NHS
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Oxford Newborn Care Unit: Neonatal Equipment

Information for parents and carers

Oxford Newborn Care Unit

Information about the equipment you may see on the unit

While your baby is on the Oxford Newborn Care Unit, you will see various pieces of equipment used. This leaflet explains what they are, and how they are used to care for babies.

Incubator

GE Healthcare

This is a transparent box on wheels, which is used to keep a baby warm. Some of the incubators have a top which lifts up (mainly used on the Intensive Care Unit) and some only have side access. We can add extra humidity (moisture) into the incubator, to help prevent dehydration while the baby's skin matures. We can also place a temperature probe on the baby, to make sure their temperature remains within normal range. Some incubators also have weighing scales built in, so we don't have to take the baby out to weigh them.

Cot/bassinet

This is a standard hospital newborn cot.
We also have bigger cots for older babies.

Bristol Maid

Hot cot

We have special mattresses, which can be put into the bottom of a cot. These can be set to a temperature to help keep a baby warm, if they are struggling to maintain their own temperature.

Ventilator

This is a mechanical breathing machine, which delivers warmed and humidified air/oxygen to a baby's lungs. The air is provided through an endotracheal tube. This is a small plastic tube, which is inserted through a baby's nose or mouth down into their windpipe. The amount of oxygen, air pressure and number of breaths per minute can be adjusted to meet each baby's needs.

High flow

This is a set of nasal prongs (small plastic tubes which sit just inside the nostrils), which deliver humidified oxygen and air to a baby at a constant flow. The flow and oxygen level can be adjusted, depending on the baby's needs. The baby does all of their own breathing, but the machine helps keep their lungs open between breaths.

Neopuff

This is a piece of emergency equipment which can be connected to the air and oxygen points on the walls. A mask is attached to the tubing, which can be placed over a baby's face to give them oxygen. The nurse can create a seal with the mask by placing their thumb over the top of the tubing. Breaths can then be given to the baby. This can be adapted for babies who are ventilated (have a breathing tube already in place).

Cardiac monitor

This measures a baby's heart rate, respiratory (breathing) rate and the level of oxygen in their blood (sats probe). Three small sticky pads, connected to electrocardiogram leads (ECG leads), are placed on the baby's chest and tummy. A further small probe is either attached to the baby's wrist or foot. This machine also measures blood pressure, with a small blood pressure cuff wrapped around the baby's arm or leg. Other observations can also be measured.

Saturation (sats) probe

ECG leads

Blood pressure cuff

Saturation and heart rate monitor

This is a smaller monitor, which just measures a baby's heart rate and oxygen levels using a small probe, which is normally attached to the baby's wrist or foot.

Apnoea monitor

This uses a small square pad, which is placed under a baby to pick up their movements/breathing. If no movements or breathing are detected after 20 seconds, an alarm sounds.

Phototherapy unit

Bright blue fluorescent lights are placed over a baby's incubator or cot to treat jaundice. The baby's eyes are protected from the light with a special eye mask.

Biliblanket

GE Healthcare

This is a pad which is put into a cot for a baby to lie on, which works like the phototherapy unit. It can be used alone, or with the overhead lights.

Perfuser pump/syringe driver

This is a pump used either to give milk feeds slowly through a baby's feeding tube, or to deliver medication through an intravenous line.

Infusion pump

If a baby is unable to have milk feeds, we will need to feed them through a small tube (a 'drip' or cannula), into a vein. They are usually given dextrose (sugar) solution, possibly with other fluids. An infusion pump is used to make sure that the fluid is given at a constant and regular rate.

Nitric oxide (NOxBOX)

Nitric oxide is a gas which is mixed with oxygen from the ventilator. It is used to improve the oxygen levels in a baby's blood.

Criticool (cooling)

This machine circulates water to a bodywrap around a baby. This can be used to cool a baby to 33.5 degrees centigrade for 72 hours and then slowly rewarm them. There is a skin probe for measuring the baby's surface temperature and rectal probe for measuring their core (internal) temperature. These are connected to the Criticool machine, which constantly monitors the baby's temperature.

Brainz (Cerebral Function Monitor – CFM)

This machine has five electrodes which are connected to the baby. Four are placed on the baby's head and one on their shoulder. This is used to monitor brain function and seizures, mainly in babies who are being cooled.

Transport equipment you may see while on the unit

Giraffe shuttle

This clips on to a normal incubator to allow the safe transfer of a baby between different departments within the hospital. There is a ventilator, monitor and oxygen and air cylinders on the shuttle. It also has a power supply to maintain the temperature in the incubator.

All babies in the following incubators are strapped in safely and securely using specialist safety restraints. Babies wear ear muffs, to protect them from the noise during transfer. We will also cover the incubator, to protect them from light and maintain their privacy.

SONeT Twin Pods (known as Gemini)

These are used by the neonatal transport service to transfer stable babies from one hospital site to another. One or two babies can be transferred to the same hospital at one time.

SONeT ITU Incubator (known as Dave and William)

These are used to transfer babies who require intensive or high dependency care. They carry the same equipment as found in an Intensive Therapy Unit (ITU) bed space. Occasionally this incubator is used for babies from the Low Dependency Unit who might need an incubator with temperature control.

MRI Pod

This is an MRI-safe incubator, in which a baby can remain during transfer to MRI and throughout a scan.

How to contact us

If you have any further questions about the equipment being used during your baby's time on the Oxford Newborn Care Unit, please speak to a member of staff on the unit, or telephone us.

Parents' telephone numbers

Intensive Therapy Unit (ITU): **01865 228 387**

High Dependency Unit (HDU): **01865 228 386**

Low Dependency Unit (LDU): **01865 572 686**

Website: **www.ouh.nhs.uk/children/services/newborn-care**

Further information

If you would like an interpreter, please speak to the department where you are being seen.

Please also tell them if you would like this information in another format, such as:

- Easy Read
- large print
- braille
- audio
- electronic
- another language.

We have tried to make the information in this leaflet meet your needs. If it does not meet your individual needs or situation, please speak to your healthcare team. They are happy to help.

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