general anaesthesia (GA) and makes treatment possible in primary care for a wider group of patients. Despite the safety, efficacy and cost-benefits of using conscious sedation techniques, there are still indications for general anaesthesia for some dental/surgical procedures and certain patient groups.

The commissioning requirements in this document are aligned with recent reports on sedation from the Academy of Medical Royal Colleges (AoMRC)¹, the Intercollegiate Advisory Committee for Sedation in Dentistry (IACSD)² and the (currently draft) Scottish Dental Clinical Effectiveness Programmes³(SDCEP).

5.3 Considerations for commissioning sedation

Understanding population need and equity of access to current sedation services should be the starting point before applying change to service delivery. This is necessary to manage risk and stabilise existing provision during any transformation of services. Within current service delivery there is variation not explained by population need.

The commissioning of any services should be predicated by a health needs assessment. A methodology to do this is described in the referenced report and details are described in Appendix 1

Commissioners must carefully assess local referral rates and patterns of treatment services. This guide sets out the requirements for all referrals for dental treatment under sedation to go through a local referral management system. By ensuring all referrals go through the referral management system it will be possible, over time, to better understand the need and volume of services to be commissioned to best meet the needs of the population.

In primary care delivery, there is some understanding of the volume of sedation activity that is currently commissioned in advanced mandatory contracts. However, in general there is no robust application of needs assessment evident or equity of access in the delivery of services

Good practice in dental treatment care delivery includes identification of which methods of pain and anxiety management are required. Referral systems and patient assessment should include a valid and reliable assessment of sedation need. The Indicator of Sedation Need (IOSN) is a means of identifying, assessing and delivering appropriate sedation to patients. The premise of IOSN is that patients requiring sedation are not just dentally anxious but that the patient health, behaviour and physical and dental treatment complexity should also be considered.

IOSN is composed of three main elements:

- Modified dental anxiety scale (MDAS)
- Medical and behavioural indicators
- Dental treatment complexity

The IOSN has been used to measure sedation need and published studies have shown that 5.1% of patients attending general dental practices have a high need of conscious sedation. IOSN has also been used to investigate the need for conscious sedation in the general population among dental practice attenders and those who don't attend. The proportion was found to be 6.7%¹⁴.

Selecting the most appropriate conscious sedation technique for an individual patient must be based on a careful assessment of

- the patient's age and stage of development,
- degree of anxiety/phobia,
- medical and social histories,
- the proposed dental treatment.

The most straightforward technique which is likely to be effective, based on a robust patient assessment and on clinical need, is usually the best first choice. The administration of multiple sedation drugs should only be contemplated when more straightforward options have either failed, where there is clear clinical need or when the sedationist is able to justify their use based on the outcome of the assessment visit or experience of previous treatment under sedation. An appropriately skilled clinical team is required.

Conscious sedation in dentistry is usually indicated because a patient's anxiety can prohibit the necessary dental treatment being undertaken. It may also be indicated because of unpleasant or lengthy treatment or to prevent exacerbation of a patient's medical or behavioural condition by anxiety. The indicator of sedation need (IOSN) tool has been developed to help support dentists in their clinical decision-making and uses information about a patient's anxiety, medical and behavioural status and treatment complexity.

6 What will be commissioned in the Primary Care setting?

6.1 New procurements

On publication of this document, any new NHS England conscious sedation procurements in a primary care setting will be on the following basis:

- **For adults over 16 years of age**
 - any sedation technique described in contemporaneous IACSD Standards for conscious sedation.
- **For young people aged 12-16 years**
 - Inhalation sedation using nitrous oxide and oxygen, intravenous, oral or intranasal midazolam.
- **For children under 12 years of age**
 - Inhalation sedation using nitrous oxide and oxygen.

The decision to limit the sedation techniques available for patients under 16 years of age is a development of the implicit reservations on multi-drug sedation expressed in recent sedation guideline documents – see appendix 5 references 1,2 and 3 (supported by ‘expert opinion’, sedation practice inspectors and some providers of multi-drug sedation for this age group.

Children and young adults who require more complex interventions than described above should be referred to secondary care via the appropriate specialty pathway set by commissioners locally.

Dental assessment and treatment planning should only be carried out by an appropriately trained and experienced dentist. It is important to minimise the risk of a patient receiving inadequate or inappropriate dental treatment which then necessitates a further treatment episode within a short space of time. The IACSD *Standards Appendix 1* offers detailed age-related guidance on the appropriate levels of specialism required of the dentist treating children and adults. In general, the more complex the sedation technique and the patient’s medical history, the greater the degree of specialist knowledge required.

Commissioning of all sedation services must be based on a rigorous assessment of clinical need and robust evidence of compliance with the criteria. In addition to the mandatory elements covered in section 7 below, commissioners will need to determine:

- The quantity of sedation services that are needed to reasonably meet the requirements and identified needs of the population
- The most appropriate geographic location(s) from which services need to be provided to ensure appropriate access to services
- The hours that sedation services need to be available to meet the needs of their population which may include services outside of normal hours and weekends.

