



Information Sheet

Medical Terminology

Artery: a blood vessel that carries oxygenated blood away from the heart.

Arterial Blood Gas (ABG): a sample of blood taken from an artery that allows the medical staff to analyse the gas exchange in the lungs, specifically looking at the amount of oxygen, carbon dioxide, and acid in the blood. These measurements are used to determine how much ventilation support is needed. Normal ranges for ABGs are listed below, however staff may accept different levels depending on the clinical situation:

- Partial pressure of carbon dioxide (PCO₂) is 35-45mmHg.
- Partial pressure of oxygen (PO₂) is 80-100mmHg.
- Saturation of haemoglobin with oxygen (SaO₂) is 96-100%.
- Bicarbonate (HCO₃) level is 22-26mEq/L.
- pH is 7.35-7.45

Agenesis of the Diaphragm: complete absence of the diaphragm.

Alveolus: air sac in the lung.

Amniocentesis: A fine needle is inserted through the mother's abdominal wall and into the amniotic sac, where a small amount of fluid that surrounds the embryo is withdrawn, to test for genetic abnormalities.

Analgesia: medication given to provide pain relief, such as paracetamol (panadol) or morphine.

Antibiotic: a medication given that prohibits the growth of, or destroys micro organisms that cause infection.

Aneurysm: abnormal bulge in the wall of an artery, caused by weakening of the artery wall.

Apnoea: temporarily stopping breathing.

Arterial stab: procedure by which a sample of arterial blood is taken from an artery (e.g. for the purpose of blood gases).

Bagging: a procedure that uses a small mask attached to an oxygen bag to manually pump oxygen into the baby's lungs usually during resuscitation

Blood Transfusion: the administration of blood donated from a healthy individual that is needed to replace blood lost from the patient through surgery or repeated blood tests.

Breast Milk Substitute (BMS): infant formula used as an alternative to breast milk.

Bochdalek Hernia: an opening through the posterior part of the left diaphragm between the abdominal cavity and the chest cavity. It is the most common form of CDH.

Bolus: a single, concentrated dose of a medication (e.g. morphine).

Bradycardia: slowing of the heart rate. In infants this is less than 70 beats per minute.

Carbon Dioxide: colourless waste gas carried in the blood to the lungs where it is exhaled.

Central Venous Line/ Central Venous Catheter (CVC): an intravenous line with two to three tubes enclosed in one larger tube (called lumens) usually inserted into a large vein in the neck or groin or in an arm or leg, which allows fluids and medications to be administered to the baby. Because there is more than one tube (lumen), multiple drugs can be administered, even ones that are incompatible with each other. An umbilical venous catheter serves the same function

Chest Tube (intercostal catheter - ICC): a drainage tube inserted into the patient's chest to drain fluid or air.

Congenital Abnormality: a defect present at birth.

Continuous Positive Airway Pressure (CPAP): a form of noninvasive ventilation support, where soft nasal prongs are placed in the infant's nose, which are then attached to a machine that pushes air or oxygen into the baby's lungs to keep the air sacs (alveoli) open after each breath. Sometimes a mask is used instead. CPAP can also be administered through an endotracheal tube attached to a ventilator.

Cardiotocography (CTG): a machine that monitors fetal heartbeat and contractions during labour.

Culture: a sample of blood, urine, stool, secretion or any other physical matter obtained from the baby and sent to the lab for analysis. If the culture shows an infection is present, it can be treated with various medications to kill the bacteria or fungus present.

Desaturation (oxygen): a decrease in the amount of oxygen ("saturation") in the blood. Can lead to hypoxia (oxygen saturation <90%).

Diaphragm: dome-shaped muscular separation between the chest and abdomen. It plays a major role in breathing, as its contraction increases the volume of the thorax, and inflates the lungs.

Diuretics: medication that increases the volume of urine produced by promoting the excretion of salts and water from the kidney.

Dobutamine: a medication used to treat heart failure and improve blood pressure.

Dopamine: a naturally-occurring compound that has many functions within the body, including as a vasodilator. Dopamine is also used as medication. It acts on the sympathetic nervous system. Application of dopamine leads to increased heart rate and blood pressure.

