CLINICAL GUIDELINE FOR SEDATION OF PAEDIATRIC PATIENTS AND YOUNG PEOPLE

VERSION 1.6

FEBRUARY 2013
Contents

1.1 Introduction Page 3
1.2 Purpose of guideline Page 3
1.3 Scope of guideline Page 3
1.4 Ownership and responsibilities Page 4

2.1 Standards and Practice Page 5
2.2 Framework for conduct of sedation Page 6
2.3 Assessment of suitability for sedation Page 7
2.4 Contra indications to sedation Page 8
2.5 Fasting Page 8
2.6 Analgesia/Psychological preparation Page 9
2.7 Consent Page 10
2.8 Personnel/Equipment/Monitoring Page 11
2.9 Paediatric Sedation Record Page 12
2.10 Drug information Page 14
2.11 Discharge criteria Page 15
2.12 Advice sheet for parents/carers Page 16

3.1 Implementation Page 17
3.2 Training Page 17

4 Monitoring compliance and effectiveness Page 18

5 Equality and Diversity Page 19

Appendix 1 Governance Information Page 20
Appendix 2 Initial Equality Impact Assessment Screening form Page 23
1. Aim/Purpose of this Guideline

1.1 Introduction

Sedation is frequently required for children or young people needing procedures that are painful or frightening. There has been little previous guidance on the best way to accomplish sedation and consequently sedation has been undertaken in multiple settings, by staff with differing experience using a variety of techniques. In February 2010 The National Institute for Clinical Excellence (NICE) published its first national guideline aiming to improve NHS care and safety standards within England and Wales for sedating infants, children and teenagers. This guideline, based on the NICE guidance, provides a framework for the sedation of children and young people within the Royal Cornwall Hospital Trust in the emergency department, paediatrics, oral surgery, radiology and endoscopy.

1.2 Purpose of the Guideline

- Provides a framework for the conduct of sedation in paediatric patients and young people that can be applied in the emergency department, endoscopy, paediatric wards, oral surgery and radiology.

- Standardises aspects of sedation practice such as staffing, sedative agents, fasting, monitoring, training and record keeping with the primary aim of ensuring the safety of children requiring sedation.

- Supports medical and nursing staff in ensuring the safety of children requiring sedation.

**Intended benefits of sedation**

- Tolerance of an otherwise distressing or painful procedure without the potential complications and logistical difficulties of organising the same procedure under general anaesthetic.

1.3 Scope of Guideline

1.3.1 This policy applies to all healthcare practitioners who are responsible for prescribing and administering sedation to children or young people within the emergency department, radiology, paediatrics, endoscopy and oral surgery i.e. doctors, nurses, practitioners or dentists.
1.3.2 This policy excludes trained anaesthetists who are competency assessed in paediatric sedation including deep sedation

1.3.3 This policy does not cover sedation of neonates.

1.3.4 This policy does not cover the conduct of deep sedation. Patients requiring deep sedation should be referred to the anaesthetic department.

1.4 Ownership and Responsibilities

1.4.1 Role of the Consultants
The Consultants and ward managers responsible for each of the areas that this guideline applies to (Paediatrics, Emergency Department, Radiology, Endoscopy and Oral Surgery) retain overall accountability to ensure that the medical and nursing staff working within these areas are aware of the presence of this guideline and are using it appropriately.

1.4.2 Role of the divisional managers
Ensure that medical and nursing staff working within the areas listed above, have access to the correct training, equipment and facilities to enable appropriate use of this guideline.

1.4.3 Role of the Paediatric Sedation Working Party
- Regular audit of sedation practice and report to the Children’s Services Integration Group (CSIG)
- Presentation of audit findings and untoward incidents at the Annual Tertiary Paediatric Intensive Care Unit Road Show.
- Triennial document review to ensure compliance with national guidelines and best practice.
- Investigation of any untoward incident occurring during the sedation of paediatric patients or young people at the RCHT.
1.4.4 Role of individual staff

The Trust expects all staff including temporary staff working in the Trust to adhere to the following principles before assisting or undertaking sedation of a paediatric patient or young person.

- To work within their sphere of competency/Scope of Practice
- Identify their training requirements with their line manager at the time of appraisal.
- Remain vigilant to discrepancies in practice and challenge appropriately.

