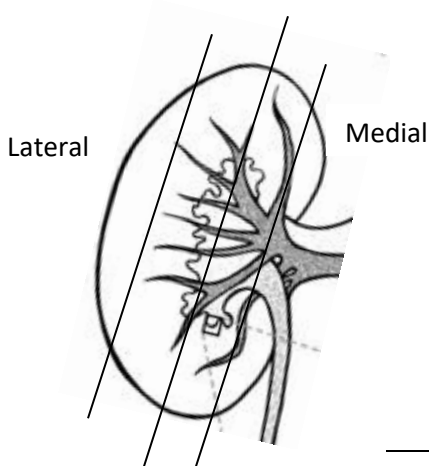


Renal US- US RETROPERITONEAL B-SCAN/REAL TIME

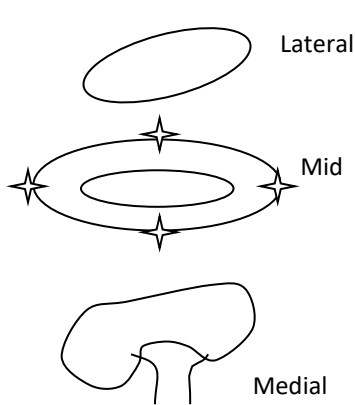
Kidneys		
Organ/ Order	Scan Plane	Key Landmarks Identified
Rt/Lt Kidney	Sagittal	• Mid
		• Measurement-Length measurement from superior to inferior pole
		• Medial
	Transverse	• Renal sinus at hilum
		• If mild collecting system dilatation is present, please confirm with color Doppler
		• Lateral
Bladder	Sagittal/ Transverse	• Upper
		• Mid
		• Renal sinus at hilum to include renal vessels
		• Measure AP and transverse
		• Measure renal cortex
		• If mild collecting system dilatation is present, please confirm with color Doppler
		• Lower
		• Mid
		• Include bladder walls- measure if abnormally thickened

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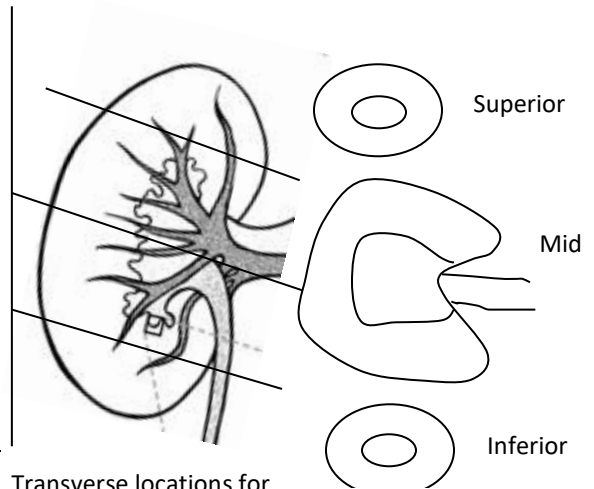
Post Void exam	Sagittal/ Transverse	• Pre-void length, width and AP Measurement-calculate fluid volume
		• Post-void length, width and AP Measurement-calculate fluid volume



Sagittal Rt. Kidney with lateral, mid and medial imaging planes



Sagittal sonographic appearance. Mid shows length and AP measurement locations



Transverse locations for superior, mid and inferior images

Transverse sonographic appearance

Urinary Protocol

Normal Measurement Ranges

Structure	Area of Interest	Plane	Measurement	Comments
Kidney	Mid	Sagittal	<ul style="list-style-type: none"> Length 10-12cm AP 2-3 cm 	<ul style="list-style-type: none"> Measure from superior pole to inferior pole through the kidney Measure anterior to posterior mid-section
Kidney	Mid	Transverse	Width 5-7.5cm	<ul style="list-style-type: none"> Measure in a transverse plane through the mid kidney
Bladder Wall	Area of thickening	Transverse	3-6 mm	<ul style="list-style-type: none"> This is a measurement for a distended bladder wall

Common Laboratory Values to be Reviewed prior to Examination

Lab Value	Organ	Level	Indication or Association
Blood urea nitrogen (Bun)	<ul style="list-style-type: none"> Kidneys 	Increased	<ul style="list-style-type: none"> Renal failure or renal disease
Creatinine	<ul style="list-style-type: none"> Kidneys 	Increased	<ul style="list-style-type: none"> Renal failure or renal disease
White blood cell count (WBC)	<ul style="list-style-type: none"> Kidneys Bladder 	Increased	<ul style="list-style-type: none"> Indicates infection