

A MOBILE ANAESTHESIA SERVICE

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Some of the more invasive procedures on the ward are painful and frightening for patients. This is particularly true in children who may be too young for local anaesthetic techniques alone. These patients are managed in a variety of ways in different hospitals but many require more analgesia than can be provided with parenteral morphine. Some hospitals take all such patients to theatre which has many advantages in terms of equipment and resources, others take equipment to a dedicated area of the routine ward.

Effective anaesthesia / sedation for procedures requires a combination of drugs that affect vital reflexes. To make the procedure as safe as possible, the patient needs to be directly supervised by someone with anaesthesia training and skills. This paper discusses our approach in Tansen, where we have developed a system which allows us to provide sufficient analgesia to perform small "ward-procedures" effectively.

Indications

These include painful examinations, such as

- Lumbar punctures in children
- Dressing changes
- Manipulations
- Therapeutic as well as diagnostic procedures.

Preparation

- The ward nurses prepares equipment normally kept on the ward. Extra equipment is brought by the anaesthetic nurse at the time of the procedure.

- Patient has to be fasted: 4 hours breast milk, 6 hours food, 2 hours clear fluid. Usually the procedure is performed in the morning, so patients can have their breakfast afterwards

Procedure

At the arranged time the anaesthetist, anaesthesia nurse, patient and ward nurse are ready. After inducing the patient, the procedure is performed. The anaesthesia nurse stays with the patient until they are completely awake. Monitoring is by clinical observation, but a pulse oximeter is used whenever possible. The drugs most commonly used are 0.2mg/kg diazepam iv + 0.5-1mg/kg ketamine iv.

Results

Over a 6 month period (April to September 2001) we anaesthetised 250 patients on the wards. The cost per procedure for the anaesthetic (including salaries, drugs etc.) was calculated with \$1, which made the service self-sustaining. No complications were encountered.

Discussion

Ketamine, covered with diazepam (to prevent emergence reaction), can give adequate analgesia for painful procedures where local anaesthesia alone is inadequate or unsuitable. Essential anaesthetic precautions must be taken with an experienced anaesthesia practitioner. With careful attention to safety, the complication rate is very low (e.g. comparing with high doses of opiates), the analgesic effect is significantly better and the side effects reduced. There are also potential savings in theatre time.

Ward nurse	<ul style="list-style-type: none"> ● <i>airway and breathing</i> - oxygen, suction, self-inflating bag, anaesthetic masks, oro-pharyngeal airways, laryngoscope, endotracheal tubes, intubating stylet, tape ● <i>intravenous</i> - cannulas and fluids, needles, syringes ● <i>drugs</i> - adrenaline, atropine, lignocaine, diazepam, diclofenac, sterile water, sodium chloride ● <i>various</i> - ampoule-cutter, tourniquet, syringes, sterile gloves ● <i>tilting trolley</i> - if possible
Anaesthetic nurse	<ul style="list-style-type: none"> ● <i>drugs</i> - ketamine, diazepam, suxamethonium (needs to be taken out of the fridge), atropine, ephedrine