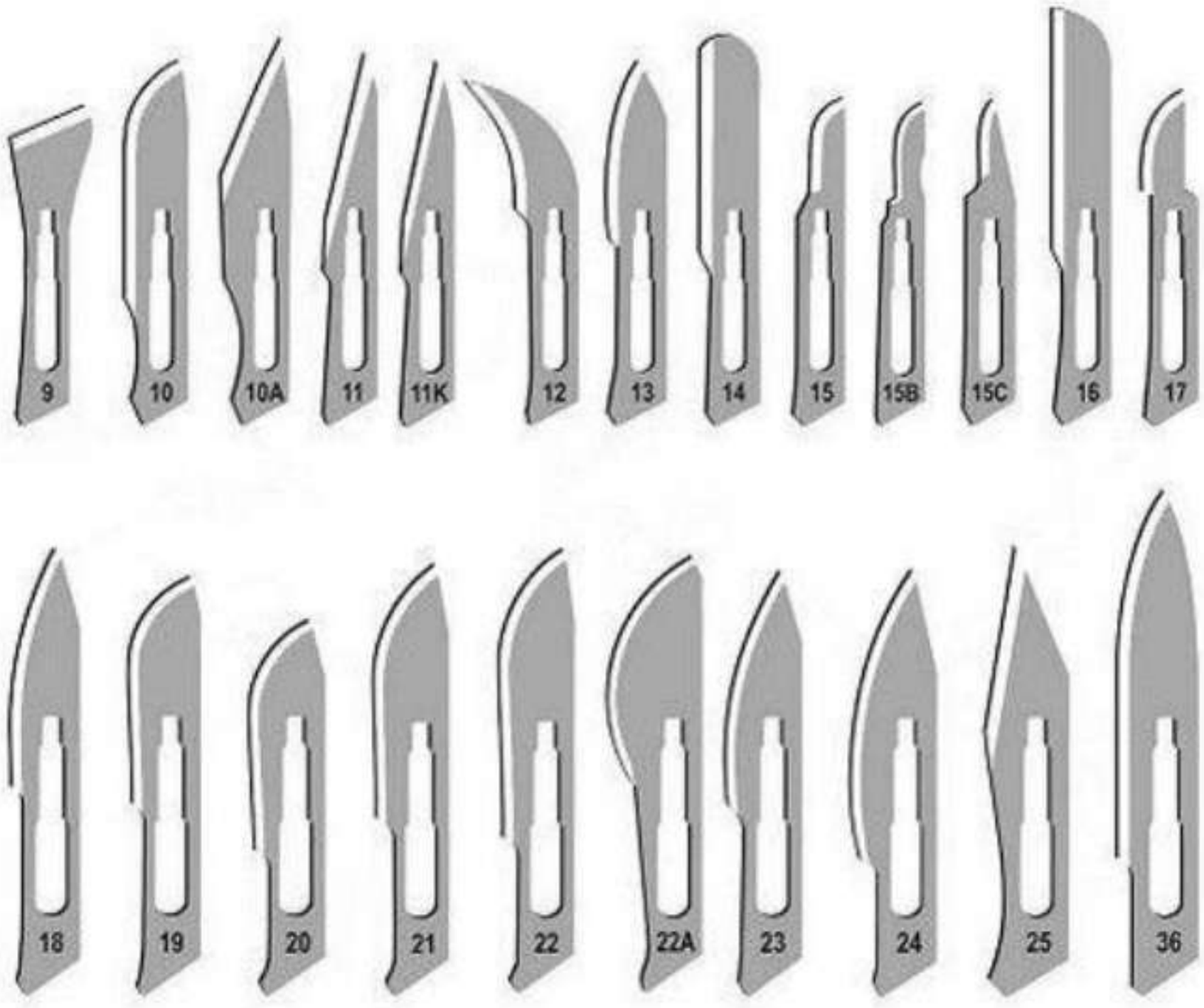
Cutting and Dissecting Instruments are sharp and are used to cut body tissue or surgical supplies.

♦ **7 handle with 15 blade (deep knife) - Used to cut deep, delicate tissue.**

♦ **3 handle with 10 blade (inside knife) – Used to cut superficial tissue.**

♦ **4 handle with 20 blade (skin knife) - Used to cut skin.**

♦ **blades:** for cutting, incisions and excisions.