2. The Guidance

2.1 Standards and Practice

All non-anaesthetic staff involved in sedating children within the emergency department, paediatric wards, endoscopy, radiology and oral surgery must ensure they comply with the following:

- Complete paediatric sedation record detailed in section 2.9
- Ensure valid consent has been obtained. See section 2.7
- Follow the Framework for Practice of Sedation flow chart detailed in section 2.2
- Use appropriate personnel, equipment and monitoring as detailed in section 2.8
- Ensure discharge criteria are met and supply parents/guardians/carers with post sedation advice sheet. See section 2.11
- On completion of the sedation, ensure the paediatric sedation record is photocopied and sent to the paediatric sedation lead. See section 2.9
- Ensure that all untoward incidents are reported via the Critical Incident or Near Miss systems so they can be followed up appropriately.
2.2 Framework for the Conduct of Sedation

Are you trained? NO → Undergo appropriate training prior to sedating paediatric patients.

Are you trained? YES → Contraindications to sedation? See section 2.4

Contraindications to sedation? NO → Is analgesia optimized? See paediatric pain protocol

Is analgesia optimized? NO → Treat as adult. See RCHT guideline

Is analgesia optimized? YES → Depth of sedation required? See section 2.8

Depth of sedation required? MILD sedation

MILD sedation: Painful → N2O/O2 (50:50) inhaled

MILD sedation: Painless → Chloral hydrate PO

Depth of sedation required? MODERATE sedation

MODERATE sedation: Painful → Midazolam IV and analgesia OR N2O (70:30)

MODERATE sedation: Painless → Chloral hydrate PO

Are you trained? YES → Involve anaesthetist or paediatrician

Involve anaesthetist or paediatrician → <1 year or <10 kg or BMI >30

<1 year or <10 kg or BMI >30 → 1-16 years and BMI <30

1-16 years and BMI <30 → >16 years

>16 years
2.3 Assessment of Suitability for Sedation

*Sedation documentation including the pre assessment, safety checks and observation chart can be found in section 2.9*

2.3.1. Confirm age and weight

If age < 1 or weight < 10kg or BMI >30 – involve an anaesthetist or senior paediatrician.

2.3.2. Take past medical history/drug history/previous anaesthesia and perform appropriate physical examination of the patient. Determine American Society of Anaesthesiologists (ASA) grade and consider contra-indications to sedation.

<table>
<thead>
<tr>
<th>ASA Grading System</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. A normal healthy patient.</td>
</tr>
<tr>
<td>2. A patient with mild systemic disease.</td>
</tr>
<tr>
<td>3. A patient with severe systemic disease.</td>
</tr>
<tr>
<td>4. A patient with severe systemic disease that is a constant threat to life</td>
</tr>
<tr>
<td>5. A moribund patient who is not expected to survive without the operation.</td>
</tr>
</tbody>
</table>

If ASA grade 3 or above or any contra-indications present ensure anaesthetic involvement.

2.3.3. Confirm fasting status (see appendix 3 for further advice)

2.3.4. Consider the patient’s airway

If there are any concerning airway features - involve an anaesthetist.

2.3.5. Assess type of sedation required

*Minimal sedation*: Patients are awake and calm, and respond normally to verbal commands.

*Moderate sedation*: Patients are sleepy but respond purposefully to verbal commands or light tactile stimulation (reflex withdrawal from a painful stimulus is not a purposeful response). No interventions are required to maintain a patent airway and adequate spontaneous ventilation.
Deep sedation: Patients are asleep and cannot be easily roused but do respond purposefully to repeated or painful stimulation (an unpleasant sensory and emotional experience associated with actual or potential tissue damage, or described in terms of such damage). The ability to maintain a patent airway and ventilatory function may be impaired.

If deep sedation required - involve an anaesthetist.

2.3.6. Following confirmation and documentation of the above follow guidance in ‘Framework for Conduct of Paediatric Sedation” found in section 2.

2.4 Contra-indications to sedation
The following comorbidities mandate discussion with an anaesthetist or senior paediatrician prior to sedation.

Abnormal airway – including large tonsils or craniofacial anomalies
Raised intra cranial pressure or depressed conscious level
History of sleep apnoea
Major organ dysfunction including congenital cardiac anomalies
Gastro oesophageal reflux disease
Neuromuscular disorders.
Bowel obstruction
Ongoing respiratory tract infection
Multiple trauma patients
Refusal by parent/ guardian/ child
Corrected age < 1 year because of severe prematurity

Specific contra-indications to nitrous oxide sedation

Possibility of intracranial air following head injury
Pneumothorax, pneumopericardium
Pulmonary bullae
Lobar emphysema
Severe pulmonary hypertension
Bowel obstruction
Pneumoperitoneum
Pregnancy

2.5 Fasting

1. Prior to starting sedation, confirm and record the time of last food and fluid intake in the healthcare record. Fasting is not needed for:

- Minimal sedation
- Sedation with Entonox
2. Apply the 2-4-6 fasting rule for elective procedures using moderate sedation

2 hours for clear fluids
4 hours for breast milk
6 hours for solids and formula milk.

