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## **PRESS RELEASE**

### **NICE publishes first-ever guideline to improve safety standards for child sedation**

A new guideline published today (15 December) will ensure that anxious young NHS patients do not receive ineffective or unsafe sedation drugs ahead of any therapeutic or diagnostic procedure. The National Institute for Health and Clinical Excellence (NICE) has developed this first-ever national guideline to improve NHS care and safety standards within England and Wales for sedating infants, children and teenagers.

**Dr Fergus Macbeth, Director of the Centre for Clinical Practice at NICE, said:**

“We know that large numbers of children undergo single or repeated procedures which may require sedation. These can include diagnostic tests, like a biopsy or MRI scan, or therapeutic procedures such as correcting a dislocated joint or dental treatment. While the NHS uses numerous sedation techniques there is little guidance on which are most effective and what resources, including staff training, are needed to administer them safely. This guideline gives clear recommendations and promotes best practice on the use of sedation techniques to standardise the level of care children, young people and their families can expect from the NHS.”

Around two million children and young people visit hospital A&E departments every year due to accidental injuries<sup>1</sup> and many will need to undergo procedures where sedation is required. Sedation is also sometimes necessary when procedures are carried out in primary care settings (such as a dental practice or GP surgery) and it can also be useful in preventing the patient moving during diagnostic tests such as scans. Unlike adults, many youngsters may require sedation for these procedures as

they may not understand the need to keep still, or could find them frightening, or the child may be too ill, in pain or have behavioural problems. However, standards of practice in delivering sedation vary greatly across the country.

The guideline incorporates a series of recommendations for healthcare professionals including nurses, anaesthetists, doctors and dentists. Key recommendations include:

- Ensuring that trained healthcare professionals carry out pre-sedation assessments and document the results in the patient's healthcare record
- Offering the child or young person (and their parents or carers) verbal and written information about the proposed sedation technique, the alternatives to sedation and associated risks and benefits
- For moderate and deep sedation, continuously monitor the child or young person, ensuring that the data is clearly documented in the patient's healthcare record
- Healthcare professionals delivering sedation should have documented up-to-date evidence of competency and should ensure they update their knowledge and skills through programmes designed for continuing professional development

**Dr Michael Sury, Consultant Anaesthetist from Great Ormond Street Hospital in London and Chair of the Guideline Development Group (GDG), said:** "Sedation can play an important role in helping alleviate anxiety or pain, which is why it's vital that techniques are administered correctly. Training for healthcare professionals is particularly important because unsuccessful sedation can be very traumatic for the child and if the dosage of a drug is too great, it can lead to breathing difficulties which may result in brain injury or even death."

The guideline also focuses on the need to ensure those aged under 19 and their families are prepared psychologically for sedation and are given the necessary information in appropriate formats to give informed consent.

**Dr Christina Liossi, Senior Lecturer in Health Psychology at the University of Southampton and guideline developer, said:** "Research shows that children who have been repeatedly exposed to anxiety-provoking painful medical events are more likely to avoid healthcare in the future and, in some cases, they can develop mental health problems like post-traumatic stress disorder as a result.

"This is why it is vitally important that the child or young person and their parents or carers fully understand what is happening and are able to make an informed decision

about the method of sedation being proposed. This in itself, and in combination with age appropriate psychological preparation, is very beneficial in helping to reduce the anxiety levels of both the patient being sedated and their families who are watching them go through this procedure.”

