

DMS-2981: SPECIALTY REGISTRY REVIEW

Cuyahoga Community College

Viewing: DMS-2981 : Specialty Registry Review

Board of Trustees:

June 2020

Academic Term:

Fall 2020

Subject Code

DMS - Diagnostic Medical Sonography

Course Number:

2981

Title:

Specialty Registry Review

Catalog Description:

Global review of anatomy, physiology, and pathology in relation to sonography. Test taking skills, image identification, and procedural scenarios covered. Special focus on exam content outline topics to assist student preparing to take national credentialing examinations for sonography.

Credit Hour(s):

1

Lecture Hour(s):

1

Requisites

Prerequisite and Corequisite

DMS-2301 Intermediate Sonographic Scanning.

Outcomes

Course Outcome(s):

Apply knowledge of normal anatomy and discuss the importance of an ultrasound as it relates to the patient's exam.

Objective(s):

1. List and identify all anatomy learned as it pertains to the cardiovascular system.
2. Recognize signs and symptoms that indicate the necessity for an ultrasound.
3. Describe indications for a sonographic exam.
4. Describe hemodynamic changes seen when pathophysiological abnormalities are present.
5. Recognize emergency situations and procedures.
6. Describe the importance and impact that laboratory values, pharmacology and other testing modalities have with a sonographic exam.

Course Outcome(s):

Describe protocol to perform a thorough ultrasound using the necessary applications.

Objective(s):

1. Recognize and identify the sonographic appearance of normal and abnormal anatomic structures and their normal Doppler patterns.
2. Recognize and identify the sonographic appearance of anatomic variants.
3. Describe measurements, calculations and Doppler necessary to evaluate anatomic variants
4. Demonstrate an understanding of embryologic formation and congenital abnormalities.
5. Demonstrate the ability to correlate technical findings with the necessary protocol.

6. Describe and discuss topics relating to image evaluation, display and preservation.
 7. Define various testing methods used to interrogate normal and abnormal anatomy.
 8. Discuss current related diagnostic procedures used in conjunction with sonography.
-

Methods of Evaluation:

1. Quizzes
2. Participation in group discussion
3. Homework assignments
4. Final exam

Course Content Outline:

1. Concepts
 - a. Protocols
 - b. Preparation
 - c. Cross-sectional anatomy
 - d. Pathophysiology
 - e. Scope of Practice
 - f. Critical thinking
 - g. Hemodynamics
 - h. Disease Process and affects
 - i. Disease Appearance
2. Skills
 - a. Applying test taking skills to the mock exams and to the credentialing exam.
 - b. Analyzing and reporting findings.
 - c. Identifying anatomy
 - d. Recognizing pathology
 - e. Determining normal versus abnormal anatomy and blood flow
3. Issues
 - a. Knowledge retention
 - b. Standards of practice
 - c. Exam Preparation
 - d. Communication with diverse populations
 - e. Critical thinking
 - f. Medical ethics
 - g. Difficult examinations

Course Outline

1. Test taking skills
 - a. Frame of mind
 - b. Environment
 - c. Preparation
 - d. Strategies
2. Review of normal sonographic anatomy
 - a. Variants
 - b. Pertinent physiology
 - c. Sonographic impressions
3. Review of abnormal sonographic anatomy
 - a. Etiologies
 - b. Affects on the patient
 - c. Appearance
 - d. Measurements or calculations
 - e. Therapeutic interventions
 - f. Congenital anomalies
 - g. Pathophysiology
 - h. Hemodynamics
 - i. Sonographic impressions
4. Review of patient evaluation

- a. Preparation
 - b. Signs and Symptoms
 - c. Risk Factors
 - d. Laboratory Results
 - e. Emergency conditions and procedures
5. Review of laboratory values, pharmaceuticals, and diagnostic tests that have a relationship to the patient's exam.
 6. Review of Doppler attributes specific to the exam
 - a. Physical principles
 - b. Instrumentation
 - c. Principles of Doppler and color flow
 7. Current standards

Resources

Burns, Joie, Ann Willis, and Julia M. Ladisa-Michalek. *National Certification Examination Review: Abdominal Sonography*. 4th ed. Dallas: Society of Diagnostic Medical Sonography, 2009.

Ovel, Susanna. *Sonography Exam Review: Physics, Abdomen, Obstetrics and Gynecology*. 2nd. St. Louis, MO: Mosby Elsevier, 2013.

Beckner, Jean. *National Certification Examination Review: Vascular Sonography/Technology*. Dallas, TX: Society of Diagnostic Medical Sonography, 2009.

Penny, Steven M. *Examination Review for Ultrasound: Abdomen & Obstetrics and Gynecology*. 2nd. Baltimore, MD: Lippincott Williams & Wilkins, 2018.

Owen, Cindy and Edward G. Grant. *Abdominal Sonography Review: A QA Review for the ARDMS Abdomen Specialty Exam*. Pasadena, CA: Appleton Davies, 2010.

Odwin, Charles S. and Arthur C. Fleischer, eds. *Lange Review Ultrasonography Examination*. 4th ed. New York: McGraw-Hill Medical, 2012.

Barnhardt, Wendy. *National Certification Examination Review: Adult Cardiac Sonography*. 5th ed. Dallas, TX: Society of Diagnostic Medical Sonographers, 2010.

Youngs, Diane J., and Kathleen Praska. *National Certification Examination Review: Obstetrics and Gynecologic Sonography*. Dallas, TX: Society of Diagnostic Medical Sonography, 2009.

Gaiser, Ray and Traci B. Fox. *Vascular Technology Examination PREP*. New York: McGraw-Hill Education, 2015.

Rumwell, Claudia and Michalene McPharlin. *Vascular Technology: An Illustrated Review*. 5th ed. Pasadena, CA: Davies Publishing, 2014.

Reuter, Karen L. and John P. McGahan. *Obstetric and Gynecologic Ultrasound: Case Review Series*. 3rd ed. Philadelphia, PA: Saunders, 2013.

Silverman, David I. and Warren J. Manning. *The Complete Guide to Echocardiography*. Sandbury, MA: Jones Bartlett Learning, 2012.

Harry, Mark J. and T. Behrends. *Essentials of Echocardiography and Cardiac Hemodynamics: An Illustrative Guide*. 4th. Colorado Springs, CO: Pegasus Lectures, 2013.

Klein, Allan L. and Craig R. Asher. *Clinical Echocardiography Review: A Self-Assessment Tool*. Philadelphia, PA: Lippincott Williams Wilkins, 2011.

Penny, Steven M. *Examination Review for Ultrasound: Abdomen and Obstetrics & Gynecology*. 2nd. Philadelphia: LWW, 2018.

Otto, C. (2018) *Textbook of Clinical Echocardiography*, Colorado Springs, CO: Elsevier, Inc.

Ridgway, Donald P, Owen, C., Strandness, E., & Bean, B. *Vascular Technology Review: A Q&A review for the ARDMS Specialty Exam*. Pasadena: Davies, 2016.

Top of page

Key: 1501