

A nursing perspective on sedating children for CT scanning

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Having been a Professional Nurse in the CT Scanning Department at the Red Cross Children's Hospital since 1987 and having had to prepare children for CT scanning, I have found that the following groups of children almost always need to be sedated for the investigation: infants, toddlers, uncooperative children, those having long examinations and those who are developmentally delayed. We try to reason with older children before the examination and if we feel they will not lie still, we then sedate them. Pre-assessment of children who are at risk of respiratory arrest is undertaken and sedation for these patients is administered only by the attending physician.

We use the following pharmacological agents:

1. Chloral hydrate (not available commercially, but made up by our local pharmacy) 75 mg/kg. If the child has not fallen asleep after an hour, a top-up dose of 25 mg/kg is given, thus making a maximum dose of 100 mg/kg that a child may receive.
2. Vallergan Forte (trimeprazine tartrate) 4 mg/kg (manufactured by Rhône-Poulenc Rorer SA (Pty) Ltd).

3. Paxical 5 mg injection (droperidol) 0,2 mg/kg given orally (manufactured by Pharmacare Ltd).

Neonates are not sedated. Prior to the examination they are given a feed and wrapped up warmly. Children with a history of hyperactivity are given Vallergan and droperidol orally as this seems to work better than chloral hydrate. Those children having long examinations, e.g. chest and abdominal scans, are also given Vallergan and droperidol, as this is long-acting. Children with trauma injuries are sedated only if they are restless and the sedation is administered only by the attending traumatologist.

In my experience, sedating children requires a great deal of patience and an understanding that each child is different. Some children take longer to fall asleep and others may react differently to various sedatives, e.g. some children become hyperactive after being given chloral hydrate, some children become very tearful and others will go to sleep peacefully.

We try to create a child-friendly environment by having a play area with toys, books and puzzles. To assist us in our efforts to get the children to sleep, we darken the area by closing the curtains, switching the lights off and keeping the noise level down. Parents play an important role in the management of children, helping with explanations about the examination and allaying any fears that the child may have.

I hope these tips will assist clinicians and nurses in sedating children, thereby avoiding general anaesthesia or the dangerous use of intravenous benzodiazapines.