**Selection Criteria Policy – Adult and Pediatric Kidney Transplant**

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| Owner: Hume Lee Transplant | Effective Date: 07/2018 |
| Revision # 2.3 |
| Next Review: 01/2026 |

**General Information:**

**Responsible Department:**

Adult and Pediatric Kidney Transplant

**Responsible Individuals / Who Performs:**

Adult nephrologists, pediatric nephrologist, kidney referral coordinators, kidney pre-transplant coordinators, kidney selection committee members

**Purpose**

To provide inclusion criteria with absolute and relative contraindications to guide the safe, equitable and fair selection of patients for kidney transplantation.

**Definitions:**

CKD – chronic kidney disease

ESRD – end stage renal disease

ADPKD – autosomal dominant polycystic kidney disease

HLA – human leukocyte antigen

IDDM – insulin dependent diabetes mellitus

PFT – pulmonary function test

CMS – Centers for Medicaid and Medicare Services
OPTN – Organ Procurement and Transplantation Network

**Procedure:**

The following approval criteria will be used in selection of patients for kidney transplantation. Patients with Chronic Kidney Disease (CKD) or End Stage Renal Disease (ESRD) may be referred for renal transplantation by their nephrologist or primary care physician to VCU Health System’s Hume Lee Transplant Center. An initial outpatient evaluation will be scheduled for the patient after review of the referral for completeness and appropriate inclusion criteria. At this time, the patient will be evaluated by a multidisciplinary team consisting of transplant nephrologists, transplant surgeons, transplant nurse coordinators, social workers, financial coordinators, pharmacists, and other services as required. During this visit, the patient will receive individualized education regarding transplantation as a treatment option for them and will receive written information specific to this program.

**Inclusion Criteria for Kidney Transplantation:**

* Chronic irreversible kidney disease as defined by creatinine clearance/calculated GFR <20mL/min (for adults only) or be on chronic dialysis.
* Pre-emptive transplantation for patients with declining GFR (adult and pediatric)
* Patients must be medically cleared and able to tolerate major surgery
* Patients and their family members/support system must be able to understand the risks and benefits of transplantation, including the long-term need for close medical follow-up, life-long need for anti-rejection therapy, and financial responsibilities.
* Must be compliant with their treatment plan including dialysis. If noncompliance with the current treatment plan is recognized as a problem, the patient could be required to achieve certain goals determined by the transplant program to be considered a transplant candidate.
* Pediatric candidates must have a weight of >10 Kg.

**Absolute Contraindications to Kidney Transplantation**

* Active or untreatable malignancy
* Active infection
* Acute active hepatitis
* Severe peripheral vascular disease not amendable to bypass or angioplasty
* Active ongoing substance abuse
* End stage or severe pulmonary disease
* End stage liver disease and not a candidate for orthotopic liver transplantation
* Ongoing noncompliance with medications or with treatment plan including dialysis prescription
* Pregnancy
* Significant limitations to recipient’s life expectancy, even in the face of transplantation, related to other co-morbid conditions
* Malnutrition.

*Patients who have absolute contraindications to kidney transplantation will be notified of this fact and given specific goals if appropriate which they must reach* *in order to be considered in the future. This information will be likewise relayed to the referring provider*

**Relative Contraindications to Kidney Transplantation**

* Age greater than 70 years
* BMI over 40 kg/m2
* Pediatric candidates <10 kg
* Sickle cell disease
* HIV+
* Recurrent urinary tract infections
* Abnormal genitourinary tract drainage
* Significant pulmonary hypertension
* Cardiovascular history of MI, CABG, recurrent episodes of CHF
* Peripheral vascular disease
	+ Significant aortoiliac occlusive disease
	+ Significant calcification or pelvic arterial system
* Prior history of malignancy
* Uncontrolled mental health disorder
* Inadequate financial or social support
* Advanced COPD
* Prior history of noncompliance with medications or treatment plan including dialysis prescription
* Prior history of substance abuse
* High risk for surgery or anesthesia
* Crossmatch incompatibility with specific proposed living donor
* Active cigarette smoking
* Autosomal Dominant Polycystic Kidney Disease (ADPKD) with cyst rupture, hematuria, recurrent UTI’s, pain or significant nephromegaly
* Hypercoagulable states
* Antiphospholipid antibody positive
* Liver Cirrhosis