3. For an emergency procedure in a child or young person who has not fasted, balance the risks and benefits of the decision to proceed with sedation before fasting criteria are achieved, on the urgency of the procedure and the target depth of sedation. Consider discussing this child with an anaesthetist.

2.6 Analgesia and Psychological Preparation

- Ensure analgesia is adequate for the procedure to be undertaken.
  
  Consider
  
  1. Paediatric pain pathway guidelines
  2. Feed and sleep for babies
  3. Local and topical anaesthesia

- Ensure that the child or young person is prepared psychologically for sedation by offering information about what the procedure involves, the role of the health care professionals and any expected sensations associated with the procedure.

- Ensure that the information uses language appropriate for the developmental stage of the child or young person and check they have understood.

- Offer parents and carers the opportunity to be present during sedation. If a parent or carer decides to be present, offer them advice about their role during the procedure.

- Consider contacting play therapists for expert help in guided imagery and other specialist techniques.
• Consult the paediatric pain guidelines for analgesic advice

**2.7 Consent**

1. Offer child/parents/carers verbal and written information on the proposed sedation technique, alternatives to sedation and risks and benefits.

2. Informed verbal consent for sedation should be obtained from the parents/carer/child and once delivered the box should be ticked on the pre procedure form to confirm that the procedure has been discussed and verbal consent obtained.

3. Recommendation is that the following is discussed with the child/parents/guardian.

**Intended benefits of sedation**

- Tolerance of an otherwise distressing or painful procedure without the potential complications and logistical difficulties of organising the same procedure under general anaesthetic.

**Serious or frequently occurring risks:**

- Failure of procedure due to inadequate sedation and need to progress to general anaesthesia.
- Disinhibition or paradoxical excitement.
- Vomiting whilst sedated – this rare complication can lead to aspiration pneumonia.
- Post procedure nausea, drowsiness and unsteadiness.
### 2.8 Personnel, equipment and monitoring

<table>
<thead>
<tr>
<th>Example procedures</th>
<th>Mild Sedation</th>
<th>Moderate Sedation</th>
<th>Deep Sedation</th>
</tr>
</thead>
</table>
|                    | Application of POP to fracture  
                     |                | Suturing under local anaesthetic  
                     |                | Fracture manipulation  
                     |                | Relocation dislocated phalanx  
                     |                | MRI scan  
                     |                | Burn dressing change  
                     |                | Spiral CT  
                     |                | Micturating cystograms  
                     |                | Suturing under local anaesthetic  
                     |                | Relocation dislocated phalanx  
                     |                | MRI scan  
                     |                | Burn dressing change  
                     |                | Deep Sedation |
| Personnel required | 1 Healthcare professional to perform procedure.  
                     | 2 Paediatric Life Support (PLS) trained healthcare professional to deliver sedation and monitor patient.  
                     | 3 PLS trained nurse or ODP.  
                     | 1 Healthcare professional to perform procedure.  
                     | 2 APLS trained doctor to deliver sedation and monitor patient.  
                     | 3 PLS trained nurse or ODP.  
                     | Refer to anaesthetic department |
| Monitoring required | Depth of sedation including pain, coping and distress.  
                     | Respiratory rate  
                     | Pulse oximetry  
                     | Heart rate  
                     | Depth of sedation including pain, coping and distress.  
                     | Respiratory rate  
                     | Pulse oximetry  
                     | Heart rate  
                     | Refer to anaesthetic department |
| Equipment required | Full paediatric resuscitation equipment must be available.  
                     | Full paediatric resuscitation equipment must be available.  
                     | Refer to anaesthetic department |

**Resuscitation equipment that must be available for sedation**

- Oxygen – reliable source for face mask oxygen and a size appropriate self inflating positive pressure oxygen delivery system that delivers at least 90% oxygen.
- Head down tipping trolley and suction equipment.
- Resuscitation bags and masks
- Oral, nasopharyngeal, laryngeal mask airways and appropriately sized endotracheal tubes.
- Pulse oximeter/ ECG machine/ NIBP monitor
- Defibrillator with appropriate paediatric pads
- Resuscitation drugs
- Reversal agents – flumazenil (and naloxone if patient receiving opiates) must be readily available.
Section 2.9 Paediatric Sedation Record

