PHILIPS

PerformanceBridge

DoseWise Portal

Powerful radiation exposure analytics to **support dose management**

DoseWise Portal

Imaging solutions built to help you **achieve the Quadruple Aim of healthcare**

Our integrated, scalable portfolio of services, tools and support, empowers hospitals to improve productivity and to organize care seamlessly around people – both patients and care providers.

Philips PerformanceBridge helps you take a holistic view across your radiology practice to:

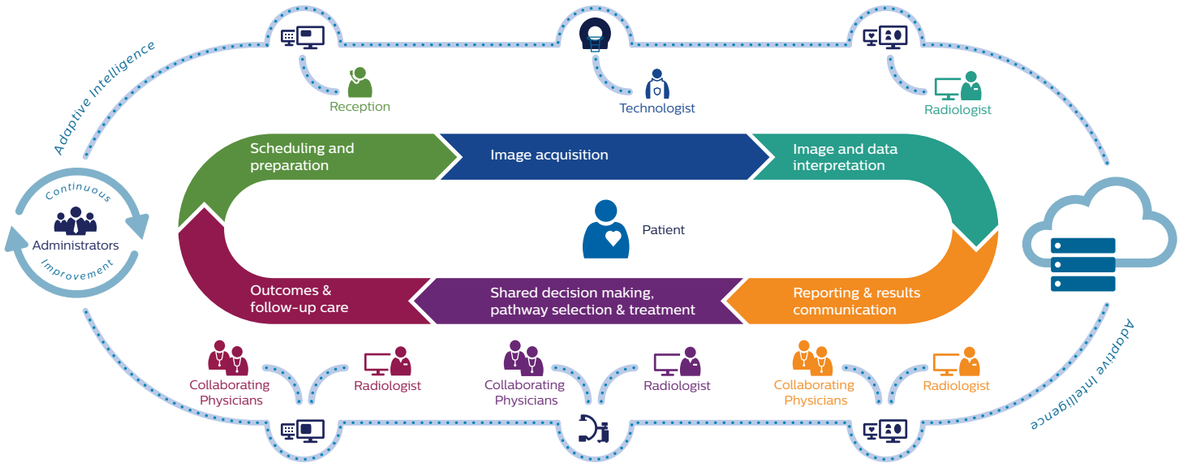
- Reduce costs
- Improve patient care
- Improve population health
- Improve staff care

The comprehensive capabilities provided by Philips can bring together people, data and services to bridge the gap between data and decision-making, better enabling healthcare providers to deliver quality care.

These capabilities are also essential to meet the challenges of financial performance, workflow, and patient and staff satisfaction across the entire hospital ecosystem.

Given the current landscape, Philips believes that the future of imaging depends on an integrated solutions approach - one that combines deep analytical capability to reveal a consolidated view of the people, services, and practices in an imaging department.

A systems view:
Where technology and data empower the people behind the images



The growing importance of dose management

Dose tracking and optimization

To provide patients with the optimal image quality to patient dose ratio possible, clinicians not only want to track radiation exposure data, but also look for solutions to optimize patient dose through exam protocol management and data-informed decision making.

Commitments to safety

Professional associations including European Society of Radiology, American College of Radiology, and Radiological Society of North America have established steering committees to produce guidelines for improved radiation safety at hospitals.

Building the foundation for a **comprehensive radiation management program**

The first step in building an effective radiation dose management strategy is aggregating complete and accurate data, to measure current performance.

Philips DoseWise Portal is a comprehensive dose monitoring solution that automatically collects, measures, analyzes and reports patient radiation dose.

It provides powerful radiation exposure analytics to help you meet compliance and regulatory requirements, and manage patient safety.

With the right dose data, you can:

- Gain actionable insights
- Benchmark your facility
- Set dose management goals
- Standardize protocols using exposure data
- Identify variations in practices, such as among technologists and scanners
- Facilitate compliance with local dose management standards and regulations

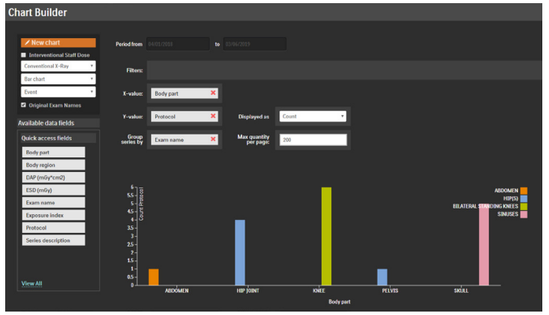
Take control of radiation dose management

DoseWise Portal pairs a vendor-agnostic, web-based software with exceptional professional services that offer deep expertise in clinical applications, IT, imaging, and medical physics. It provides a streamlined, efficient solution to review and manage data on radiation exposure, enabling imaging leaders to take control of their dose programs from a strategic level.