♦ **Metzenbaum scissors - Used to cut delicate tissue.**

♦ **Curved Mayo scissors - Used to cut heavy tissue (fascia, muscle, uterus, breast).**

♦ **Straight Mayo scissors - Used to cut suture and supplies. Also known as: Suture scissors.**

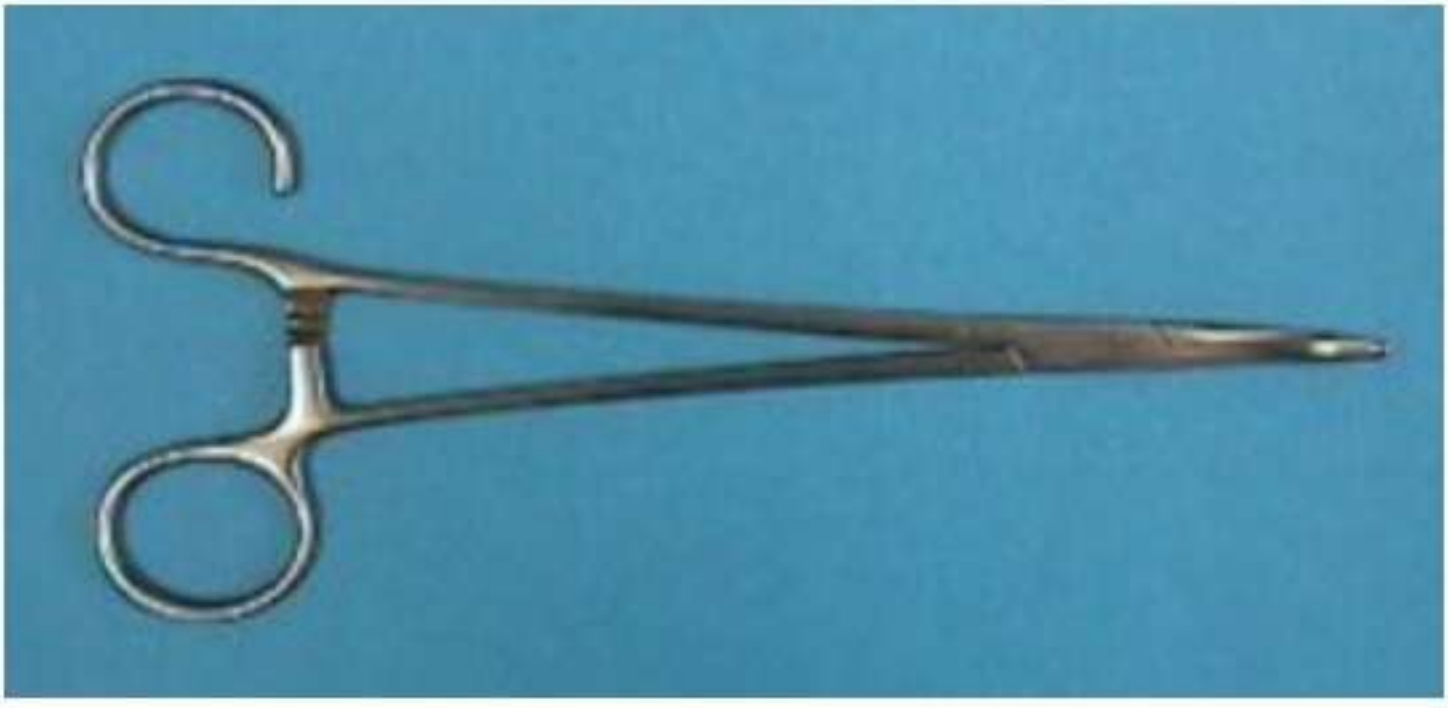
Clamping and Occluding Instruments

- **A hemostat** is used to clamp blood vessels or tag sutures. Its jaws may be straight or curved. Other names: crile, snap or stat.

♦ **A mosquito is used to clamp small blood vessels. Its jaws may be straight or curved.**

♦️ **A Kelly is used to clamp larger vessels and tissue. Other names: Rochester Pean.**

♦ **A burlisher** is used to clamp deep blood vessels. Burlishers have two closed finger rings. Burlishers with an open finger ring are called tonsil hemostats. Other names: Schnidt tonsil forcep, Adson forcep.



♦ **A right angle** is used to clamp hard-to-reach vessels and to place sutures behind or around a vessel. A right angle with a suture attached is called a "tie on a passer." Other names: Mixter.

♦ **A hemoclip applier with hemoclips applies metal clips onto blood vessels and ducts which will remain occluded.**

Grasping and Holding Instruments are used to hold tissue, drapes or sponges.

🔴 **An Allis is used to grasp tissue. A "Judd-Allis" holds intestinal tissue; a "heavy allis" holds breast tissue.**

♦ **A Babcock is used to grasp delicate tissue (intestine, fallopian tube, ovary).**

♦ **A Kocher** is used to grasp heavy tissue. May also be used as a clamp. The jaws may be straight or curved. Other names: Ochsner.

