

## Coronary Angiography Physical and Technical Aspects

- Which of the following is a version of coronary angiography?
  - Conventional coronary angiography (CCA)
  - CT Angiography (CTA)
  - SPECT CT
  - A and B
- Which of the following is a requirement for x-ray systems used for CCA?
  - 80kW generator
  - Over couch image detector
  - Dose-area product meter
  - All of the above
- In x-ray dosimetry for CCA, what is necessary for the evaluation of a possible effect for an exposed human?
  - Absorbed organ dose
  - Surface dose
  - Effective dose
  - Entrance dose
- True or false. The entrance surface dose to the patient **does not** dramatically increase when the focus-to-skin distance becomes too short.
  - True
  - False
- Which of the following is not a recommendation to staff to reduce radiation exposure?
  - Time of exposure as short as possible
  - Distance to the patient as long as possible
  - Use protective shielding effectively
  - Use new equipment
- Improvements in which of the following advanced CTA into an important diagnostic tool?
  - Spatial and temporal resolution
  - Scan time
  - Scan range
  - All the above
- The real development of CTA came with \_\_\_\_\_.
  - Four-slice scanners
  - 8 slice scanners
  - 16 slice scanners
  - 64 slice scanners
- Which of the following **is not** a positive feature of CTA in comparison to conventional angiography?
  - Better detection of stenosed lesions
  - Faster procedure time
  - Possibility to delineate a cross-sectional cut of the artery
  - Non-invasive procedure contrary to conventional angiography or intravascular ultrasound

For questions 9 and 10, choose the absorbed dose for the listed organ for patients undergoing CTA.

9. Lungs on a 16-slice CT

- a. 5.7
- b. 25.8
- c. 1.5
- d. 10.9

10. Heart on a 64-slice CT

- a. 64.5
- b. 44.2
- c. 77.7