



MEDRAD® Stellant® & SmartPACK+



Redefine efficiencies with one simple solution



medRAD® Stellant
CT Injection System

SmartPACK+
Reliability. Technology. Access.



Two offerings. One simple solution.



MEDRAD® Stellant
Injection system

MEDRAD® Stellant
CT Injection System

Reliability



Technology



Access



SmartPACK+

SmartPACK+
Reliability. Technology. Access.

MEDRAD® Stellant CT injection system with Workstation

An imaging system designed for reliability and ease-of-use

The MEDRAD® Stellant CT Injection System offers a scalable platform to provide clinicians with tools to help improve efficiency, compliance and patient care.



Features

- + **Integrated saline test with real-time pressure monitoring**
- + **Multi-phase programming**
- + **Programmable pressure limit**
- + **Dual-flow capabilities for cardiac imaging and pulmonary angiography**



Ultravist®

An iodine based non-ionic monomeric low osmolar extracellular X-ray contrast medium (LOCM)

Three different iodine concentrations to meet your clinical needs



Highest
Canadian
approved
concentration
of 370 mg I/mL

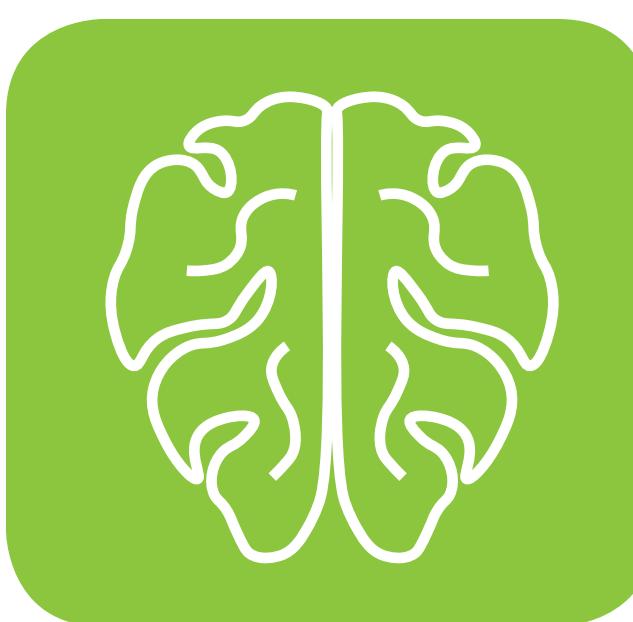
Ultravist® 240
50 mL, 200 mL

Ultravist® 300
50 mL, 100 mL,
150 mL, 500 mL

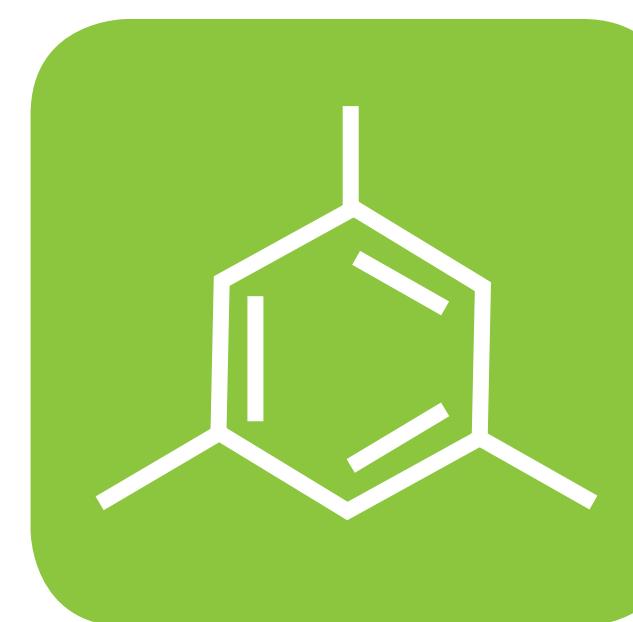
Ultravist® 370
50 mL, 100 mL,
200 mL, 500 mL