Dopamine cannot cross the blood-brain barrier, so dopamine given as a drug does not directly affect the central nervous system.

Expressed Breast Milk (EBM): also known as EHM: expressed human milk

Extracorporeal Membrane Oxygenation (ECMO): a machine that takes over the work of the patient's heart and lungs. A large catheter is placed in an artery in the patient's neck. Blood is then removed from the patient's body, oxygenated and returned to the body.

Endotracheal tube (ETT): a tube placed through the nose or mouth into the trachea to provide mechanical or manual ventilation.

Extubate: the removal of a breathing tube from the trachea.

Familial Abnormalities: a birth defect that occurs in two or more family members.

Femoral arterial line: a central line inserted into the femoral artery near the patient's groin as an arterial line to take blood samples easily.

Femoral venous line: This is a form of central venous catheter.

Fetoscopic Tracheal Occlusion (FETO): an in-utero procedure where a small balloon is inserted into the trachea of a foetus in order to help stimulate lung growth. This is mainly experimental.

Gastrointestinal Reflux: a condition where the contents of the stomach "back up" into the oesophagus because the valve at the top of the stomach does not work well. Also called Gastroesophageal Reflux and Silent Reflux.

Gastrostomy Tube (G-Tube): tube or button that is inserted surgically and delivers nutrients directly to the stomach.

Genetic Counseling: counseling that involves providing information to at risk parents who are expecting a child or planning a pregnancy, or who have child with a birth defect or chromosomal abnormality. It informs parents of their risks in future pregnancies and the significance of any differences found on genetic tests.

Goretex: a type of synthetic material sometimes used in CDH repairs (patch).

Hernia: protrusion of an organ or tissue through a weak area in muscle or other tissue that would normally contain it.

High Frequency Oscillator (HFOV): type of ventilation that delivers a small volume of air/oxygen with a fast respiratory rate of more than 150 breaths per min. It maintains adequate lung volume with a constant distending pressure together with the ability to remove carbon dioxide (by “wobbling” /oscillating the chest).

Head to Lung Ratio (HLR): measurement taken in utero to assist medical personnel to assess and monitor severity / progress of CDH.

Hydrocephalus: Enlargement of the brain cavities caused by a build-up of cerebro-spinal fluid (CSF).

IPPV: intermittent positive pressure ventilation. A type of mechanical ventilation that delivers air to the lungs in short bursts under pressure in order to mimic intakes of breath.

In Dwelling Catheter (IDC): a fine tube inserted into the urethra, through to the bladder, to drain urine.

Inotropes: drugs used to control the strength of heart beats (muscular contractions).

Intubate: insertion of a tube into the trachea to assist with breathing (via a ventilator).

In-Utero Procedures: There are some in-utero procedures that can be used on CDH babies. At this stage, they are all experimental and only a limited number of doctors throughout the world perform them. They include fetoscopic tracheal occlusion (FETO) and tracheal ligation. In the past, full CDH repairs were conducted in-utero but have proven to be ineffective. Please read our document entitled CDH Medical Procedures.

Long line: see PICC, CVL, CVC.

Lung Hypoplasia: failure of one or both lungs to develop fully. In CDH, occurs to both lungs to varying degrees.

Lung Displacement: term used to describe the movement of the lung tissue from where it is usually located (e.g. due to CDH).

Midazolam: a sedative medication.

Magnetic Resonance Imaging (MRI): it is a common practice to do an MRI in conjunction with scans prior to the birth as this gives the medical team a clearer picture of where organs are located in the babies chest, it also provides some different angles and images not able to be captured on ultrasounds.

Morgagni Hernia: diaphragmatic hernia that occurs near the front of the body, near the breastbone.

Morphine: a narcotic pain-relieving medication.

Narcotics: drugs used to therapeutically treat pain and induce anaesthesia.

Neonatologist: a sub-specialist Paediatric doctor, qualified to work with newborn babies in intensive care.