*Patients with relative contraindications may require more in-depth evaluation and referral to specific subspecialists for clearance prior to moving forward with transplantation.*

**Required Documentation**

* Recent clinical summary, including all current medication and treatment plans
* Informed consent for the proposed evaluation process and transplantation
* Laboratory results as ordered by physician
* Blood typing and human leukocyte antigen (HLA) typing
* Serologies: HIV, Hepatitis B surface antigen, Hepatitis B surface antibody, Hepatitis C antibody, Hepatitis C by PCR, CMV IgG (cytomegalovirus), EBV IgG (Epstein-Barr), HSV IgG (Herpes), VZV IgG (varicella), syphilis test
* Recent EKG and chest x-ray.
* Results of Gynecological exam with Pap smear within the past year for females between 18 and 65 years of age.
* Mammogram for females between 40 and 70 years of age
* Psychosocial evaluation performed at the transplant center
* Nutritional screening/evaluation by Registered Dietician
* Medication management screening by Transplant Pharmacist.

*Any patient listed or* *relisted for any organ including re-transplantation after discharge MUST complete the evaluation process and will be presented to and approved by the selection committee members. The decision will be documented in the EMR in the committee note and in committee minutes.*

**Additional Evaluation as Indicated:**

**Surgical Clearance Visit Criteria:**

* **Category 1: Patient needs to see Transplant Surgery before committee without exceptions**
	+ Age >65
	+ BMI >35
	+ Jehovah’s Witness
	+ Multi-organ Transplant
	+ PCKD
	+ Kidney regrafts
	+ Patient deemed by Tx Nephrology to be seen by Transplant Surgery due to high surgica l/CV risk
* **Category 2: Patient can be presented and may be approved for listing by committee based on presentation**
	+ Will still need non-emergent transplant surgery appointment before listing
	+ CT reviews if needed at committee will be done by the Kidney Transplant Surgical Director before or soon after committee.

**Gastrointestinal:**

* GI screening for all patients with
	+ Iron deficiency anemia
	+ Positive guaiac stools
	+ Age > 50 years
	+ When deemed medically necessary based on individual history

**Cardiac**

* Cardiac screening can include:
	+ Echocardiogram
	+ Stress/Lexiscan/MIBI
	+ Dobutamine stress Echocardiogram
	+ Cardiac catheterization
* Cardiac Screening for all patients with:
	+ Insulin dependent diabetes mellitus (IDDM) at any age
	+ Age > 50 years
	+ When deemed medically necessary based on individual history

**Pulmonary Function Tests**

* PFT for patients with:
	+ History of chronic lung disease

**Special Consideration:**

**Crossmatch incompatibility:**

Patients who have identified a potential donor who is cross match incompatible may be considered for a desensitization protocol utilizing intravenous immune globulin (IVIG) and plasmapheresis, as well as other drugs. Crossmatches will be reviewed carefully by our immunologist and suitability for this protocol will be made after further immunologic testing and review.

**HIV Positive**

Patients who test positive for HIV may be considered for renal transplant provided they are negative by PCR and have CD4 counts over 200. They should have no recent history of opportunistic infections. All such patients will be seen by an Infectious Disease specialist who will make specific recommendations for alterations in HAART therapy post transplantation based upon individual resistance patterns, drug intolerance and renal function.

**Obesity**

Patients with BMI of 40 and greater will be evaluated on a case-by-case basis and will be given a target weight with a goal of achieving a BMI of 30 kg/m2.

**Hepatitis/Cirrhosis**

All patients will be screened for active Hepatitis B and C infection. Those who have evidence of active hepatitis may be referred to Hepatology and a liver biopsy could be performed to assess the extent of liver injury. Patients who have cirrhosis may still be candidates for transplantation provided they are approved for future treatment including potential orthotopic liver transplantation. Further evaluation of the cirrhotic patient will be performed including at a minimum: albumin, liver function tests, platelet count, INR, and upper endoscopy to rule out varices. Decisions regarding the advisability of performing kidney transplantation alone vs. combined liver and kidney transplantation will be made with input from Nephrology, Hepatology, and Transplant Surgery.

**Approved**:

See 2024 Signature Sheet