<table>
<thead>
<tr>
<th>Procedure</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patient Location</td>
<td></td>
</tr>
<tr>
<td>Sedation performed by:</td>
<td>Print Name</td>
</tr>
<tr>
<td>Sedation assistant:</td>
<td>Print Name</td>
</tr>
<tr>
<td>Procedure performed by:</td>
<td>Print Name</td>
</tr>
<tr>
<td>Sedation depth required (please circle)</td>
<td>MILD or MODERATE</td>
</tr>
</tbody>
</table>

Patient assessment

Age …… Weight (kg)………. Fasting status………..Reflux risk………………

Previous sedation/anaesthesia?………………………………………………

Current medical status Past medical history..

Drug history Allergies
………………
………………
………………

Patient examination

Airway Teeth

Respiratory

CVS

ASA 1 2 3 4 5 (see appendix 1 of policy)

Pre procedure checks

1. Is the patient suitable for sedation? (see appendix 1 and 2 of policy) Y / N
2. Explanation given to child and parents Y / N
3. Verbal consent Y / N
4. Emergency equipment available and functional:
   Oxygen □ Oral/nasal airways □ Bag-valve mask □ NIBP □ ECG □
   Pulse Ox □ Crash trolley □ Reversal agent □ Paediatric Yankauer □
   Anaesthetic machine check □
### Observation Record

<table>
<thead>
<tr>
<th>Time (mins)</th>
<th>0</th>
<th>5</th>
<th>10</th>
<th>15</th>
<th>20</th>
<th>25</th>
<th>30</th>
<th>35</th>
<th>40</th>
<th>45</th>
<th>50</th>
<th>55</th>
<th>60</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Drug (dose)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>O2(L/min)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SaO2 (%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RR</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HR</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AVPU</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Monitor until:** Vital signs normalised & easily roused

### Discharge criteria

1. Normal vital signs □
2. Alert and orientated for development age □
3. Nausea/vomiting/pain adequately managed □
4. Discharge letter given to parent/guardian □

### Audit

Was the intended level of sedation/ analgesia obtained  Y / N
If no why not?

Was the procedure performed successfully?  Y / N
If no why not?

Were there any adverse or critical incidents?  Y / N
(e.g. drug errors, respiratory/ cardiovascular compromise, airway intervention, reversal agent administration)

What was the total procedure time?  

Where did the patient go afterwards?  Home/ Ward/ HDU

Were the parents and child satisfied?  Y / N

Comments:

### Signature of Responsible Healthcare Practitioner

<table>
<thead>
<tr>
<th>Date</th>
<th>Sign</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time</td>
<td>Print</td>
</tr>
<tr>
<td></td>
<td>Designation</td>
</tr>
</tbody>
</table>

PLEASE RETAIN ONE COPY IN NOTES AND RETURN ONE COPY TO PAEDIATRIC SEDATION LEAD, ANAESTHETIC DEPARTMENT RCHT VIA INTERNAL MAIL (FOR AUDIT)
2.10 Drug Information
This aims to provide a brief review of the commonly used sedative drugs. Please refer to current edition of BNF for children for further information.

