Conscious Sedation Guidance and Governance

Objectives

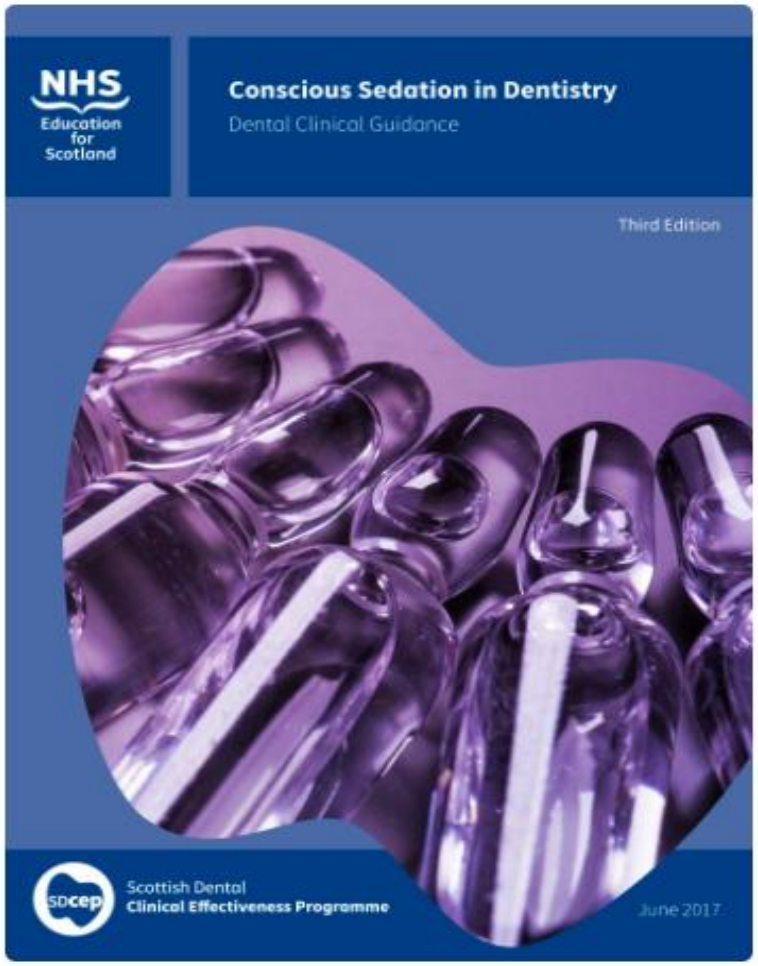
Be aware of the **current guidance** relating to the provision of intravenous sedation in dentistry

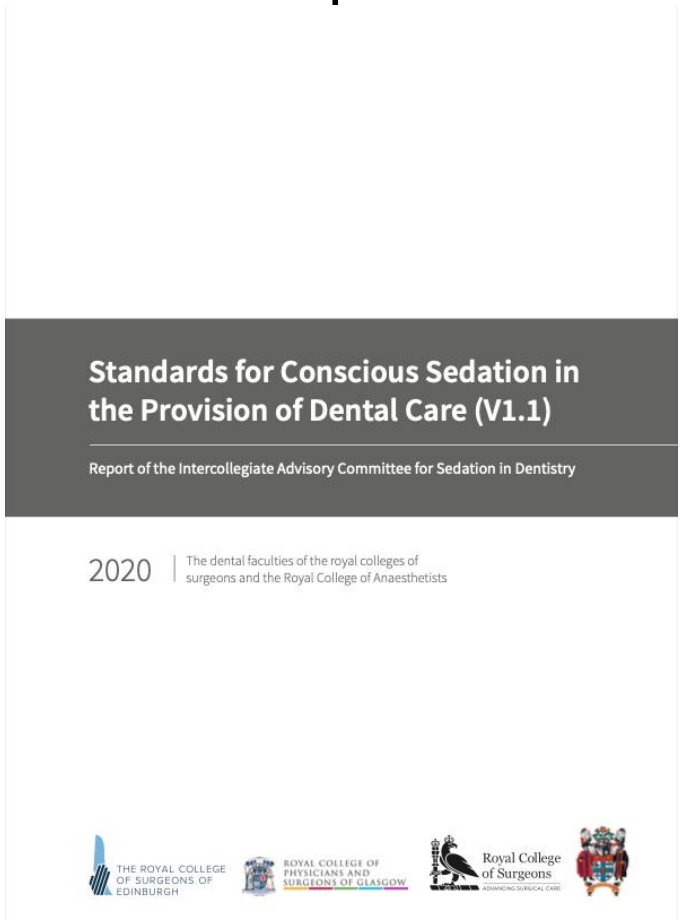
Understand the key aspects of the **patient journey** including: assessment; consent; monitoring; recovery; discharge and record keeping

