University Hospitals Coventry and Warwickshire NHS Trust

# Clinical Operating Procedure

A Clinical Operating Procedure is defined as:

*A set of instructions that describe the method for carrying out clinical tasks or activities to ensure efficiency, consistency and safety.*

| | |
|---|---|
| **Procedure Title:** | **Recipient post-transplant follow-up pathway** |
| **Procedure Ref No:** | *COP 604* |
| **Expiry date:** | September 2019 |
| **Version Number:** | V1 |

**Summary statement /scope of the procedure:**

The renal transplant clinic, which is held on the 5th floor, East wing is aimed at looking after renal transplant patients in the first six months after surgery or until they are in a stable condition and returned to the care of the referring consultant and renal centre.
The clinic is also available to long term transplant patients who require help or advice with acute transplant related problems.
An immediate appointment will be given to any patient with an acute problem. Patients are encouraged to telephone clinic with any queries and, out of hours, they are aware to contact Ward 50, Ward 22 ECU or the Emergency department.

Definitions /Abbreviations
CMV Cytomegalovirus
EBV Epstein Barr Virus BKV Polyoma Virus
PCR Polymerase Chain Reaction
Vz IgG Varicella Zoster antibodies
CRP Cryoprecipitate
MSU Mid-Stream Urine

**Recommendations for procedure content:**
*Clinical operating procedures should detail clear and explicit recommendations for practice and behaviour specific instructions; what, who, when, where and how. This will increase the likelihood of adoption of the procedure.*

| Action | | Rationale |
|---|---|---|
| Preparation for discharge from the ward post operatively | | |
| The patient is seen 2-3 days post-surgery on the ward. The booklet "Going home with your Kidney Transplant" is given to the patient and discussed.<br>The patient is also seen by the Pharmacist and Dietician prior to discharge.<br>Advice regarding transport to clinic is given and the patient is assisted with booking transport if required.<br><br>A request for ureteric stent removal for four weeks post operatively is made at this time. | | To ensure a smooth, safe discharge.<br><br>To ensure patient is prepared physically and psychologically to cope with discharge.<br><br>To ensure stent removal and prevent infection. |
| Clinic Visits | | |
| Uncomplicated patients are seen 3 times weekly for the first month after transplantation.<br>1-2 times weekly for months 2-3.<br>Every 1-2 weeks for months 4-6.<br>Every 4-6 weeks for months 6-12.<br>3-6 monthly thereafter.<br>The aim is to transfer the patient back to their original renal consultant by six months.<br>If there are problems the patient will continue to be seen at post-transplant clinic until their condition is stable.<br>Some patients are suitable for virtual clinic (telephone appointments) which are usually 3 monthly with a face to face appointment annually. Bloods are usually taken a few days before so that Doctors are aware of results and can make appropriate changes.<br>Clinics are held on Monday, Wednesday and Friday between 08.30 and 11.45.<br>Patients are seen by either a Consultant Nephrologist or Specialist Registrar. | | To ensure regular monitoring of patients physical condition, medication and blood results. |
| Patients are advised not to take their Prograf medication prior to attending clinic. They are advised to bring their Prograf to clinic to take it after their bloods have been taken.<br>If they are taking cyclosporine then they are advised to have their bloods taken 2 hours after taking it. | | To ensure accurate blood levels of medication are obtained so that the correct medication dosage is prescribed, in order to prevent rejection of the graft. |
| At clinic, patients are seen by the nurse and their bloods (Biochemistry, Bone Profile, Glucose, Phosphate and Full Blood Count) are taken. | | |

| Action | | Rationale |
|---|---|---|

| | | |
|---|---|---|
| On the first clinic visit Parathyroid levels, ferritin and cholesterol are taken plus virology (Cytomegalovirus, Epstein Barr and Polyoma virus polymerase chain reaction (CMV EB and BK).<br>CMV, EB and BK are monitored 3 monthly.<br>A urine/protein creatinine test is also taken. | | To ensure blood levels are maintained within safe levels and to monitor effect of medication on other organs.<br><br>To identify viral infection early |
| Blood pressure (the aim is 130/80) and weight are checked and documented. | | To establish a baseline for these levels.<br>To ensure anti-hypertensive medication is prescribed if necessary and that patient maintains a healthy weight<br><br>To monitor weight gain for fluid retention. |
| The importance of adequate hydration is stressed and fluid balance charts are assessed. (Patients are encouraged to maintain a record of fluid balance charts at home).<br>If a patient is required to be on a fluid restriction, the Doctor advises regarding this. | | To monitor urine output and ensure adequate intake to encourage kidney function and prevent dehydration.<br><br>To prevent fluid overload. |
| If applicable, wounds are checked and sutures and clips are removed. | | To prevent infection and ensure healing |
| Checks are made for any evidence of non-adherence with drugs such unexplained Calcineurin Inhibitor levels or absence of side effects to Prednisolone despite being on high doses | | To establish baseline especially on desensitised patients or patients with risk of disease recurrence.<br>To prevent rejection of graft |
| Patients are given the opportunity to discuss any problems or concerns,<br>Note is made of patients who regularly miss clinic appointments.<br><br>Renal Psychologist support is offered. | | To establish if the patient is experiencing problems with medication<br><br>To support patients with coping with their transplant. |
| Patients are then reviewed by the Doctor. | | |

