Intensive Care – Common Equipment

There is a wide variety of equipment used in the ICU to both monitor the patient and help treat their illness. Below are some of the more common things you may see in the unit. Please feel free to ask a staff member if you need more information.

Monitoring
The patient will be connected to a bedside monitor that may display some or all of the following: heart rate (and rhythm), blood pressure and respiratory rate. Oxygen saturation and CO2 may also be displayed to give information to the staff about how well the patient is breathing.

Intravenous (IV) catheters
An intravenous or IV catheter (tube) may be inserted into a blood vessel to allow the team to give fluids and drugs. A peripheral line is a small catheter inserted into one of the blood vessels in the hand or arm. If the patient requires an increasing amount of fluid or medications, a larger catheter called a central line or central venous catheter (CVC) may be inserted by the physician into a larger blood vessel (usually in the neck, chest or groin).

Ventilation (breathing)
If the patient is having trouble with their breathing a ventilator may be used to support their breathing. Ventilation can be provided by either a tight fitting face mask or more commonly, a tube called an endotracheal (ET) tube is inserted through the mouth into the trachea (windpipe). There are many different types of ventilators (breathing machines). Your nurse or respiratory therapist can provide you with any additional information you may need.

If support is required longer term (more than a couple of weeks), the physician may discuss a tracheostomy where the breathing tube is inserted through the neck into the windpipe. This is considered more comfortable for long term use.
**Arterial lines**
A catheter may be inserted into an artery (usually in the wrist, groin or foot) and connected to the bedside monitor to allow for continuous blood pressure monitoring and to also allow for frequent drawing of blood specimens.

**Pacemakers**
If the heart is not beating properly a device called a pacemaker may be used. The pacemaker produces an electrical current that stimulates the heart to beat. Pacemakers can be placed on the skin (short term – a few hours), inserted through a central venous catheter into the heart (used for days to weeks) or if needed long term can be surgical implanted under the skin of the chest wall.

**Chest tubes**
If air or fluids get into the chest wall, the lung may not fully expand and the patient may have trouble breathing. If this occurs, a tube may then be inserted through the chest wall to help remove the air and/or fluid and allow for full expansion of the lung.

**Tube feeding or Parenteral Nutrition**
When patients are very sick, they may not consume enough calories to allow them to heal. If they are on a ventilator, they will also be unable to swallow anything because of the breathing tube. To provide the needed nutrition, a tube is inserted through either the mouth or nose down into the stomach or small intestine. The patient can then be given tube feeds. If the stomach is not working properly or can't be used for some reason, the necessary nutrients can be broken down into more basic liquids and it can be given straight into the blood stream (total parenteral nutrition or TPN).