



## Guidance documentfor PM JAY package

### Renal Transplant – Follow up

Procedures covered:3

Specialty:Organ and Tissue Transplant

Package name	Procedure name	HBP 1.0 code	HBP 2.0 code	Package price (INR)	Remarks
Renal Transplant	Post-Transplant Medication – Month 1-3	New Package	OT001D	50,000	Follow – up procedure
Renal Transplant	Post-Transplant Medication – Month 3-6	New Package	OT001E	50,000	Follow – up procedure
Renal Transplant	Post-Transplant Medication – Month 6-12	New Package	OT001F	40,000	Follow – up procedure

#### Minimum qualification of the treating doctor:

**Essential:**DM/DNB/Fellowship/Equivalent training in transplant Nephrology (in Nephrology); in some cases,MCh/DNB/Fellowship or Equivalent training (in Kidney Transplant Surgery /Urology Surgery)

**Special empanelment criteria/linkage to empanelment module:** Facility should be registered as per HOTA(THE HUMAN ORGANS TRANSPLANTATION) Actfor intervention procedures.Care at a Tertiary Hospital.The Hospital should have the required infrastructureof transplantation like Normothermic perfusion system, vascular access, pre-transplant work-up, dialysis, transplant immunology (HLA & cross match), transplant pathology and post-transplant care.

#### Disclaimer:

For monitoring and administering the claim management process of **Renal transplant – Follow up**, NHA shall be following these guidelines. This document has been prepared for guidance of PROCESSING TEAM and TRANSACTION MANAGEMENT SYSTEM of AB PM-JAY for the claims of procedures mentioned above. The hospitals can also refer to this document so that they have the insight on how the claims will be processed. However, this document doesn't provide any guidance on clinical and therapeutic management of patient. In that respect the hospitals and physicians may refer to any other relevant material as per the extant professional norms.

### PART I: GUIDELINES FOR CLINICIANS AND HEALTHCARE PROVIDERS

#### 1.1 Objective:

The purpose of this section is to act as a guidance & a clinical decision support tool for the clinicians in deciding the line of treatment, plan clinical management of patient and decide referral of cases to the appropriate level of care (as required) for treatment of patients under PMJAY and selection of corresponding Health Benefit Package.

It will also serve as a tool for hospitals to determine and submit the mandatory documents required for claiming reimbursement of health benefit package under PMJAY.

### **1.2 Clinical key pointers:**

Kidney transplantation is the treatment of choice for patients with end-stage kidney disease. Patients require close follow-up after transplantation since they are on complex immunosuppressive regimens that render them susceptible to infection, malignancy, diabetes, and cardiovascular disease (CVD). The frequency of follow-up varies among centers and depends upon the stability of the patient. In addition, patients often have multiple comorbidities due to, or as a cause of, their underlying end-stage kidney disease and may have complications of reduced kidney function, such as anemia and bone disease. Patients are also at risk for opportunistic infections including cytomegalovirus (CMV), *Pneumocystis jirovecii* (formerly *carinii*) pneumonia (PCP), and polyomavirus (BK and John Cunningham [JC] virus).

Long-term graft function is of critical importance for the success of a transplant. Therefore, regular long-term follow-up by experienced transplant physicians is essential in order to detect complications or graft dysfunction early and reassure adherence to the immunosuppressive regimen. Other important long-term problems are non-adherence, the development of anti-HLA antibodies, recurrence of the original disease and CNI-associated nephrotoxicity.

Recommendations	Strength rating
Provide lifelong regular post-transplant follow-up by an experienced and trained transplant specialist at least every six to twelve months.	Strong
Advise patients on appropriate lifestyle changes, potential complications, and the importance of adherence to their immunosuppressive regimen.	Strong
Regularly monitor (approximately every four to eight weeks) serum creatinine, estimated glomerular filtration rate, blood pressure, urinary protein excretion, immunosuppression and complications after renal transplantation. Changes in these parameters over time should trigger further diagnostic work-up including renal biopsy, a search for infectious causes and anti-HLA antibodies.	Strong
Perform an ultrasound of the graft, in case of graft dysfunction, to rule out obstruction and renal artery stenosis.	Strong
In patients with interstitial fibrosis and tubular atrophy undergoing calcineurin inhibitor (CNI) therapy and/or with histological signs suggestive of CNI toxicity (e.g. arteriolar hyalinosis, striped fibrosis) consider CNI reduction or withdrawal.	Strong
Initiate appropriate medical treatment, e.g. tight control of hypertension, diabetes, proteinuria, cardiac risk factors, infections, and other complications according to current guidelines.	Strong

### **Routine follow up and laboratory monitoring**

Patients are followed by a transplant nephrologist for at least the first three to six months following transplantation. The frequency of follow-up varies among centers and depends upon the stability of the patient. Immunosuppressive therapy is gradually reduced during the first three to six months to avoid adverse medication effects while still preventing rejection. The type and frequency of laboratory testing vary from center to center. A typical monitoring scheme, which is generally consistent with the 2009 Kidney Disease: Improving Global Outcomes (KDIGO) clinical practice guidelines, is presented in the below table.