6.2 Who should be involved in assessing future tender responses?

When tendering for new sedation services, it will be incumbent on the commissioners to ensure that they have appropriate clinical advice and support to advise on the clinical aspects of any bid. This advice should be from a clinical colleague who meets the following requirements:

- Registered with the General Dental Council or General Medical Council
- BDS/MB BS or equivalent
- Diploma / MSc in the relevant conscious sedation techniques awarded by recognised institution OR equivalent seniority and recognised expertise
- Evidence of appropriate theoretical and practical training with updates which comply with the recommendations for Continuing Professional Development (CPD) related to conscious sedation as recommended by IACSD
- Continuing clinical activity to include a minimum of 50 administrations per year of basic or advanced conscious sedation techniques
- Additional experience including the acceptance of patients referred by other colleagues and/or participation in teaching courses and in research

6.3 Existing service provision and requirements to conform

Where existing sedation contracts exist, commissioners must work with those providers to agree timescales by which they will comply with the recommendations within this guide, and which must be by 2020 at the latest. Both GDS contracts and PDS agreements contain clauses that require contract holders to comply with any guidance issued by commissioners, therefore enabling this development.

Staging of implementation will allow time for service adjustment and reduce any impact on secondary care sedation providers, including those providers offering paediatric general anaesthesia.

Children and young adults who require more complex interventions than described above will need to be referred via the appropriate specialty pathway to a secondary care/acute setting provider. Commissioners may need to understand the likely numbers of these referrals to ensure that any 'peaks' in onward referral can be managed and their impact mitigated.

Everyone involved in the provision of conscious sedation must be appropriately trained and experienced. Details of the requirements and methods of undergoing training are available in the IACSD *Standards* document section 6 and appendix 1, which should be read in conjunction with appendix 4 of this document (Training in Conscious Sedation). The IACSD *Standards appendix 2* also contain information on transitional arrangements for current services provided by experienced dentists, sedationists and dental nurses for whom retraining and/or additional qualifications are not required.

However, as set out in the IACSD Standards, clinicians intending to practice under these transitional arrangements must

- maintain a log in either written or electronic form of all sedation cases undertaken, with comprehensive details of patient type, baseline vital signs, sedation agent used/route/dose/reversals/unintended incidents etc.
- undertake the similar validated, continuing professional development relevant to the conscious sedation technique/s being used and as specified in the IACSD Standards document
- undertake sedation-based audit and reflection frequently and regularly in each location sedation is provided.
- and their clinical teams must be competent in the appropriate “rescue” skills. ‘Rescue’ is a term used to describe the management of adverse events that may occur during the delivery of dental treatment under conscious sedation. It is essential that the team delivering care is able to recognise such adverse events and manage them appropriately and safely. These events may be medical, dental or related to the sedation
- meet the requirements for the environment and equipment contained within the minimum specification by 2020.
- ensure that appropriate clinical governance is in place to comply with the IACSD Standards.

The records described above, should be available to those who commission or carry responsibility for NHS provision of conscious sedation for dentistry.

The IACSD recommendations on training, experience and CPD apply to dentists, doctors, dental hygienists, dental therapists and dental nurses and commissioners need to take these into account when reviewing current contracts. Evidence of compliance with CPD requirements (a minimum of 12 hours in a 5 year cycle), must be reported to the commissioner with an annual declaration of the hours undertaken in the calendar year ending 31 December.

In addition all primary care sedation providers will be required to undertake an annual self-declaration assessing their compliance with the checklist at appendix 3. The first submission of this will need to be completed as at 31 March 2018 and submitted to their local commissioner. This will then be required by the end of March each year for as long as their sedation contract remains in place. Further assurance can be provided by CQC or through practice inspection.

7 Service specification

The information provided below outlines the minimum service specification that any new provider must comply with.

- Referral - all providers must only accept referrals which comply with referral management systems in place locally and that comply with referral minimum data sets. The minimum data set is likely to include some or all of the following items which are some of those recommended for recording the pre-sedation assessment by the SDCEP document 3 (records and documentation appendix):
 - A fully recorded medical history (including prescribed and non-prescribed drugs and any known allergies).
 - ASA status.
 - A dental history.
 - A social history.
 - Any relevant conscious sedation and general anaesthetic history.
 - The Dental treatment plan proposed.
 - Assessment of anxiety or sedation need and any tools used.
 - Any individual patient requirements.
 - Provider must not accept patients which have self-referred or who have been referred outside of the agreed local referral management processes.
- Ideally patients will be seen for assessment and consent prior to treatment, however there may be occasions when it is clinically justified for patients to be assessed and treated in a single appointment such as those experiencing acute pain or sepsis. In instances where single appointment care is provided, commissioners should ensure that any provider is able to provide written evidence of the clinical justification for single assessment and treatment appointments
- For 'new starter' procurements, commissioners should ensure that they verify that sedation training has been obtained through one of the accredited training providers on the list held by the Sedation Training Accreditation Committee (STAC) at the Faculty of Dental Surgery of the Royal College of Surgeons of England (FDSRCSEng). See appendix 4 for further guidance on training standards
- Each provider will be required to submit annually at 31 December detail of their CPD undertaken to ensure their compliance with the 5 year cycle.
- Each provider of sedation services will be required to submit annually at 31 March, for each location where sedation is provided, a completed self-certified service compliance record. (see appendix 3)

