A Modern Hybrid Room will Reduce Radiation Dose and Protect Patients’ Kidneys

Tips & Tricks

L. Maene MD

Disclosure

Speaker name: LIEVEN MAENE

I have the following potential conflicts of interest to report:

- Consulting
- Employment in industry
- Shareholder in a healthcare company
- Owner of a healthcare company
- Other(s)

I do not have any potential conflict of interest

2005 ...

OR

Angio-suite ...

• More security
• Efficient dosage regulation
• Lower contrast load
2007 ... a Hybrid Room ... a new world

- X-ray protection
- Anesthesia equipment
- OR lamps
- Integrated Table
- Sterile environment
- Monitors
- Robotic C-Arm

Training: A. Basic Control

Training: B. Efficiency en Safety

CAREvision

Dose reduction up to 75%

CAREposition

Dose reduction up to 5%

Radiation and radiation dose reduction are arguably the most controversial topics in medical imaging today.

Training: Dose is no longer ignored...
CAREprofile

- Radiation-free adjustment of collimators
- Radiation-free semitransparent filter parameter setting

Dose reduction up to 9%

Low Dose Acquisition

- Low dose protocols
- Reduces radiation during acquisition
- Can be selected from the footswitch

Dose reduction up to 67%

Bolus-chase & Peristepping

Low Dose $\textit{syngo}$ DynaCT

- 3D imaging for especially radiosensitive patients
- Collect the information needed
- Reduced dose in comparison to regular 3D protocols
- 5 sec protocol at 0.1 µGy/frame instead of 0.36 µGy/frame

Dose reduction up to 72%

Live fluoroscopy with guidance ring

Stored angiography

3D visualization of aorta incl. outline
Live Patient Dose Monitoring

CAREreport : Dose Reporting

• Features
  – CAREreport provides the possibility to record dose details for each irradiation event as a DICOM object
  – One DICOM Dose Structured Report object is created at the end of each procedure step
  – CAREreport is the basis for CARE Analytics

• Benefits
  – Enhanced in-house dose reporting
  – Prepares for future legal requirements

3D imaging will change the world ...

... our daily world changes today once we become good friends with our C-arm and ...
our patients will be grateful for it.

VEITHsymposium - 2015

A Modern Hybrid Room will Reduce Radiation Dose and Protect Patients’ Kidneys
Tips & Tricks
L. Maene MD