♦ **A Foerster sponge stick is used to grasp sponges. Other names: sponge forcep.**

♦ **A dissector is used to hold a peanut.**

♦ **A Backhaus towel clip** is used to hold towels and drapes in place. Other name: towel clip.

♦ **Pick ups, thumb forceps and tissue forceps are available in various lengths, with or without teeth, and smooth or serrated jaws.**

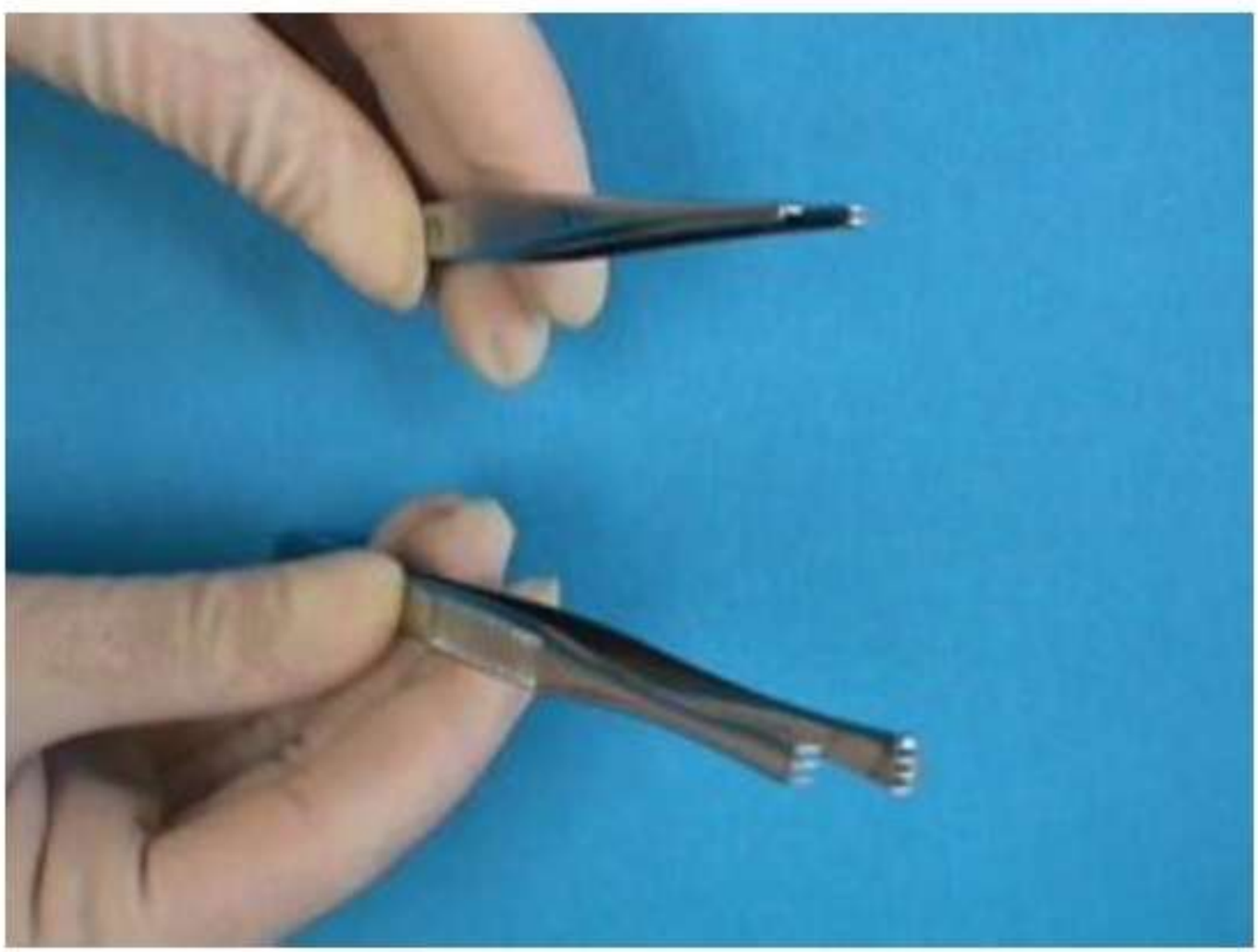
♦ **Russian tissue forceps** are used to grasp tissue.

♦ **Adson pick ups** are either smooth: used to grasp delicate tissue; or with teeth: used to grasp the skin. Other names: Dura forceps.