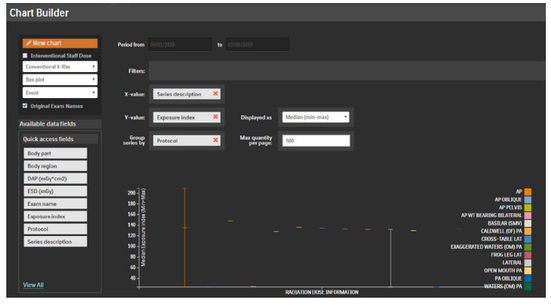
Turnkey tools

DoseWise Portal provides advanced analytic tools, such as customizable dashboards and drill-downs for multi-vendor/multi-modality imaging systems. Chart Builder analytics creates bar charts, scatter plots, box plots and tables by simply dragging and dropping the DICOM field into a graph.

Chart builder



Bar charts



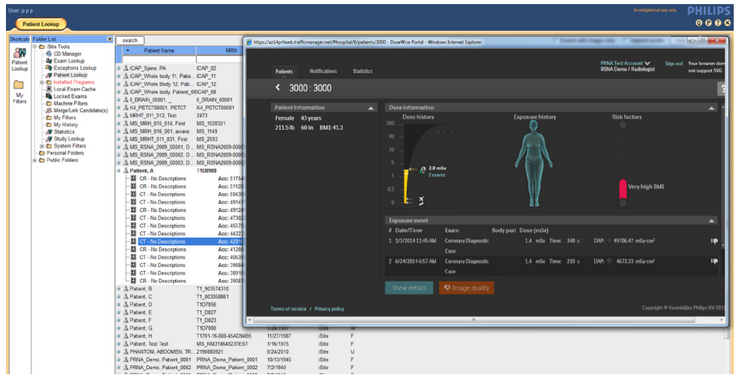
Box plots

Scatter plots

> “DoseWise Portal provides numerous benefits to our radiation dose management program. It aids in compliance with regulatory standards; helps in system-wide conformity in the utilization of appropriate techniques and protocols; helps identify areas that may benefit from process reform.”
>
> **Kelly Golkin, Medical Imaging CT Clinical Specialist, WellStar Health System, Georgia, USA**

Data

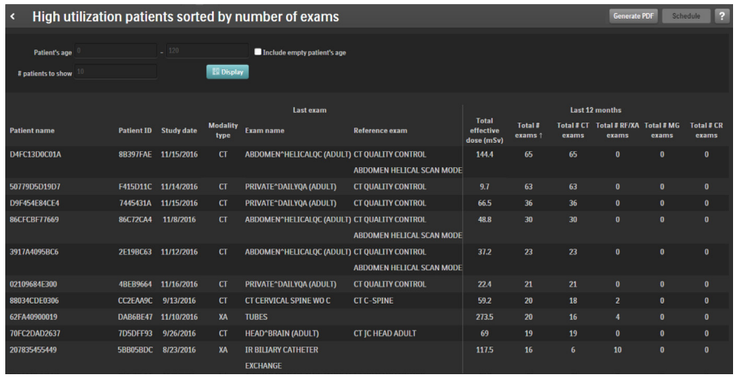
DoseWise Portal captures all patient radiation events, not just those sent to PACS, and retrieves data directly from the imaging equipment. This prevents you from missing data that is discarded by a Technologist due to poor image quality. The radiation from these exams are factored toward a patient's exposure history. DoseWise Portal can map your CT exam naming convention to the RadLex® Playbook to standardize your exam names for external benchmarking.