| Action | | Rationale |
|---|---|---|
| Any concerns the patient may have regarding unusual symptoms are addressed. Any extra blood and urine tests required by the Doctor are taken and treatment given as necessary.<br>If unwell, bloods for CMV, EB and Bk will be checked. Bloods for CRP and blood cultures will also be taken.<br>MSU will be taken if symptomatic of Urinary tract infection.<br>Urine/ protein creatinine will also be checked.<br>If appropriate, wound swabs are taken.<br>Patients diagnosed with active CMV, EB or BK infection will need weekly blood tests to assess the viral load until the disease is under control. Consultant virologist will advise where necessary.<br>Infection screen, vital signs and mews score are monitored.<br>Checks are also made for influenza infections (nose and throat swabs) | | To prevent rejection of the graft.<br><br>To diagnose infection and treat.<br><br>To ensure patient is responding to treatment. |
| Serology should be available on all patients regarding Varicella Zoster (VZ lgG antibodies but, if not, then VZ lgG should be performed in case patient has contact with chicken pox. | | To determine immunity to chicken pox. |
| Tissue typing should be sent to histocompatibility 3 monthly until the patient is a year post transplant. If the patient has an unexplained rise in creatinine then extra samples may be required. | | To assess level of donor specific antibodies and monitor. |
| Blood results are checked by the Doctor as soon as they are available and patients are contacted by 'phone with advice regarding drug dose changes or changes to other medication dependant on their results. | | To ensure patient is on the correct dose of medication according to blood results to maintain graft function and reduce risk of nephrotoxicity or rejection. |
| If there has been a rise in creatinine the patient may require a transplant kidney biopsy.<br>The patient will be admitted and INR and G & S taken. A minimum of 6 hours bed rest is required. Anticoagulants should be omitted pre procedure. | | To determine if kidney disease present or damage to the kidney.<br>To ensure clotting in normal levels.<br>To prevent bleeding. |
| The importance of regular dentist appointments, chiropody visits, If needed skin surveillance, breast and cervical smear checks are stressed at clinic appointments.<br>GP is responsible for arranging Cervical Screening and Mammography. | | To prevent infection.<br>To detect malignancy early so that appropriate treatment can be commenced If necessary. |

| Action | | Rationale |
|---|---|---|
| Patients are offered access to "Patient View" and information leaflet given | | To allow patients access to their blood results. |
| Prior to transfer back to referring Consultant arrangements are made for the patient to receive their immune-suppressants through Pharmacy Homecare with instructions on how to reorder. They are advised that their GP is responsible for supply any other medication. | | To ensure patients receive their medication in a timely fashion and avoid them running out of medication.<br>To ensure patients receive the correct updated dosage of medication. |
| Doctors document all consultations and changes made at clinic and a letter is sent to referring consultant and GP regarding clinic outcome. | | To ensure communication and continuation of care. |

| | |
|---|---|
| **Does this Clinical Operating Procedure relate to a Clinical Guideline?** | *No* |

| | |
|---|---|
| **Author Name:** | Mary Healey. |
| **Author Job Title:** | Transplant Clinic Sister |
| **Author email address:** | Mary.healey@uhcw.nhs.uk |

If the Reviewer and Author is the same person please tick box ☐
If the Reviewer and Author is not the same person please provide the Reviewer details below

| | |
|---|---|
| **Reviewer Name:** | Pat Harrison |
| **Reviewer Job Title:** | Transplant Clinic Sister |
| **Reviewer email address:** | Pat.harrison@uhcw.nhs.uk |

| | |
|---|---|
| **Approved by:** | Renal Services Procedure and Guideline Approval Group |
| **Date Approved:** | September 2016 |

| | |
|---|---|
| **Primary Specialty:** | Renal – Transplantation |
| **Secondary Specialty:** | *To be allocated by Quality & Effectiveness Department upon receipt* |
| **Other Specialty:** | *To be allocated by Quality & Effectiveness Department upon receipt* |

**Are there any UHCW documents related to this topic area** **Y**es No×

| |
|---|
| *If yes please provide Title* |

**References**

Provide full references for any literature utilised in the development of this clinical operating procedure, if applicable