♦ **DeBakey forceps are used to grasp delicate tissue, particularly in cardiovascular surgery.**

♦ **Thumb forceps** are used to grasp tough tissue (fascia, breast). Forceps may either have many teeth or a single tooth. Single tooth forceps are also called "rat tooth forceps."

single tooth forceps, many teeth forceps (top to bottom)



♦ **Mayo-Hegar needle holders are used to hold needles when suturing.**

Retracting and Exposing Instruments are used to hold back or retract organs or tissue to gain exposure to the operative site. They are either "selfretaining" (stay open on their own) or "manual" (held by hand). When identifying retractors, look at the blade, not the handle.

US Army retractor

Deaver retractors

Cushing vein retractor

Harrington retractor

Kelly retractors

♦ **A Deaver retractor (manual) is used to retract deep abdominal or chest incisions. Available in various widths.**

♦ **A Richardson retractor (manual) is used to retract deep abdominal or chest incisions**

♦ **An Army-Navy retractor (manual) is used to retract shallow or superficial incisions. Other names: USA, US Army.**

♦ **A goulet (manual) is used to retract shallow or superficial incisions.**

♦ **A malleable or ribbon retractor (manual) is used to retract deep wounds. May be bent to various shapes.**

♦ **A Weitlaner retractor (self-retaining) is used to retract shallow incisions.**

♦ **A Gelpi retractor (self-retaining) is used to retract shallow incisions.**

♦ **A Balfour with bladder blade (self-retaining) is used to retract wound edges during deep abdominal procedures.**

Amnihook: Used to perform artificial rupture of membrane

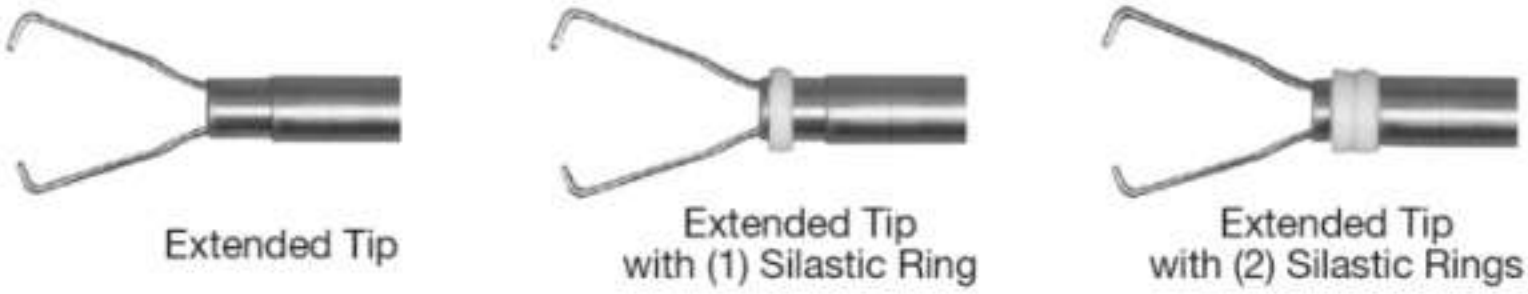
Alli's Forceps: Use to grasp tough structure like Rectus Sheath. Use in LSCS, Hysterectomy

Artery Forceps: Straight end → stay suture. Curved end → hemostat

Ayre's Spatula: Use in Pap Smear

Babcock's Forceps: Use to grasp tubular structure like Fallopian tube

Band Applicator for BTL: **Used for applying silastic bands to fallopian tubes in laparoscopic tubal ligation.**

