

## Information for Patients

# Use of steroid treatment for neonatal chronic lung disease

Babies that are born very early generally need some breathing support (ventilation). This is because their lungs are underdeveloped and stiff. Using machines to ventilate a baby can potentially lead to further damage to their lungs. This could mean that the lungs become inflamed. This can make it more difficult for the lungs to absorb the oxygen that the baby needs and remove the carbon dioxide from their body. The effect of this is that babies can become increasingly dependent on their breathing support, and we may find it difficult to reduce that over time. You may hear us calling this Chronic lung disease of Prematurity (CLD) which is also known as bronchopulmonary dysplasia (BPD). Sometimes CLD is severe enough to make it difficult or even impossible for a baby to manage their own breathing off the ventilator.

Dexamethasone is a steroid medicine. It works by reducing inflammation/swelling in the lungs, increasing how effectively oxygen can be delivered and carbon dioxide can be removed. Often this helps us to reduce the amount of breathing support a baby needs and hopefully to get them off the ventilator.

## Why is Dexamethasone treatment suggested for my baby?

Dexamethasone is the steroid medicine that we use for CLD. Your medical team will be able to explain more about the specific reasons they feel your baby may benefit from steroids, but in general terms it can be beneficial for babies that require a significant amount of breathing support and/or need a lot of oxygen. The hope is that it will reduce the amount of ventilation your baby needs.

## What are the advantages of Dexamethasone treatment?

In many cases the use of Dexamethasone will help your baby come off the ventilator, although they may well still need some support using oxygen-enriched air given through the nose via a CPAP (breathing support) machine.

## What are the disadvantages?

Like any other medication Dexamethasone can have side effects.

1. Impact on brain development: There is some suggestion that there may be an increased risk of cerebral palsy (movement difficulties associated with some degree of brain damage) in babies who have had steroids. Whether it is the steroids that have this effect is difficult to understand as the risk of cerebral palsy is already increased just by being born premature. Those that need steroids are babies that have needed quite a lot of support and/or been very unwell. We use a very low dose of steroid to try and minimise this potential risk as much as possible.
2. Stomach irritation: Very rarely, Dexamethasone can cause bleeding from the stomach. We protect against this by giving an additional antacid treatment to minimise this possibility.
3. Elevated blood sugars: This is a temporary issue whilst on the steroids and generally isn't a big problem. We can manage it by adjusting how much fluid we are giving or if necessary by giving baby Insulin.
4. Infection. There is a slight increase in infection risk while the baby is on steroids. Of course, baby is always being monitored for signs of potential infection. If we are concerned, we will start antibiotics and will consider stopping the steroids.

## What if my baby does not receive the treatment?

If your baby does not receive treatment with Dexamethasone it may be that they will struggle to come off the ventilator. The worry with this is worsening lung scarring and function over time.

## What does the course of treatment consist of?

The course of treatment is normally given over ten days. Typically we give 3 days at the top dose before we start reducing the dose every 3 days This might be extended or shortened but we will talk to you if we feel that's needed.

Although only one course of treatment is usually given, a second course of treatment may sometimes be required if babies do not respond or rebound after the first course.

## Do I have to agree to this treatment?

This information leaflet has been given to you following a discussion with one of the doctors about the need for your baby to have Dexamethasone. You do not need to agree to it if, after discussion, you do not feel it is the right time for your baby to have steroids. The doctors will advise you as to the importance of the treatment. If you decide you don't want us to give the medication at the time we suggest it, it can be re-discussed at a later date.

## Who do I ask for more information?

Please ask to speak to one of the senior doctors looking after your baby if you have any questions.