

Supreme Advantage of Remifentanil

The plasma concentration will always decrease predictably because of the vast amount of esterase present within the body. Remifentanil offers the ability to produce a cardiac type of anaesthetic with a high level of analgesia but with rapid and predictable recovery. By employing a high dose opioid technique, cardiovascular stability can be improved and this may have benefit in patients with a compromised coronary circulation.

Postoperative Pain management after Intraoperative Remifentanil

Rapid offset of action is the main advantage of remifentanil during its use in the *intraoperative* period but this is its main disadvantage in the *postoperative* period. Since the concentration of the drug halves every 3-4 minutes, it is obvious that within a short time, the remifentanil used to produce the excellent effects during surgery will have decreased so that there is almost no residual analgesic effect.

Anaesthetists and nurses who have had no experience of this drug have difficulty in believing just how rapidly the effects of remifentanil can wear off. It is therefore absolutely essential that all staff have education so that they completely understand that adequate postoperative analgesia must be provided before the remifentanil infusion is stopped.

This may be provided by the use of local or regional analgesia, drugs such as NSAIDs for minor surgical procedures, or potent opioids such as fentanyl for more major surgery. It is possible to use carefully controlled infusions of remifentanil to produce the initial phase of postoperative analgesia but this has to be extremely carefully supervised and cannot be recommended for general use.

Opioid-Based Anaesthesia

General anaesthesia represents a dynamic balance between the stimulating effects of procedures such as intubation or surgery, and the controlling actions of analgesia and hypnosis. By increasing the analgesic component, less hypnotic is required for any given level of stimulation. This allows recovery to be extremely rapid and predictable since less hypnotic agents are required to maintain a given level of anaesthesia. This feature enables a high opioid anaesthetic to be administered with reduction in the dose of hypnotic required. By reducing the dose of hypnotic, the benefit of a rapid and predictable return to normal can be achieved even after many hours of anaesthesia.