Understand the different aspects of **clinical governance** in relation to intravenous sedation

Cover a **critical incident** reported in the media related to IVS with midazolam in a dental practice – cover **learning points**

November 2023 – SDCEP was adopted in NI

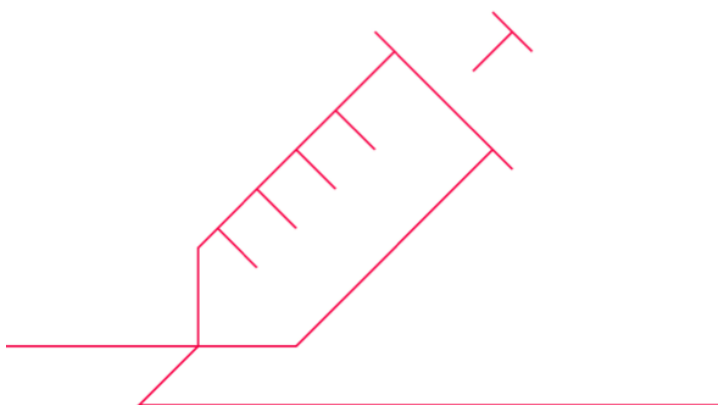




Academy of Medical Royal Colleges

February / 2021

Safe sedation practice for healthcare procedures
An update



NICE National Institute for Health and Care Excellence

NICE guideline

Sedation in under 19s: using sedation for diagnostic and therapeutic procedures

Clinical guideline
Published: 15 December 2010
www.nice.org.uk/guidance/cg112

Conscious Sedation Definition

The use of a drug/drugs to induce a state of **CNS depression** which enables treatment to be carried out whilst **verbal contact** is maintained. The drugs and techniques used must carry a **wide margin of safety** in order to render the **loss of consciousness unlikely**

Any technique resulting in the loss of consciousness is defined as **general anaesthesia**, and in the UK **deep sedation** requires the same level of care. **General anaesthesia is not permitted in the primary dental care setting in the UK.**

The difference between moderate and deep sedation

Minimal sedation (anxiolysis)	Moderate sedation (conscious sedation)	Deep sedation
You will have a **small amount** of a sedative drug	You will have **a little more sedative**	You will have **a higher dose of one or more sedative drugs**
You will **feel relaxed** and **less worried** by what is happening around you	You will feel **very relaxed** and **sleepy**	You **will sleep** during most of your treatment
You will **be awake** and **able to talk** normally	You will **be sleepy** but **can talk normally** and follow simple instructions if asked	You **will sleep** and be **unlikely to talk** during most of your treatment
You are **likely to remember** having your treatment, but not all the detail	You **may remember** some parts of your treatment	You are **unlikely to remember** much of your treatment – the level of sedation will be adjusted as needed
Minimal sedation should **not affect your breathing**	Moderate sedation should **not affect your breathing**	Your **breathing may slow down**. Your sedationist will monitor and help if needed. In the UK, deep sedation must be administered by staff who have the level of training and skill of an anaesthetic doctor.