<table>
<thead>
<tr>
<th>Drug</th>
<th>Route</th>
<th>Dose</th>
<th>Advice for use</th>
</tr>
</thead>
</table>
| Chloral hydrate       | Oral                       | (30-) 50mg/kg mild sedation 100mg/kg moderate sedation. | • Beware cardiac arrhythmias and respiratory depression with loss of airway reflexes at high doses.  
  • Give 45-60 minutes prior to procedure.  
  • Unpleasant taste and can be mixed with blackcurrant etc.  
  • There is NO reversal agent available |
| Midazolam             | Oral                       | 0.5mg/kg (Max 20mg)                 | • Beware respiratory depression/ hypotension/loss of airway reflexes at high doses.  
  • Short acting benzodiazepine causing sedation, hypnosis, anxiolysis, anterograde amnesia  
  • Can lead to a distressing paradoxical excitement in children  
  • ORALLY give 30-60 minutes before procedure. BUCCALLY give 15 minutes pre-procedure.  
  • No easily available oral preparation. Please use injection orally (diluted in apple or orange juice, squash etc.).  
  • Reversal agent is Flumazenil (10 mcg/kg [Max 200 mcg], repeat at 1-minute intervals up to 5 times). |
| Midazolam             | Buccal product             | 0.3mg/kg 1-10 years (Max 5mg) 10-18 years (Max 8mg) | • Beware respiratory depression/ hypotension/loss of airway reflexes at high doses.  
  • Short acting benzodiazepine causing sedation, hypnosis, anxiolysis, anterograde amnesia  
  • Can get a distressing paradoxical excitement in children  
  • Give immediately prior to procedure.  
  • Repeat 25% of initial dose each 2-3 minutes as required  
  • Reversal agent is Flumazenil (10 mcg/kg [Max 200 mcg], repeat at 1-minute intervals up to 5 times). |
| Midazolam injection   | IV (over 2-3 mins)         | 1-6 years:  
  25-50 mcg/kg (max 6mg)  
  6-12 years:  
  25-50mcg/kg (max 10mg)  
  12-18 yrs:  
  2-2.5 mg | • Beware diffusion hypoxia post procedure. Additional oxygen should be given for 5-10 minutes to prevent this.  
  • Colourless, odourless gas with analgesic and anxiolytic effects with rapid onset and offset.  
  • Useful for short painful procedures and very effective in cooperative school aged children (‘Laughing gas”).  
  • Delivered as Entonox – 50:50 mix with oxygen (minimal sedation).  
  • Delivered as a 70:30 mix with oxygen (moderate sedation). |
| Nitrous oxide         | Inhalational               | Self-administration via demand valve OR via anaesthetic machine if trained. | • Beware diffusion hypoxia post procedure. Additional oxygen should be given for 5-10 minutes to prevent this.  
  • Colourless, odourless gas with analgesic and anxiolytic effects with rapid onset and offset.  
  • Useful for short painful procedures and very effective in cooperative school aged children (‘Laughing gas”).  
  • Delivered as Entonox – 50:50 mix with oxygen (minimal sedation).  
  • Delivered as a 70:30 mix with oxygen (moderate sedation). |
2.11 Discharge criteria

1. Monitoring must continue until the child or young person:
   - Maintains their own airway.
   - Has full restoration of protective airway and breathing reflexes
   - Is haemodynamically stable
   - Is easily roused

2. Ensure that all of the following criteria are met before the child/young person is discharged:
   - Return to baseline vital signs
   - Return to baseline level of consciousness
   - Nausea/vomiting/pain adequately managed
   - Responsible parent or guardian available to remain with child for 24 hours

3. Refer to anaesthesia department if child or young person could not tolerate the procedure under sedation.

4. Provide parents with an advice sheet prior to discharge.
2.12 Advice Sheet for Paediatric Sedation

Royal Cornwall Hospital Trust
Treliske
Truro, Cornwall
TR1 3LJ

Your child attended the Emergency Department/ Paediatric Ward/ Endoscopy/ Oral Surgery Unit

on __________________ for ____________________________________

s/he was sedated with _______________________________ at

__________am/pm.

You may find that your child is a little quiet when you get home, but this will gradually improve. Do not leave your child unsupervised for the next 24 hours, and ensure you are happy they are steady on their feet before permitting the use of cycles / other play equipment. Allow your child to sleep if they wish and to eat and drink as tolerated.

If you have any worries or concerns, please contact the appropriate department on the telephone number below and ask to speak to the nurse in charge. They will be pleased to help and advise you.

9am – 5pm
Endoscopy 01872 252805
Oral Surgery 01872 253980

24 hours
Emergency Department 01872 253111
Paediatric Observation Unit 01872 253468

RCHT switch board 01872 250000
3. Dissemination and Implementation

3.1 Implementation

3.1.1 This guideline will be passed through the following RCHT committees to gain approval and improve awareness of implementation.

- Paediatric guidelines group
- Paediatric critical care group
- Medicines practice committee
- Resuscitation Committee
- CSIG

3.1.2 Once the guideline has been approved it will be accessible via the Intranet. Medical and nursing staff working in the relevant areas will be informed how to access it by email and it will be put on the RCHT bulletin.

3.1.3 A copy of the Framework for Practice of Sedation Flow Cart will be laminated and placed visibly within all relevant departments

3.2 Training Requirements

3.2.1 Evidence of Module 1 training should be forwarded to the Paediatric Sedation Lead and retained by the department and the individual in their portfolio for evidence of compliance at appraisal.