Reports

In addition to offering a platform to create custom reports using Chart Builder, DoseWise Portal contains several standard reports:

- CT exams sorted by CTDIvol
- CT exams sorted by DLP
- CT volume by exam name
- CT volume by Reference Exam Name
- High utilization patients sorted by number of exams
- High utilization patients sorted by total effective dose
- Evaluate staff dose by procedure and lab

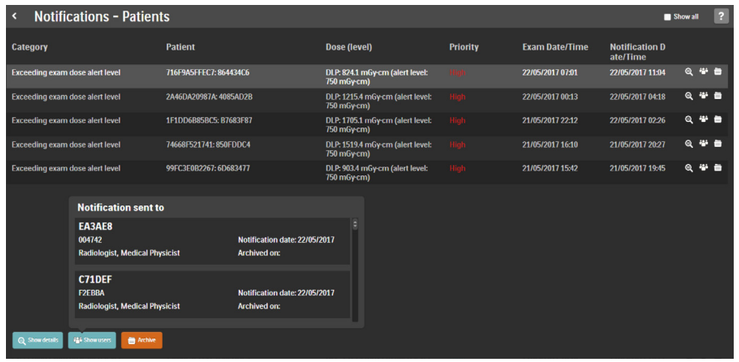


Patient name	Patient ID	Study date	Modality type	Exam name	Reference exam	Last exam: Total effective dose (mSv)	Last 12 months: Total # exams ↑	Total # CT exams	Total # RF/XA exams	Total # MG exams	Total # CR exams
D4FC13D0C01A	88397FAE	11/15/2016	CT	ABDOMEN^HELICALQC (ADULT)	CT QUALITY CONTROL ABDOMEN HELICAL SCAN MODE	144.4	65	65	0	0	0
507790D19D7	F415D11C	11/14/2016	CT	PRIVATE^DAILYQA (ADULT)	CT QUALITY CONTROL	9.7	63	63	0	0	0
D9F454E84CE4	7445431A	11/15/2016	CT	PRIVATE^DAILYQA (ADULT)	CT QUALITY CONTROL	66.5	36	36	0	0	0
86CFCBF77669	86C72CA4	11/8/2016	CT	ABDOMEN^HELICALQC (ADULT)	CT QUALITY CONTROL ABDOMEN HELICAL SCAN MODE	48.8	30	30	0	0	0
3917A4095BC6	2E19BC63	11/12/2016	CT	ABDOMEN^HELICALQC (ADULT)	CT QUALITY CONTROL ABDOMEN HELICAL SCAN MODE	37.2	23	23	0	0	0
02109684E300	4BEB9664	11/16/2016	CT	PRIVATE^DAILYQA (ADULT)	CT QUALITY CONTROL	22.4	21	21	0	0	0
88034CDE0306	CC2EAA9C	9/13/2016	CT	CT CERVICAL SPINE WO C	CT C-SPINE	59.2	20	18	2	0	0
62FA40900019	DAB68E47	11/10/2016	XA	TUBES		273.5	20	16	4	0	0
70FC2DAD2637	7D5DFF93	9/26/2016	CT	HEAD^BRAIN (ADULT)	CT JC HEAD ADULT	69	19	19	0	0	0
207835455449	5BB05BDC	8/23/2016	XA	IR BILIARY CATHETER EXCHANGE		117.5	16	6	10	0	0

Alerts

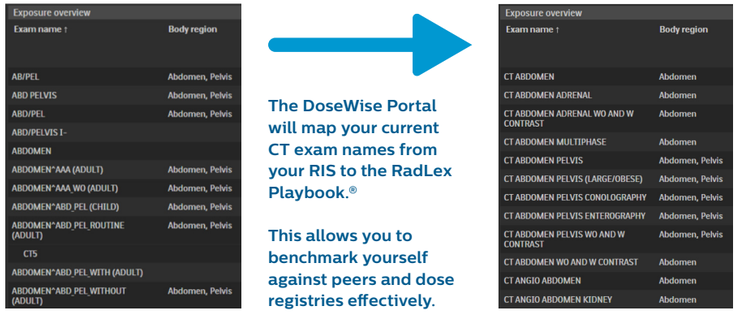
Create custom alerts based on your preferences. Regardless of exam type, you can select your protocol or exam name and add alert triggers, such as:

- Patient age
- DLP
- CTDIvol
- DAP
- ESD
- SSDE
- Compressed Breast Thickness
- mAs
- AGD/exam
- Staff dose level



Benchmarking

Meeting the new radiation dose requirements for benchmarking requires standardizing your exam nomenclature and comparing your data against national registries or diagnostic reference levels. DoseWise Portal takes the CT exam names from your RIS and automatically maps them to the RadLex Playbook naming convention. This allows you to compare your exam data to industry benchmarks, such as the American College of Radiology's Dose Index Registry.™[1]



The DoseWise Portal will map your current CT exam names from your RIS to the RadLex Playbook.®

This allows you to benchmark yourself against peers and dose registries effectively.