Minimum Service Specification

Personnel	Requirement
1	All staff including dental care professionals must be trained and experienced in the provision of sedation services and able to evidence this
2	Healthcare professionals have appropriate indemnity cover and provide evidence
3	All staff must be registered with the appropriate bodies and regulators
4	Clinician carrying out pre-sedation assessment has sedation training and experience and can evidence this
5	Dentist providing operative treatment has the necessary knowledge to provide dental care under conscious sedation and is able to provide evidence of this
6	Sedationist has the appropriate training and experience in conscious sedation for dentistry and is able to provide appropriate evidence
7	Dental Nurse (second appropriate person) has training and experience in conscious sedation for dentistry and is able to provide evidence
8	Registered healthcare professional assisting with recovery has training and experience and is able to provide appropriate evidence
9	Evidence of age related immediate life support training or equivalent for all healthcare professionals in the sedation team
10	Evidence of appropriate CPD for all healthcare professionals in the sedation team (currently 12 hours in a five year cycle)
Premises	Requirement
11	Must be clinically fit for purpose and fulfil legislative and regulatory requirements (lighting, heating, ventilation, safe access)
12	Waiting room, surgery and recovery room are of adequate size for treatment and management of emergencies
13	Must provide adequate access for emergency services
14	Patients must be able to recover either in the surgery or in a

	dedicated recovery room prior to discharge where there are no patients awaiting treatment
15	Privacy assured in surgery
16	Individual privacy assured in recovery area and where possible on exit from practice
Sedation delivery and equipment	Requirement
17	Chair / trolley rated to the patient's weight, that can be rapidly moved to a head down tilt position during treatment
18	Facilities for the appropriate storage and disposal of drugs
19	Equipment serviced regularly and in line with manufacturers recommendations
20	Active scavenging and ventilation appropriate to COSHH recommendations and Health and Safety Regulations (2002) if applicable
21	Inhalation sedation machine unable to deliver <30% oxygen
22	Cylinder in use and full cylinder back up on inhalation sedation machine
23	Adequate central gas supply and cylinder empty alarms or automated switchover
24	Full and in use cylinder markers used
25	Central gas supply storage safety compliant
26	Central gas supply regulators in date and serviced
27	Appropriate gas storage in line with current guidelines
28	Emergency oxygen supply available
29	Automatic external defibrillator (charged and batteries in date) equipment available with age appropriate and in date pads
30	Selection of blood pressure cuff sizes available
31	Variety of sizes of full face masks
32	Emergency suction available
33	Yankauer suckers available

34	Continuous pulse oximeter (with audible alarm) for use prior to and during treatment under sedation. (Not necessary for inhalation sedation)
35	Bag/valve/mask system for positive pressure ventilation (adult and/or paediatric as appropriate) with reservoir and tubing
36	Oro-pharyngeal airways available
37	Emergency equipment readily available
Patient Information	Requirement (all documentation for patients must be content, age and capacity appropriate)
38	Patient information about the range of anxiety management care options available
39	Patient information regarding the sedation technique to be used
40	Written 'pre' and 'post sedation' instructions

8 Quality and outcome measures

In addition to the collection of the quality and outcome measures, each provider will be expected to collect patient related outcome measures (PRoMs) and patient related experience measures (PReMS) and report these to commissioners for the purpose of benchmarking

Clinical records should include

- Justification of need for sedation (eg. IOSN score) and audit of referral patterns
- Satisfactory completion of planned dental treatment/recovery and discharge checks completed and recorded
- Return for additional / emergency care relating to treatment provided at the last sedation appointment

8.1 Patient Reported outcome Measures (PRoMs)

Was the sedation you received adequate for you to receive your dental treatment comfortably?

8.2 Patient Reported experience Measures (PReMS)

Thinking about the procedure you have had were you provided with sufficient information prior to the procedure that enabled you to understand what would happen?

Were you and your escort provided with sufficient information to be confident in looking after you in the recovery period since your sedation?

