

POSTANESTHETIC CARE

SUMMARY

*Maintenance of anesthesia, emergence, and postoperative care are parts of the continuous perioperative care of a patient.

*The PACU (postanaesthetic care unite) should be situated adjacent to the operating rooms to facilitate rapid and safe patient transport and to allow the anesthesiologist ready access in case of an emergency and should be supported with an important emergency resuscitation drugs and equipment.

*The postanesthetic recovery period is a time of high risk for pediatric patients.

*A large percentage of the (20-40%) otherwise healthy infants and children develop oxygen desaturation SpO_2 ($SpO_2 \geq 94\%$) during transport and upon arrival at the PACU.

*All children, therefore, should be given oxygen supplementation during their transport from the operating room and upon arrival at the PACU.

*The cause of postoperative hypoxemia is mostly due to atelectasis secondary to a reduction in FRC and resultant small airway closure under general anesthesia.

*Upper airway obstruction can occurred post operation and the anesthesiologist must be acutely aware of any changes in the breathing pattern at this time

,because hypoventilation can lead to a reaccumulation of volatile agents in the alveoli that can further blunt the respiratory drive.

*Pulmonary edema developing shortly after the relief of upper airway obstruction is known as postobstructive pulmonary edema (POPE).

*patients with acute or chronic upper airway obstruction are more vulnerable to POPE.

Like,subglottic croup, acute supraglottitis, OSAS, laryngomalacia, tracheomalacia, craniofacial dysmorphism and soft tissue obstruction of different etiologies.

*Once upper airway obstruction is cleared, the patient with POPE should receive CPAP by mask (5 to 10 cm H₂O) with a high concentration of oxygen with an air mix to maintain oxygen saturation by pulse oximeter.

*Diuretics should be considered along with intravenous fluid restriction.

*If hypoxemia (SpO₂ <95%) persists the patient may require ET intubation and ventilation with a moderate PEEP (10 cm H₂O) under sedation

often with morphine or other opioids, until pulmonary edema is dissolved.

*postextubation croup occur due to tight-fitting ET tube without an air leak at 30 to 40 cm H₂O with positive airway pressure.

*Other factors associated with postintubation croup may include traumatic or repeated intubation, duration of surgery, and neck surgery, insufficient intraoperative anesthetic gas humidification, and the presence of upper respiratory infection.

*Cool humidified mist administered after extubation may be helpful in mild cases of croup.

*Racemic epinephrine (0.5 mL of 2.25% solution), diluted in 3 to 5 mL of normal saline solution and administered by nebulizer for 5 to 10 minutes, assists patients with progressively worsening symptoms.

*Patients less than 4 years of age seem to be more susceptible to croup, probably because of their small laryngeal lumen, which is more readily obstructed with mucosal edema.

*Nearly 50% of all perioperative cardiac arrests caused by respiratory problems occurred during the recovery period.

*Dysrhythmias and hypotension occur less frequently in children than adults but require quick and appropriate treatment when they do occur.

*Agitation may be caused by numerous factors, including emergence delirium from anesthetic agents, especially with a newer inhaled anesthetic with low blood-gas solubility (sevoflurane or desflurane)

*Apnea of Prematurity is observed commonly in neonates and preterm infants, can appear or worsen in preterm infants after exposure to anesthetic agents.

*It had been recommended that former preterm infants less than 44 to 46 weeks PCA (postconceptional age) should be carefully observed postoperatively for at least 18 to 24 hours .

*The risk of (postoperative nausea and vomiting) PONV is higher after certain types of surgery, such as strabismus repair, adenotonsillectomy, and orchiopexy.

Other factors affecting the incidence of PONV can include age, gender, history of motion sickness,

*For PONV prophylaxis, intravenous serotonin (5-HT₃) receptor antagonist, such as ondansetron (0.1 to 0.15 mg/kg) and granisetron (0.04 mg/kg)

*A small dose of dexamethasone (0.2 to 0.5 mg/kg), with or without ondansetron, is also effective. *For those patients for whom prophylaxis fails, antiemetic drugs that work via other mechanisms, such as dexamethasone (0.5 mg/kg), diphenhydramine (0.5 mg/kg), or perphenazine (70 mcg/kg) are suggested.

*most pain and discomfort originate from surgical incision and tissue irritation.

*Treatment of pain in the PACU depends on the patient's medical condition, the surgical procedure, and discharge disposition.

*Oral acetaminophen (10 to 15 mg/kg) is useful in patients without intravenous access who have had minor surgical procedures.

*Rectal acetaminophen (30 to 40 mg/kg) may take up to 2 hours and NSAIDs can play an important role in pain management

*Morphine (0.025 to 0.05 mg/kg) or fentanyl (0.5 to 1.0 mcg/kg), given in incremental doses, can be used to achieve an analgesic state in patients recovering from a general anesthetic.

*We have a special score that can be helpful as guidelines in determining when a patient is ready for discharge.

*The Modified Aldrete Score (Soliman et al., 1988) (Table) examines the following five criteria: motor activity, respiration, blood pressure, consciousness, and color.

*From the PACU, patients can be admitted to a short-stay recovery unit or to a hospital ward.