#### **Suggested frequency of laboratory tests following kidney transplantation**

Test	Frequency
Basic chemistry panel (including eGFR), magnesium, and phosphorus	Every visit
Complete blood count and differential	Every visit
Tacrolimus/cyclosporine/everolimus/sirolimus level	Every visit
Urinalysis with sediment examination	Every visit
Spot urine protein-to-creatinine ratio	Every visit
Fasting blood glucose	Weekly for the first four weeks, then at three and six months, then every year
HbA1C	Every three months or every visit if less frequent
Fasting lipid profile	Every three months or every visit if less frequent
PTH and 25-hydroxyvitamin D	Immediately posttransplant and then every 6 to 12 months
BK virus blood and/or urine PCR testing	Monthly for the first six months, and then at 9, 12, 18, and 24 months
CMV blood PCR testing (in patients not receiving CMV prophylaxis therapy)	Weekly for the first three months

eGFR: estimated glomerular filtration rate; PTH: parathyroid hormone; PCR: polymerase chain reaction; CMV: cytomegalovirus.

*Courtesy of Anil Chandraaker, MD.*

### **Monitoring renal allograft function**

The routine evaluation of renal allograft function typically involves monitoring the serum creatinine level and screening for proteinuria. Some patients with evidence of renal allograft dysfunction and/or proteinuria may require a kidney biopsy to determine the cause of these abnormalities. In addition to the individual assays of allograft function, composite scoring systems, such as the Integrative Box (iBox) Scoring System, are being developed, which may be able to predict long-term allograft function using data available at earlier time points post-transplantation.

### **Management of Immunosuppression**

Maintenance immunosuppression is usually initiated at the time of transplantation and continued long-term for the duration of the allograft. Maintenance regimens can include glucocorticoids, calcineurin inhibitors (CNIs; tacrolimus or cyclosporine), antimetabolic agents (mycophenolate mofetil, enteric-coated mycophenolate sodium, or azathioprine), mammalian (mechanistic) target of rapamycin (mTOR) inhibitors (sirolimus or everolimus), or costimulatory blockade agents (belatacept). These agents differ with respect to their efficacy and side effect profile (including risk of infections, malignancy, cardiovascular disease [CVD], and posttransplant diabetes [PTDM]), and these factors must be considered when choosing a regimen for a particular patient.

### **1.3Mandatory documents- For healthcare providers**

Following documents should be uploaded by the concerned hospital staff at the time of pre-authorization and claims submission

<b>Mandatory document</b>	<b>Post-Transplant Medication – Month 1-3 / 3-6 / 6-12</b>
<b>i. At the time of Pre-authorization</b>	
a. Discharge summary of the last admission	Yes
b. Clinical notes including examination findings of the current visit	Yes
c. Any requirement of the investigation for the current visit (optional)	Yes
<b>ii. At the time of claim submission</b>	
a. Details of the drugs (invoice/receipt) and dosages	Yes
b. Investigation reports (if done)	Yes

## **PART II: GUIDELINES FOR PROCESSING TEAM**

### **PART III: GUIDELINES FOR TRANSACTION MANAGEMENT SYSTEM (TMS)**

3.1 **Objective:** To enable setting up of cross check mechanisms/rule engines within the IT platform (TMS) to ensure compliance with STGs and to prevent fraud / abuse of the Health Benefit Package.

3.2 **Below mentioned are the scenarios where a provision would be built in TMS for pop-ups:**

1. Did the clinical notes of the current visit mention clinical examination/investigations/ complications if any / medication plan / follow-up advice? Yes

Till the time the functionality is being developed, the processing doctors shall check the above manually.

#### **References**

1. EAU Guidelines. Edn. presented at the EAU Annual Congress Amsterdam, 2020. ISBN 978-94-92671-07-3.
2. Anil Chandraker, MD, FASN, FRCPMelissa Y Yeung, MD, FRCPC. Kidney transplantation in adults: Overview of care of the adult kidney transplant recipient. – UpToDate. Last updated: January, 2021.