Nitric Oxide: a gas used to treat pulmonary hypertension. It relaxes the smooth muscle in the walls of the blood vessel in the lungs, therefore increasing blood flow and increasing oxygenation.

Nissen Fundoplication: a surgical procedure where the opening between the lower end of the oesophagus and the top part of the stomach is narrowed to prevent contents from the stomach flowing back into the oesophagus. It is sometimes used to treat severe reflux.

Naso Gastric Tube (NGT): a fine plastic tube inserted through the nose of the baby into the stomach which can be used for feeding or drainage of stomach contents.

Neonatal Intensive Care Unit (NICU): newborn nursery for critically ill infants.

Oedema: excessive accumulation of fluid in body tissue.

Oxygen Saturation: measures the percentage of oxygen carried by the red blood cells in the bloodstream.

Patent Ductus Arteriosus (PDA) Shunting: changes in the blood flow of the heart due to the foetal duct remaining open.

Permacol: a type of synthetic material sometimes used in CDH repairs (patch).

Percutaneous Endoscopic Gastrostomy (PEG) / Percutaneous Endoscopic Jejunostomy (PEJ): a type of feeding tube, surgically inserted directly into the gastrointestinal tract to bypass the stomach / oesophagus.

Peripherally Inserted Central Catheter (PICC): a small, flexible tube inserted into a vein near the patient's elbow to allow easy administration of fluids and medications. It can stay in place for months to years.

Paediatric Intensive Care Unit (PICU): a hospital ward for critically ill infants, children and teenagers.

Pneumonia: inflammation of the lung caused by bacteria. It causes the alveoli (air sacs) to fill up with pus and become solid. This prevents adequate oxygenation of the body.

Polyhydramnios: excessive amounts of amniotic fluid that can be an indicator of possible fetal problems.

Pre- / Post-ductal Saturations: the measurement of oxygen in the blood, often used to measure PPHN.

Prostin: medication to treat Persistent Pulmonary Hypertension (PPHN).

(Persistent) Pulmonary hypertension (of the neonate)(PPHN): Is a complex condition of the newborn and an important determinant of survival with CDH. It is defined as a failure of the normal fall of pressure within the blood vessels supplying the lungs. It can be very difficult to treat and is related to the degree of undergrowth/underdevelopment of the lung and its supplying blood vessels that occurs with CDH. It is characterised by low oxygen levels in the baby. In essence the baby's circulation remains as it was before delivery and the right-sided heart pressure remains high instead of dropping, which normally occurs at birth.

Pulse Oximeter: a machine that reads the patient's heart rate and blood oxygen saturation levels through a probe placed on the patient.

Scaphoid Abdomen: visually, a concave rather than convex-shaped abdomen (tummy sunken in because the abdominal contents are in the chest).

Special Care Nursery (SCN): a nursery for infants that are healthier and stronger than those in the NICU.

Sildenafil: a vasodilator medication used to treat PPHN.

Sepsis: severe illness caused by an overwhelming infection of the blood stream by toxin causing bacteria.

Suctioning: a procedure during which a small catheter, attached to a suction machine is inserted into a baby's endotracheal tube to remove secretions that the baby can not cough out.

Total Parenteral Nutrition (TPN): high calorie intravenous fluids used for nutrition.

Tracheal Occlusion: involves an operation on the mother during pregnancy, where the baby's trachea is clamped off, causing the lungs to grow and push the abdominal organs back into the abdominal cavity.

Tracheostomy: surgical insertion of a tube to assist with breathing.

Umbilical Venous Line and Umbilical Arterial Line (UVC/ UAC): these are tubes inserted into the vein and artery of the umbilicus. They are inserted as soon after birth as possible and can be left in place for up to 14 days. The umbilical venous line provides immediate intravenous access to the baby, to provide fluids and medications. The umbilical arterial line enables regular blood sampling.

Vasodilators: medications that work on blood vessel walls to stop them from narrowing.

Vein: a blood vessel that carries deoxygenated blood to the lungs from around the body.

Ventilator: a type of mechanical breathing assistance. See HFOV, CPAP.



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