What is febrile neutropenia?

Febrile neutropenia is a low level of white blood cells (neutropenia) combined with a fever (febrile).

What causes febrile neutropenia?

A drop in your white blood cell (WBC) count may occur after cancer therapies such as chemotherapy, immunotherapy, or some radiation treatments. Since white blood cells play an important role in preventing infection, when your WBC count drops, you are at a higher risk of getting an infection.

Your body may respond to the infection with a fever. You may also have chills, sweating, tiredness, or other symptoms.

How do we care for you if you have febrile neutropenia?

Your doctor and nurse will check your blood levels regularly.

If your blood levels show a low WBC count and you have a fever, we will check to see if you have an infection. You may need to take medicines to help rebuild your WBC count.

You may also need the following tests and treatments:

- Blood test
- Chest X-ray and other tests, if needed
- Antibiotics
- Admission to the hospital if you have severe symptoms.

How do I prevent infection while my WBC count is low?

Since white blood cells are destroyed as a side effect of cancer treatment, you cannot prevent neutropenia from occurring. However, preventing an infection during your cancer treatment is important.

There are several things that you can do to reduce your risk of getting an infection when your white blood cells are low.

**DO:**

- Stay away from large crowds or people who have colds, the flu or other illnesses that people can pass to each other.
- Eat a well-balanced diet.
- Wash all fruits and vegetables.
- Drink at least 8 to 10 glasses of fluid a day (avoid caffeine drinks).
- Wash your hands before eating and after using the toilet.
- Clean any cuts or scrapes to your skin with soap and water right away. Cover with a bandage to prevent infection.
- Prevent mouth sores with regular mouth care (especially after meals).

You have a fever if:

- Your temperature taken by mouth is greater than 38 oC (100.4 oF) for more than 1 hour
  OR
- You have a single temperature reading taken by mouth greater than 38.3 oC (101 oF).
DO (continued):

- Prevent constipation. Ask your nurse or doctor before using a laxative.
- Report any ulcers, sore areas or white patches in your mouth to your nurse or doctor.

If you also have a fever, DO:

- Keep a thermometer at home - Take your temperature daily and write your temperature reading down in a notebook.
- Remember that some medicines can hide an infection by reducing fever (for example, steroids and acetaminophen). Ask your nurse or doctor before taking these medicines.

DO NOT:

- Use rectal suppositories or enemas.
- Work in the garden without wearing gloves to protect your skin.
- Eat raw meat or fish.
- Share drinking glasses or eating utensils.
- Touch animal droppings or clean litter boxes without wearing protective gloves.

What should I do if my WBC count is low and I have signs of an infection?

If you know your WBC count is low and you have the warning signs of an infection, call the Cancer Care Clinic:

Tel: (416) 242-1000, ext. 21500

Hours: Monday to Friday, 8:00 a.m. to 4:00 p.m.

If you are not a patient at our clinic, please contact your cancer centre or doctor for follow-up OR go to your nearest emergency department.

What questions can I ask my doctor or oncology nurse?

As you prepare for your cancer treatment, you may want to think about asking the following questions to your doctor or oncology nurse.

Please keep in mind that every person treated for cancer is different. Your own circumstances will guide the decisions that you and your doctors make.

- Will the cancer treatment that I am receiving cause neutropenia?
- How do I know if my body's WBC count is low?
- How severe is the neutropenia likely to be and how long can I expect it to last?
- Will you admit me to the hospital if I have this condition?
- What should I do if I think that I have symptoms of febrile neutropenia?
- Will my treatment change?
- What can I do to prevent infection?
- What should I do if my mouth or throat is sore and painful?
- What should I do if I have urinary or bowel problems?
- What will happen if I am allergic to an antibiotic?

What are the warning signs of an infection?

The following are signs that you may have an infection:

- A fever of 38 °C (100.4 °F) or above
- Chills or shaking
- Unusual sweating
- Urinating often or a burning feeling when urinating
- Shortness of breath
- Redness, swelling, or drainage from a wound
- Cough with yellow or green sputum
- Sore throat (with fever)
- Diarrhea (with fever).