Appendix 1 Membership

Name	Representing
Paul Coulthard	Chair – Conscious sedation commissioning guide working group Head of Dentistry <i>Head of the School of Dentistry</i> <i>The University of Manchester</i>
David Craig	Chair – CDO England focus group on training in conscious sedation <i>Consultant Head of Sedation & Special Care Dentistry</i> <i>Guy's & St Thomas' NHS Foundation Trust</i>
Andrew Taylor	NHS England <i>Dental Programme Manager</i>
Rob Haley	PCC-CIC <i>Guide Development Lead</i>
Carol Reece	NHS England <i>Senior Programme Manager</i> <i>(Dental/Optical)</i>
Ben Squires	NHS England <i>Dental Commissioner</i>
Nigel Robb	School of Oral and Dental Sciences, University of Bristol <i>Reader/Honorary Consultant in Restorative Dentistry</i> <i>Programme Director BUOLD</i>
Emma Lee	DCP Representative
Leah Adams	GDP & SAAD Representative
Deborah Manger	Northamptonshire Hospital Foundation Trust <i>Deputy Medical Director and Specialist in Special Care Dentistry</i>
Jo Murphy	NHS England <i>Dental Project Manager</i>

Also in attendance –

Colette Bridgman	Chief Dental Officer Welsh Health Circular Planning
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Appendix 2 Methodology for an area Health Needs Assessment exploring sedation, GA and oral health of a population

Health needs assessment is a systematic method for reviewing the health issues facing a population, leading to agreed priorities and resource allocation that will improve health and reduce inequalities.

The essential area to explore in a Health Needs Assessment (HNA) is the population need for sedation, (for example, the oral health of 5 year old children is a good measure and reported for all local authorities in England). Additionally sedation is often considered to be a better alternative to treatment under general anaesthetic, it is thus important to explore the relationship between the two modalities for each area, as high GA rates may mask a need for sedation.

Small area analysis at a ward level or Middle Super Output area is essential to understand patient flows. (Our work showed variations between wards of over 500% in population sedation experience, those patients nearest sedation providers had the highest rates and this could not be easily explained by population oral health need.)

It is necessary to explore the pattern and distribution of dental sedation rates in comparison to the rates of dental general anaesthetics and level of dental need in an area. Data can be secured from the Business Services Authority (BSA) for the number of sedations undertaken, the age of the patient and their resident ward code. Age standardised sedation rates are then calculated at a ward, local authority and area level. (The available data on sedation from the BSA do not distinguish between the types of conscious sedation provided, or the setting in which the sedation took place.)

The age standardised rates is derived by calculating the rate of sedations in 5 year age bands for each ward and local authority area by dividing the number of sedations for the period (multiple years of data, 3 or more, provides more robust evidence than single years) by Office for National Statistics (ONS) population estimates. This produces a crude rate. This crude sedation rate is age adjusted by applying this rate to the 2013 Standard European Population and 95% confidence intervals can then be calculated¹⁵

In order to explore the relationship between sedation, general anaesthetics and population need, a Spearman rank correlation coefficient is calculated. (Correlation is not a measurement or indication of causation it is merely a measurement of the strength of a mathematical relationship.) Spearman rank correlation coefficient is calculated for sedation rates for 0-19 year olds and the proportion of finished consultant episodes for the extraction of one or more decayed primary or permanent teeth within a hospital setting 2011-2012; these rates are produced by PHE. Data were extracted from the Hospital Episode Statistics dataset which records when a patient has been admitted to hospital as an inpatient or day case (used here as the most suitable proxy measure for dental treatment under general anaesthesia) from National Health Service (NHS) hospitals across England and had been analysed by the Dental Public Health Epidemiology Team in Public Health

England. Dental activity under general anaesthesia is consultant led and has been subject to eighteen week targets

In order to measure the relationship between population based dental need and sedation, the proportion of decayed, filled and missing (dmft >0) in children aged 5 is used as a suitable proxy measure of population oral health need. Data can be extracted from the National Dental Epidemiology Programme for England, Oral Health Survey of five-year-old children 2012. A Spearman rank correlation coefficient is calculated to determine the relationship between these two data sets; sedation at a LA level and the oral health of the 5 year old population.

Further details can be obtained from:
David Landes Consultant North East Centre
Public Health England
david.landes@phe.gov.uk

Appendix 3 Service Compliance – Self certified checklist (adapted from the SAAD safe sedation practice scheme)

Service Compliance – self certified checklist

This checklist is derived from contemporaneous standards and guidance. The checklist is designed to evaluate conscious sedation services for dentistry. It is not a pre-requisite that all services require a “Yes” answer to all fields. Some fields are mandatory, whereas other may not be applicable to the techniques evaluated.