1. The ACR® DIR™ is an independent program. Participation and access to DIR data is not provided with DoseWise Portal. Healthcare facilities must register with ACR directly.

A comprehensive dose management solution

Bringing people, data and technology together.

DoseWise Portal enables the creation of a comprehensive radiation dose management program that can help you meet compliance and regulatory requirements, and manage patient safety.

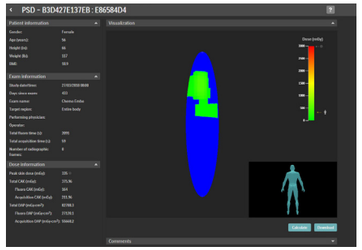
Through a combination of powerful patient radiation exposure analytics and exceptional professional services, this flexible solution provides tools for continuous improvement and informed decision-making support that can also enhance patient and staff experiences.

Premium features

The latest version of DoseWise Portal can be enhanced with a selection of features that deliver added value. Select any of these five additional features to further support your dose measurement and practice needs.

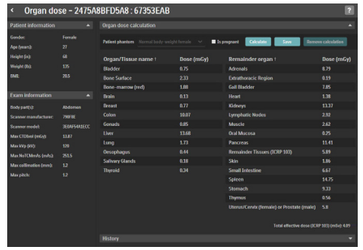
Staff dose

Enables monitoring and recording of radiation exposure to staff within interventional departments via Philips DoseAware. DoseAware does not replace the need for a legal dosimeter.



Peak skin dose

Calculates and displays visual and analytical representation of peak radiation skin dose, taking into account the multitude of factors that influence skin dose from fluoroscopic procedures.



Organ dose

Drives awareness of dose to organs in CT procedures and enables medical staff to make informed decisions around patient dose.

Advanced reporting

Enables customizable report capabilities with flexible templates and report scheduling, so users receive the data they want, when they want it.

SQL license

Provides SQL License for DoseWise Portal software, eliminating the need for customers to purchase additional client access licenses to use the software.

Each premium feature comes at additional cost to DoseWise Portal and may require additional service fees and/or implementation req.

Professional services

Our team of experts is here to support you and your team with deep expertise in clinical applications, IT, imaging and medical physics.

Benefits

Technical

- Connect X-ray imaging equipment (regardless of vendor or equipment type) for monitoring radiation dose data
- A simple, compact and secure IT footprint behind your firewall
- Scalable; start with one modality (such as CT) and add more later
- Compatible with ACR Dose Index Registry
- Compatible with Nuance PowerScribe 360 dictation system
- Compatible with Philips IntelliBridge Enterprise HL7 engine
- Integrated with Philips IntelliSpace PACS
- Integrated with real-time dosimetry systems

Operational

- Users can quickly access data most relevant to their function
- Detect previously-unseen trends in imaging equipment performance
- Set custom patient dose alert levels and receive scheduled notifications
- Custom graphs and dashboards facilitate compliance with regulatory requirements or quality projects

Clinical

- Monitor staff exposure in the interventional suite in real-time*
- Standardize CT exam names
- Set custom patient dose alert levels and receive scheduled notifications
- Custom graphs and dashboards facilitate compliance with regulatory requirements or quality improvement projects
- Compare exams to custom diagnostic reference levels
- Evaluate and manage variations in imaging exam ordering
- Monitor patient radiation dose to organs for CT modalities
- Gain awareness of dose to skin in fluoroscopy-guided procedures

* With Philips DoseAware.

Compatibility with real-time dosimetry systems[2]

The entire family of DoseAware products and I2 (RaySafe® product) are compatible with DoseWise Portal. Combining patient and staff dose into one display allows for specific optimization of radiation protection in the interventional radiology suite.

2. Compatibility with DoseWise Portal V2.2 and higher versions.

3. IntelliSpace PACS V4.4.X and DoseWise Portal V3.0.

Compatibility with IntelliSpace PACS[3]

The DoseWise Portal is compatible with the Philips PACS system.

Clicking on a clinical image or the patient's name in the worklist launches the DoseWise Portal corresponding dosimetry page.