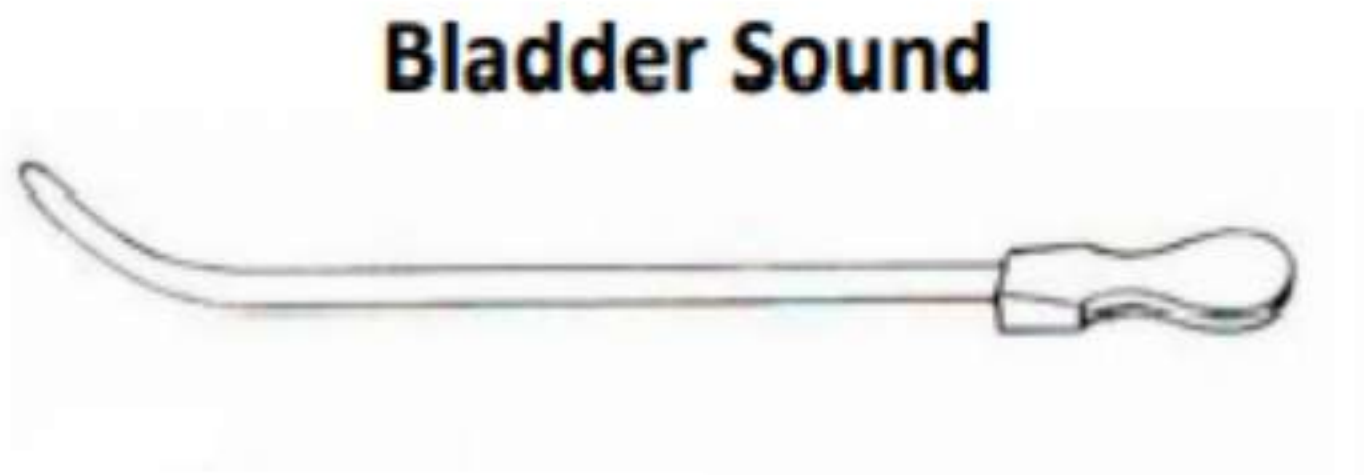


Extended Tip

Extended Tip
with (1) Silastic Ring

Extended Tip
with (2) Silastic Rings

Bladder Sound: **Use to measure bladder length**



Cervical Brush: Use in Pap Smear

Cusco's Speculum: **Self-retaining double bladed vaginal speculum.**

Combined Uterine Manipulator and Cannula for Laparoscopy

♦ **Doyen's Retractor:** Use to retract bladder during LSCS/ Hysterectomy

♦ **Deaver's Retractor:** Use for retraction of deep structure

♦ **Episiotomy Scissors:** Used in Episiotomy

♦ **Foley's Catheter: Drainage of urine Induction of labor**

♦ **Green Armytage Forceps:** Used as a hemostat in caesarean operation

♦ **Hegar's Dilator:** Use to dilate the cervix. Used in procedure like DnC

♦ **Kocher's Forceps:** Used to hold Pedicles in Hysterectomy

Karman's Syringe: Used for Menstrual Regulation and endometrial aspiration.

- **Leech Wilkinson Cannula:** Used in tubal patency test like HSG. the tip is screwed through cervix, then dye is injected

- **Needle Holder:** Used to grasp needle during suture

♦ **Ovum Holding Forceps:** Used to remove POC in miscarriages.

♦ **Pinard's Fetal Stethoscope:** **Used to auscultate fetal heart.**

♦ **Pipelle:** **Used to take Endometrial sample.**

♦ **Rubin's Cannula:** Used for tubal patency test for infertility like HSG.

Rubin's Cannula / insufflation cannula

♦ **Right Angle Retractor.**

♦ Sims Anterior Vaginal Wall Retractor:

Used together with Sim's speculum. Useful in case of cystocele.

♦ **Sponge Holder:** **Used for holding sponge or a gauze piece for painting the area before operation.**

Suction Curette: Used for first trimester MTP, suction of vesicular mole.

♦ **Trocar and Cannula:** **Used during Laparoscopy.**

♦ **Umbilical Cord Clamp : Used to clamp the Umbilical Cord**

♦ **Umbilical Cord Scissors:** **Cutting the umbilical cord .**

♦ **Uterine Curette:** **Use for scraping endometrial cavity to obtain sample for histopathology.**

♦ **Uterine Sound:** Used to measure Uterine length.

T♦ **enaculum:** Used for grasping the cervix (Usually anterior lip of the cervix is grasped).

♦ **Vulsellum:** **Used for grasping the cervix (Usually anterior lip of the cervix is grasped).**

Vantouse

♦ **Varies Needle: used for creating pneumo peritoneum (Putting Air or CO2 in the peritoneal cavity) for laparoscopy.**

Varies Needle

- putting Air or CO2 in the peritoneal cavity) for laparoscopy..

♦ **Wrigley's Forceps**

Ambu bag / self inflating bag: They are instruments used to provide oxygen during intermittent positive pressure respiration (IPPR) via an endotracheal tube or a facemask. They are used in emergencies when somebody is facing breathing difficulties to provide artificial ventilation.

