Pain is often the patient’s presenting symptom. It can provide useful clinical information and it is your responsibility to use this information to help the patient and alleviate suffering.

Manage pain wherever you see patients (emergency, operating room and on the ward) and anticipate their needs for pain management after surgery and discharge.

Do not unnecessarily delay the treatment of pain; for example, do not transport a patient without analgesia simply so that the next practitioner can appreciate how much pain the person is experiencing.

**Pain management is our job.**

Pain Management and Techniques

Effective analgesia is an essential part of postoperative management.

Important injectable drugs for pain are the opiate analgesics. Nonsteroidal anti-inflammatory drugs (NSAIDs), such as diclofenac (1 mg/kg) and ibuprofen can also be given orally and rectally, as can paracetamol (15 mg/kg).

There are three situations where an opiate might be given: pre-operatively, intra-operatively, post-operatively.

Opiate premedication is rarely indicated, although an injured patient in pain may have been given an opiate before coming to the operating room.

Opiates given pre- or intraoperatively have important effects in the postoperative period since there may be delayed recovery and respiratory depression, even necessitating mechanical ventilation. (continued to next page)
Post-Operative Pain Relief (continued)

- Short acting opiate fentanyl is used intra-operatively to avoid this prolonged effect.

- Naloxone antagonizes (reverses) all opiates, but its effect quickly wears off.

- Commonly available inexpensive opiates are pethidine and morphine.

- Morphine has about ten times the potency and a longer duration of action than pethidine. (continued next page)

- Ideal way to give analgesia postoperatively is to:
  - Give a small intravenous bolus of about a quarter or a third of the maximum dose (e.g. 25 mg pethidine or 2.5 mg morphine for an average adult)
  - Wait for 5–10 minutes to observe the effect: the desired effect is analgesia, but retained consciousness
  - Estimate the correct total dose (e.g. 75 mg pethidine or 7.5 mg morphine) and give the balance intramuscularly.
  - With this method, the patient receives analgesia quickly and the correct dose is given.

- If opiate analgesia is needed on the ward, it is most usual to give an intramuscular regimen:
  - Morphine:
    - Age 1 year to adult: 0.1–0.2 mg/kg
    - Age 3 months to 1 year: 0.05–0.1 mg/kg
  - Pethidine: give 7–10 times the above doses if using pethidine.

- **Opiate analgesics should be given cautiously if the age is less than 1 year. They are not recommended for babies aged less than 3 months unless very close monitoring in a neonatal intensive care unit is available.** (continued to next page)
Anaesthesia & Pain Control in Children

- Ketamine anaesthesia is widely used for children in rural centres (see pages 14–14 to 14–21), but is also good for pain control.

- Children suffer from pain as much as adults, but may show it in different ways.

- Make surgical procedures as painless as possible:
  - Oral paracetamol can be given several hours prior to operation
  - Local anaesthetics (bupivacaine 0.25%, not to exceed 1 ml/kg) administered in the operating room can decrease incisional pain
  - Paracetamol (10–15 mg/kg every 4–6 hours) administered by mouth or rectally is a safe and effective method for controlling postoperative pain
  - For more severe pain, use intravenous narcotics (morphine sulfate 0.05–0.1 mg/kg IV) every 2–4 hours
  - Ibuprofen 10 mg/kg can be administered by mouth every 6–8 hours
  - Codeine suspension 0.5–1 mg/kg can be administered by mouth every 6 hours, as needed.