

GUNDERSEN HEALTH SYSTEM ULTRASOUND DEPARTMENT POLICY AND PROCEDURE MANUAL

SUBJECT: Pediatric Renal Artery Imaging Protocol
SECTION: Vascular Ultrasound
ORIGINATOR: UW Hospital, Madison, WI
REVISED DATE: December 3, 2019

APPROVED BY:

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Transducer: 9L, 15 L, C5-9 (depending on patient size)

Ultrasound Presets: Renal or MSK (15L)

Exam Protocol: Drs. Bartosh and Gill, UW Hospital, Madison, WI, have requested that we follow their imaging protocol for pediatric renal artery patients with hypertension. Follow this imaging protocol for ALL of Dr. Bartosh's patients with hypertension and in patients from other providers up to age 16.

Imaging Protocol:

- Long lateral RT kidney
- Long mid RT kidney
- Long mid RT kidney with length measured
- Long mid RT kidney with color Doppler
- Long medial RT kidney
- Long cine clip lat to med RT kidney
- Trans upper RT kidney
- Trans mid RT kidney
- Trans mid RT kidney with color to show MRA/MRV
- Trans lower RT kidney
- Repeat this sequence for LT kidney
- Long bladder
- Trans bladder
- Trans bladder for jets with color Doppler IF the ureter is dilated or there is a concern for a stone in the ureter
- Color Doppler and measurements of any abnormalities such as hydronephrosis, cysts, and/or masses
- If patient is old enough or able to void when bladder is full, and hydro is seen have them do so and get post void pictures

Pediatric Renal Artery Images and Indications

Perform a renal artery sonogram for pediatric hypertension based on indications listed below:

- Renal artery ultrasound ordered on a pediatric patient for hypertension:
 - Perform a renal sonogram following the pediatric imaging protocol (listed on page 1)
 - Evaluate the main renal artery
 - Evaluate the main renal vein
 - Evaluate the **arcuate arteries** – upper, mid, and lower
 - Measure the RIs

- Renal sonogram ordered for pediatric hypertension (without a specific renal artery request) **on a patient from Dr. Bartosh:**
 - Ask Dr. Bartosh to change the order a renal artery ultrasound and then follow the same imaging protocol as for a pediatric renal artery ultrasound as stated above

- Renal sonogram ordered for pediatric hypertension (without a specific renal artery request) **on a patient from a clinician other than Dr. Bartosh:**
 - Verify with the ordering provider renal vs. renal artery and have the ultrasound order corrected as necessary. Perform the requested exam.