RELATIVE GFR & ERPF: RENAL TX OR NATIVE KIDNEY SCAN UPDATED: APRIL 2010

CPT CODE: 78707

Indications: This is the routine right (%) versus left (%) renal function study. It is the preferred general function study in patients with sorum creatinine value < 4 mgm %. These conditions include: vascular, renal, and collecting system diseases of many etiologies. Patient Prop: Patient should be normally hydrated at the time of the study (this means 500ml (16 oz) of fluid in 2 hours, prior to study). Scheduling: One hour of imaging time. Radiopharmaceutical 8 Dose: 10 mCl ± 20% (B-12 mCl) Tc-99m-MAG-3. Adjust dose for patient weight per NMIS or weight table. Pediatric dose adjusted if < 18 yrs. Imaging Device: GE, MPS or Infinia with LEHR collimator, (Picker with LEHR as last choice). Data Acquisition Computer acquisition of the data is required using predefined protocol GatesRenal with camera under the table for native kidney and above the table for renal tx patient. Acquisition Procedure: A. Create patient. B. Acquisition protocol: GatesRenal C. This protocol will set up acquisition files: 1. Pre syrings: Acquire syringe in holder for 3 seconds, 128 x 128 matrix 2. Prelij: Acquire one-minute pre injection picture, 128 x 128 matrix 2. Prelij: Acquire syring and stopcock in holder for 3 seconds, 128 x 128 matrix 3. Renaflwt: Renal Flow, 240 frames at 1 sec/frame followed by 26 frames at 1 min/frame 4. Post syrings: Acquire syring and stopcock in holder for 3 seconds, 128 x 128 matrix B. Injsite: Acquire injection site image, 15 sec i			
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	Save and Exit protocol
	Select Renal Uptake protocol from USER applications Enter data in dialog box Adjust brightness of display images Screen-cap uptake screen Exit
	Select Renal Uptake protocol from USER applications. Enter data in dialog box.
	Set the current or all option for the window leveling tool to "current". Adjust the 5-min flow images to desired brightness. Set the current or all option to "Current" and adjust the 5 sec flow images to desired brightness. Screen-cap uptake screen.
PACS:	Send to PACS all the save screen files plus the file named "Appended Images" under the Renal Analysis_Results folder which is the 1-min/frame dynamic images.
Interpretation:	In general, the flow study and GFR should parallel each other except in very acute disease.
Comments:	A Nuclear Medicine staff or resident physician should be consulted to determine if additional views are indicated.

Reviewed By: S. Perlman, D. Fuerbringer, S. Knishka

Scott B. Perlman, MD, MS Chief, Nuclear Medicine Derek Fuerbringer, CNMT Manager, Nuclear Medicine Scott Knishka, RPh, BCNP Radiopharmacist

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- 2. Infinia GE Lasix Renal Protocols, acquisition and processing.
- 3. Society of Nuclear Medicine Procedure Guidelines