As well as general recommendations for healthcare professionals, specific sedatives for use in dental procedures are also addressed. **Dr Paul Averley, a dentist from Teesside and guideline developer, said:** “Sadly in the UK, many children continue to need invasive dental treatment. For these children this dental treatment often brings anxiety. It is the responsibility of the dentist to control this anxiety. Sedation can be a crucial tool to allow dental treatment to be carried out safely, effectively and cost effectively. If sedation is delivered correctly within dental practice, anxious children will be less likely to be referred to hospital where their treatment would be carried out under a general anaesthetic. This valuable guideline will complement existing dentistry guidance on sedation and will provide a platform for dentists to build on and raise standards of care even further.“

**Farrah Pradhan, a mum from London, also helped to develop the guideline. She said:** “It was very scary when my son needed to be sedated for some operations when he was younger. I didn’t know what to expect and more importantly how he would cope with it. I became involved in this guideline because information for parents is so important to help guide us to know what should and will happen, and reassure our young children that sedation is a safe procedure.”

To help healthcare professionals implement the recommendations within this guideline, NICE has produced a number of implementation tools including a slide-set and costing report to help inform staff. These are available to download from the [NICE website](#), along with the full guideline.

## **Ends**

For more information call the NICE press office on 0845 003 7782 or 07775 583 813.

## **Notes to Editors**

### **About the guideline**

- The NICE guideline on sedation in children and young people, including a version for patients and carers and corresponding implementation tools, are available from the NICE website at: <http://www.nice.org.uk/CG112> (from Wednesday 15 December 2010).
- The act of sedation is a drug-induced depression of consciousness. Sedation can help reduce fear and anxiety, provide pain control and minimise movement in the

patient when undergoing a procedure. There are varying levels of sedation and the following definitions are used in the guideline:

- **Minimal sedation:** Where patients are awake and calm and respond normally to verbal commands
  - **Moderate sedation:** Where patients are sleepy but respond purposefully to verbal commands or light tactile stimulation
  - **Conscious sedation:** Similar to moderate sedation, except that verbal contact is always maintained with the patient. This is commonly used in dentistry
  - **Deep sedation:** Patients are asleep and cannot be easily roused but do respond purposefully to repeated or painful stimulation. Patients may need assistance to maintain a patent airway
- Sedating a patient is different to giving them a general anaesthetic. The definition of general anaesthesia is a drug-induced loss of consciousness during which patients are not rousable, even by painful stimulation. Patients often require assistance in maintaining a patent airway and ventilatory function is often impaired. Positive pressure ventilation may be required because of depressed spontaneous ventilation or drug-induced depression of neuromuscular function. Cardiovascular function may also be impaired.
  - The guideline focuses on effective and safe sedation for diagnostic and therapeutic procedures in all children and young people from birth up until the age of 19 years old.
  - The guideline makes recommendations for the following sedatives and sedation techniques:
    - Sevoflurane
    - Propofol
    - Opioids
    - Chloral hydrate
    - Midazolam
    - Nitrous oxide
    - Ketamine
    - Triclofos sodium

## About NICE

1. The National Institute for Health and Clinical Excellence (NICE) is the independent organisation responsible for providing national guidance and standards on the promotion of good health and the prevention and treatment of ill health
2. NICE produces guidance in three areas of health:
  - **public health** – guidance on the promotion of good health and the prevention of ill health for those working in the NHS, local authorities and the wider public and voluntary sector
  - **health technologies** – guidance on the use of new and existing medicines, treatments, medical technologies (including devices and diagnostics) and procedures within the NHS
  - **clinical practice** – guidance on the appropriate treatment and care of people with specific diseases and conditions within the NHS.
3. NICE produces standards for patient care:
  - **quality standards** – these reflect the very best in high quality patient care, to help healthcare practitioners and commissioners of care deliver excellent services

- **Quality and Outcomes Framework** – NICE develops the clinical and health improvement indicators in the QOF, the Department of Health scheme which rewards GPs for how well they care for patients
4. NICE provides advice and support on putting NICE guidance and standards into practice through its **implementation programme**, and it collates and accredits high quality health guidance, research and information to help health professionals deliver the best patient care through **NHS Evidence**.

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<sup>1</sup> Audit Commission / Healthcare Commission (2007) *Better safe than sorry: preventing unintentional injury to children*. London: Audit Commission