S e r r a t i a

Serratia marcescens is a type of bacteria commonly involved in hospital acquired infections. It is associated with urinary & respiratory infections amongst other kinds – those with pre-existing health conditions may be more susceptible to infections from Serratia.

**Where does Serratia come from?**

Serratia marcescens thrives in **damp conditions**, so can commonly be found in many **bathroom**s – for instance, shower corners, toilet bowls, tile grout, & sinks. Here it can manifest as a pink/orange slimy substance. Outside of the home Serratia can occur naturally in plants, soil & water.

**How is an infection diagnosed?**

Symptoms of infection may include a fever, frequent urination, or pain upon urination. Patients with lung conditions may experience some shortness of breath & coughing if they have a lung infection. Upon these symptoms, Serratia can be diagnosed through a **mucus, blood or skin biopsy sample** of the infected tissue.

**How is an infection treated?**

A Serratia infection can be treated with the use of antibiotics. Because Serratia can become resistant to the drugs used to eliminate it, it is important to not overuse them. To further prevent resistance, patients should ensure that they finish their prescribed course of treatment for Serratia. Treatment may be administered either by **IV or as oral antibiotics.**

**How can we avoid a Serratia infection?**

The most important method of prevention is to follow **good hygiene rules!**

This includes both personal hygiene & the cleanliness of hospital equipment.

Because Serratia can be extremely resistant to soaps & detergents, it is crucial to **maintain a sterile environment** – this can prevent an infection happening in the first place (& stop cleaning solutions becoming contaminated). In an environment such as a bathroom, periodic & thorough cleaning of surfaces showing the tell-tale pink slime is the best way to control it. Disinfection with chlorine bleach is thought to be an effective method.

Therefore, cleaning of surfaces & hospital devices, sterile equipment & regular hand washing are a great way to avoid infection.

**How do you get Serratia?**

Serratia infections can happen through **direct contact or ingestion** of contaminated substances. Therefore, contact with a contaminated person, medical device/equipment or intravenous fluid can lead to infection. Because Serratia can survive & grow well on disinfectant & antiseptic it is important to try & prevent outbreaks from happening. Solutions used for catheterizations & needle punctures can also become contaminated – this is why **sterile medical equipment** is so important.

**What infections can Serratia cause?**

Serratia marcescens is known for causing **respiratory, & urinary infections**, endocarditis, osteomyelitis, wound infections, septicaemia, eye infections & meningitis. Serratia can also be linked to intravenous & catheter-related infections. In some cases, Serratia can also lead to more severe infections such as pneumonia.

**Who is at risk of infection?**

For the general population, Serratia provides a relatively **low health risk** – speaking on lung infections specifically, those with unhealthy lungs (or pre-existing health conditions) are most at risk of contracting an infection – for instance Cystic Fibrosis patients.

Those with poorer health may also be at greater risk. Because Serratia can cause **nosocomial infections** (a hospital acquired infection) it is important to eradicate the chance of infection to prevent patients being put at risk.