ULTRASOUND PROTOCOLS

Reviewed 10/30/20

Testicle/Scrotum Ultrasound Protocol Guideline

Indication	Torsion trauma, inflammation, mass, asymmetry, intrascrotal hernia, varicocele, nonpalpable testes, testicular pain
Prep	The patient should be in the supine position. Another towel is draped across the lower abdomen and is used to hold the penis to the abdomen and away from the scrotum. Apply ultrasound gel to the right scrotum and begin scanning in Transverse plane.
Procedure	1) In sagittal, along the anterior aspect of the scrotum, image the right testis including the mediastinum testis, measuring in long axis. Scan medial and lateral borders. 2) In transverse, image the right testis at the mid-portion and measure in AP and transverse. 3) Scan slightly anteriorly and image the superior portion of the testis. 4) Scan back down to the mid-portion and angle slightly posteriorly to image the inferior portion of the testis. 5) Place the transducer on the left scrotum and follow the same protocol as for the right scrotum. 6) In transverse, place the transducer to the side of both scrotums, simultaneously and image both testes to compare relative echogenicity. 7) In sagittal, image the right and left testis epididymis. 8) Use Doppler to document intratesticular veins and arteries. a) Valsalva maneuver or upright positioning can be utilized to detect reflux (flow reversal for at least 2 seconds or increased amplitude). b) Include lower inguinal region and spermatic chord for extension of varicocele.
Evaluation Criteria	1) Real-time evaluation and documentation should include but not be limited to: a) Size and Shape (approx.3x2.5 cm) b) Echogenicity c) Echo-texture (homogeneous/heterogeneous) d) Lesion (cystic or solid) i) Margins (thin, well defined /irregular, thick) ii) Shape (spherical, ovoid/ irregular, ill-defined borders) iii) Size iv) Location

	v) Lobulations (>or<3) vi) Finger-like extensions vii) Enhanced through transmission (posterior enhancement) viii) Posterior attenuation e) Focal or diffuse enlargement of epididymis f) Fluid collection 2) Doppler/Color Doppler criteria should include but is not limited to: a) Evaluating the presence or absence of blood flow: i) Internal in mass ii) External to mass iii) Laminar flow patterns iv) Normal vascularity v) Turbulence and mosaics b) Evaluating suspected infection c) Rule out torsion – color flow and doppler are mandatory to rule out torsion d) Assessment of resolution, persistence or recurrence of varicoceles

It is understood that other additional views, Doppler sampling sites, color settings, velocity ratios and measurements etc., will be used by the professional sonographer in evaluating any pathologic or suspected pathologic condition