Laryngoscope: It is an instrument used for intubation and direct laryngoscopy. It consists of two parts the blade and the handle. The handle contains the battery container, which acts as an energy source for the light source

Endotracheal Tubes: They are used for intubation to maintain the airway in case of cardio-respiratory arrest to create artificial ventilation. In neonates also, it is used in the treatment of meconium aspiration syndrome

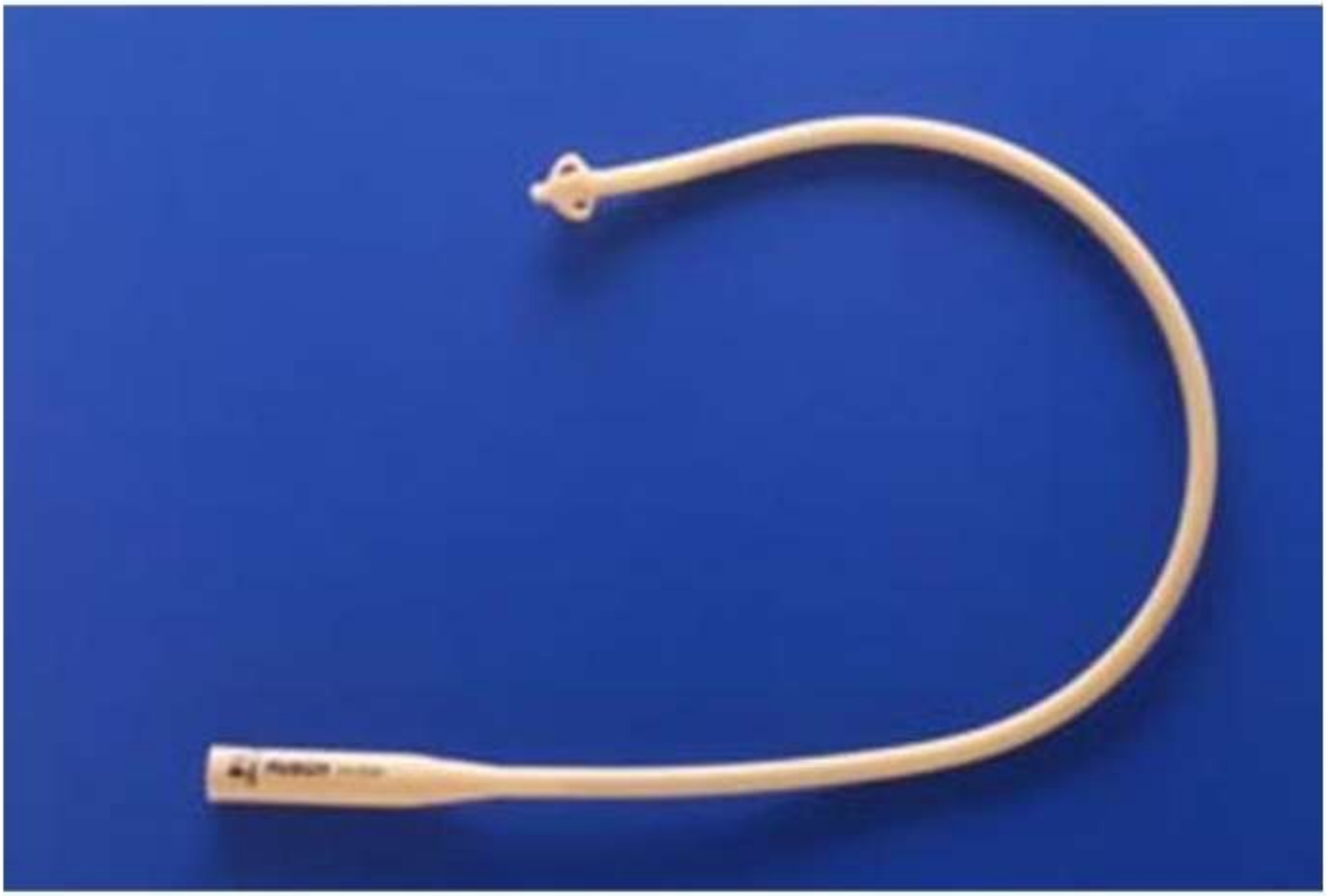
Ryle's tube: It is mainly used for feeding in patients with lower cranial nerve palsies, in unconscious patients and in patients with PEM. It is also used for doing gastric lavage in cases of poisoning. It is used to aspirate gastric contents in case of hematemesis, intestinal obstruction, post surgery and gastric acid aspiration for gastric function tests.

Tongue Depressor: used for depressing the tongue to examine the throat and oral cavity. They are also used for spatula test in case of suspected tetanus, to examine the gag reflex and to perform posterior rhinoscopy.

