Establishing Protocols

The Joint Commission has introduced two standards that specifically address various elements related to CT Imaging Protocols.

**Standard PC.01.03.01 A25:** The hospital/ambulatory center establishes or adopts diagnostic CT imaging protocols based on current standards of practice, which address key criteria including clinical indication, contrast administration, age, patient size and body habitus, and the expected radiation dose index range.

**Standard PC.01.03.01 A26:** Diagnostic computed tomography (CT) imaging protocols are reviewed and kept current with input from an interpreting radiologist, medical physicist, and lead imaging technologist to adhere to current standards of practice and account for changes in CT imaging equipment.

The Bayer Solution: Bayer offers tools that can help you manage radiation dose and contrast dose protocols and which can address key criteria in meeting TJC standards.

**Radimetrics™ Enterprise Platform** provides tools that can help customers meet The Joint Commission’s new standards with regard to Radiation Dose.

Radimetrics™ Enterprise Platform allows you to include multiple radiation Dose Reference Levels (DRLs) with imaging protocols:
- DRL can be filtered to specific patient groups based on age as well as gender, height/weight, and diameter
- DRL can be based on different radiation dose values, including DLP, SSDE, & ICRP 103
- DRL can be set for a value or based on the percentile of current enterprise data

---

**Certegra® @ Point of Care**

**Radimetrics™ Enterprise Platform**
Radimetrics™ Enterprise Platform has a Protocol Management Tool which offers user groups, tracking revisions and email alerts for protocol review. Scanner protocols can be imported into the platform.

Certegra® P3T® 2.0 functionality can help calculate contrast injection protocols individualized to each patient. Certegra® P3T® software uses patient weight and contrast concentration to design a custom injection protocol including:

- Volume of contrast
- Flow rate
- Ratio of iodine and saline
- Scan delay

Certegra® P3T® protocols can be designed to reflect radiologist preference for dosing by organ, specific disease states, and personalized to each patient.

**Identify Outliers and Compare to External Benchmarks**

**Standard PI.02.01.01 A6:** The hospital/ambulatory center reviews and analyzes incidents where the radiation dose index from diagnostic CT examinations exceeded expected dose index ranges identified in imaging protocols. These incidents are then compared to external benchmarks.

**The Bayer Solution:** Radimetrics™ Enterprise Platform allows users to review, analyze and compare data on patient CT radiation doses:

- Set multiple, customized dose reference levels
- Compare dose with external benchmarks like QuiRCC, NCRP, ACR
Imaging protocols can include multiple Dose Reference Levels. Min, Avg and Max are displayed in this example. DRL can be based on different radiation dose values, including DLP, SSDE and ICRP103.

The doses are benchmarked against the ACRDR in this example. Reference Level Trend Chart displaying the CTDivol values for an enterprise’s routine thorax protocol across their 3 pieces of equipment. Each color represents a different month.

Patient Health Record (PHR) Review

**Standard PC.01.02.15 A12:** For hospitals/ambulatory centers that provide diagnostic CT, MRI, PET or nuclear medicine services: The facility considers the patient’s age and recent imaging exams when deciding on the most appropriate type of imaging exam.

**The Bayer Solution:** *Radimetrics™ Enterprise Platform* supports HL7 interface that can be used to integrate radiation dose information with RIS and EMR systems and store dose information in patient health record.

Patient information listed on the ‘GUI’s’ are fictitious examples only and do not contain any actual patient data.