

# Introduction

In the past, only patients with American Society of Anaesthesiologists (ASA) physical status class I or II were candidates for ambulatory surgery. Today, patients classified as ASA physical status III or IV and whose systemic disease is medically stable are considered for procedures as outpatients. Preoperative screening, preferably in a clinic or by telephone, is essential both for reduction of patient anxiety and to ensure medical management is appropriate. Whatever their age, ambulatory surgery is no longer restricted to patients of ASA physical status I or II. Patients of ASA physical status III or IV are appropriate candidates, providing their systemic diseases are medically stable. In a review of ASA III patients who were compared with ASA I or II patients undergoing outpatient surgery, no significant increase in unplanned admissions, unplanned contact with health professionals and postoperative complications was found. (1).

Regional anaesthesia and peripheral nerve blocks are associated with many benefits for ambulatory surgical patients, including superior postoperative analgesia, superior same-day recovery profiles, enhanced cost-effectiveness and, arguably, enhanced overall efficiency. Despite these benefits, regional anaesthesia is not without risk. Although complications from regional anaesthesia are uncommon, they can result in permanent/temporary disability and even death. Do we do a good enough job of explaining risks and benefits to our patients, and do we need separate nerve block consent to outline these risks to our patients? (2).

Among the newest drugs and sedation for day case surgeries **Fospropofol (FPF)**, FPF is a water-soluble prodrug of propofol, currently in development. Enzymatic action by alkaline phosphatase in vein endothelium releases the active drug (propofol) after I.V. administration. This metabolism produces a longer time to peak active drug blood level, with lower peak and more sustained plasma concentrations compared to propofol. The clinical time course of FPF effect parallels the active-drug brain concentration rather than blood level. (3).

**Dexmedetomidine (DXM)**, Several properties of DXM that distinguish it from other available sedatives. The most striking feature of DXM is that patients are readily aroused from deeper levels of sedation to their baseline level of consciousness with verbal stimulation. It also provides postoperative analgesia with reduced opioids as well as sedative use. DXM causes little respiratory depression at clinical doses. However, deep levels of sedation can be associated with airway obstruction (4).

**Ketofol**, A prospective case series of consecutive ketofol procedural sedation and analgesia events in the ED of a trauma-receiving community teaching hospital from July 2005 to February 2006 was studied. Patients of all ages, with any co morbid conditions, were included. Ketofol (1:1 mixture of ketamine 10 mg/mL and propofol 10 mg/mL) was administered intravenously at the discretion of the treating physician by using titrated aliquots. The presence or absence of adverse events was documented, as were procedural success, recovery time, and physician, nurse, and patient satisfaction, the study revealed that Ketofol procedural sedation and analgesia is effective and appears to be safe for

painful procedures in the ED. Few adverse events occurred and were either self-limited or responded to minimal interventions. Recoveries were rapid, and staff and patients were highly satisfied. **(5).**

We manage pain in both adults and children in day case setting initially either with a short-acting opioids analgesic such as fentanyl (25 mcg/70 kg), or with an injection of non steroidal anti-inflammatory drugs (**NSAIDs**) for ex. ketorolac 30 - 60 mg/70 kg intramuscularly or intravenously. Fentanyl is repeated at 5-minute intervals until pain is controlled. For children, we also use an elixir of acetaminophen containing codeine (120 mg acetaminophen, 12 mg codeine, in each 5 mL of solution). Five millilitres is administered to children between the ages of 3 and 6, and 10 mL to children between the ages of 7 and 12. Children are returned to parental care as soon as they are awake. **(6).**

Based on data collected from 16,411 ambulatory surgical patients, length of postoperative stay is mainly determined by the type of surgery and by adverse events. Postoperative nausea and vomiting (PONV), dizziness, excessive pain and cardiovascular events predicted 22% to 79% increases in postoperative stay. Other studies identify the anaesthetic technique and phase-2 nurse as significant factors determining discharge time. **(7).**

The aim of the present study is to review and update of ambulatory anaesthesia in adults regarding patient selection, contraindications, preoperative evaluation - preparation, anaesthetic techniques, new trends, post operative complication management, discharge and discharging criteria.