Definitions

Child	A person under 12 years of age[6,8]
Young person	A person aged 12 – 16 years[6]
Adult	A person aged 16 years or over[6]

Definitions

Standard sedation techniques*	Also known as ‘basic’ techniques. Includes: • For a child, young person or adult, inhalation sedation with nitrous oxide/oxygen and • For a young person or adult, midazolam by any route (intravenous, oral or transmucosal)

Definitions

Advanced sedation techniques*	Also known as 'alternative' techniques. Includes:
	
	• For a child, young person or adult:
	  o certain drugs used for sedation (e.g. ketamine, propofol, sevoflurane);
	  o combinations of drugs used for sedation (e.g. opioid plus midazolam, midazolam plus propofol, sevoflurane plus nitrous oxide/oxygen);
	  o combined routes of administration (e.g. oral plus intravenous)[6,8]
	
	and
	
	• For a child, midazolam by any route

Scope

- This guidance is applicable to **all patients receiving conscious sedation** to facilitate the provision of **any type of dental treatment** whether it is delivered in a **dental practice**, in a **public or community** dental service clinic or in a **hospital** setting

Topics covered

- Environment
- Staffing
- Training
- Preparation for conscious sedation
- Standard and advanced techniques
- Monitoring
- Clinical governance

Environment



Environment

- Appropriately **trained staff**
- **Appropriate facilities** – all equipment and drugs for treating medical emergencies and sedation related complications **immediately available**
- Permit access to **emergency services**
- Team should have the **skills and equipment available to maintain life support**
- **Regular servicing of equipment – retain records**

THE SAFE SEDATION PRACTICE SCHEME

A QUALITY ASSURANCE PROGRAMME FOR IMPLEMENTING NATIONAL STANDARDS IN CONSCIOUS SEDATION FOR DENTISTRY IN THE UK

January 2023

Revised January 2023
Next review: January 2025

Quality assurance and periodic inspection

- Premises
- Personnel
- Policies
- Patient information
- Consent
- Assessment
- Sedation delivery
- Equipment
- Recovery
- Discharge
- Record keeping
- Clinical Activity
- Governance
- Audit
- Patient satisfaction
- Keep contemporaneous records of all related operational procedures, including COSHH assessments, risk assessments and maintenance records and/or agreements

Setting

- ASA I and II – Primary Care
- Well controlled ASA III – Consider Secondary Care
- Poorly controlled ASA III and above - Secondary Care

Treatment area

- **Equipment for the administration of sedation**
  - sedation agents
  - reversal agents
  - cannulae and labels
- Ensure that **supplemental oxygen**, and the equipment and staff with the skills required to deliver supplemental oxygen to the patient, are immediately available
- Ensure that calibrated and appropriately maintained **pulse-oximeter** (with audible alarm) and **blood pressure** monitors are available for use as indicated

Supplemental Oxygen

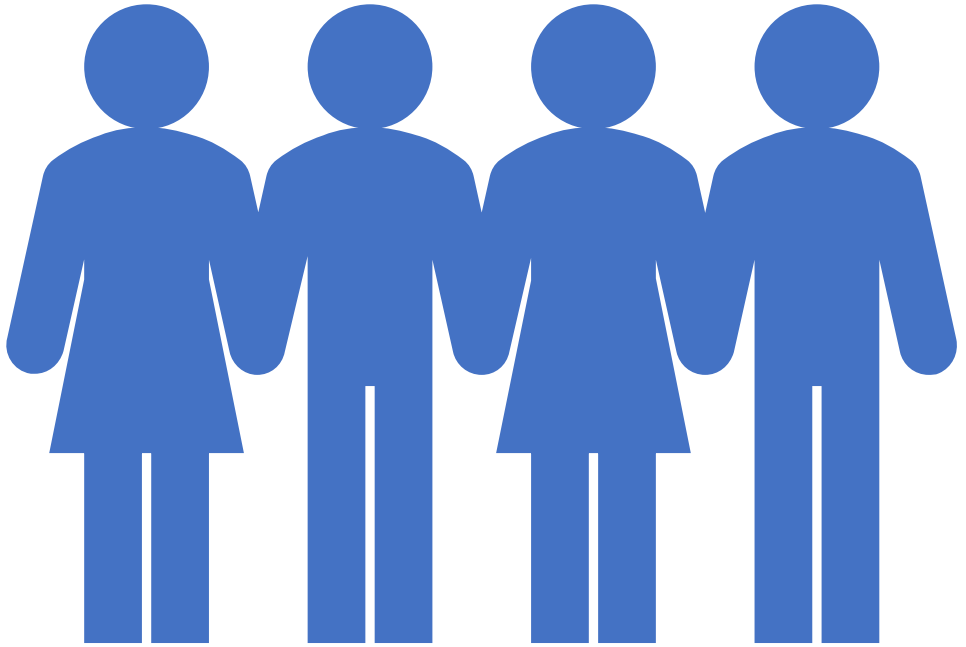


- If oxygen saturations cannot be maintained over 94% consider use of supplemental oxygen
- 3-4 litres/min via nasal cannula
- Useful for patients who keep desaturating
- Patients who have conditions aggravated by stress
  - Epilepsy
  - Angina
  - MI

