Maine Transplant Program
Maine Medical Center
Policies and Procedures
Living Donor Evaluation Protocol

1. Potential living kidney donors complete required registration and health history forms.

2. Medical Record Review for medical suitability performed by Living Donation Coordinator and a Transplant physician.
   a. Potential living donors must have had a physical exam within the past 1-2 years and have all up to date age and gender appropriate cancer screenings consistent with American Cancer Society Guidelines
   b. Exclude for hypertension treated with more than one blood pressure medications, chronic hematuria, symptomatic kidney stone (see Appendix C: Kidney Stone Algorithm), diabetes, obesity noted in medical record (see Living Donor Selection Criteria). Records must include 3 separate, documented blood pressure readings.
   c. Other medical conditions reviewed on case-by-case basis
   d. If excluded, the potential living donor is sent a letter from the coordinator explaining the reason.

3. HLA Genetic Testing to determine ABO and genetic compatibility between recipient and potential living donor.
   a. If incompatible, potential living donor notified, offered opportunity to participate in one or more KPD (Kidney Paired Donation) programs.
   b. If compatible or interested in KPD, potential living donor begins medical evaluation.

4. Potential Living Donor Medical Testing includes the following:
   a. Lab testing for general health and kidney function:
      • Two separate 24 hour urine collections for creatinine, creatinine clearance.
      • One 24 hr urine collection for determination of Albumin excretion rate.
      • CBC
      • CMP
      • Phosphorous
      • Uric acid
      • Lipid Panel
      • 2 Separate Urinalysis with microscopic exam
      • Urine for Albumin to creatinine ratio (ACR) in a random (non timed) specimen.
      • Urine for Culture & Sensitivities when appropriate.
      • 2 hour GTT for family history of Type II diabetes or an elevated fasting glucose noted in medical history or with CMP testing, use DM algorithm to determine suitability (See Appendix A of Living Donor Selection Criteria) as well as hemoglobin A1C.
      • If sibling of a Type I DM testing to include:
        1. Fasting baseline blood specimen for:
           a. Fasting blood glucose
           b. Glutamic acid
           c. Insulin level
2. 2 hour blood specimen for:
   a. Blood glucose
   b. Insulin level

- Infectious disease screening:
  To include HIV, Hepatitis panel, CMV, EBV and RPR antibody testing.
  For Tuberculosis will require either Gold Quantiferon or PPD.
- Second ABO testing to be done by MMC blood bank.
- Any history of DVT or other clotting issue testing to include:
  1. Factor V Leiden
  2. Anticardiolipin AB
  3. Prothrombin Gene Mutation
  4. Lupus AC
  5. B2 Glycoprotein
  6. Homocysteine

b. Renal Ultrasound if a direct blood relative with Polycystic Kidney Disease (PKD)

c. 24 hour ambulatory blood pressure monitoring for any person demonstrating
   borderline hypertension to diagnose "white-coat" hypertension vs. true pre-
   hypertension, use B/P algorithm to determine suitability (See Appendix B of Living
   Donor Selection Criteria)

d. Any living donor biologically related to the recipient whose renal insufficiency is
   related to a disease process that is genetically transmitted, the program will
   specifically consider the potential for the donor to be susceptible to that genetic
   disease.

e. Any other testing required as determined by the transplant team based on testing
   results and medical history.

f. If testing within normal limits, appointment made for Living Donor Evaluation at
   the Transplant Program.

g. If excluded, potential living donor notified by phone and in writing. Primary care
   physician also notified in writing.

5. Living Donor Evaluation includes:
   a. Education class/review of Living Kidney Donor Handbook with Living Donation
      Coordinator
   b. Meeting with Independent Living Donor Advocate
   c. Consultation with Financial Counselor
   d. Psychosocial evaluation with transplant social worker
   e. Nutrition evaluation with transplant RD (either in person or by record review)
   f. Pharmacist review of medical records and further evaluation as needed
   g. Vital signs (including 3 separate blood pressure readings)
   h. H&P with transplant surgeon and transplant nephrologist, including review for up to
      date cancer screenings for gender and age group according to the American Cancer
      Society Guidelines for the following cancers:
         - Breast Cancer
         - Cervical Cancer
         - Prostate Cancer Colon Cancer
         - Skin Cancer screening: All donors will receive a skin exam at the time of
evaluation and will be questioned regarding any history of skin malignancies or suspicious skin lesions. Due to the lack of evidence supporting the practice, skin self-exams are NOT required, nor are any other skin examinations or dermatology consultations required (US Preventative Services Task Force: http://www.uspreventiveservicestaskforce.org/uspstf/uspskca.htm).

- Lung cancer
  i. EKG
  j. All donors age 65 and above will require stress testing. Type of testing ordered will depend on EKG results and review of the records by the transplant nephrologist.
  k. Living Kidney Donor Right, SRTR data and review of high risk behaviors, and MMC forms and consents reviewed with Living Donation Coordinator and signed.
  l. Paired exchange programs reviewed with donor (as indicated)
    - Program explained included donor responsibility
    - Consent obtained using Potential Kidney Paired Donation (KPD) Living Donor Education Form, including discussion and description of willingness of donor to: travel, have kidney shipped, donate specific kidney, participate in a chain, etc.
    - Medical release consent obtained
  
  m. Chest x-ray
  n. Abdominal CT
  o. Any additional testing required by transplant team as determined by physical exam, CT results and medical history
  p. Asymptomatic kidney stones noted on CT will require further evaluation testing and determination of suitability (See Appendix C: Kidney Stone Algorithm of Living Donor Selection Criteria)

6. Living donor is presented at Transplant Candidate Review for committee approval.
   a. Must have multi-disciplinary evaluation prior to presentation that includes:
      - Living Donor Coordinator
      - Independent Living Donor Advocate
      - Transplant Social Worker
      - Transplant Dietician
      - Transplant Nephrologist
      - Transplant Surgeon
      - Financial Counselor
      - Pharmacy Review as needed
   
   b. If participating in an exchange, the exchange donor selection will be dependent upon meeting recipient’s pre-selection criteria.

7. If donor participating in exchange program potential donor registered in appropriate program through program website
   a. If possible match is identified, blood specimen for cross-matching with potential recipient is obtained from donor
   b. If match is possible, logistics and possible surgery dates discussed with donor

8. Plan for transplant surgery:
Living donor must have pre-surgery visit with Transplant Surgeon (surgical consent), Living Donation Coordinator and Pre-Admission Unit (anesthesia consent) typically 1-2 weeks prior to donation surgery.

- Pre-Op teaching completed by LD Coordinator, Living Donor Surgery Information reviewed and given to donor

b. If possible, a tour of R5 and hospital with R5 RN educator.

c. Pre-op labs include (unless previous labs done within 30 days of surgery):

- CBC
- CMP
- INR
- PTT
- X-match for 2 units RBCs
- HCG for women of child-bearing age & ability

d. Cross-match between recipient and donor repeated within 30 days of surgery date

e. Antibody and NAT testing for HIV, Hepatitis B, Hepatitis C and West Nile Virus must be done within twentyeight days prior to donation

f. Other infectious disease screenings as appropriate for donors from endemic areas or time of year and location associated risk: if donor from south eastern united states-test for Strongyloides; if donor from tropical country-test for Trypanosama cruzi.

g. Donor information entered into UNET and UNOS ID obtained

h. Living donor chart reviewed by a Transplant Physician for final suitability for surgery.

- Pre-Op checklist completed and signed by Transplant Nephrologist, Transplant Surgeon and LD Coordinator

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