Date:

Providers name:

Clinic address:

Telephone Numbers:

Sedation techniques to be evaluated (please tick all that apply):

Sedation Technique	Basic	Advanced
Over 16 years		
Age 12 – 16 years		
Under 12 years		

DOMAIN Essential	STANDARD MET YES/NO/NOT APPLICABLE	ACTION REQUIRED	NOTES
PERSONNEL (Evidenced by sedation staff training and experience record)			
Is the sedation service dentist led?			
Does the dental lead have the appropriate training and experience?			
Healthcare professionals within the sedation team are registered with the appropriate regulator			
Healthcare professionals have appropriate indemnity cover			
Clinician carrying out pre-sedation assessment has the appropriate sedation training and experience			
Dentist providing operative treatment has the necessary knowledge to provide dental care under conscious sedation			
Sedationist has the appropriate training and experience in conscious sedation for dentistry			

Dental Nurse (second appropriate person) has the appropriate training and experience in conscious sedation for dentistry			
Registered healthcare professional assisting with recovery has the appropriate training and experience			
Record of staff induction programme for sedation and sedation-related complications			
PREMISES			
Clinically fit for purpose and fulfill legislative and regulatory requirements (lighting, heating, ventilation, safe access)			
Waiting room, surgery and recovery room of adequate size for management of emergencies			
Adequate access for emergency services			
Patient able to recover in surgery or in a dedicated recovery room where there are no patients awaiting treatment			
Privacy assured in surgery			
Individual privacy assured in recovery area and where possible on exit from practice			
Patient confidentiality and privacy maintained throughout the patient journey			

POLICIES AND CARE PATHWAYS			
Does the service have and adhere to a contemporary written sedation policy			
Does the service have and adhere to a current standard operating procedure			
Patients referred with the minimum dataset			
Inappropriate referrals returned to the referrer with an explanation and feedback			
Policy for critical incident reporting			
PATIENT INFORMATION AND CONSENT (All documentation for patients must be content, age and capacity appropriate)			
Patient information about the range of anxiety management care options			
Written treatment plan and consent for treatment and sedation			
Patient information regarding the sedation technique to be used			
Written pre- and post-sedation instructions			
PATIENT ASSESSMENT (Evidenced by patient records)			

Carried out at separate appointment			
If not carried out at a separate appointment, justification recorded			
Standardised assessment template followed (including medical, dental and social histories)			
ASA status documented			
Assessment of patient's physical status including airway			
Alternative anxiety management approaches discussed			
Assessment of patient's anxiety using recognized system e.g. MDAS or IOSN			
Justification for sedation provision and choice of technique established and documented			
Assessment of capacity and best interest forms completed, where appropriate			
Written record of consent process			
Confirmation that verbal and written pre and post-operative sedation instructions have been given and understood			
Pre-operative clinical monitoring measured and recorded			

Pre-operative electro-mechanical BP and SaO2 monitoring used and data recorded			
SEDATION DELIVERY AND EQUIPMENT (Evidenced by patient records and observation)			
Chair / trolley rated to the patient's weight, that can be rapidly moved to a head down tilt position during treatment			
Persons present at sedation appointment (staff and escort) documented			
Pre-sedation equipment, drugs and consumables checks followed			
Patient identification confirmed			
Medical history updated			
Confirmation of treatment intended, including the use of WHO Checklist where appropriate			
Written consent checked			
Appropriate radiographs available			
Confirmation of compliance with pre-operative instructions			

Each patient attended by at least 2 team members (sedationist and at least one other appropriately trained person)			
Baseline blood pressure reading taken			
Baseline SaO ₂ and pulse taken			
Cannula used to secure IV access			
Is the administration of sedative agents consistent with contemporaneous guidance for dental sedation?			
Do techniques conform with the definition of conscious sedation			
Do all patients appear adequately sedated			
Do all patients appear comfortable and co-operative			Accepting may be some failed sedation
Are patients emotionally well supported with good behaviour management techniques?			
Drugs stored and disposed of correctly			
Continuous pulse oximeter (with an audible alarm) used prior to and during treatment under sedation where patient is not receiving IS only			

NIBP used during sedation where appropriate			
Selection of BP cuff sizes available			
Equipment serviced regularly and in line with manufacturers' recommendations			
Active scavenging and ventilation appropriate to COSHH recommendations and Health and Safety Executive Regulations (2002) where IS is being provided			
Inhalation sedation machine unable to deliver < 30% oxygen (IS only)			
Is a titrated dose of nitrous oxide in oxygen the only inhalation sedation technique used?			
Cylinder in use and full cylinder back up on inhalation sedation machine (IS only)			
Full and in use cylinder markers used (IS only)			
Central gas supply storage safety compliant			
Central gas supply regulators in date and serviced			
Adequate central gas supply and cylinder empty alarms or automated switchover			

Evidence of staff training for cylinder safety and changing			
Appropriate gas storage in line with current guidelines			
If you use IV sedation, is a titrated dose of midazolam the only technique provided?			
If you use intranasal sedation is a mucosal atomisation device used?			
Emergency oxygen supply available			
Emergency suction available			
Bag / Valve/ Mask System for positive pressure ventilation (Adult and/or paediatric as appropriate) with reservoir and tubing			
Variety of sizes of full face masks			
Yankauer suckers available			
Oro-pharyngeal airways available			
Emergency equipment readily available			
AED charged and batteries in date			