Recovery Area

- Chair suitable for pts **weight**, can be moved to **head down** position
- **Adequate staff to patient ratio**
- **Emergency drugs and equipment immediately available**
- **Separate to waiting area**

Staffing



Staffing

- Operator-sedationist
  - Assisted by **2nd trained person** (e.g. sed. trained dental nurse)
  - **Present throughout**
  - Capable of **monitoring** patient, assisting with **complications**
  - 3rd member of staff e.g**. receptionist**
- All team members must have appropriate knowledge and skills
  - Technique
  - pt group
  - Recognise sedation/medical emergencies
- Prior written protocol of team members roles throughout

Staffing

- Dedicated seditionist
  - Medical or dental - suitably trained, be aware of team roles
  - Required for advanced techniques
  - Could be useful:
    - Medically compromised patient, physical disability, emotionally challenging
    - Operator or seditionist is relatively inexperienced
    - Patient has a history of being difficult to manage
    - Procedure is complex or prolonged
    - Treating patients at extremes of age

Training



Education and Training

- Appropriately trained in the technique you are providing
  - **CPD - 12 hours per cycle**
  - **ILS/PILS**
- **GDC registered and indemnified**
- New starts post April 2015
  - Clinical training – trained and registered mentor – 10 IS, 20 IV
  - Knowledge based training – SAAD, NEBDN, Online
  - ILS/PILS

SAAD Safe Sedation Practice Scheme

STAFF TRAINING & EXPERIENCE RECORD

This staff training and experience form should only be completed by those who are clinically involved with sedation patients. This includes those whose sole responsibility is recovering the sedated patient.

Name:

1.	What is your job role? (e.g. operator / sedationist, sedationist only, dentist only, sedation dental nurse in training, sedation trained dental nurse, recovery nurse)	
2.	What is your indemnity? (e.g. individual, practice, trust, corporate)	*If individual please provide a copy of your certificate*
3.	What is your GDC/GMC number, or other professional registration please specify)?	(please provide a copy of your certificate)
4.	Do you administer sedation directly to the patient yourself?	◯ Yes ◯ No
5.	How many years sedation experience do you have?	
6.	List your sedation training to date	
7.	List your sedation related CPD over the last year (please provide copies of the certificates)	
8.	Do you keep a log book of sedation cases?	◯ Yes ◯ No
9.	Approximate no. of intravenous cases in which you have been involved over last year.	Adult Paediatric

10.	Approximate no. of inhalation sedation cases in which you have been involved over the last year.	Adult Paediatric
11.	Is your ILS / PILS or equivalent training IACSD compliant? This must include **practical training** in line with the Resuscitation Council recommendation for those providing conscious sedation. (Training should include management of the deteriorating patient, AED, deployable airway skills e.g. i-gels / nasopharyngeal airways, CPR, positive pressure ventilation) Please provide copies of your certificate(s).	**ILS or equivalent** ◯ Yes ◯ No **ALS** ◯ Yes ◯ No **PILS or equivalent** ◯ Yes ◯ No **PALS** ◯ Yes ◯ No ◯ PIL/PALS not applicable as no paediatric sedation provided

SEDATION PROVISION

Techniques you have administered or assisted with, to the age groups shown, over the last 3 years	<12 years	12-16 years	>16 years
Nitrous Oxide Inhalation Sedation	☐	☐	☐
Midazolam (any route)	☐	☐	☐
Midazolam and Nitrous oxide concurrently	☐	☐	☐
Propofol	☐	☐	☐
Opioids	☐	☐	☐
Ketamine	☐	☐	☐
Other (please specify)			

Signature: Date:

Preparation for conscious sedation

- Patient assessment
- Consent
- Pre/post sedation instructions
- Fasting
- Patient escort