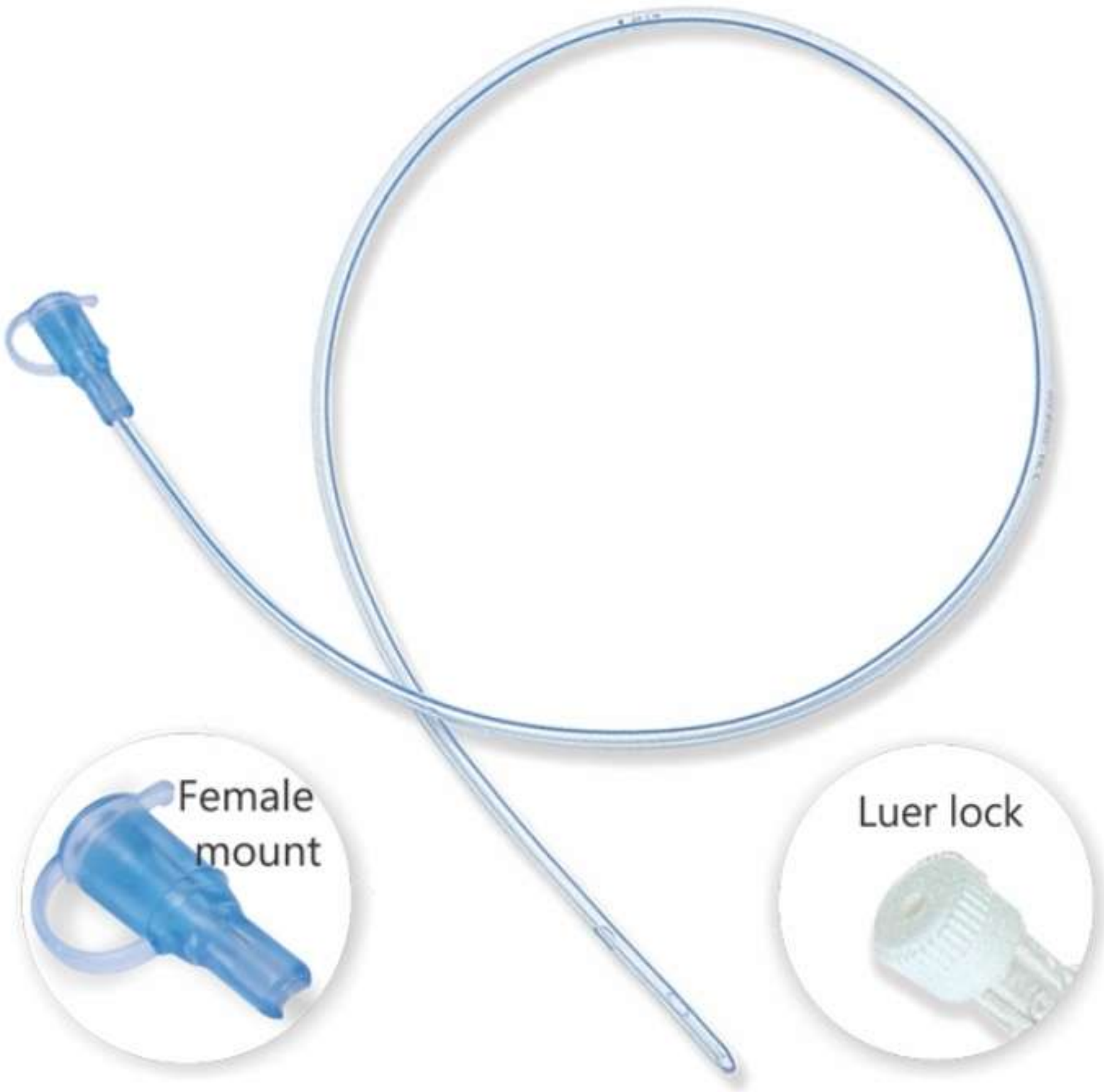
Thermometer: used for measuring body temperature

Flatus tube: It is reusable rubber tube used for the removal of flatus .It is also used for the treatment of sigmoid volvulus and intussusception. It is used also for barium enema.

Moalect's catheter: Initially it was used for bladder drainage in females.However, now it is used only as a intercostal drainage catheter in case of empyema. It is also used as a perinephric drain in post nephrectomy patients and as a condom catheter in male patients.



Infant feeding tube: It is also used in treatment of volvulus in infants and for diagnosis of tracheo-esophageal fistula, duodenal atresia, choanal atresia and imperforate anus. It can be used to collect the gastric lavage for pus cells, meconium and for giving stomach wash.



Simple rubber catheter: used for giving bladder wash, enema, bowel wash and to drain the urine in case of acute retention of urine. It is also used for retrograde cystourethrogram (MCU).

Urine bags: used for collection of urine in a catheterised patient. It has an air tight mechanism which prevents infection of the urine.

Apnea monitors: are devices that help to detect apnea in child. They are used both in NICU and home setting. They especially useful in infants having frequent apneic spells and are at the risk of dying.

mercury filled blood pressure monitors: mercury filled sphygmomanometer were maximally used for measuring the blood pressure even in intensive care settings.