Defibrillator pads in date and age appropriate			
Emergency drugs compliant with BNF guidance			
Emergency equipment and drugs checked regularly and checks recorded			
RECOVERY AND DISCHARGE (Evidenced by patient records and observation)			
Chair / trolley rated to patient's weight, that can be rapidly moved to a head down tilt position			
Adequate staff / patient ratio			
Post-operative BP and SaO ₂ taken			
Discharge criteria followed			
Discharge by an appropriately trained health care professional			
With the exception of adults receiving IS, are all patients discharged to the care of a responsible adult			

Appropriate individual verbal & written post-operative instructions given to patient and escort			
Emergency contact number given			
Patient management summary letter to referring practitioner			
PATIENT RECORD KEEPING			
Full and contemporaneous record of assessment			
Full and contemporaneous record of treatment			
Full and contemporaneous record of recovery and discharge			
CLINICAL ACTIVITY, GOVERNANCE AND AUDIT			
Evidence of Immediate Life Support training or equivalent for all healthcare professionals in the sedation team			
Evidence of Paediatric Immediate Life Support training or equivalent for all healthcare professionals in the sedation team if sedating patients under 12 years			

Evidence of appropriate training and experience for sedation techniques used for all healthcare professionals in the sedation team			
Evidence of appropriate CPD for all healthcare professionals in the sedation team			
Evidence of audit in conscious sedation for dentistry			
Age appropriate patient information for techniques used			
Patient pre and post sedation instructions for each technique assessed			
Pre sedation assessment			
Intra operative conscious sedation record			
Discharge record			
PATIENT SATISFACTION			
Evidence of patient experience PReMs / PRoMs			
Evidence of patient feedback			
Evidence of complaints procedure			

DOMAIN Desirable	STANDARD MET YES/NO/ NOT APPLICABLE	ACTION REQUIRED	NOTES
PERSONNEL (Evidenced by sedation staff training and experience record)			
Operator/sedationist			
Separate sedationist			
PATIENT INFORMATION AND CONSENT (All documentation for patients must be content, age and capacity appropriate)			
Information relating to the healthcare team providing sedation services is readily available			
Evidence that patient escorts are given information on their responsibilities - Please indicate in right hand column if you have a specific leaflet for escorts			
PATIENT ASSESSMENT (Evidenced by patient records)			
Previous sedation / GA exposure documented			
Patients given choice of an accompanying person to be present during procedure, where appropriate			

SEDATION DELIVERY AND EQUIPMENT (Evidenced by patient records and observation)			
Is topical anaesthetic available for IV access			
Functioning blood glucose meter and in date testing strips			
CLINICAL ACTIVITY, GOVERNANCE AND AUDIT			
Patient referral form (inbound)			

DOMAIN optional / aspirational	STANDARD MET YES/NO/NOT APPLICABLE	ACTION REQUIRED	NOTES
SEDATION DELIVERY AND EQUIPMENT (Evidenced by patient records and observation)			
ECG			
Capnography			
If you administer propofol sedation, is it delivered by an appropriate syringe driver?			
CLINICAL ACTIVITY, GOVERNANCE AND AUDIT			
Evidence of peer review in conscious sedation for dentistry			

Appendix 4 Training in Conscious Sedation

Training in Conscious Sedation in England

The following notes on the provision of training in conscious sedation for dentistry are aligned with recent reports on sedation from the Academy of Medical Royal Colleges (AoMRC)¹, the Intercollegiate Advisory Committee for Sedation in Dentistry (IACSD)² and the Scottish Dental Clinical Effectiveness Programmes (SDCEP).³ (Draft)

Background

The AoMRC, IACSD and SDCEP reports all recommend that:

- 1) Where conscious sedation is provided, all members of the care team must have undertaken appropriate and validated education and training and have demonstrated an acceptable level of competence by means of a robust assessment process.
- 2) Educational programmes intended to provide training in the clinical delivery of conscious sedation and to prepare the team for independent practice must be assessed, externally quality assured and incorporate supervised clinical practice.
- 3) Courses which are solely didactic and/or skills-based are suitable for experienced practitioners and nurses but do not constitute sufficient training for novice sedation practitioners ('new starters') working without supervision.
- 4) Both knowledge and clinical skills must be maintained and it is the responsibility of individual team members to undertake relevant Continuing Professional Development (CPD) at appropriate intervals. For 'revalidation' in a sedation technique, a practitioner must undertake a minimum of 12 hours of CPD every 5 years. The CPD must be relevant to the sedation technique/s practised.
- 5) The above recommendations apply to all dental and medical practitioners, dental nurses, recovery nurses, dental hygienists and dental therapists who are involved in the delivery of conscious sedation.
- 6) Practitioners and DCPs who are not regularly practising a sedation technique must consider either the need for mentoring and/or retraining or discontinuing its use.

