

Patient information sheet

Who is at risk of infection and what to do?

Neutrophils are a type of white blood cell made by the bone marrow. They are important because they help the body fight and prevent bacterial and fungal infections. Cancer treatment affects the bone marrow and this can reduce the number of neutrophils in the blood. This is called *Neutropenia*. During the neutropenia period there is an increased risk of developing an infection. You should not have invasive procedures, such as dental work during this time. In addition, lymphocytes are another important type of white blood cell that helps prevent viral infections. Some cancer treatments used can lower the lymphocyte count and put the patient at risk of serious viral infections.

Check with your doctor if your cancer treatment puts you at risk of infection.

One of the first signs of an infection can be a fever. A neutropenic fever is a common problem while undergoing cancer treatment and when it occurs, you have to present to a hospital or emergency department immediately for assessment and to start antibiotics. **Do not wait for the fever to resolve.**

How to reduce the risk of infection?

The following will help to reduce, but not fully remove your risk of serious infection.

Preventative treatments:

Medication: Based on the cancer treatment you are going to receive, your risk of infection is assessed and you may be started on medication to reduce your risk of developing serious infection. This could be an antibiotic (e.g. Bactrim), an antiviral (aciclovir, valaciclovir) or an anti-fungal (fluconazole, posaconazole). It is important that you take these medications regularly, not miss doses and follow the instructions on the package as they help protect you from serious infections. If you are having problems with the medication(s), **do not stop taking these medication(s)** without first discussing with your doctor.

Vaccination: There are vaccines that can help protect you from some serious viral and bacterial infections. You may need a booster of some vaccines given earlier in life whilst other vaccines such as the influenza vaccine need to be given every year. Vaccination of people you live with at home may help to protect you. Check with your doctor which vaccine you should have and when would be the best time to have them.

Travel:

If you are planning to travel overseas, you may need additional vaccines and/or medication to reduce your risk of infection and other complications (e.g. blood clot). It is strongly advised that you should get specific **travel advice from your doctor before your trip**. You should always inform your doctor if you have returned from overseas within the last six months and feeling unwell.

Prevention at home:

These are suggested steps you can take to reduce your risk of infection

Look out for fever (temperature >38C, or chills with temperature >37.5C). Have a thermometer at home to take your temperature if you feel unusually hot, cold, or shivery.

Wash your hands with soap and water regularly, especially after toileting.

Avoid contact with anyone unwell with a cough, runny nose, diarrhoea, vomiting, rash or fever.

Make sure food is well cleaned and cooked before eating. Avoid reheating leftovers after 72 hours. Foods to avoid eating: raw or undercooked meat or eggs, pre-cooked meat products (e.g. salami), unpasteurised milk, unwashed or pre-prepared salads, soft cheeses, and ready-to-eat or raw seafood (including oysters, sashimi).

Take extra care to protect your skin. Any cuts or scrapes should be cleaned and, if deep, be looked at by your doctors. Do not lance boils or squeeze pimples on your own. Report them to your doctor.

Avoid situations where you are more likely to be exposed to harmful bugs such as:

- Peak hour in public areas (such as public transport, theatres, restaurants). If this cannot be avoided, ask your doctor if you should wear a mask in crowded public areas.
- Pet care (such as changing cat litter, handling dog waste, cleaning birdcages).
- Places where fungal spores are likely to be high, such as farms, gardens, compost heaps, damp bark or wood chippings, dead leaves, hay and building construction or renovation (dusty) areas. If this is unavoidable, wear a mask.
- Gardening, lawn mowing, composting, vacuuming, any potted plants, fresh and dried flower arrangements
- Smoking marijuana

Prevention in hospital:

There are extra steps in hospital that need to be taken in some patients to prevent infections.

Wash your hands with soap and water regularly, especially after toileting to reduce germs. Alcohol-based hand rub is available throughout the hospital. You will notice the doctors and nurses using this when entering and leaving your room. Feel free to remind them and any visitors to use it.

Wear a mask. Always wear an N-95 face mask when you go out of the HEPA-filtered ward areas. This includes any time you need to go for a test off the ward. Your nurse can show you how to put this on properly.

Avoid contact with anyone with a cough, runny nose, diarrhoea, vomiting, rash or fever. Avoid visitors who are unwell with these symptoms.

Take your preventative medications. Antibiotic, antiviral and antifungal medicines may be prescribed to prevent serious infections.

Line care. If you are receiving chemotherapy through a long lasting line (e.g. PICC line), there should be regular changes to its dressing. Inform your nurse or doctor if you notice the skin around the line is red and/or painful.

Adapted from Austin Health Patient information sheet 2013