Virtual LEVEL 2 CTA

Lecture: Course Introduction
Reviews: CT basics, vocabulary of CT, concepts of gating and image acquisition, image optimization, resolution issues, clinical applications. Workstation knobology and reading pathway is explained. How to provide a concise and accurate report.

Case Reviews: (15 cases)
- Workstation Instruction; How to Read Cases
- Normal and Early Coronary Artery Disease

Lecture: Clinical Indications and Patient Selection
The lecture reviews the published ACC/AHA guidelines for appropriate use of Cardiac CT. Patient selection based on co-morbidity, body habitus, risk, and factors which may affect study quality are reviewed.

Case reviews: (25 cases)
- Moderate Coronary Artery Disease
- Coronary Anomalies

Lecture: Artifacts in CT Angiography
Factors which contribute to artifacts, and effect the accuracy and value of the study are reviewed. Motion artifacts, mis-registration, blooming artifacts, beam hardening are discussed. Methods to avoid artifacts and techniques to assist in interpretation when they are present are discussed.

Case reviews: (25 cases)
- CTA Artifacts
- Cardiac, Non-coronary Pathology

Lecture: CT Scanning Techniques and Radiation Sparing Protocols
This lecture provides a step-by-step description of how to prepare a patient for Cardiac CT, and how to achieve a good quality image. Retrospective and prospective gating techniques are discussed. Methods to minimize contrast and radiation dose are emphasized.

Lecture: Coronary Calcium Scoring
The usefulness of coronary calcium scoring in symptomatic and asymptomatic patients is reviewed. The current AHA/ACC guidelines for use of coronary calcium scoring are discussed. The body of literature supporting the guidelines is presented.

Case reviews: (25 cases)
- Non-Cardiac Pathology
- Severe Coronary Disease

Lecture: Building a Successful CCTA Program
This lecture reviews the essential infrastructure to support a cardiac CT program. Equipment, tech and nursing training, physician credentialing, navigating "turf" battles are discussed. Marketing strategies with an emphasis on evidenced based medicine are reviewed.

Case reviews: (10 cases)
- Analysis of Coronary Stents
- Coronary Bypass Surgery