The Sedation Training Accreditation Committee (STAC) accredits all courses in conscious sedation for dentistry other than those run by UK universities, Health Education England, NHS Education for Scotland, the Wales Deanery, the Northern Ireland Medical and Dental Training Agency, Schools of Anaesthesia and the National Examining Board for Dental Nurses where quality assurance mechanisms, including supervised clinical practice are in place.

The Sedation Training Accreditation Committee is administered by the UK Dental Faculties from the Faculty of Dental Surgery of the Royal College of Surgeons of England (FDSRCSEng) . The Committee comprises a Chair, a Panel of Assessors and an administrator. The Panel of Assessors includes dentists, doctors and DCPs with appropriate knowledge and direct clinical experience of conscious sedation for dentistry and the assessment and quality assurance of education and training programmes. The Chair of STAC reports to IACSD and the Joint Meeting of Dental Faculties (JMDF).

The content to be covered in the education and training of the dental team is described in the syllabuses within the Education and Training Section of the IACSD Standards.² These are derived from documents produced by specialist societies^{6,7,8} expert groups^{4,5,8,9,10,11} and the surgical Royal Colleges.¹² There is a separate syllabus for anaesthetists published by the Royal College of Anaesthetists.¹³

The syllabuses in the IACSD Standards are a guide for those currently practising or planning to practise conscious sedation for dentistry as well as for those who provide or plan to provide education and training in conscious sedation for dentistry. They apply to the dental team and also to medical practitioners wishing to provide conscious sedation for dental procedures.

IACSD states that courses should be provided by nationally accredited institutions and bodies and that teachers must be appropriately trained dental sedationists who are experienced in the techniques that are being taught. Courses that are not quality assured by a national body or institution and which are designed to prepare 'new starters' for independent clinical practice require accreditation. Application for course accreditation involves electronic submission of an application form which is available on the FDSRCSEng website (www.rcseng.ac.uk). The applicant must supply the following information:

- 1) Aims and objectives of the course.
- 2) Learning outcomes mapped against the syllabus: knowledge, skills, attitudes and behaviours.
- 3) Course content mapped against the syllabus: knowledge, skills, attitudes and behaviours.
- 4) Proposed course programme.
- 5) Course providers: qualifications and relevant experience.
- 6) Methods of learning, assessment and evaluation.
- 7) Details of supervised clinical practice
- 8) Selection criteria for candidates.
- 9) Venue for course and/or clinical skills training (outlining suitability).
- 10) A draft course certificate to record trainee attendance, CPD hours and which must incorporate an explicit statement itemising the knowledge and/or skills and/or competencies gained by the trainee on successful completion. The certificate must include the names and GDC numbers of the trainee and course provider/s.
- 11) Internal and external quality control and assurance processes

Accreditation for a course may be retained for three years provided that there have been no substantive changes to the programme.

Records of training and assessment for every course should be retained by the trainee as part of their log of continuing experience. The lead course provider should also retain all the records of training, as well as the course evaluations and attendance sheets. Records of training should be retained by the course provider for a minimum of five years.

A summary of the course evaluation should be submitted to the STAC which reserves the right to inspect all the records relating to a course.

With revalidation in prospect, all trainers should be working towards collecting and maintaining documented evidence of clinical practice (e.g. log records). Trainers should conform to equality and diversity legislation.

Supervised clinical practice should contain the following elements:

- i. Work based assessments (WBAs) and patient feedback questionnaires.
- ii. The WBAs should sample the organisational aspects of conscious sedation and the whole patient experience from assessment to discharge. They should cover a wide a range of patient care.
- iii. One WBA should assess the management and provision of an entire patient episode of care.

Training providers must also ensure that trainees understand the importance of complying with contemporary guidance relating to the environment, facilities and equipment required for each sedation technique.

The learning outcomes are specific to the particular drugs listed. The development in the future of new treatment modalities and the regular review of existing ones will necessitate revision of the existing syllabuses and provision of specific education and training courses. It is not envisaged that one course will offer training in the use of all drugs / drug combinations.

Although written primarily for dental professionals, the principles within the IACSD Standards document apply to all who administer conscious sedation for dentistry. This includes those anaesthetists not in possession of a Certificate of Completion of Training and documented evidence of satisfactory completion of equivalent training in conscious sedation for dentistry under the auspices of a Royal College of Anaesthetists approved training programme.

Role of the Sedation Training Accreditation Committee (STAC)

1) To increase access to affordable accredited training in conscious sedation.

The wider the range and location of sedation training facilities, the more likely it is that individuals interested in providing a sedation service will be able to

access training. The accreditation process for new course providers must be accessible and efficiently administered.

2) To build on current successful programmes and delivery options.

