DOWNLOAD PDF TRANSPLANT INFECTIONS

Chapter 1 : Post-transplant infections: An ounce of prevention

Infections are the leading cause of hospitalization in transplant recipients. The increased risk of new onset diabetes after transplantation, cardiovascular disease, post-transplant lymphoproliferative disorders adversely affects allograft outcomes. Risk is determined by epidemiologic exposure.

Find articles by V. This article has been cited by other articles in PMC. Abstract Infections are the leading cause of hospitalization in transplant recipients. The increased risk of new onset diabetes after transplantation, cardiovascular disease, post-transplant lymphoproliferative disorders adversely affects allograft outcomes. Risk is determined by epidemiologic exposure, immunosuppressive therapy and prophylaxis. The predictable sequence of appearance of infections helps in making management decisions. High likelihood of infections with unusual and multiple organisms necessitates aggressive use of imaging techniques and invasive procedures. Serologic tests depend upon antibody response and are unreliable. Nucleic acid based assays are sensitive, rapid, and allow detection of subclinical infection and assessment of response to therapy. Preventive steps include screening of donors and recipients and vaccination. All indicated vaccines should be administered before transplantation. Inactivated vaccines can be administered after transplantation but produce weak and transient antibody response. Boosters may be required once antibody titers wane. Post-transplant chemoprophylaxis includes cotrimoxazole for preventing urinary tract infections, pneumocystis and Nocardia infections; ganciclovir, valganciclovir, or acyclovir for cytomegalovirus related complications in at-risk recipients; and lamivudine for prevention of progressive liver disease in HBsAg positive recipients. Viral load monitoring and pre-emptive treatment is used for BK virus infection. Infection with new organisms has recently been reported, mostly due to inadvertent transmission via the donor organ. Infections, kidney transplantation, prevention Introduction Optimal use of immunosuppressive drugs in a renal transplant recipient RTR requires a careful balancing act. However, despite refinements in diagnostic techniques and discovery of new anti-microbial drugs, the risk of infection amongst transplant recipients has not come down. Infection risk is even greater in the pediatric transplant population. Infection was the primary cause of hospitalization in the first 2 years after transplantation, exceeding that for rejection. Infections also increase the risk of new onset diabetes after transplantation NODAT , cardiovascular events, post-transplant lymphoproliferative disorders PTLD and adversely affect allograft outcomes. Bacterial infections are approximately twice as frequent as viral infections in RTR. Evaluation of exposure requires obtaining a history of travel to areas where certain infections may be endemic, dietary habits e. The overall status of immunosuppression is determined by complex and dynamic interactions between the recipient age, gender, genetic background, underlying clinical condition , the transplanted organ and drugs. It is also affected by other complications such as a breach in the integrity of muco-cutaneous barriers, leukopenia, NODAT, poor graft function, liver dysfunction and malnutrition. Mycophenolate mofetil MMF has been linked to an overall increase in infections, especially viral,[4] and antilymphocyte antibody to CMV reactivation. The right level of immunosuppression that affords protection against rejection while minimizing infection risk is achieved in clinical practice by trial and error, based on monitoring of drug levels, leukocyte counts and surveillance for metabolic complications. Studies on evaluation of biomarkers for immune monitoring have focused toward identification of rejection. Attempts to develop such a measure have relied on determination of the functional status of T lymphocytes. The Cylex ImmuKnow assay measures the ability of T lymphocytes to respond to non-specific immunostimulation with phytohemagglutinin by producing ATP. Response is quantified in terms of the amount of ATP released in the supernatant. Its value, however, needs to be determined in prospective studies. Recently, an association was shown in a cohort of heart transplant recipients between low circulating levels of soluble CD30, a cell-surface marker expressed by a subset of memory T cells, and infection. The table helps in making informed decisions about the likely nature of infections and tailoring of diagnostic and therapeutic resources.