<table>
<thead>
<tr>
<th>Module 1</th>
<th>Prescribing and/ or administering mild sedation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required training</td>
<td>Paediatric Life Support (ALSG) as a minimum</td>
</tr>
<tr>
<td></td>
<td>Chloral hydrate</td>
</tr>
<tr>
<td></td>
<td>Have signed that they have read and understood the indications and cautions for Chloral Hydrate</td>
</tr>
<tr>
<td></td>
<td>Entonox- nitrous oxide: oxygen 50:50 – Not 70:30</td>
</tr>
<tr>
<td></td>
<td>Have completed Entonox training- available on the RCHT Sedation Training site</td>
</tr>
</tbody>
</table>
3.2.2 To demonstrate the quality of moderate paediatric sedation delivery at RCHT, the following training program will be implemented, allowing current providers time to evidence their skills. There is a pre-requisite of peripheral cannulation skills. New providers will be required to complete the training prior to commencing clinical practice. The modules should be completed in the following order.

### Module 2

**Prescribing and/or administering moderate sedation**

<table>
<thead>
<tr>
<th>Required training</th>
</tr>
</thead>
<tbody>
<tr>
<td>Completion of Advanced Paediatric Life Support/ Paediatric Life Support (ALSG) for non medical staff or equivalent course</td>
</tr>
<tr>
<td>Completion of On-line theoretical knowledge spanning consent, team working and human factors, physiology and pharmacology of sedation, contraindications to sedation</td>
</tr>
<tr>
<td>Active attendance at sedation based simulation training session</td>
</tr>
<tr>
<td>Learning/demonstration of clinical airway skills in paediatric theatre under supervision of senior anaesthetist</td>
</tr>
</tbody>
</table>

On completion of the module 2 a certificate verifying training in paediatric sedation will be issued. This certification will be recorded by the Paediatric Sedation Lead and must be retained in the individual’s portfolio. This will be a requirement for delivering moderate paediatric sedation. There will be requirement for observation of 5 cases and completion of a logbook. There may be need for on-going supervision.

Equivalent training in paediatric sedation at another hospital must be confirmed in writing with the paediatric sedation lead.

### Module 3

**Monitoring moderately sedated patients**

<table>
<thead>
<tr>
<th>Required training</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paediatric Life Support (ALSG)- minimum</td>
</tr>
<tr>
<td>Completion of On-line theory module for assistants</td>
</tr>
<tr>
<td>Active attendance at work based simulation training session</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Optional training</th>
</tr>
</thead>
<tbody>
<tr>
<td>Learning/demonstration of clinical airway skills in paediatric theatre under supervision of senior anaesthetist</td>
</tr>
</tbody>
</table>

---
4. Monitoring compliance and effectiveness

<table>
<thead>
<tr>
<th>Element to be monitored</th>
<th>1. Critical incidents: adverse respiratory and cardiovascular events, unplanned admission to high dependency/ITU, prescription or dosing errors, requirement for reversal.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2. Failure of technique: abandonment rate, conversion rate to general anaesthesia.</td>
</tr>
<tr>
<td></td>
<td>3. Efficiency: total procedure time, recovery time, unplanned admission rate.</td>
</tr>
</tbody>
</table>

Lead
Each clinical area is responsible for completing and forwarding the audit forms from each sedation episode to the paediatric sedation lead. The results will be collated by the paediatric sedation lead and presented at the annual September PICU roadshow.

Audit
Audit sheet is incorporated in the sedation documentation found on the intranet. A copy of the form must be forwarded to the paediatric sedation lead after the sedation is complete.

Frequency
Six monthly audit for each clinical area
Yearly collation of results for PICU roadshow

Reporting arrangements
The paediatric sedation lead is responsible for ensuring production of a yearly report. The completed report will be presented and discussed at the PICU roadshow.

Acting on recommendations and Lead(s)
Identified problems will be discussed and resolved at the paediatric critical care group meeting. Implementation of change will be guided by the paediatric sedation lead.

Change in practice and lessons to be shared
Required changes to practice will be identified and actioned within 3 months. A lead member of the team will be identified to take each change forward where appropriate. Serious incidents will be shared with all the relevant stakeholders.