At the time of writing, more than 30 independent (i.e. non-university or HEE) sedation training courses have been accredited. This is in addition to the many long-established university (Certificate, Diploma and MSc) and HEE (Deanery) programmes. However, opportunities offered by distance and blended learning options have not been sufficiently explored.

3) To assist commissioners and potential sedation providers.

Commissioners need clear, non-technical documentation and data in order to assess present and proposed sedation services. Practitioners wishing to establish a sedation service also need clear guidance on the information required during the tendering process. The availability of sedation services for those patients who need them depends on the efficiency and appropriateness of commissioning. There is also a need for improved assessment of the current and future need (as distinct from demand) for conscious sedation services.

Responsibilities of the Sedation Training Accreditation Committee (STAC)

- 1) Accreditation of non-university, non-HEE (Deanery) training programmes, including clinical supervisors. Programmes for 'new starters' intending to provide sedation without supervision requires that the trainee undergoes knowledge and skills teaching followed by supervised clinical experience as specified in Table 1 of the IACSD Standards.² University and HEE programmes do not require STAC accreditation.
- 2) Publication of a list of sedation training programmes accredited by STAC, universities and HEE. This will be of assistance to individuals seeking training and to commissioners who need to verify that a practitioner tendering for a sedation contract has attended an accredited course.
- 3) Publication of a list of trained sedation providers, including, for example, location, range of sedation techniques offered, patient groups accepted. In time, this should be extended to include dental nurses, dental hygienists and dental therapists.
- 4) Course providers applying for accreditation are liable for a fee to cover the assessment and administration costs.
- 5) STAC is subject to FDS RCSEng quality assurance procedures. This will benefit commissioners, providers, performers and patients. The chair of STAC reports to IACSD and the Joint Meeting of Dental Faculties (JMDF).
- 6) STAC devises and runs courses for trainers and clinical supervisors.

- 7) STAC will liaise with training providers and commissioners to predict and plan for future training needs in conscious sedation.
- 8) It should be noted that STAC does not undertake the inspection of sedation practices. This is the responsibility of CQC and other competent groups (e.g. The Society for the Advancement of Anaesthesia in Dentistry).

Training for Dental Sedation Nurses

The IACSD Standards (2015) state that dental sedation nurses (referred to historically as 'the second appropriate person') must be trained and experienced in the sedation technique being used. A formal post-registration qualification, for example, the Certificate in Dental Sedation Nursing of the National Examining Board for Dental Nurses (NEBDN) is desirable but not essential.

Dental nurses who are registered with the GDC and were working as a dental sedation nurse before 20 April 2015 are covered by the 'Transitional Arrangements' on page 87 of the IACSD Standards but they must comply with requirements 1 - 6 on that page. Additional training or qualifications are not mandatory.

Dental nurses who are not covered by the 'Transitional Arrangements' and do not hold a post-registration qualification in conscious sedation are known as 'New Starters'. In order to assist during conscious sedation they must be able to demonstrate that they have attended an accredited course providing the knowledge and skills defined in Appendix 5 of the IACSD Standards. They must also provide written evidence of having gained supervised clinical experience in accordance with the recommendations in Table 1 of the IACSD Standards (e.g. 20 IV cases and/or 10 RA cases).

The NEBDN Certificate in Dental Sedation Nursing and SAAD Assessed Sedation Nurse (SASN) scheme are examples of national programmes which provide independent verification of compliance with the IACSD Standards. It is likely that additional national and local training schemes will become available in the near future.

David Craig, 7 March 2017

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Appendix 6 - Glossary

AoMRC	Academy of Medical Royal College
BSA	NHS Business Services Authority – http://www.nhsbsa.nhs.uk/
CBT	Cognitive Behavioural Therapy –A talking therapy that can help manage problems by changing the way one thinks and behaves
CPD	Continuing professional development
DCP	Dental Care Professional
DSTG	Dental Sedation Teachers Group
GA	General Anaesthetic
GDC	General Dental Council – Organization that regulates dental professionals in the UK www.gdc-uk.org/
GDS	General dental services
GMP	General Medical Practitioner
GDP	General Dental Practitioner
HEE	Health Education England – www.hee.nhs.uk/
HNA	Health Needs Assessment
IACSD	Intercollegiate Advisory Committee for Sedation in Dentistry
IOSN	Indicator of Sedation Need
LA	Local anaesthesia
MCN	Managed Clinical Network – See Introductory Guide for Commissioning Dental Specialty Services
MDAS	Modified dental anxiety scale
MSc	Masters
NICE	National Institute of Health and Care Excellence
PDS	Personal dental services
PHE	Public Health England
PReMs	Patient Reported Experience Measures
PRoMs	Patient Reported Outcome Measures
SAAD	Society for the Advancement of Anaesthesia in Dentistry
SDCEP	Scottish Dental Clinical Effectiveness Programme
SLA	Service Level Agreement
STAC	Sedation Training Accreditation Committee of the Faculty of Dental Surgery of the Royal College of Surgeons of England