NHS
Lancashire Teaching Hospitals
NHS Foundation Trust

Information for primary care

Kidney transplant patients

Guidance for general practice

Excellent care with compassion

Division of Medicine - Renal

@LancsHospitals

Renal Department

Our department looks after around 800 patients with a functioning kidney transplant across Lancashire and South Cumbria. This leaflet provides guidance for general practice.

Suitable patients undergo pre-transplant assessment in our department and are then referred to the transplant surgeons at Manchester University Hospitals Foundation Trust in Manchester where the transplant takes place.

The average waiting time for a deceased transplant is around three years. Live donation usually occurs much quicker.

Most patients are repatriated around three months after a successful transplant. Thereafter they will attend a consultant-led clinic regularly, i.e., every three months if there are no problems or more frequently if required.

All patients are offered secure web-based access to their laboratory results; you should therefore not be surprised if a patient knows their recent laboratory results.

The next page provides an overview of what our responsibilities are in the care of these patients and where we see a role for primary care.

Roles and Responsibilities

Nephrologist and team	Primary Care
Monitoring of transplant function and proteinuria.	Alert nephrologist if blood tests done in primary care and creatinine more than 10% elevated compared to previous results.
Monitoring of cyclosporine/tacrolimus levels and dose adjustment.	Beware of interactions via cytochrome P450.
Advice on interactions with the immunosuppressive medication.	Consider interactions when prescribing new medication. Check BNF / seek advice.
Advice in case of infections.	Assessment and prescribing of antibiotics.
Advice on vaccinations.	Annual vaccinations such as influenza and COVID.
Advice on antihypertensive medication.	Blood pressure control and prescribing of anti-hypertensives; 24 hour blood pressure if equipment available.
Regular screening for post transplant diabetes with HbA1c.	Diabetes management pathway.
Referral to dermatology for annual skin review (cancer screening).	Encourage sun protection and refer suspicious skin lesions to dermatology.
Advice on statin prescribing (interact with immunosuppression).	Annual fasting lipids incl LDL.

Common and dangerous clinical scenarios in kidney transplant patients

The following pages list common problems and provides brief advice:

Problem	Advice
Acute abdominal pain.	Low threshold for admission. Morbidity and mortality of all intra-abdominal infections (cholecystitis, appendicitis, diverticulitis, pancreatitis) are several times higher than in the general population. Signs and symptoms may be atypical due to the effects of the immunosuppression.
Blood pressure control.	Prescribing of ACE inhibitor or Angiotensin blocker or renin blocker should be left to renal team (transplant artery stenosis). Dihydropiridine type calcium channel blockers, Doxazosin and beta blockers are usually a good choice unless there are contra-indications. Avoid diltiazem (interaction via cytochrome P450). Do not stop Diltiazem without advice (interaction via cytochrome P450).
Oral and oesophageal candidiasis.	Avoid fluconazole (strong interaction via cytochrome P450). Use topical Nystatin

	instead. Seek help from renal team if no response to topical antifungals (immunosuppression may have to be modified).
Cardiovascular risk.	The cardiovascular risk is high. Most renal transplant patients are on statins, and many are on aspirin. Seek expert advice when prescribing statins (interaction via cytochrome P450). Good blood pressure control is key. All transplant patients should be encouraged to stop smoking.
Cough and respiratory infection.	Consider atypical infection such as pneumocystis jirovecii pneumona; this is life threatening cause of cough and chest symptoms in transplant recipients. Seek advice if patient not responding after a course of antibiotics. Consider tuberculosis in at risk patients. Avoid macrolides (strong interaction via cytochrome P450).
Gout.	Non-steroidal anti-inflammatory drugs are contraindicated. Colchicine carries a risk of nausea / vomiting with loss of immunosuppression, see below. A course of oral

	steroids is usually effective to control an acute attack –. Allopurinol is contraindicated in patients on Azathioprine.
Diarrhoea, nausea and vomiting.	Seek immediate advice from renal team if recurrent vomiting (risk of rejection). Transplant patients who vomit repeatedly usually require admission. Consider unusual causes of diarrhoea such as cytomegalovirus and cryptosporidium. Ongoing diarrhoea will require gastroenterology input.
Pain.	Non-steroidal anti-inflammatory drugs and COX-2 inhibitors contraindicated.
Patient has run out of immunosuppression or forgotten doses of immunosuppression or unable to take / refuses immunosuppression.	Seek advice as soon as possible (this can lead to acute rejection and irreversible graft loss even years or decades after a kidney transplant).
Skin lesions.	Skin cancer is more common in renal transplant recipients and we offer annual skin reviews to all our patients. You should have a low threshold for referral to dermatology if transplant patients present with new skin lesions.

