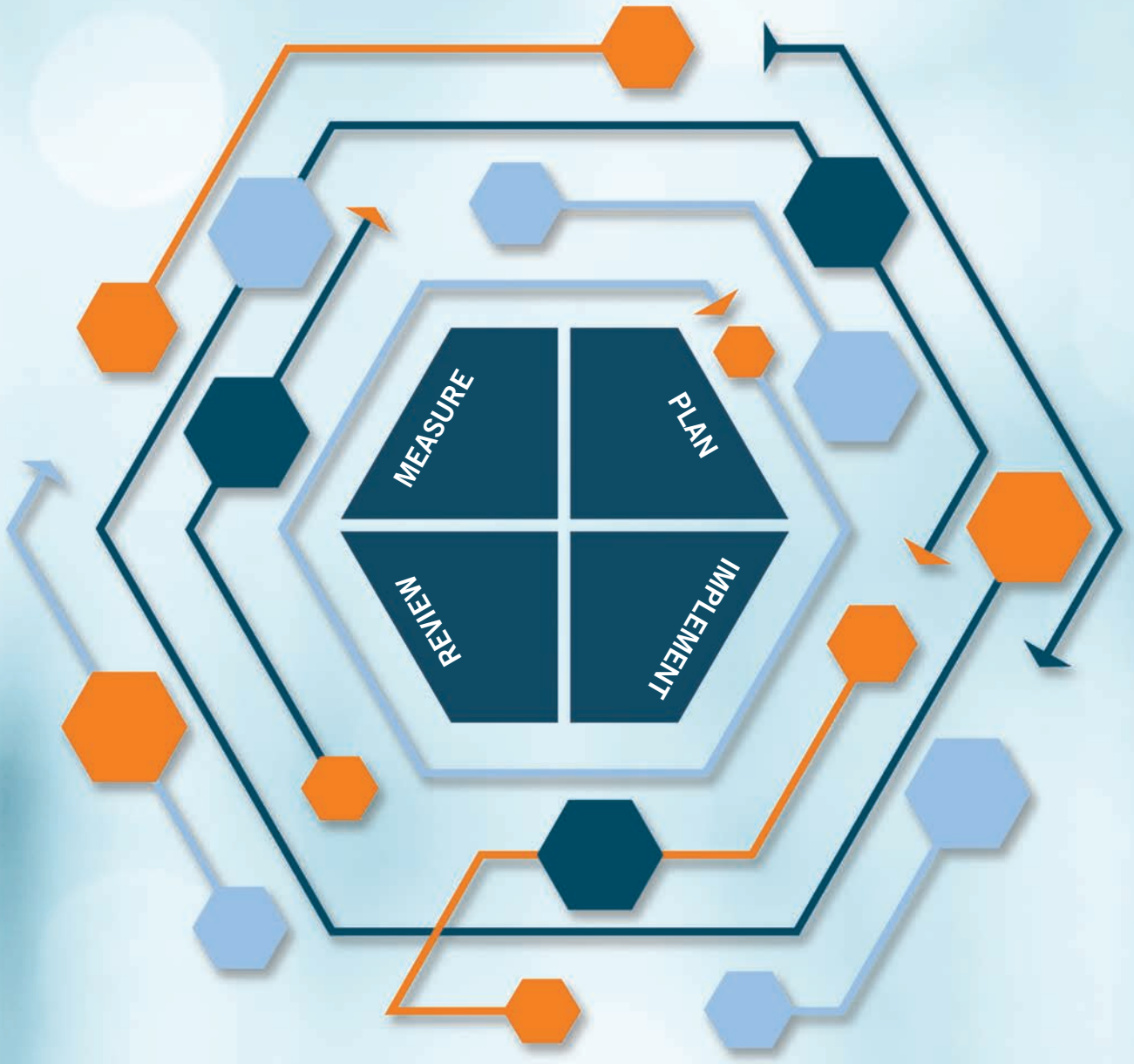
LANDAUER®

Clinical Dose Optimization Service™

Get Acquainted with the CDOS Process for Complete Dose Optimization



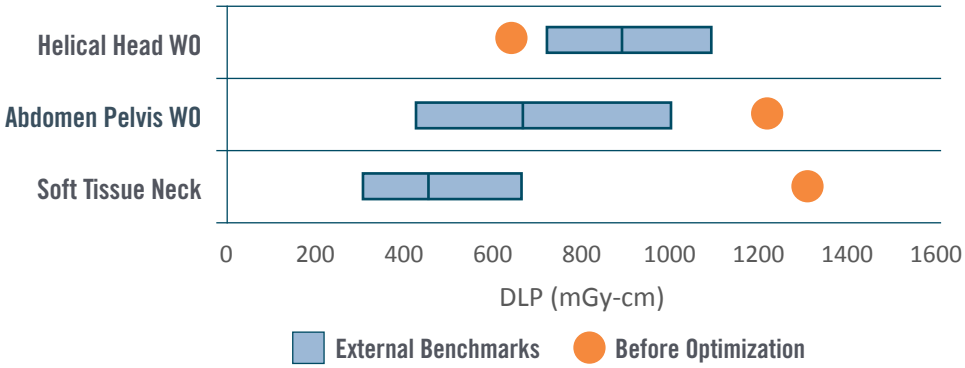
Let LANDAUER's CDOS medical physicist professionals work with you to collect and analyze data to identify protocols where the dose can be optimized

