



## RESPIRATORY DISTRESS SYNDROME

### What is Respiratory distress syndrome? (RDS)

RDS is the most common lung disease in the preterm infant.

This occurs in babies where their lungs are still developing. The more premature the baby, the greater the likelihood of having RDS. However, some term babies do develop RDS.

RDS is due to a lack of SURFACTANT in the lungs. Surfactant is a substance normally produced by the lung. Surfactant acts like washing up liquid by spreading a film over the air sacs allowing them to stay open. Open air sacs in the lungs are essential to allow oxygen to enter the blood from the lungs and allow carbon dioxide to be released from the blood into the lungs for the baby to breathe out.

### What does a baby with RDS look like?

The baby will show signs of:

- Rapid breathing > 60 breaths / minute.
- Nasal flaring- widening of the nostrils with each breath.
- Dusky colour, not pink.
- Recession. The baby's ribs and centre of the chest will be pulled in. This is an indication that the baby is finding the work of breathing hard,
- Grunting. The baby may make an 'ugh' sound with each breath. It may also sound like a cry.

### How is RDS treated?

- EXTRA OXYGEN. Your baby will need extra oxygen to stay pink. We breathe room air, which is 21%. Oxygen may be added to the incubator that the baby is nursed being in
- CPAP. Your baby might need CPAP, (continuous positive airway pressure) this is where oxygen is given under a small amount of pressure, through two small tubes that fit into the baby's nose. The pressure helps to keep the small air sacs in the lung open, making it easier for the baby to breathe
- VENTILATION. If the RDS is moderate or severe, your baby may need to have a small breathing tube placed in its windpipe, through the mouth. This is called intubation. This is done if your baby needs help with breathing via a ventilator or if a medication called surfactant is to be given. Surfactant is given directly into the breathing tube.

Your baby may have an arterial line sited. This can be used for:

- Continual blood pressure monitoring.
- Blood sampling – to determine if the baby is receiving the right amount of oxygen.
- To determine the correct ventilator settings.

Your baby will also need to have a cannula (small tube) inserted into a vein to give the baby nutrients, fluids and medication. During the early stages of treatment for RDS your baby will not be fed, as giving the baby a full tummy makes it harder to breath.

## **How long does RDS last?**

Babies are different, and their progress will vary. The disease usually gets worse for 3-4 days, and then your baby will gradually need less oxygen. If the RDS was relatively mild and the baby did not need ventilation, the baby may be off oxygen in 5-7 days.

If it has been more severe, there will also be improvement but this may be slower and the baby may need added oxygen and/or ventilation for days or weeks.

Recovery is slower if:

- The baby is very preterm.
- If the disease was severe (requiring high oxygen and ventilation settings for the first few days)
- If the baby had an infection.

## **How can I tell if my baby is getting better?**

- The baby will breathe easier. The breathing rate will decrease.
- The baby will need less oxygen, until they are breathing room air. 21%.
- If a baby needed CPAP, this will be reduced and eventually stopped.
- If a baby was ventilated, ventilation will gradually be reduced and stopped, allowing the baby to breathe on its own. The amount of added oxygen will also be reduced.

## **Are there any long-term problems?**

If the disease has been more severe, possible problems might be:

- Increased sensitivity to lung irritants such as smoke or pollution.
- Increased severity of colds or other respiratory infections, especially in the first 2 years.
- Greater likelihood of wheezing or other asthma-like problems in childhood, than babies without RDS.
- Greater likelihood of hospitalisation in the first 2 years of life, than babies without RDS.
- If the RDS was severe, the baby may have injury or scarring to the lungs called Chronic Lung Disease.

This leaflet is intended to give you information and answer some of your questions. Please feel free to discuss any further questions and concerns with a member of staff.

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