5. Equality and Diversity

5.1 This document complies with the Royal Cornwall Hospitals NHS Trust service Equality and Diversity statement.

5.2 Equality Impact Assessment
The Initial Equality Impact Assessment Screening Form is at Appendix 2.
### Appendix 1. Governance Information

<table>
<thead>
<tr>
<th>Document Title</th>
<th>GUIDELINES FOR PAEDIATRIC SEDATION AT RCHT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date Approved</td>
<td>14th February 2013</td>
</tr>
<tr>
<td>Date Valid From</td>
<td>14th February 2013</td>
</tr>
<tr>
<td>Date Valid To</td>
<td>14th February 2016</td>
</tr>
<tr>
<td>Directorate / Department responsible (author/owner):</td>
<td>Anaesthetics /Paediatrics /Emergency medicine (Rebecca Mawer, Sian Ireland, John Ellis, Deborah Bell, Ross Vanstone, Louisa Mitchell)</td>
</tr>
<tr>
<td>Contact details:</td>
<td>VIA SWITCHBOARD</td>
</tr>
<tr>
<td>Brief summary of contents</td>
<td>GUIDELINES FOR SEDATION OF PAEDIATRIC PATIENTS AND YOUNG PEOPLE</td>
</tr>
<tr>
<td>Suggested Keywords:</td>
<td>PAEDIATRIC/ SEDATION</td>
</tr>
<tr>
<td>Target Audience</td>
<td>RCHT</td>
</tr>
<tr>
<td>Executive Director responsible for Policy:</td>
<td>MEDICAL DIRECTOR</td>
</tr>
<tr>
<td>Date revised:</td>
<td>JULY 2012</td>
</tr>
<tr>
<td>This document replaces (exact title of previous version):</td>
<td>NEW DOCUMENT</td>
</tr>
<tr>
<td>Approval route (names of committees)/consultation:</td>
<td>Paediatric Guidelines group Paediatric Critical Care group CSIG Resuscitation Committee Medicines Practice committee Documentation Sub Group</td>
</tr>
<tr>
<td>Divisional Manager confirming approval processes</td>
<td>Mr Duncan Bliss</td>
</tr>
<tr>
<td>Name and Post Title of additional signatories</td>
<td></td>
</tr>
<tr>
<td><strong>Signature of Executive Director giving approval</strong></td>
<td>{Original Copy Signed}</td>
</tr>
<tr>
<td>--------------------------------------------------</td>
<td>------------------------</td>
</tr>
<tr>
<td><strong>Publication Location (refer to Policy on Policies – Approvals and Ratification):</strong></td>
<td>Internet &amp; Intranet</td>
</tr>
<tr>
<td><strong>Document Library Folder/Sub Folder</strong></td>
<td>Child health; paediatric sedation</td>
</tr>
<tr>
<td><strong>Links to key external standards</strong></td>
<td>NICE Guideline Dec 2010. Sedation for Diagnostic and Therapeutic Procedures in Children and Young People</td>
</tr>
<tr>
<td><strong>Related Documents:</strong></td>
<td>BNF for children Paediatric pain protocol</td>
</tr>
<tr>
<td><strong>Training Need Identified?</strong></td>
<td>YES</td>
</tr>
</tbody>
</table>
### Version Control Table

<table>
<thead>
<tr>
<th>Date</th>
<th>Version No</th>
<th>Summary of Changes</th>
<th>Changes Made by</th>
</tr>
</thead>
<tbody>
<tr>
<td>03/2012</td>
<td>V1.0</td>
<td></td>
<td>Dr.Rebecca Mawer, Anaesthetic Consultant</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Dr.Sian Ireland, Emergency Medicine Consultant</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Dr.John Ellis, Paediatric Consultant</td>
</tr>
<tr>
<td>03/2012</td>
<td>V1.0</td>
<td>Minor changes</td>
<td>Medicines practice committee</td>
</tr>
<tr>
<td>04/2012</td>
<td>V1.1</td>
<td>Doses of chloral hydrate, training</td>
<td>Paediatric Consultant meeting</td>
</tr>
<tr>
<td>05/2012</td>
<td>V1.2</td>
<td>Training package</td>
<td>Resuscitation Committee Meeting</td>
</tr>
<tr>
<td>05/2012</td>
<td>V1.3</td>
<td>Changes to mild sedation criteria and training specification</td>
<td>Paediatric Critical Care Meeting</td>
</tr>
<tr>
<td>06/2012</td>
<td>V1.4</td>
<td>Minor changes to 2.2</td>
<td>CSIG</td>
</tr>
<tr>
<td>10/2012</td>
<td>V1.5</td>
<td>Changes to wording</td>
<td>L&amp;D</td>
</tr>
<tr>
<td>12/2012</td>
<td>V1.6</td>
<td>Minor changes to wording</td>
<td>Paediatric Guidelines group Dr R Mawer</td>
</tr>
</tbody>
</table>

