Procedure Name: **Renal Transplant**

Updated: 12/9/15

Indications:
Renal Transplant or any related sequelae of the procedure.

General Description:
This is a survey for renal transplant.

Patient Preparation:
One hour prior to start of exam patient to drink 24 oz. of liquid.

Imaging Sequence:
The following imaging sequence is for a normal exam. Include additional images of pathology to demonstrate dimensions in three planes, texture, size, shape, and relationship to adjacent anatomy. Utilize color Doppler as needed.

Renal Transplant
If exam ordered is for renal transplant, then above (renal) procedure is performed for native kidneys as well as the following additional images for the transplant kidney.

1. Long mid transplant (length measurement)
2. Transverse mid transplant (TRANS and AP measurements)
3. Long transplant medial
4. Long transplant lateral
5. Trans transplant superior
6. Trans transplant inferior
7. Acquire color Doppler image of transplant for perfusion
8. If visible, evaluate ureter
9. Measure resistive index (RI) in the Arcuate and Segmental arteries at:
    - Upper pole
    - Mid pole
    - Lower pole

    Normal waveform is low resistance, brisk upstroke and continuous diastolic flow. RI should be 0.6 through 0.8

    Doppler: (the gate must be angle corrected from 0 to 60 degrees)
10. Measure PSV in main real artery at proximal, mid, and distal (should be <200cm/sec)
11. Color and spectral Doppler of the main renal vein
12. Color Doppler and PSV (angle corrected) of iliac artery proximal to anastomosis of transplant renal artery.
13. Image for presence of perirenal fluid

Additional imaging if applicable:
Transverse and long image of bladder with foley catheter. Document any residual bladder volume. Include transverse and long split screen image of the prostate with volume measurement if it appears enlarged.

Some renal transplants have two or more renal arteries, please evaluate all renal arteries and document the Peak Systolic Velocity and Resistive Index on the technical worksheet.