Purpose of Pre-Sedation Assessment

Obtain valid written consent

Chose sedation modality based on patient's suitability – simplest and safest technique

Ensure the decision to use conscious sedation is justified

Choose most appropriate setting for care

Prepare the patient for their treatment visit

Patient assessment

Carry out full assessment of the patient to inform the **need** for sedation, and if indicated, the **technique** most suited to the patient

Responsibility of the operator-sedationist/ operator and sedationist

Carried out at a **separate visit**

Other arrangements may be justifiable as long as thorough assessment is carried out and **valid consent** obtained

Assessment on the day acceptable in an **emergency**

Record justification for any deviation from standard protocols

Patient assessment

- History
  - Medical
    - Drug
  - Dental
  - Social
  - Anxiety
  - Sedation
- ASA physical status
- Vital signs: HR, BP, Oxygen Saturations

Consent

- **GDC** 3.1.6 You must obtain **written** consent where treatment involves conscious sedation or general anaesthetic (includes premedication)
- Take reasonable steps to ensure that patients are aware of any **material risks** involved in a proposed treatment and of **reasonable alternatives**
- Present options – Pharmacological and non-pharmacological
- **Capacity/Valid**
- >16 years presumed to have capacity
- <16 years can be competent but if not need consent from someone with parental responsibility
- **Consent should be gained at a separate visit**, and **reconfirmed** on the day of treatment unless emergency
- **Written information** (age and learning ability)

Pre and post sedation instructions

- Verbally and in writing – pt, parent/carer, escort
- Specific to pt needs
- Effects of the proposed sedation
- Responsibilities before, during and after tx
- Post-op risks and possible complications
- Analgesia
- Aftercare (including when to take their regular medication)
- Restrictions on post-sedation activities
- Practice contact details
- Out of hours details
- Record that these have been given in your records

Fasting

- Provide advice about fasting on an individual basis and the nature of the sedation and dental procedure being provided
- If there are no indications for fasting, patient who is to receive conscious sedation that they can eat and drink on the day of their appointment, avoiding alcoholic drinks and large meals
- If there is judged to be significant risk of aspiration, consider fasting prior to sedation
- 2-4-6 fasting rule
- **Record fasting advice given and justification**
- Record food and fluid intake on day of sedation

Fasting

- NICE:
  - No need to fast children and young people if verbal contact is to be maintained during moderate sedation
  - Refer to professional guidance if verbal contact is to be lost
- AOMRC:
  - Fasting is recommended for those undergoing moderate sedation

Escort

- Bring responsible adult escort, capable of looking after the patient unaided
- Accompany the patient home car/taxi
- Remain with the patient as a minimum remainder of the day
- Overnight if the patient is sedated later in the day
- Can be more than one person
- Ensure patient takes normal medication
- Given written instruction about their responsibilities and post-op care

Standard and Advanced Techniques



Standard intravenous sedation with midazolam technique

Use of **fixed or bolus** doses is unacceptable – titration to individual patient response is key for safety