Clicking on a particular CT image and selecting "dose history" allows you to see the exposure data for that exam, or their exposure history by clicking on their name.

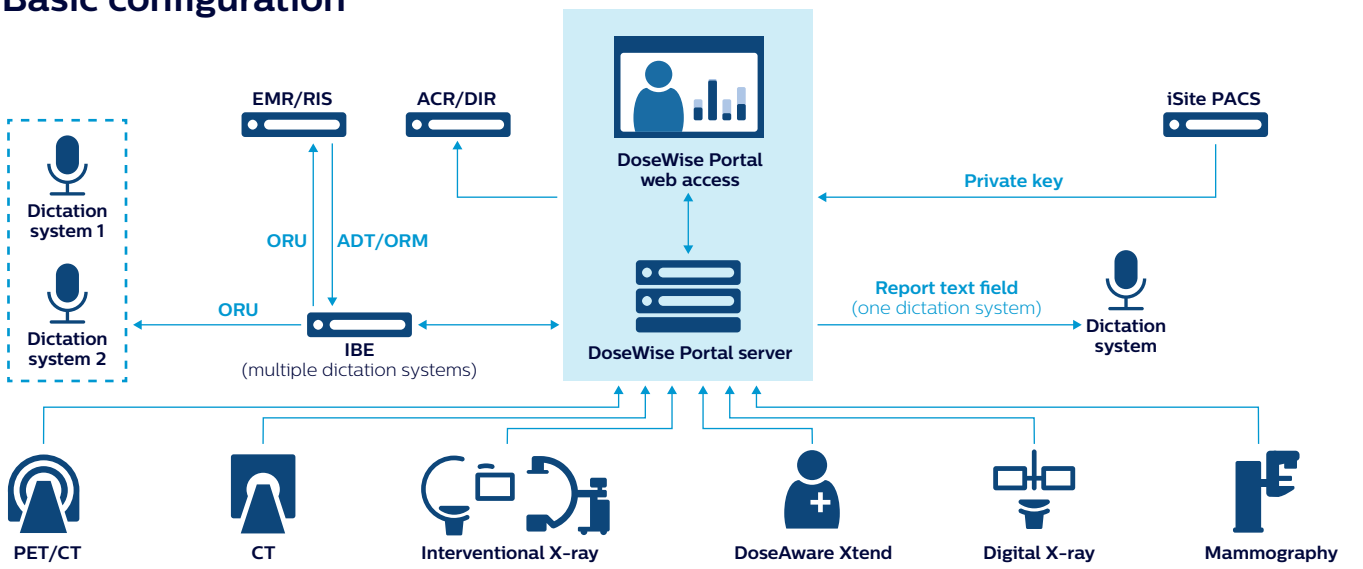
> "Initially, I thought monitoring and reviewing radiation doses would be just that - monitoring and reviewing. I never expected DoseWise to become one of the most important contributors to developing a more successful ongoing educational program."

Kelly Golkin, Medical Imaging CT Clinical Specialist, WellStar Health System, Georgia, USA

Technical specifications and requirements

To enable DoseWise Portal, you'll be required to provide the appropriate network and configuration to support its installation and operation. Following are key technology specifications for a standard installation, intended for reference only. Customer-specific installation and configuration details are arranged during implementation planning. Full details can be provided by your Philips representative, upon request.

Basic configuration



IT specifications

	Recommendation
Processor	Quad-core or 4 vCPU equivalent (2.8 GHz; AMD Operton 4133 equivalent)
RAM	16 GB RAM minimum
Disk drives	C: 100 GB system partition D: 400 GB data partition (RAID1 storage recommended)
Ethernet	1 GBPS Ethernet network interface
Open ports	443 (HTTPS), 104 (DICOM), 3389 (RDP), 1433 (SQL), 1044 (DWP port)
Browser	Microsoft IE v11+ or Google Chrome v40+ Philips network Administrator account access
Software framework	.NET Framework 3.5 .NET Framework 4.6.1
Software	Microsoft Windows Server 2012 R2 Standard, Microsoft Windows Server 2016 English version installed at C:\ logical partition. Microsoft SQL Server Standard 2012, Microsoft SQL Server Standard 2014 , Microsoft SQL Server Standard 2016 if remote SQL is used

For additional details, please visit **philips.com/dosewise** or contact your Philips representative.

www.philips.com

JUN 2019