Chapter 2 : The AST Handbook of Transplant Infections | American Society of Transplantation

Some types of fungal infections are more common than others in solid organ transplant patients. In the United States, invasive candidiasis is most common, followed by aspergillosis and cryptococcosis, but other types of fungal infections are also possible. 1 For lung transplant patients, aspergillosis is most common. 1, 4.

What is an Immune System? A healthy immune system fights viruses and bacteria to keep you from getting ill or help you get better. Your body thinks your new kidney does not belong there and will try to fight it like a cold or the flu. After a transplant, your immune system will be lowered because of the powerful drugs you will be taking. These drugs make sure your body does not attack the kidney. After a transplant, you have an increased chance of: Viral infections, such as CMV, EBV, herpes, and mouth sores Bacterial infections, such as pneumonia and urinary tract infections Fungal infections skin, for example Wound infection and slow wound healing Mouth sores not always infection but may need treatment PTLD, which is a rare complication. It is like a bad case of the Mono virus Surgical complications such as collection of fluid around kidney It is important to report any signs or symptoms of infection to the transplant team right away. This is the best way to get rid of germs! Anti-bacterial hand gel or soap and water can be used. Get the flu and pneumonia shots. Share food or drink. Spend time around people who are sick. These things are especially important right after the transplant when your immune system is very low. What is a Rejection Episode? You will be admitted to the hospital for further testing, since rejection is typically diagnosed by a kidney biopsy. Signs of a rejection episode include: Your creatinine level will go up. This shows that the kidney is not functioning as well as we want. This may be the only sign of rejection. This is why it is important to get labs regularly. You may get a fever. You may get pain or swelling over your new kidney. You may not urinate as much. You may have a fast weight gain. You may have swelling in your hands, feet and face.

Chapter 3 : Organ Transplant Patients and Fungal Infections| Fungal Diseases | CDC

These infections, as is the case for healthcare-acquired infections in general, are often procedure- or device-related, such as catheter-associated infections (urinary tract, bloodstream infections), ventilator-associated pneumonia, aspiration, surgical wound infections, or are associated with anastomotic leaks and ischemia.

