

HYALINE MEMBRANE DISEASE

What is HMD?

Hyaline membrane disease (HMD) is also known as Respiratory Distress Syndrome (RDS) and lung disease of prematurity. HMD occurs when the baby's lungs do not have enough of the substance called surfactant. Surfactant is what stops our small air sacs (alveoli) from collapsing when we breathe out. If the alveoli collapse it is difficult for them to reopen – like it is difficult to blow up a balloon when it is fully collapsed.

Which babies get HMD?

24-25 weeks gestation	95-100% will get HMD
26-27 weeks gestation	50-70% will get HMD
28-30 weeks gestation	20-40% will get HMD
31-36 weeks gestation	10-20% will get HMD
Term infants	< 1%

Can we prevent HMD?

By giving steroids (celestone/dexamethasone) to the mother more than 24 hours prior to the baby's birth, the severity of HMD can be decreased and in some cases prevented.

How do we treat HMD?

Respiratory support may include oxygen in the cot, nasal CPAP (continuous positive airway pressure) where small plastic prongs placed in the baby's nose provide oxygen and air under pressure, or ventilation where your baby has their breathing supported by a machine. If this is required, replacement surfactant (Survanta or Curosurf) can be given directly down the tube into the baby's lungs.

How long does it last?

The disease usually gets worse in the first few days then improves. Bigger babies with mild disease may improve within the first week of life. Tiny babies may require oxygen and a ventilator for a lot longer.

Are there any complications of HMD?

- Some infants with HMD may develop a pneumothorax (a leak of air from a ruptured airway that collapses the lung) which may require the insertion of a chest tube to drain the air from the chest.
- Infants 24-28 weeks gestation are at risk of developing chronic lung disease.

If your infant develops either of these two conditions the medical staff will discuss with you the treatment and long term management. There are also information sheets such as this one for these conditions.

Are there any long term problems from HMD?

HMD does not cause asthma in childhood, or a weak chest. However, if your baby develops chronic lung disease, they may become quite unwell with chest infections in the first few years of life.

If you have any further questions please ask the medical and nursing staff.