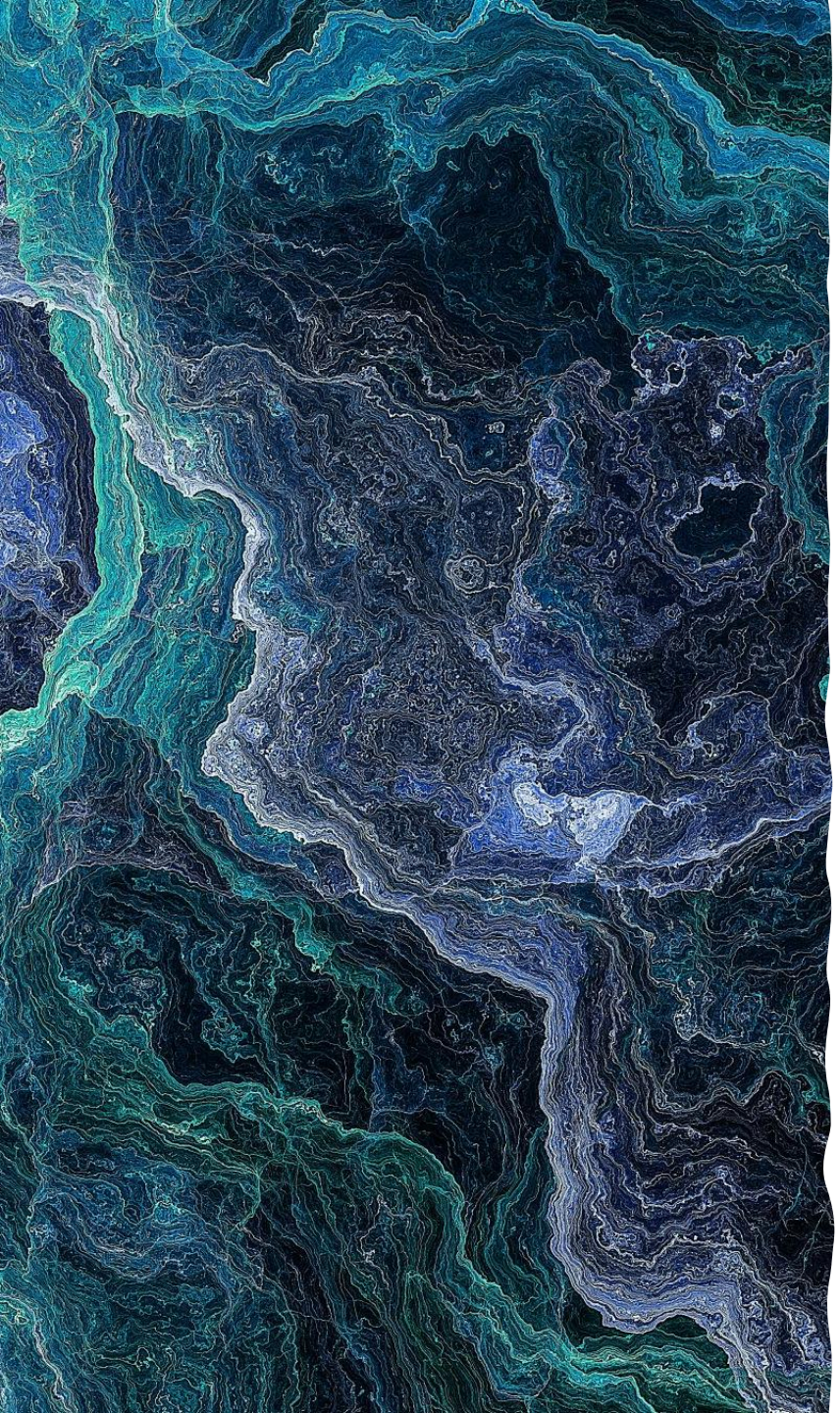
Intravenous access with indwelling catheter should be maintained until discharge

Oral premedication, topical local anaesthetic, or inhalation sedation may be used to aid cannulation

Must be fully recovered from inhalation sedation prior to administration of midazolam

Advanced techniques

- Ensure use is justified and record justification
- All members of team experienced and trained
- Dedicated seditionist required
  - Ketamine
  - Sevoflurane
  - Propofol
  - Propofol with midazolam
  - Any technique considered advanced for children and young people



Monitoring

Monitoring

- **Perioperative** monitoring by appropriately trained member of staff in a manner suited to the patient and sedation technique
- From **pre-operative stage until discharge criteria are met**
- Team should be able to **recognize a deteriorating patient** and manage accordingly

Monitoring of the Patient Under IVS

- **Conscious level**
  - Ensure verbal contact is maintained
  - AVPU

- **Clinical**
  - Airway patency
  - Respiratory rate and depth
  - Skin Colour
  - Capillary Refill
  - Pulse rate, rhythm, volume

- **Electromechanical**
  - NIBP
  - HR
  - O_2 saturation

  - **ASA III/IV**
    - ECG
    - Capnography

Monitoring Intervals

- NIBP
  - Pre-operative
  - Intraoperatively
  - At intervals appropriate to patient condition and technique
  - Post-operatively

- After drug titration (including La)
- Any significant events
- Recovery
- Discharge
- ASA advises BP and HR be checked every 5 mins