Print Infections in Solid Organ Transplants Patients who undergo solid organ transplantation are at a higher risk of infection because the medications used to prevent rejection of the transplanted organ e. Infections in a transplant recipient may occur from the reemergence of an old infection e. The risk of infection depends on the type of transplant, the specific immunosuppressive medications used and the exposure history. Pre-transplant Prior to transplantation, patients undergo an infectious disease evaluation to make sure there are no latent infections that need to be treated or any infectious contraindications to the transplant. A thorough history and physical. The history includes questions on past infections, including childhood infections; vaccinations; antibiotic allergies; and potential exposures to infections through travel within the United States and overseas, contact with animals, dietary habits and contact with tuberculosis Testing. Other testing may be recommended based on exposure history or the physical exam A history of a prior infection, such as HSV or tuberculosis, is not necessarily a contraindication to transplant. Prior knowledge of infectious exposures allows the transplant team to anticipate complications and to treat or prevent infections early. Post-transplant Infections in transplant patients are usually divided into three time periods after the transplant has occurred. Certain infections are more likely to occur at specific time intervals than others: Month 1 Early post-transplant: The immune system is usually most suppressed in the first month after transplant. Most infections during this time period are due to surgical or hospital acquired infections. These may include infections from bacteria or a yeast called candida. Infections may present as a urinary tract infection, wound infection, pneumonia or a bloodstream infection. Herpes simplex virus HSV may reactivate e. Many transplant recipients are prescribed medications to prevent the reactivation of HSV. Months 2 to 6: During this time period, transplant recipients are at risk for unusual or opportunistic infections such as Pneumocystis carinii pneumonia or tuberculosis. A comprehensive discussion of each virus, its prevention and treatment is beyond the scope of this Web site; please discuss these with your transplant team for further information. CMV infection occurs in 44 to 85 percent of kidney, heart and liver transplant patients. Symptomatic CMV disease occurs in 8 to 29 percent of kidney and liver transplant recipients. CMV disease can occur if a transplant recipient without a history of CMV gets an organ transplant from a donor with a history of CMV primary infection. CMV disease can also reactivate after transplantation in a recipient who has a history of prior CMV infection. CMV disease can present in a variety ways, from a flu-like illness with fever, muscle aches and fatigue, to hepatitis. CMV is both preventable and treatable with antiviral medications such as ganciclovir, valganciclovir and foscarnet. VZV is the virus that causes chicken pox. Ninety percent of adult transplant recipients have been exposed to VZV during childhood, and they are at risk for reactivation of VZV in a form called shingles. Shingles is a painful, blister-like rash. EBV is the virus that causes mononucleosis or "mono. Symptoms include fever, fatigue and muscle aches and pains. EBV may also reactivate and cause post-transplantation lymphoproliferative disease PTLD in 1 to 2 percent of kidney and liver transplants, respectively. Symptoms are varied and can include fever, sore throat, abdominal pain, jaundice or kidney and liver dysfunction. Treatment depends on the level of disease. Hepatitis B and C: Viral hepatitis can recur in transplant recipients who receive their transplants because of chronic hepatitis. Hepatitis B recurs in 5 to 10 percent of patients, whereas Hepatitis C recurs in 80 to 90 percent of recipients. Most transplant recipients do well six months after transplant. They are at risk for community acquired infections such as urinary tract infections, influenza and pneumococcal bacterial pneumonia. Antibiotic Therapy post-transplant Antibiotics are used in two ways after a transplant. This use of antibiotics is called prophylaxis, or preventative therapy. Antibiotics are also used to treat active infections. Avoiding exposures post-transplant Transplant recipients remain at a higher risk of infection after leaving the hospital. Their transplant team should discuss ways of protecting themselves from infection while at home. These recommendations to transplant patients may include: Avoiding people

with colds, influenza, tuberculosis or other contagious infections For recipients who are not immune to chicken pox, avoiding contact with anyone who has chicken pox. If not possible, the transplant recipient should wear gloves and change the box daily to prevent an infection called toxoplasmosis Discussing any travel outside the United States with your transplant team.

Chapter 4 : Avoiding & Managing Infection After Liver Transplant

Transplant Infections is of paramount value to infectious disease specialists, transplant physicians, medical students, fellows, residents, and all medical professionals working with surgical patients.

Symptoms such as a cough or fever, which may have gone away on their own before a transplant, can be a warning sign of an infection. We recommend that a doctor evaluate a patient to determine if he or she has an infection and how the infection, if any, should be treated. Dealing With Fever Fever in a child taking immunosuppressants is an important warning sign that there may be an infection or organ rejection. If the fever subsides, it does not mean that the cause of the fever usually an infection is gone. A glass mercury thermometer placed under the tongue for three minutes or an electronic digital thermometer can be used. If your child feels ill, do not wait 24 hours before calling the transplant coordinator â€" a coordinator should be contacted right away. Possible Responses to Fever After receiving information from a liver transplant patient with a fever, a transplant coordinator from the Hillman Center for Pediatric Transplantation gives the patient advice about how to treat the fever. You may be asked to take your child to the local hospital emergency department. Evaluating the situation may require a culture of blood, throat tissue, or urine; a chest X-ray; and tests of liver enzymes, digestive enzymes, blood glucose, and other factors. You should remember to call a transplant coordinator before your child begins taking any new prescription or over-the-counter medication. When to Use Acetaminophen or Aspirin A liver transplant recipient should not take acetaminophen Tylenol or aspirin for a fever unless his or her transplant coordinator approves the use of the drug. If your child takes acetaminophen or aspirin while his or her temperature is mildly elevated â€" between Just because the fever is gone does not mean that the cause of the fever, usually infection, is also gone. After your child has been examined by a doctor and has had the necessary tests to investigate the cause of the fever, he or she may take medicine such as acetaminophen to lower the fever. Anyone with a fever should drink extra fluids and rest. Patients may take acetaminophen occasionally for muscle aches, headaches, etc. However, it should not be used on a regular basis. Remember to call the transplant coordinator if your child has unrelieved headaches or pain. It is usually due to infection by the Epstein-Barr virus. Epstein-Barr virus, or EBV, is the same virus that causes mononucleosis. The most common symptom of EBV infection is swelling in one or more lymph glands. Swelling is most commonly found in the neck but can also involve the tonsils and the lymph glands in the armpit, groin, and elsewhere. An infected patient also may have a fever. Although a swollen gland is a normal response to an infection, this can be a very dangerous in an immunosuppressed liver transplant patient. Patients may need to be hospitalized immediately so that a biopsy of the mass can be performed. If the biopsy shows that a patient has PTLD, a transplant surgeon adjusts immunosuppressive medications. Transplant recipients may also receive intravenous medication. The transplant surgeon may order tests to determine if there are any internal masses. In most cases, PTLD can be treated by reducing the dose of immunosuppressive drugs the patient is receiving. If this strategy does not lead to resolution of PTLD, the Institute has many other approaches to treat this disorder.

