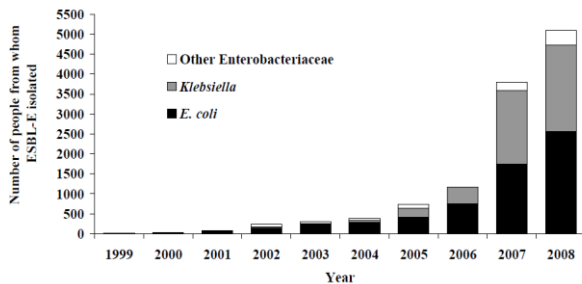


What are ESBLs?

ESBLs are extended-spectrum beta lactamase-producing enterobacteriaceae. In simpler terms these are bacteria that live in the human bowel and have mutated to produce an enzyme that inactivates many antibiotics. They are therefore 'resistant' to these commonly used antibiotics. (Several other antibiotics will still be effective.) *Escherichia coli* and *Klebsiella* species are the most common ESBLs.

ESBLs first appeared overseas and have spread to New Zealand since the 1990s. The number of people in New Zealand who carry these bacteria is increasing (see the graph below).

Figure 1. ESBL-producing Enterobacteriaceae, 1999-2008



Nelson and Marlborough have one of the lowest regional incidence rates of ESBLs but it is estimated that up to 1000 members of the public in our region carry these bacteria in their bowel without being aware of it.

How did I get this ESBL?

We often don't know where people pick up ESBLs. People most likely to carry ESBLs are those who have:

- Been very ill – including those with cancer, transplants and chronic renal disease
- Been a patient in an intensive care unit
- Had long courses of antibiotics
- Had major surgery
- Been treated with invasive devices or ventilators
- Spent a long time in hospital
- Spent time in a hospital overseas
- Spent time in another NZ hospital or rest home (particularly in the North Island)
- Immigrated from overseas
- Shared a home with someone else who is carrying an ESBL.

How do you test for ESBLs?

These bacteria are best detected by taking a sample of your faeces or urine, or taking a swab of your rectum or a wound. The samples are then sent to the laboratory for culture.

Your doctor or nurse can provide you with specimen containers or assist you with taking swabs.

Because ESBLs are a particular problem in hospitals we sometimes test patients for these bacteria before or on admission to hospital.

Will this ESBL harm me?

ESBLs are not usually harmful to healthy people but can cause problems for those whose immune systems are weakened by illness, surgery or medication. These bacteria are not more likely to cause infections than non-resistant bacteria but it may be more difficult to choose the right antibiotic to treat them.

If you have these bacteria in your body without any signs of an infection then we call you being 'colonised' or a 'carrier.' In almost all cases you will not experience sickness or symptoms and no treatment is necessary. If you develop illness from these bacteria then antibiotics will be given to treat that illness. No treatment will eliminate ESBLs completely from your body. Over a period of months to years some people may naturally get rid of the ESBL but many people probably carry them for life.



Preventing spread in hospital

Patients who are colonised or infected with ESBLs bacteria can spread these to other patients. This can occur through direct contact, poor hygiene, use of shared equipment or via the hands of caregivers.

Steps to prevent the spread of ESBLs from you to other patients include:

- Giving you your own room whilst you are in the hospital
- Regular thorough hand cleansing by staff
- Staff wearing a gown and gloves when touching you or items in your room.

You can help by regularly cleansing your hands and staying in your room as much as possible. These bacteria will not prevent you being discharged when well enough.



Will this affect my family, friends or work?

ESBLs should not harm healthy people who visit you in hospital or who have contact with you at home. This includes pregnant women, children and babies.

While you are in hospital staff will give specific advice to your visitors about hand cleansing each time they leave your room.

At home, normal household cleaning practices are sufficient. Clothing and linen can be washed at the usual temperature and eating utensils can be washed as normal. No restrictions on activities or visitors to your home are necessary. Ask your doctor about work restrictions - these are rarely needed.

For further information contact

- Your nurse or doctor
- The Infection Control Nurse Specialists, Nelson or Wairau Hospitals
Phone (03) 546-1800
- Dr Richard Everts
Infectious Diseases Specialist, Nelson Hospital
- Medlab South. Ph (03) 546-1632

May 2010



ESBLs

Information for Patients and Visitors