Recovery

- A **progressive step down** from completion of treatment to the patient's discharge
- Monitor the patient **throughout the recovery** period until they are assessed as fit for discharge – Clinical, Pulse ox/HR and NIBP
- Ensure that an **appropriately trained** member of the clinical team monitors the patient throughout the recovery period
- Ensure that the **sedationist remains available** to see the patient urgently in the event of any complications
- The decision to **discharge** a patient following any type of sedation is the responsibility of the **sedationist**
- Aspects of the discharge process may be **delegated** to a suitably trained member of the clinical team
- Be aware of the need for sufficient **recovery** time following administration of a **reversal agent**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Discharge Criteria

- The patient is **orientated** in time, place and person
- **Vital signs are stable** and within normal limits for the patient
- **Respiratory status** is not compromised
- **Pain** and discomfort have been addressed
- Where relevant, **haemostasis** has been achieved
- The **cannula** has been removed
- The responsible **escort** is present, and arrangements have been made for supervision
- Written and verbal **post-operative instructions** for both the sedation technique and dental treatment have been given to the patient and escort

Record Keeping

Record keeping

- Pre-sedation assessment
- Consent
- The visit for conscious sedation
  - Monitoring
  - Treatment procedure
  - Recovery

Pre-Sedation Assessment Record

- PMH
- Vital signs: BP, HR, O_2 sats, BMI
- Potential airway difficulties
- ASA
- DH, SH
- Conscious sedation and GA hx
- Dental rx plan
- Assessment of anxiety and tools
- Justification
- Any individual requirements
- Provision of pre and post op instructions incl fasting advice
- Witten consent

Pre-treatment Record

- Presence of escort
- Time that food and drink were last consumed
- Transport arrangements
- Compliance with pre-treatment instructions
- Presence of written consent for the procedure and reconfirmed
- Any changes to PMH

Recovery/Discharge Record

Monitoring – appropriate details of measurements and observations throughout

Pre-discharge assessment – discharge criteria met

Written POIG and explained to pt and escort

Removal of cannula

Time of discharge

Treatment Record

- Dose, route and times of administration of drugs
- Site of cannulation and attempted cannulation
- Details of clinical and electromechanical monitoring
- Personnel present in the surgery
- Pt reaction, sedation score, success of sedation
- Dental treatment provided

Maintain knowledge and skills

- Maintain a **log of all sedation cases** to demonstrate clinical practice
  - May be useful for the purposes of **audit and QA**
  - May include pt type, baseline vitals, drug used, route, dose, **sedation score**, reversal agents, adverse events
  - Team based log – individuals and their roles
- Regular, relevant, verifiable CPD
- **Regular sedation audit** and reflection
- Maintain competence on the management of medical, dental and **sedation related complications**

Sedation Scoring

1	Fully awake and orientated
2	Drowsy
3	Eyes closed, responds promptly on verbal command
4	Eyes closed, rousable on mild physical stimulus
5	Eyes closed, unrousable on mild physical stimulus

Sedation Related Complications

- Over-sedation
- respiratory depression/apnoea
- unconscious patient
- airway obstruction
- Vomiting
- idiosyncratic responses
- delayed recovery
- failure of conscious sedation

Clinical Governance

Why is Governance Important?

IACSD/SDCEP

- Work to monitor and constantly strive to improve the quality of care provided to all patient groups
- All facilities that provide conscious sedation for dentistry should undergo **regular external inspections** as part of a quality assurance cycle - RQIA notification of service




Clinical Audit
Risk management
Openness
Education and Training
Environment
Clinical Governance

Clinical Audit

- A quality improvement process that seeks to improve patient care
- IACSD – conscious sedation procedures must be subject of robust and regular audit in which all members of the team take part
- SDCEP has a list of suggested audit topics
  - Clinical record keeping
  - Dosage of drug
- Should be able to produce evidence of audit for RQIA

Risk Management

- Clinical log
  - Number and types of sedation cases
  - Rate of complications

- Protocols for the management of complications
  - Medical emergencies
  - Oversedation
  - Equipment failure

Openness

- Critical incident reporting
  - Choking, vomiting, over sedation, medical emergencies
  - Incident book
  - DATIX

- NI - NI adverse incidents centre
  - Midazolam oversedation
  - Failure to monitor oxygen saturation

- Complaint's procedure/patient feedback

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