Humidified High Flow Nasal Prong Oxygen

Information for patients and/or caregivers

Welcome to the Paediatric Unit at Flinders Medical Centre.

This information sheet aims to answer any questions you may have about *Humidified High Flow Nasal Prong Oxygen (High Flow)*.

Introduction

- Bronchiolitis is a common chest infection in young children. See bronchiolitis parent information.
- Young babies can become seriously ill with a chest infection.

The treatments for infants with respiratory distress associated with a chest infection include:

- Oxygen therapy (low flow).
- Hydration give extra fluids through a drip into a vein (intravenous therapy) or via a nasogastric tube into the stomach if needed.
- Clearing mucous secretions.
- Rest.

If your child is not responding to low flow oxygen therapy, and has signs of significant respiratory distress, High Flow oxygen maybe required.

What is Humidified High Flow Nasal Prong Oxygen?

Humidified High Flow Nasal Prong Oxygen or "High Flow" is one treatment that is used to deliver a blend of air and oxygen high flow rate to your child. The oxygen and air blend is delivered via nasal prongs, and is moistened (humidified) and warmed by a circuit (see picture).



Why do we need to humidify the Oxygen/ Air blend?

Heating and humidifying oxygen and air blend at a high flow rate helps to:

Open up the airway because of the pressure of the high flow of oxygen mixed with air.

Reduce the work of breathing as heating and humidifying the oxygen air blend loosen mucus in your child's airway.

Make it easier for your child to cough. Coughing then helps to clear your child's airway and makes breathing easier

By helping with the breathing, your child will be able to rest and recover from the illness more quickly.

Possible Side effects

The use of high flow nasal prong oxygen/air blend has a few side effects, such as:

- A bloated stomach.
- Pressure sores from nasal prongs.
- Blocked nasal prongs from excessive mucous.

Your child's nurse will monitor the use of high flow nasal prong oxygen, nasal comfort and skin integrity throughout the use of this treatment.

Care during treatment

During High Flow treatment your child:

- Will require specialised nursing care
- Will require regular reviews by the medical team.
- Will need continuous monitoring. This is done by placing removable sticky dots on your child's chest and foot. These are connected to an ECG machine to monitor your child's heart and to an oxygen saturation monitor which gives a guideline to the amount of oxygen circulating in his/ her blood stream.
- May be given fluids through a drip into a vein (intravenous therapy or IVT) or via a tube into the stomach (NGT). These methods of giving fluid may be recommended so that your child can rest as in some cases breast / formula feeding can tire your child when they are working hard to breathe.
- May need gentle suction of excessive mucous secretions.
- May need to have a blood test before starting high flow and at intervals after that, depending on the results.
- May need to have a chest x-ray.

When will the treatment stop?

As soon as your child's condition and observations show signs of improvement, such as:

- Decreased work and rate of breathing
- Normal heart rate
- Becoming more interested in feeding
- Improved blood oxygen saturation levels

The medical team will slowly wean your child back to low flow oxygen and then to room air as further improvement is made.

Discharge

- Your child will be reviewed before going home.
- If your doctor would like you to follow up with your GP, this will be up to you to arrange.

For more information

Flinders Womens and Childrens Flinders Medical Centre Bedford Park South Australia 5042 Telephone: 08 8204 5511 www.sahealth.sa.gov.au







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