What are Carbapenemase Producing Organisms?

Which organisms produce Carbapenemase?
This particular type of organism comes from a family of bacteria (germs) normally found harmlessly in the gut. When they cause no harm this is referred to as a carrier, also known as colonisation. Sometimes, in the wrong place, these bacteria can cause infections such as urinary tract or blood stream infections. These infections can usually be treated successfully with antibiotics. This only becomes a problem if these germs develop a resistant to antibiotics.

What is Carbapenemase?
Over time many bacteria have become resistant to commonly used antibiotics. Some bacteria develop several resistances and this leaves us with fewer antibiotics to treat infections with. Bacteria which produce Carbapenemase are resistant to a group of antibiotics known as carbapenems, which are usually used for treating serious infections.

Why does carbapenem resistance matter?
Carbapenem antibiotics can only be given in a hospital directly into the bloodstream. Until now, doctors have relied on them to successfully treat infections that have not responded to other antibiotics.

Can they be easily spread?
Yes. They are easily spread by person to person contact. Good hand hygiene, particularly after using the toilet, remains an effective way of preventing spread of germs. Reducing possible spread to other patients can be achieved by caring for people carrying this type of resistant bacteria in a single room. In a hospital, where there are many vulnerable patients, spread of these resistant bacteria can cause problems.

Is it infectious?
No, not in the usual sense such as with the common cold or influenza but it is readily spread and may subsequently lead to infections especially when a patient undergoes certain medical procedures as part of their care.

How can it be picked up?
There is a higher chance of picking up a Carbapenemase producing organism if you have been in a hospital abroad or a UK hospital where they have patients carrying the bacteria.
Why am I being screened?

Your doctor or nurse may suspect that you could be a carrier if you have been in a hospital abroad, or in a UK hospital that has had patients carrying these bacteria, or if you have been in contact with a carrier elsewhere. If any of these reasons apply to you, screening will be arranged.

When will I be screened?

a. Planned admissions
If you are having a planned admission you will be required to provide 3 stool specimens. We will provide specimen pots and microbiology forms at your pre-assessment appointment. This is to provide a stool sample which will need to be repeated on day 2 and day 4, preferably so that there is enough time to get the results before your admission. These can be delivered to your GP surgery or to the hospital, whichever is more convenient. If this will be difficult please discuss with the pre-assessment staff.

b. Emergency admissions
If you are admitted to hospital urgently or as an emergency admission there will be no time to do screening beforehand and therefore you will be placed in a single room until all three results are reported negative. The first specimen needs to be collected on the day of admission so unless you can provide a specimen promptly a rectal swab will be taken.

c. Other screening
Occasionally, it isn’t immediately known that a patient is carrying this bacteria and so they may not be placed in a single room straight away. Screening will be offered if you have been in the same bay with a patient who has since been found to be carrying a Carbapenemase producing organism. This screening is offered as a precaution to check that you are not carrying the bacteria.

How will I be screened?
If you have been unable to provide three negative screens prior to your admission you will be assessed and screened on your day of admission. This requires you to provide a stool sample which will be repeated on day 2 and day 4, you will remain in a single room until the results are known to be negative, usually for about 5-7 days. If you are ready to be discharged before the result is known, it will still be possible for you to go home. If you are unable to provide a sample, screening can be obtained via a rectal swab. Staff may also take swabs from other sites such as from catheters and/or wounds if you are in hospital.

How will I get the results?
If you are being screened prior to admission your results will go to your Consultant. If it is positive you will be informed by the hospital. If the results are negative no further action will be necessary and you will not be contacted. If you are screened during your stay you will be informed of the results.
Will it affect my hospital treatment?

Will it impact on my hospital treatment?
No, your treatment will go ahead as planned.

What special precautions will the hospital take?
You will be looked after in a single room until we have the results of all three stool specimens, this usually takes about a week.

Staff, when they are caring for you, will wear either long sleeved gowns or aprons, depending on what they are doing and in all cases will have gloves on.

Can I have visitors when I am in hospital?
Carbapenemase producing organisms are not a risk to healthy people and so we encourage you to have visitors but they will need to wear gloves and aprons. Visitors should wash their hands carefully before leaving your room and staff will advise them not to visit other patients on the ward. If they do need to visit another ward or department we advise they do that first. If you are found to be carrying this type of bacteria following screening ward staff can give you further information about your visitors.

What if the results are positive?
Hospital staff will let you know if the results are positive. They can then explain this to you and give you further information about this type of organism.

Where can I find more information?
If you would like any further information please speak to a member of your care staff, who may also contact the Infection Prevention & Control Team for you. The Public Health England website is also another source of information:
www.hpa.org.uk/Topics/InfectiousDiseases/InfectionsAZ?CarbapenemResistance/