

## **Pseudomonas Respiratory Infections in Children and Young People**

The information in this advice leaflet is not meant to worry you, but to increase your awareness of *Pseudomonas*, and to help you avoid situations which may increase the chances of acquiring the infection.

### **What is *Pseudomonas*?**

*Pseudomonas* is a type of bacteria which multiply in the lungs of people whose immune systems are weakened by illness or medication, or have lung conditions like Cystic Fibrosis (CF) and non Cystic Fibrosis Bronchiectasis (nCFB).

### **Where does *Pseudomonas* come from?**

*Pseudomonas* is found in many different places including plants, soil, surface or stagnant water and warm, moist environments. It can also be found on food, taps, in sink reservoirs, bath toys, pools, jacuzzis, hot tubs and flower water. Swimming pools are generally safe provided they have a recommended programme of maintenance.

### **How do you get a *Pseudomonas* respiratory infection?**

*Pseudomonas* can be spread to another person by not washing your hands thoroughly, perhaps after coughing into them, then touching someone else, a surface, equipment or toys. (*Pseudomonas* can live on hands contaminated with sputum for up to two and a half hours)

### **How do you know you have *Pseudomonas*?**

The lungs of people with CF and nCFB provide the perfect environment for *Pseudomonas* to grow in because of the thick sticky secretions and warm moist environment. Symptoms of a *Pseudomonas* chest infection can include increased coughing and / or sputum production, tiredness; and there may also be a reduction in lung function.

*Pseudomonas* is usually detected by cough swab or sputum specimen.

### **What happens then?**

The treatment for *Pseudomonas* is an antibiotic given through a nebuliser for three months twice a day after physiotherapy, along with a three month course of an antibiotic taken by mouth. This is given in addition to any usual antibiotic (unless advised otherwise by the Consultant).

Nebulisers will be lent out, and families shown how to use and care for the equipment and how to give the medication.

It can be difficult to treat the *Pseudomonas*, due to a slimy barrier the bacteria forms around itself and it can also become resistant to some antibiotics. Sometimes intravenous antibiotics (these are given through a vein in the arm, usually in hospital) may need to be given at the end of the three months course of nebulised treatment, if the *Pseudomonas* persists. This is to try to prevent the bacteria damaging the lung tissue and becoming permanent.

If the *Pseudomonas* does become established (colonised), for some children and young people this may mean that they need to have the nebulisers twice a day every day and may need more courses of intravenous antibiotics.

## **How can we try to stop *Pseudomonas* spreading between people?**

### **At the hospital.**

#### 1. Good hand washing!

Everyone must ensure they wash their hands with soap and water and dry them thoroughly, especially the children and young people who do grow *Pseudomonas* to try to prevent spread between each other.

Alcohol gel can also be used.

#### 2. Avoid contact with other children and young people who grow *Pseudomonas*.

3. At the hospital the children and young people are seen separately in clinic and on the ward and we only use toys in that can be washed in between each patient. The equipment we use is always cleaned between patients, and we are very strict about washing and drying our hands. The team will always wear an apron and gloves whilst they are with you.

4. The mouth and nose should be covered when coughing, and then hands washed and dried thoroughly.

### **At Home**

1. Good hand washing. (See above 1)

2. Avoid contact (see above 2)

3. Wash all fruit, vegetables and salads prior to eating.

4. Ensure toys are washed as necessary. Bath and garden toys should be rinsed and allowed to dry after each use.

5. Always wash hands after gardening or playing in the garden.

6. Avoid close contact with the cleaning of tropical fish tanks.

7. Avoid greenhouses and indoor garden centres where the atmosphere may be warm and damp.

8. Ensure plastic bottles and containers used for drinking water are sterilized with boiling water before refilling.

9. Ensure medical equipment such as nebuliser pots are washed and dried after each use.

10. Always take prescribed medication.

**If you have any questions about the information about *Pseudomonas* please contact The Children's Respiratory Nurses on 01603 287851.**