Chapter 5 : Infections after Heart Transplant | Stanford Health Care

Summary. Infections are a major cause of morbidity and mortality in kidney transplant recipients. To some extent, these may be preventable. Careful pretransplant screening, immunization, and post-transplant prophylactic antimicrobials may all reduce the risk for post-transplant infection.

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 Infection 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, although severe or repeated cases may need a longer course of preventative 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. However, someone with a transplant may get these infections more frequently, or may take longer to recover after an infection than expected. 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. There is also a vaccination against a bug called pneumococcus, which can cause pneumonia. It is recommended that 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. 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. 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. 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 weeks after the transplant, or about the same interval after stopping a course of preventative drugs, 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 dose 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 â€" click here to go there now. You, the transplant recipient, can also do a lot to prevent infections. In the longer term, you have to lead a normal life and do not need to keep away from everyone who is ill. Vaccinations are available against some infections. Discuss the benefits and any possible risks of vaccination with your doctor. Vaccinations and drugs to take when travelling are also detailed elsewhere on this site â€" click here for more details. 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. 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 months after transplantation in people who had high levels of anti-rejection treatment in the 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. In more severe cases, treatment with anti-viral drugs may tried, for example an injection once a month of a drug called cidofovir. The National Kidney Federation cannot accept responsibility for information provided. The above is for guidance only. Patients are advised to seek further information from their own doctor.

Chapter 6 : Infection in Kidney Transplantation

From the Transplant Infectious Disease and Compromised Host Program, Massachusetts General Hospital, and Harvard Medical School, Boston. Address reprint requests to Dr. Fishman at the Transplant.

