Chicken pox

Chicken pox is an important infection in transplant patients who have not had chicken pox as a child (in other words have no natural resistance). Therefore you should not be in close contact (touching) with a child who has chicken pox. Chicken pox is a disease where the skin breaks out in tiny blisters, often all over the body. When the blisters are fresh and leaking fluid, chicken pox is infectious. The blisters take a little while to heal fully, but once new blisters have stopped appearing, the risk of infection is reduced.

If you are in contact with a chicken pox case, contact the transplant unit immediately. They should know (and indeed should have told you) whether blood tests show you have natural immunity to chicken pox. If you have this natural immunity, there is usually no special action needed. However, if you have no natural immunity, the transplant unit may want to give you an injection of globulin (anti-chicken pox antibody) or a course of tablets (Acyclovir) straight away to reduce the chances of a severe infection.

BK Virus (Poyloma virus)

This is a virus that causes a minor illness in healthy people and indeed, it is very common in the general population and causes little or no harm. After kidney transplantation, though, it can cause infection in the kidney. This does not usually make the person feel ill at all but can cause deterioration in transplant function and a rise in the blood creatinine level. BK virus is most often seen 3-12 months after transplantation in people who had high levels of anti-rejection treatment int he first few weeks after the transplant. It is diagnosed by appearances on a biopsy of the kidney and on blood and urine tests for the virus. Treatment initially consists of reducing anti-rejection therapy and the body's natural defences may then get rid of the virus. In more severe cases, treatment with anti-viral drugs may be tried, for example an injection once a month of a drug called cidofovir. However, it isn’t clear how effective drugs are in treating BK virus.

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Last reviewed 1st March 2019
Key points:

- Minor infections are common after a kidney transplant
- Some serious infections can occur in the first six months after a transplant
- Several types of infection can be prevented with drugs or vaccinations

Why do infections occur?

Immuno-suppressant (anti-rejection) drugs help prevent transplant rejection by making the immune system less efficient, and unfortunately they all reduce resistance to infections as well as reducing rejection. Therefore most people experience some problem with infection after transplantation, though usually this is minor. There can be worse problems if you have another medical condition which increase the risk of infection, such as diabetes, lung disease, or a kidney disease which makes infection more likely (such as polycystic kidneys).

Urinary Infections

Urine infections affect about one in three transplant recipients, especially if the cause of failure of kidneys in the first place was due to reflux nephropathy or diabetes. Urine infections usually cause pain on passing urine and a need to pass urine frequently. More severe cases may give fevers and pain over the transplant. Treatment of urine infections is normally easy with antibiotics. It is usually helpful to increase fluid intake during an infection, but the target fluid intake should be checked with the transplant team, to avoid any risk of getting fluid overloaded.

Colds and Influenza

Colds and influenza (the ‘flu) may also be more common after a transplant, although of course anyone can get these infections. However, someone with a transplant may get these infections more frequently, or may take longer to recover after an infection than expected. It is recommended to have the ‘flu jab each year, and generally this is safe after transplantation. However, there have been reports of occasional side effects, so if you have had the jab before and felt unwell afterwards, discuss the need for the ‘flu jab with your doctor.

Pneumonia

Pneumonia (severe infection in the lungs) is rare after a transplant, but most hospitals do give preventative treatment for 6 months after the transplant to prevent an unusual infection called Pneumocystis carinii. This is a bug that is common in the environment and does not cause infection unless the immune system is depressed. The preventative treatment is one tablet of co-trimoxazole (‘Septrin’) daily for 6 months after transplantation. There is also a vaccination against a bug called pneumococcus, which can cause pneumonia. It is recommended tha people with renal failure have this jab once.

Cytomegalovirus (CMV)

There is a viral infection that is a particular problem after transplantation. It is called cytomegalovirus (CMV). For most people who are not taking immuno-suppressant drugs, CMV is a mild infection that causes a ‘flu-like illness. However, in patients who have just received a transplant CMV infection can be quite a severe illness. The risk of getting CMV after transplantation can be estimated from blood tests taken pre-transplant from the donor and recipient. It is because the virus often remains ‘asleep’ in peoples’ bodies after an infection, partly because an antibody against the virus develops. So someone who is antibody positive has some resistance against the virus, but carries it, and someone who is antibody negative is at risk of getting the infection. So, if the donor is CMV antibody positive on their blood test, and the recipient is CMV negative, there is an increased risk of the infection. The Transplant units will normally give preventative tablets (valganciclovir or valaciclovir) for several weeks after the transplant.

If a CMV infection does occur, it often starts about 4-6 weeks after the transplant, and there are fevers and aches and pains. A blood test to look for virus in the blood will be taken. Mild infections may be treated with an increased does of the preventative tablets, more serious infections may require a course of a drug called ganciclovir, given by injection into a drip.

Prevention of infection after a transplant

The prevention of infection after a transplant is important. A number of the drugs prescribed are for the prevention of infection, although most of these are only needed for the first 6 or 12 months after the transplant. Different transplant units advise different mixtures of drugs, but it is common to advise co-trimoxazole to prevent Pneumocystis pneumonia (see above); amphotericin to prevent thrush in the mouth or gullet; isoniazid to prevent tuberculosis in those at high risk of this condition; and antibiotics for urine infection if these occur commonly. More details of the drugs can be found in the Drugs section of the website.

Vaccinations are available against some infections. It is recommended that transplant patients have the ‘flu jab each year, and newer vaccinations against pneumonia and meningitis are safe in transplant patients. Discuss the benefits and any possible risks of vaccination with your doctor.