

Operating Room

Ø Operating room features:

1. Operating room committee:

OR supervisor- circulating nurse- scrub nurse- scrub technician- anesthesia technician- recovery room nurse.

2. Scrubbing techniques:

Time technique & stroke technique.

3. Surgical site preparation:

Face, neck, skin, oral, nasal, mouth, teeth, tongue & nose.

4. Patient draping:

Cloth- paper- clear plastic adhesive drape.

5. Recovery room:

Patient is conveyed to it for observation after operation.

Ø Anesthesia & pain control:

1. Anesthesia agents:

Local anesthesia – inhalation sedation – antianxiety agents – intravenous sedation – general anesthesia.

2. Local anesthesia:

a) Topical anesthesia is used first at the site of injection, it acts by temporary blocking the ability of the nerve membrane to generate an impulse, vasoconstrictor is added to prolong its effect & decrease bleeding.

b) Injection techniques: infiltration – nerve block – periodontal ligament injection.

c) Local anesthesia set up: carpules – syringe – disposable needles.

d) Complications & precautions: injection into a blood vessel – infected area – toxic reactions (local & systemic) – temporary numbness – paresthesia.

3. Electronic anesthesia:

It blocks pain electronically by using a low current of electricity.

4. Inhalation sedation:

Nitrous oxide & oxygen in which it produces pleasant, relaxing experience.

Contraindications: pregnancy – nasal obstruction – emphysema & multiple sclerosis – emotional instability.

Equipments: gas device – masks – scavenger system.

5. Antianxiety agents:

Drugs that can be given orally or by inhalation or intravenously as example valium.

6. Intravenous sedation:

It is a type of conscious sedation to produce stage I analgesia.

7. General anesthesia:

There are four stages:

- a) Stage I analgesia in which the patient is fully conscious.
- b) Stage II excitement he starts to become unconscious it is an undesirable stage.
- c) Stage III general anesthesia the patient becomes unconscious with no pain or sensation.
- d) Stage IV respiratory failure or cardiac arrest or stop of function.

Ø Patient monitoring:

1. Temperature:

It is the degree of hotness or coldness of the body internal environment. temperature reading is obtained by thermometers & calibrated in Fahrenheit or Celsius.

2. Types of thermometers:

Glass – electronic – tympanic.

3. Pulse:

It is the rhythmic expansion of the artery every time the heart beats.

Radial artery: it is located in the inner surface of the wrist.

Brachial artery: it is located on the inner fold of the arm.

Carotid artery: it is located alongside the patient larynx.

Normal pulse rate in adults is 60 to 100 bpm.

4. Respiration:

It is the process of inhalation & exhalation of air.

Respiration readings: by watching the number of chest raising & falling of the patient.

Normal respiration rate in adults is 10 to 20 & for children is 18 to 30.

5. Blood pressure:

It is the amount of labor the heart has to exert to pump blood throughout the body, heart produces two sounds systole & diastole which are measured in millimeters of mercury above atmospheric pressure.

Classification: normal – prehypertension – hypertension (stage 1 – stage 2).

6. Blood pressure meters:

It is measured by the use of sphygmomanometer & stethoscope.

7. Phases of Korotkoff sounds:

Phase I: blood is beginning to flow back into the artery heard as sharp tapping sound.

Phase II: more blood flows with a swishing sound.

Phase III: large amount of blood is now flowing into the artery & sharp tapping sound returns.

Phase IV: blood is flowing easily & sound changes to soft tapping.

Phase V: the artery is fully open & the sound disappears.

8. Cardiac cycle on the electrocardiogram:

ECG or EKG is a graph or tracing of the activity of the heart & it is done before general anesthesia, the machine amplifies many times the natural electrical current generated by the electrical impulses of the heart.