---

**All or part of this document can be released under the Freedom of Information Act 2000**

**This document is to be retained for 10 years from the date of expiry.**

**This document is only valid on the day of printing**

**Controlled Document**

This document has been created following the Royal Cornwall Hospitals NHS Trust Policy on Document Production. It should not be altered in any way without the express permission of the author or their Line Manager.
Appendix 2. Initial Equality Impact Assessment Screening Form

| Name of service, strategy, policy or project (hereafter referred to as policy) to be assessed: Guideline for the Sedation of Children and Young People |
| Directorate and service area: Anaesthetic/Paediatric/Emergency Medicine |
| Is this a new or existing Procedure? New |
| Name of individual completing assessment: Deborah Bell |
| Telephone: 07850178724 |

1. Policy Aim* To provide a framework for the conduct of sedation in paediatric patients and young people.

2. Policy Objectives* To standardise aspects of sedation practice such as staffing, sedative agents, fasting, monitoring and record keeping across the RCHT.

3. Policy – intended Outcomes* • Appropriate use of sedative agents • Standardise practice with quality of care • Improve patient safety

4. How will you measure the outcome? Audit of sedation practice

5. Who is intended to benefit from the Policy? RCHT staff and patients

6a. Is consultation required with the workforce, equality groups, local interest groups etc. around this policy? No

b. If yes, have these groups been consulted?

c. Please list any groups who have been consulted about this procedure.

*Please see Glossary

7. The Impact
Please complete the following table using ticks. You should refer to the EA guidance notes for areas of possible impact and also the Glossary if needed.

- Where you think that the policy could have a **positive** impact on any of the equality group(s) like promoting equality and equal opportunities or improving relations within equality groups, tick the 'Positive impact' box.
- Where you think that the policy could have a **negative** impact on any of the equality group(s) i.e. it could disadvantage them, tick the 'Negative impact' box.
- Where you think that the policy has no impact on any of the equality group(s) listed below i.e. it has no effect currently on equality groups, tick the ‘No impact’ box.

<table>
<thead>
<tr>
<th>Equality Group</th>
<th>Positive Impact</th>
<th>Negative Impact</th>
<th>No Impact</th>
<th>Reasons for decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td></td>
<td></td>
<td>√</td>
<td>Document provides a guideline for sedation practice in children and young people and aims to standardise and improve quality of practice.</td>
</tr>
<tr>
<td>Disability</td>
<td></td>
<td></td>
<td>√</td>
<td>Document does not impact upon this group.</td>
</tr>
<tr>
<td>Religion or belief</td>
<td></td>
<td></td>
<td>√</td>
<td>Document does not impact upon this group.</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td>√</td>
<td>Document does not impact upon this group.</td>
</tr>
<tr>
<td>Transgender</td>
<td></td>
<td></td>
<td>√</td>
<td>Document does not impact upon this group.</td>
</tr>
<tr>
<td>Pregnancy/Maternity</td>
<td></td>
<td></td>
<td>√</td>
<td>Document does not impact upon this group.</td>
</tr>
<tr>
<td>Race</td>
<td></td>
<td></td>
<td>√</td>
<td>Document does not impact upon this group.</td>
</tr>
<tr>
<td>Sexual Orientation</td>
<td></td>
<td></td>
<td>√</td>
<td>Document does not impact upon this group.</td>
</tr>
<tr>
<td>Marriage / Civil Partnership</td>
<td></td>
<td></td>
<td>√</td>
<td>Document does not impact upon this group.</td>
</tr>
</tbody>
</table>

You will need to continue to a full Equality Impact Assessment if the following have been highlighted:
- A negative impact and
- No consultation (this excludes any policies which have been identified as not requiring consultation).

8. If there is no evidence that the policy promotes equality, equal opportunities or improved relations - could it be adapted so that it does? How? | Full statement of commitment to policy of equal opportunities is included in the policy

Please sign and date this form.

Keep one copy and send a copy to Matron, Equality, Diversity and Human Rights, c/o Royal Cornwall Hospitals NHS Trust, Human Resources Department, Chyvean House, Penventinnie Lane, Truro, Cornwall, TR1 3LJ

A summary of the results will be published on the Trust’s web site.

Signed _____ Dr R Mawer ________________________________

Date _____ 4/2/2013 _________________________________