Digital Blood Pressure Monitor: This model again contains cuff but have semi automatic and fully automatic models.

Finger blood pressure monitor: can be used by in inserting the index finger in the adjustable cuff. The automatic cuff fits to size and inflates and shows the reading LCD panel.

Wrist blood pressure monitor: Wrist blood pressure monitor can be used around the wrist and the button automatically inflates the cuff. The reading is than shown on the LCD panel.

Syringe pump: is designed to deliver drug at a predetermined rate and speed. In recent years, pharmaceutical companies have developed more and more concentrated and effective medicine. Hence, these medicines are required to be injected very slowly as well as continuously. Syringe pumps are particularly helpful under such circumstances as they are programmed to do deliver drug through the vein at a determined rate.

Infusion pumps: are devices that are used to deliver therapeutic fluids which can be either medication or nutrients at a predetermined rate.

An inline manometer: is used to check the pressure of air (or liquid) depending on the instrument with which it is coupled. The instrument is connected through an opening that already exists for connecting pressure gauge. The air or liquid will enter to the tube and the pressure will be shown on the pressure gauge.

Breast pump: is a device that is used by mothers who want their baby to be fed mothers milk even when they are not around. In the 21st century, a large number of mothers are working, especially in metros. When we discuss about newborn babies, mother's milk is strongly recommended by doctors. But when it comes to working mothers, they are not available every time for the baby so that they can feed breast milk to the baby when required. In such conditions, mothers can store breast milk in a bottle or flask through breast pump which can be fed at the appropriate time to the baby by care takers, or father of the bay or any relative who is taking care of the baby.

Incubators: are device that provides sufficient warmth to the body to maintain a desired temperature. Premature babies have very less fat around them and lose heat rapidly to the surrounding environment. The incubator plays an important role in maintaining the small environment of desired temperature which minimizes the heat loss. Once the heat loss is reduced, the nutrition given to premature babies will be utilized in organ development and weight gain.

Nebulizer: is a device that is used to deliver liquid medication in the form of spray (vapor form or mist) which can be inhaled by the patient. Thus, nebulizer assists in delivering the medication (which is generally in liquid form) in a fine mist which can be inhaled and this helps in treatment of respiratory disease.

Photo therapy: Photo therapy is still considered to be the most widely used method to treat neonatal jaundice. The commonest cause of neonatal jaundice is associated with excess indirect bilirubin in the blood and phototherapy helps to break the concentration of the bilirubin. Though blue light alone is not the factor, and importance is also given to wavelengths as well as the intensity of light. The right intensity of light helps to break the bilirubin in the skin and reach to a safe level while too high intensity can cause burns.

Modes of ventilation: Mechanical ventilation using positive pressure can need airway invasion using an endotracheal tube or, as is being more frequently seen, non-invasion of airways can be performed (use of facial and nasal masks).

Ambu bag / self inflating bag: They are instruments used to provide oxygen during intermittent positive pressure respiration (IPPR) via an endotracheal tube or a facemask. They are used in emergencies when somebody is facing breathing difficulties to provide artificial ventilation.

Laryngoscope: It is an instrument used for intubation and direct laryngoscopy. It consists of two parts the blade and the handle. The handle contains the battery container, which acts as an energy source for the light source.

Oropharyngeal airways: They are metal, plastic or elastomeric instruments, which help to maintain the patency of the airway in an unconscious patient who is breathing spontaneously. They prevent the tongue from falling back by fitting snugly in the oral cavity. They come in various sizes and the correct size is calculated from the angle to the mouth to the angle of the jaw. Care must be taken to avoid using a larger size as the tip may press the epiglottis against the posterior pharyngeal wall causing airway obstruction. If smaller size tube is used, it may push the tongue into the posterior pharynx causing airway obstruction.

Oxygen hood: These are transparent plastic shell that surrounds the baby head. The use of this hood comes when you have to avoid direct flow of cold oxygen on baby's face and head. The shell are designed in such a way so that other body parts like chest, stomach etc. can be accessed. The opening is generally softly padded keeping in mind the soft skin of the baby so that they don't hurt themselves. The oxygen hood is available in various sizes.

Resuscitator oxygen reservoir: is attachment for resuscitation bag and helps to provide concentrated oxygen. It helps to increase the FIO2 of the oxygen being supplied. The reservoir is attached to the resuscitator bag and delivers 100% FIO2.

ABG Machine: Used to measure arterial blood gases

Defibrillator: A defibrillator is a device that gives a high energy electric shock to the heart through the chest wall to someone who is in cardiac arrest.