Patients are faced with various infections following kidney transplantation. Thus, transplant patients are routinely provided prophylaxis against common opportunistic infections such as cytomegalovirus and Pneumocystis jirovecii pneumonia. However, other infections such as urinary tract infections, Epstein-Barr virus, and the BK virus may also lead to posttransplant complications. Recognizing which types of infections are likely to occur and when may aid clinicians in selecting appropriate preemptive strategies. This article provides an overview of the common infections that may complicate kidney transplantation along with potential preventive and treatment strategies. On average, 16, kidney transplants are performed each year in the United States. However, the balance of attaining immunosuppression to prevent graft rejection while also providing sufficient immune function to fight off life-threatening infection is unfortunately never perfectly achievable in these patients. It is therefore reasonable to have a basic understanding of the principles of infectious disease in renal trans-plantation in hopes of preventing infection and managing these patients appropriately. Recognizing which infections are likely to occur and when TABLE 1 helps clinicians to determine preemptive strategies to prevent the infections from taking place. Pretransplant Immunologic Evaluation Pretransplant assessment is the first step in preventing infections after a kidney transplant. Many tests are routinely performed across the U. Rapid serologic testing can also be performed in deceased donors. If the status of both donor and recipient is determined pretransplant, the recipient can receive prophylaxis to prevent infections from ever taking place and healthcare providers can gain an advantage over future infections. Vaccination Once patients are accepted onto the transplant list, efforts should be made to determine their vaccination status. Live attenuated vaccines are especially important to receive pretransplant, as it is not recommended to receive live vaccines after becoming immunocompromised. Inactivated vaccines are safe post transplant, but protection against possible diseases before the immune system is compromised is preferred. Measles, mumps, rubella MMR , hepatitis, and varicella serology studies should be performed to determine the need for vaccination, which should be given when appropriate. Inactivated influenza vaccine is recommended for all patients before or after the transplant, depending on the time of year. Family members, coworkers, and healthcare providers should all receive the influenza vaccine as well, with preference given to the inactivated virus due to the possibility of viral shedding with the live attenuated vaccine. Human papillomavirus HPV vaccine may be given to patients who meet the indications prior to their transplant, and if the regimen is unable to be completed before surgery, it can be continued 3 to 6 months after it. As with the nontransplant population, the most common infectious UTI pathogen among kidney transplant recipients is Escherichia coli. CMV is a herpesvirus commonly found in humans and is transmitted through close contact. Due to the elusive nature of the disease, testing prior to transplantation is necessary for both the donor and the recipient of the organ. CMV infection can begin in the first 6 months post transplant; therefore, patients in this category should also receive valganciclovir prophy-laxis for 3 months. EBV is strongly associated with the development of posttransplant lymphoproliferative disease PTLD , which includes multiple disorders involving inappropriate B cell transformation. Diagnostic testing for PTLD varies depending on the location of the lesions. While evidence for EBV prophylaxis is lacking, antiviral agents such as acyclovir or valganciclovir may be used. Polyomavirus Polyomavirus is a member of the Polyomaviridae family of viruses and can cause infection post transplantation. The predominant polyomavirus affecting kidney transplant recipients is the BK virus, named after the kidney transplant patient in whom it was first discovered. Primary infection with human BK virus occurs in most healthy children and results in colonization of the renourinary tract in a latent state. Reactivation of the BK virus is most likely to occur in the first 3 months following transplantation, and viremia persists throughout the first year. Similar to BK virus, it is believed to infect children as evidenced by high rates of seroconversion. Pentamidine inhalation, dapsone, or atovaquone may be alternative therapies in those with a sulfa allergy. Adherence has been shown to be especially decreased in the

