

University of Florida Critical Care Medicine Ultrasound Curriculum (Procedural/Vascular Competencies)

Technical (image acquisition) and cognitive (image interpretation) elements required for competence in pleural

ultrasonography (based on Mayo, Paul et al. American College of Chest Physicians Statement on Competence in Critical Care Ultrasonography. Chest/135/4 April 2009)

- Identification of relevant veins and arteries: internal jugular/carotid, subclavian vein/artery, axillary vein/artery, brachial vein/artery, radial artery, femoral vein/artery, peripheral veins such as basilic, cephalic, external jugular
- Differentiation of vein from artery based on anatomic position, compressibility, respirophasic changes
- Identification of normal anatomic variability such as vascular hypoplasia, variability of carotid artery position relative to internal jugular
- Identification of vascular thrombosis by direct visualization or by compression study
- Identification of adjacent non-venous structures such as sternocleidomastoid muscle, mass, lymph node
- Knowledge of the effects of patient position on anatomic topography: head/lower extremity rotation effects on overlap of the artery by the vein, effects of Trendelenburg position on vascular distention
- Venous thrombosis: identification of relevant veins and their associated artery: internal jugular, subclavian, axillary, brachial, basilica, common femoral, proximal saphenous, superficial femoral, popliteal with differentiation from adjacent artery
- Venous thrombosis: identification of venous thrombosis: visualization of endoluminal thrombus, performance of compression study with identification of non-compressible vein consistent with thrombus
- Venous thrombosis: knowledge not to perform compression maneuver if there is a visible thrombus
- Venous thrombosis: identification of adjacent structures such as lymph node, mass, hematoma, ruptured Baker cyst