Urinary tract infection (most common infection in renal transplant patients).	Always send mid-stream urine for culture. Avoid trimethoprim (interferes with tubular secretion of creatinine and causes increased creatinine and hyperkalaemia).
Vaccination.	Seek advice if you consider vaccination; live vaccines are contraindicated.
Viral infection such as oral or genital herpes or reactivation such as shingles.	Seek advice from nephrologist in severe cases. The immunosuppression may need to be modified in addition to antiviral treatment.

Disclaimer: This leaflet was compiled on the basis of personal, institutional and published experience. Different recommendations may apply to individual patients.

The contents of this leaflet do **not** replace a consultation with the transplant team / nephrologists.

Contact details

All patients are provided with contact details for our transplant nursing team who provide telephone advice from 9.00am -5.00pm on weekdays.

You can contact the consultant secretary as well if you require urgent help (weekdays 9-5). Outside these times you can contact the on call renal team via Royal Preston Hospital Switchboard if there is an urgent problem with one of our transplant patients. On telephone number: **01772 716565.**

Sources of further information

www.lancsteachinghospitals.nhs.uk
www.nhs.uk
www.accessable.co.uk
www.patient.co.uk

All our patient information leaflets are available on our website for patients to access and download:

www.lancsteachinghospitals.nhs.uk/patient-information-leaflets

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Lancashire Teaching Hospitals is a smoke-free site. Smoking is not permitted anywhere on any of our premises, either inside or outside the buildings. Our staff will ask you about your smoking status when you come to hospital and will offer you support and advice about stopping smoking this will include Nicotine Replacement Therapy to help manage your symptoms of withdrawal and the opportunity to speak to a nurse or advisor from the specialist Tobacco and Alcohol Care Team.

If you want to stop smoking, you can also contact the Quit Squad Freephone 0800 328 6297.

Please ask if you would like help in understanding this information. This information can be made available in large print and in other languages.

Gujarati:
આ માહિતીને સમજવામાં સહાયતા જોઇતી હોય તો કૃપા કરીને પૂછો. આ માહિતી મોટા છપાણ માં અને અન્ય ભાષામાં ઉપલબ્ધ કરી શકાય છે.

Romanian:
Vă rugăm să întrebați dacă aveți nevoie de ajutor pentru înțelegerea acestor informații. Aceste informații pot fi puse la dispoziție în format mare și în alte limbi."

Polish:
Poinformuj nas, jeśli potrzebna jest ci pomoc w zrozumieniu tych informacji. Informacje te można również udostępnić dużym drukiem oraz w innych językach

Punjabi:
ਜੇ ਤੁਸੀਂ ਇਹ ਜਾਣਕਾਰੀ ਸਮਝਣ ਵਿੱਚ ਮਦਦ ਲੈਣੀ ਚਾਹੋਂਗੇ ਤਾਂ ਕਰਿਪਾ ਕਰਕੇ ਇਸ ਬਾਰੇ ਪੁੱਛੋ। ਇਹ ਜਾਣਕਾਰੀ ਵੱਡੇ ਪ੍ਰਿੰਟ ਅਤੇ ਹੋਰਨਾਂ ਭਾਸ਼ਾਵਾਂ ਵਿੱਚ ਮੁਹੱਈਆ ਕੀਤੀ ਜਾ ਸਕਦੀ ਹੈ।

Urdu:
دو سر ی زبانوں او ر بڑ ی اگر آپ کوہی معلومات سمجھنے کے یۓل مدد یک ضرورت ہے تو
یئچھیا یمں یبھ ابیدست ہو یسکت ہے برا ۓ مہر یبان ہو ےیچھہی. معلومات

Arabic:
مطبوعة بأحرف كبيرة و بلغات إذا كنتَ تريد مساعدةً في فهم هذه لمعلومات يُرجى أن .تطلب
أخرى يمكن توفير هذه المعلومات

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