pediatric adolescent population. Possible causes of lower levels of adherence in this population include lack of understanding of the disease state, low health literacy of adolescents and their parents, and psychosocial issues. Establishing rapport between patients and all healthcare providers is vital, as this is a lifelong condition. Education for the transplant patient should not end immediately post transplant, but instead should be revisited as often as possible and by all members of the healthcare team. The farther away patients are from their transplant, the greater the risk of nonadherence based on the notion that there is less or no risk of complications after an initial period post surgery. No matter the length of time after surgery, the importance of staying vigilant cannot be stressed enough to these patients. Pharmacists in all settings can offer encouragement and support while seamlessly helping to prevent adverse outcomes in these patients. Household Infection Prevention General education regarding decreasing infection risk should be encouraged, especially in the 6-month period immediately following transplantation and during other times of increased immunosuppression. Patients should be instructed to wash their hands as often as possible with soap and water, and family members should be encouraged to do the same. Patients should be reminded of foods to avoid, including raw eggs, raw or undercooked meat, raw seafood, and unpasteurized milk or juice. Conclusion Prophylactic medication and vaccinations targeted at the most common infections are standard preventive measures for kidney transplant recipients. Even so, no kidney transplant recipient is without risk when it comes to infectious disease. However, understanding the fundamentals of infectious disease in this patient population may help guide appropriate pharmacotherapy and reduce the potential for further complications. Screening of donor and recipient in solid organ transplantation. Vaccination in solid organ transplantation. Infectious complications after kidney transplantation: Urinary tract infections in renal transplant recipients. Curr Infect Dis Rep. Infective complications in renal allograft recipients: Acute pyelonephritis represents a risk factor impairing long-term kidney graft function. Infections in renal transplant patients: Infectious complications in kidney transplant recipients: Late urinary tract infection after renal transplantation in the United States. Am J Kidney Dis. Independent risk factors for urinary tract infection and for subsequent bacteremia or acute cellular rejection: Parasuraman R, Julian K. Urinary tract infections in solid organ transplantation. Cytomegalovirus and human herpesvirus types 6, 7, and 8. Cytomegalovirus in solid organ transplantation. Updated international consensus guidelines on the management of cytomegalovirus in solid-organ transplantation. Epstein-Barr virus and posttransplant lymphoproliferative disorder in solid organ transplantation. Humar A, Michaels M. American society of transplantation recommendations for screening, monitoring and reporting of infectious complications in immuno-suppression trials in recipients of organ transplantation. Pinto M, Dobson S. BK and JC virus: Hirsch HH, Randhawa P. BK polyomavirus in solid organ transplantation. Prevalence of polyomavirus BK and JC infection and replication in healthy blood donors. A prospective longitudinal study of BK virus infection in renal transplant recipients. Epidemiology and clinical significance of pneumocystis colonization. Goto N, Oka S. Pneumocystis jirovecii pneumonia in kidney transplantation. Pneumocystis pneumonia in solid organ transplantation. Opportunistic pulmonary infections in solid organ transplant recipients. Post-transplant Pneumocystis jirovecii pneumoniaâ€”a re-emerged public health problem? Curr Opin Organ Transplant. Strategies for safe living after solid organ transplantation. Finberg R, Fingeroth J. Infections in transplant recipients. To comment on this article, contact rdavidson uspharmacist.

Chapter 7 : Transplant Infectious Disease - TTS

However, you can minimize infections by preventing exposure to infections, being aware of the symptoms and seeking treatment immediately. Now that you are a transplant recipient, view all infections as potentially serious.

FAQs Infections The anti-rejection medications that keep your body from rejecting your new heart have the unfortunate side effect of compromising your immune system. However, you can minimize infections by preventing exposure to infections, being aware of the symptoms and seeking treatment immediately. Now that you are a transplant recipient, view all infections as potentially serious. General guidelines are as follows: While in the intensive care unit, you may share a room with an uninfected preoperative and fresh post-operative heart patient or with another transplant patient. On the step down units you will be give a private room when available, or housed with uninfected patients i. You should avoid persons with obviously contagious infections. The common cold cannot be completely avoided and is not unduly hazardous. Wear a mask when you enter a hospital. Hospitals may contain people with contagious infections, and a mask simply minimizes the risk of contracting airborne infections. Masks are not needed outside the hospital. Hand washing is the best way to minimize the spread of infection. Report any blisters, sores, suspicious growths or lumps in armpits, groin or elsewhere on your body to your physician. Children who contract the usual childhood diseases generally pose no threat. Infectious mononucleosis and chicken pox are an exception. Contact your physician immediately following contact with people with these illnesses. These guidelines will apply for subsequent readmissions, whether routine or emergent. If your WBC falls below 2,, you will be placed in a private room for protective purposes. Masks must be worn by employees or visitors in your room if they have a cold, if your WBC is 2,, and by you if you are out of your room. This precaution is meant to protect you from airborne microorganisms in the hospital. Masks are not required after discharge except upon return to any hospital setting. You will be susceptible to the common cold or flu viruses but will rarely suffer major complication from them. Healing The ability to heal wounds is decreased in patients taking prednisone. If you injure yourself, clean the area and keep a clean, dry dressing on the wound. Should healing be prolonged and you experience pain, swelling, redness or other signs of infection, notify your physician immediately. Any sores, blisters, or lumps should be examined and treated by your physician. If necessary, you may be hospitalized for prompt diagnosis and treatment. Dental hygiene Regular dental checkups and hygiene are important, since your teeth and gums can also be sources of major infection. It is recommended that antibiotics be given prior to dental or other manipulative procedure including dental cleaning because of the susceptibility of the transplanted heart to infection endocarditis with blood-borne bacteria.

