CYSTIC FIBROSIS

CF Fact
cystic fibrosis fact sheet

Pseudomonas

Pseudomonas is a frequent cause of infection in people with cystic fibrosis (CF), affecting about half the CF population in Australia. There are many species of Pseudomonas, however, pseudomonas aeruginosa is the most common organism found in CF.

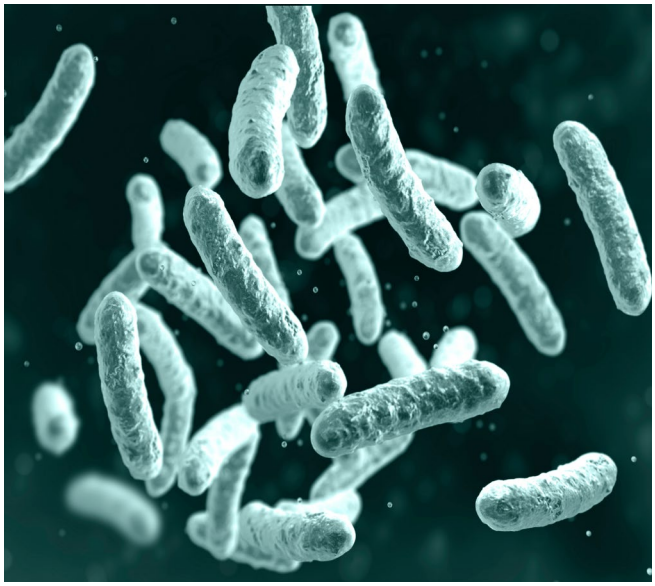
Pseudomonas infection will affect each person with CF differently. It is commonly associated with a decline in lung function, but this might not happen straight away. Once infection is established it is difficult to eradicate, or get rid of, but early, aggressive treatment can delay the development of chronic infection.

How Do People with CF Get Pseudomonas?

Anyone can get a Pseudomonas infection; however, it is more common in those who have low immunity or a chronic lung condition like CF. Mucus in the CF lung provides ideal conditions for the growth of Pseudomonas.

People with CF can get Pseudomonas from the environment, or from other people who are infected with the bacteria, also known as cross infection. Pseudomonas bacteria are widely found in the environment and live and breed in warm, moist places.

They can often be found in stagnant water, soil and damp areas such as bathroom sinks and drains.



Diagnosis of Pseudomonas in CF

Pseudomonas is diagnosed by analysing a sample of mucus from the lungs. This sample can be obtained by coughing up mucus or by bronchoscopy.

Pseudomonas Treatment

A combination of oral, inhaled and intravenous antibiotics are used to treat Pseudomonas infections. These will work for a period; however, eradication strategies eventually are not effective and chronic infection establishes.

The focus of treatment then is preventing more growth of the organism. It is important to always complete the course of antibiotics to prevent bacteria from developing resistance to the antibiotic.

Reducing the Transmission Risk – Cross Infection

The following recommendations can help reduce the risk of transmission of pseudomonas between people with CF:

- Keep at least 4 metres apart if not living in the same house
- Regularly wash hands or use alcohol-based hand gel before entering a clinic or hospital room; after coughing/sneezing, lung function tests, touching shared objects e.g. toys, pens, keyboards, gym equipment
- Cough and sneeze into your elbow
- Do not share equipment with other people with CF
- Wear a surgical mask before entering a hospital, health facility or CF clinic

Reducing the Transmission Risk – Environmental

Pseudomonas in the environment is hard to avoid but there are some things that can be done to help reduce the risk of infection. It is important to ensure that people with CF are still able to participate in fun activities with family and friends and lead a relatively normal life. Many of the following activities can still be enjoyed with extra precautions such as handwashing and use of gloves and mask.

The following recommendations can help reduce the risk of exposure to environmental Pseudomonas infections:

- Limit exposure to warm, moist environments such as garden mulch, compost and manure, pet litter, hay, fish tanks
- Keep bathrooms as dry as possible, leave window open to reduce humidity
- Avoid squirting water/bath toys that trap water inside
- Service evaporative air conditioning units annually
- Change your air compressor nebuliser tubing every 6-12 months

A review, published in the Journal of Cystic Fibrosis in December 2020, summarises the advice for people with CF as well as their parents/carers and families, on what precautions to take to reduce the risk of pseudomonas infection. You can read their full list of recommendations here. If you have any concerns about Pseudomonas, please discuss them with your CF team.

Useful Resources

- Infection Prevention & Control in the Community (CFWA)
- Pseudomonas (CF Foundation)
- How to Clean your Nebuliser (CF Buzz)
- CFWA Infection Control factsheets

Last reviewed January 2021.

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