The four steps of the CDOS workflow model— Measure, Plan, Implement and Review— are illustrated in the sample report below

Measure

The CDOS team helps to collect and analyze data to identify protocols where the dose can be optimized

Before Optimization



Plan

The CDOS team prepares a plan with your staff to optimize the protocols and discusses it with you at a Patient Dose Review Committee Meeting

Protocol Recommendations

Protocol Name	Current Parameters	Suggested Parameters	Comments
Helical Head	Rotation Time: 0.7s Pitch: 0.93 Detector: 32 x0.625 kV: 120 mA: 250 CTDI: 33.8 mGy	Rotation Time: 0.5s Pitch: 0.53 Detector: 32 x 0.625 kV: 120 mA: 320 CTDI: 54 mGy	Decreased rotation time and pitch for increased dose efficiency. Increased mA for better image quality.
Abd/Pelvis	Rotation Time: 0.7s Pitch: 1.375 Slice Thickness: 5 mm kV: 120 Noise Index: 11.2 Max mA: 550	Rotation Time: 0.5s Pitch: 0.53 Slice Thickness: 5 mm kV: 120 Noise Index: 14 Max mA: 600	Changes to rotation time and pitch for increased dose efficiency. Increased Max mA to avoid tube limits for large patients. Increased noise index to achieve targeted dose.
Soft Tissue Neck	Rotation Time: 0.6s Pitch: 0.53 Slice Thickness: 5 mm kV: 120 Noise Index: 4.01 Max mA: 450	Rotation Time: 0.5s Pitch: 0.53 Slice Thickness: 2.5 mm kV: 120 Noise Index: 15 Max mA: 600	Current protocol results in max tube current for all patients. Decreased slice thickness and increased noise index to achieve targeted dose.

Implement

We provide documentation of the protocol review and tools to help you manage protocol modifications

Protocol Review Acknowledgment

Protocol review is a facility's ongoing quality improvement process to ensure imaging exams achieve diagnostic image quality at the lowest radiation dose possible. Signing this form indicates that imaging protocols have been reviewed for acceptable radiation dose and image quality. This does not imply that all protocols are currently optimized.

Position:	Name:	Signature:
Medical Physicist	John Smith, PhD, DABR	

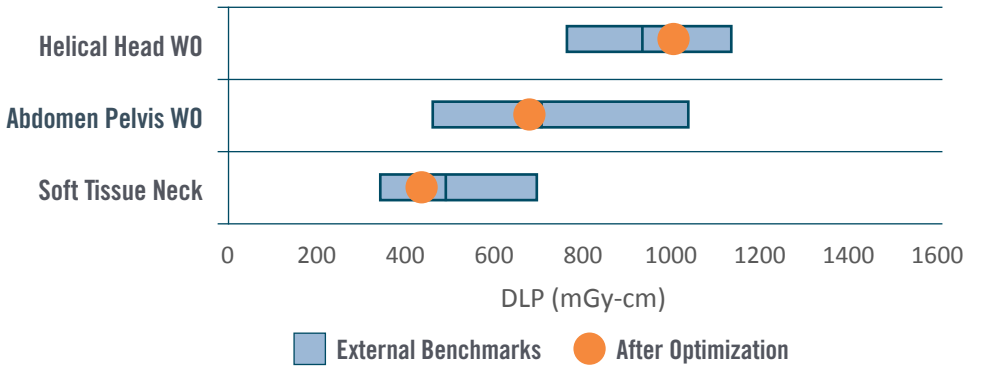
Protocol Modification Log

Scanner	Protocol	What was changed?	Date approved	Approval initials
CT1	Helical Head	Dose increased for better image quality	10/17/2017	DPF
CT1	Abd/Pelvis	Decreased pitch and lowered dose	10/18/2017	DPF
CT1	Soft Tissue Neck	Decreased slice thickness and lowered dose	10/20/2017	DPF

Review

At our next meeting we review the results of protocol modifications on both dose and image quality

After Optimization



Improve

Apply Best Practice Protocols to Optimize Dose

Join those at hundreds of U.S. hospitals who now rely on LANDAUER for guidance. Our physicists have experience on all equipment types, models and dose tracking systems.

“The LANDAUER CDOS team provides a one-on-one experience that can’t be beat.

Tamara Ingle, RT (R) (CT)

CT Quality Assurance Lead Technologist | UnityPoint Health Methodist | Proctor, Peoria, IL

Learn more

Visit landauer.com/cdos or email imagingsales@landauer.com