Chapter 8 : Lahey Clinic | Infections in Solid Organ Transplants

Viral infections, such as CMV, EBV, herpes, and mouth sores Bacterial infections, such as pneumonia and urinary tract infections Fungal infections (skin, for example).

ShareCompartir As an organ transplant patient, you have new opportunities for a healthy and full life. You may also have some new health challenges. One of those challenges is avoiding infections. What you need to know about fungal infections Fungal infections can range from mild to life-threatening. Some fungal infections are mild skin rashes, but others can be deadly, like fungal pneumonia. Fungal infections can look like bacterial or viral infections. Fungal infections may be more common in certain types of transplants. Some experts think that fungal infections may be most common in small bowel transplant patients, followed by lung, liver, and heart transplant patients. Some disease-causing fungi are more common in certain parts of the world. Your hospital stay matters. After your transplant, you may need to stay in the hospital for a long time. While there, you may need procedures that can increase your chance of getting a fungal infection. Please see types of healthcare-associated infections for more information. Fungal infections can happen any time after your surgery. Fungal infections can happen days, weeks, months, or years after the transplant surgery. In the United States, invasive candidiasis is most common, followed by aspergillosis and cryptococcosis , but other types of fungal infections are also possible. You may be at higher risk for getting sick from indoor mold. Top of Page Preventing fungal infections in organ transplant patients Fungi are difficult to avoid because they are a natural part of the environment. Fungi live outdoors in soil, on plants, trees, and other vegetation. They are also on many indoor surfaces and on your skin. However, there may be some ways you to lower your chance of getting a serious fungal infection. Learn about fungal infections. There are different types of fungal infections. Learning about them can help you and your healthcare provider recognize the symptoms early, which may prevent serious illness. Get additional medical care if necessary. Fungal infections often resemble other illnesses. Visiting your healthcare provider may help with faster diagnosis and may prevent serious illness. Your healthcare provider may prescribe medication to prevent fungal infections. Scientists are still learning about which transplant patients are at highest risk and how to best prevent fungal infections. As you recover from your surgery and start doing your normal activities again, there may be some ways to lower your chances of getting a serious fungal infection by trying to avoid disease-causing fungi in the environment. Try to avoid areas with a lot of dust like construction or excavation sites. Stay inside during dust storms. Stay away from areas with bird and bat droppings. This includes places like chicken coops and caves. Wear gloves when handling materials such as soil, moss, or manure. Wear shoes, long pants, and a long-sleeved shirt when doing outdoor activities such as gardening, yard work, or visiting wooded areas. Invasive fungal infections among organ transplant recipients: Clinical Infectious Diseases ; Endemic fungal infections in solid organ transplantation. American Journal of Transplantation ;13 Suppl 4: Shoham S, Marr KA. Invasive fungal infections in solid organ transplant recipients. Epidemiology and outcome of invasive fungal infections in solid organ transplant recipients. Transplant Infectious Disease ; Antifungal prophylaxis in solid organ transplant recipients. Expert Review of Anti-infective Therapy ;9: Strategies for safe living after solid organ transplantation.

Chapter 9 : Kidney Transplant Infection and Rejection

European guidelines for diagnosis and treatment of adenovirus infection in leukemia and stem cell transplantation: summary of ECILâ€•4 () S. Matthesâ€•Martin T. Feuchtinger.