APPENDIX A

Learning objectives

1.0 Overview of point of care ultrasound (POCUS)
   1.1 POCUS versus diagnostic imaging
   1.2 Indications and contraindications for POCUS
   1.3 Consensus statements of the Canadian Association of Emergency Physicians (CAEP) and Canadian Association of Radiologists (CAR)
   1.4 POCUS in urology

2.0 Understand how ultrasonic sound creates diagnostic images
   2.1 Piezoelectric effect and sonographic image formation
   2.2 Image orientation: longitudinal, depth, and transverse axis
   2.3 Terminology: echotexture, echogenic, hyperechoic, hypoechoic, homogenous, heterogenous, shadow, enhancement
   2.4 Image artifacts: acoustic enhancement and posterior shadowing

3.0 Understand ultrasound controls as it pertains to point of care scanning
   3.1 Focus: beam width and lateral resolution
   3.2 Gains and time gain compensation: contrast resolution
   3.3 Depth and scan line density: temporal resolution
   3.4 Probe descriptions, footprint, and optimal choices
   3.5 Doppler imaging: principles of doppler, doppler controls, and doppler recognition

4.0 Kidney sonography
   4.1 Normal sonographic appearances of the kidney
   4.2 Procedural approach to scanning the kidney
   4.3 Renal pelvic dilation
   4.4 Hydronephrosis and grading, hydronephrosis versus parapelvic cysts
   4.5 Nephrolithiasis
   4.6 Other findings: cysts, masses, atrophy

5.0 Bladder sonography
   5.1 Normal sonographic appearances of the bladder
   5.2 Other bladder findings: bladder nephrolithiasis, bladder thrombus, bladder cancer
   5.3 Identification of intra-vesicular needles and catheters
   5.4 Procedural approach to suprapubic catheter insertion
6.0 Testicular sonography
   6.1 Doppler imaging
   6.2 Normal sonographic appearances of the testicles
   6.3 Procedural approach to scanning the testicles
   6.4 Abnormal appearances of testicular torsion
   6.5 Other findings: cysts, hydrocele, trauma