29. Ambulation and Early Postoperative Performance Criteria

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A. Postanesthesia Recovery

1. **Goal:** Adequate pain control with prevention of nausea and vomiting. These factors are the keys to success in achieving early postoperative ambulation and discharge from hospital.

2. **Objective evaluation of the recovering patient:** A postanesthetic recovery score is commonly used to evaluate patients recovering from surgery. It includes evaluation of motor activity, respiration, circulation, consciousness, and cutaneous color at timed intervals during the course of recovery. Scores range from 0 to 2 for each category, and a patient must achieve a total score of 10 to be discharged from the recovery room or Post Anesthesia Care Unit (PACU).

3. **Discharge from the PACU:** Discharge from the PACU to a secondary recovery unit (hospital bed or outpatient discharge center) is possible when the following criteria have been met: the acute effects of anesthesia and surgery have resolved, the patient no longer requires continuous monitoring, and the risk of abrupt catastrophes such as airway obstruction or profound hypotension is minimal. The decision to discharge the patient from the PACU usually requires a period of time during which no special intervention is required. For a healthy patient after a minor procedure, this period may be as brief as 20–30 minutes; for a sick patient, a period of several hours may be required. A discharge protocol based on an arbitrary period of observation for all patients is inappropriate.

B. Early Postoperative Performance Criteria

1. **Ambulation:** When the performance criteria (Table 29.1) have been met, the clinical judgment of the health care provider examining the patient becomes the single most important factor in determining the patient’s readiness to ambulate.

2. **Steps:** Once the patient’s vital signs have been stabilized for at least 30 minutes with pain and nausea well controlled, the oxygen mask is removed. Movement from side to side is encouraged and gradually the
sitting position is achieved. Deep breathing and leg movement are encouraged. While sitting, the patient is allowed time to adjust (10 minutes recommended) and then is carefully helped to their feet. It is critical that all I.V. lines, tubes, catheters, and drains be secured and then prepared for ambulation. A nasogastric tube and all drains attached to wall suction, if present, need to be disconnected from the wall suction and clamped. The urinary drainage bag needs to be attached to the I.V. pole or carried by either the nursing team member or the patient. Next, after establishing that the patient is able to stand, the patient is encouraged to walk with assistance. For outpatient surgery, the patient is urged to take liquid when appropriate and to void an adequate volume. If the patient fails this trial, the entire procedure is repeated from the start with the patient in the supine position with oxygen in place. In this case, the pain or nausea medication may need to be adjusted.

C. Laparoscopic Surgery and Postoperative Pain

1. **Pain after laparoscopy:** Pain after laparoscopy is multifactorial: it results from a combination of inflammation, ischemia, and tissue trauma at the surgical site. Some of the potential sources of pain are unique to laparoscopic procedures whereas others are not.
   a. **Incision:** Almost all patients have some incisional pain, although usually less than that experienced by patients undergoing the equivalent open procedure.
   b. **Intraperitoneal insufflation:** Carbon dioxide may cause peritoneal irritation. Subdiaphragmatic free air has been demonstrated as long as 3 days postoperatively in some patients. Gas-induced irritation of the diaphragm and phrenic nerve is the probable cause of shoulder pain after laparoscopy. Ambulation or erect posture tends to exacerbate shoulder pain because intraperi-