Ultravist®

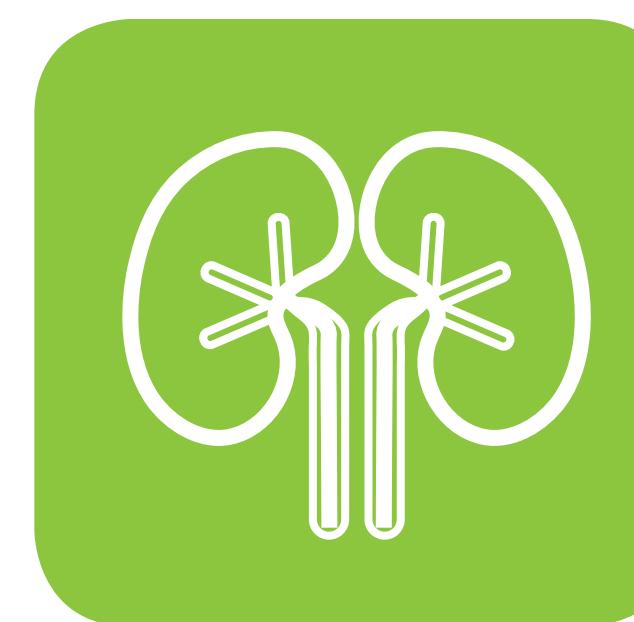
A contrast media with reliable image quality
and proven safety



93.9% of investigations rated image quality as “good” or “excellent”



3:1 Iodine ratio, providing good radiographic contrast



Rapid renal elimination



99.5% of applications with none to mild adverse reactions¹

Ultravist® balances osmolality, viscosity and iodine concentration to allow for consistent delivery of high-quality CT images



INDICATIONS AND CLINICAL USE: ULTRAVIST® 240/300/370 Ultravist® (iopromide) in its three strengths, is indicated for intravascular use to provide diagnostic information in a number of radiographic contrast procedures. It is also indicated for the visualization of various body cavities, eg., arthrography and hysterosalpingography. **Ultravist® 240 Computed tomography (CT):** Peripheral arteriography (bifemoral pelvis/leg), Phlebography of the extremities, Arthrography, Hysterosalpingography, Cerebral Arteriography. **Ultravist® 300 Computed tomography (CT):** Excretory urography, Pediatric excretory urography, Renal arteriography, Peripheral arteriography (bifemoral pelvis/leg), Cerebral arteriography, Phlebography of the extremities, Arthrography. **Ultravist® 370 Computed tomography (CT):** Excretory urography, Coronary arteriography , (including PTCA), with or without left ventriculography, Pediatric angiography, Arthrography *For information on the concentrations and doses for the Pediatric Population see *Dosage and Administration and Use in Special Populations* in the Full Prescribing Information.

IMPORTANT SAFETY INFORMATION CONTRAINDICATIONS: Ultravist® (iopromide) is not indicated for use in myelography, cerebral ventriculography, and cisternography. Ultravist® should not be administered to patients with known hypersensitivity to the drug, or with manifest hyperthyroidism.

SELECTED WARNINGS AND PRECAUTIONS: Life-threatening or fatal anaphylactoid reactions may occur during or after Ultravist® administration, particularly in patients with allergic disorders. Contrast media-induced nephrotoxicity, presenting as transient impairment of renal function, may occur after intravascular Ultravist® administration. Patients with pre-existing renal impairment, diabetes mellitus, sepsis, hypotension, dehydration, cardiovascular disease, elderly patients, and patients with multiple myeloma, hypertension, patients on medications which alter renal function and patients with hyperuricemia, are at increased risk of this condition. Hemodynamic disturbances including shock and cardiac arrest may occur during or shortly after administration of Ultravist®. Angiography may be associated with local and distal organ damage, ischemia, thromboembolism and organ failure. In angiographic procedures, consider the possibility of dislodging plaques or damaging or perforating the vessel wall with resultant pseudoaneurysms, hemorrhage at puncture site, dissection of coronary artery during catheter manipulations and contrast agent injection. The physicochemical properties of the contrast agent, the dose and the speed of injection can influence the reactions. Thyroid storm has occurred after the intravascular use of iodinated contrast agents in patients with hyperthyroidism, or with autonomously functioning thyroid nodule. Evaluate the risk in such patients before use of any iodinated contrast agent. Administer iodinated contrast agents with extreme caution in patients with known or suspected pheochromocytoma. Inject the minimal amount of contrast necessary. Contrast agents may promote sickling in individuals who are homozygous for sickle cell disease when administered intravascularly.

MOST COMMON ADVERSE REACTIONS: The most frequently observed adverse drug reactions (>4%) in patients receiving Ultravist® are headache, nausea, and vasodilation.

Please consult the Product Monograph at www.bayer.ca/ultravist for important information relating to adverse reactions, drug interactions and dosing information.

Reference: 1. Palkowitsch PK, et al. Safety and tolerability of iopromide intravascular use: a pooled analysis of three non-interventional studies in 132,012 patients. *Acta Radiol* 2014;55(6):707–14.

Consumables

High-quality syringes to support reliable system performance

Our syringes are designed and tested as part of an inter-related system to ensure the fluid delivery performance with your MEDRAD® Stellant CT Injection System.



- + **100% inspection for particulates**
- + **Confirmed biological safety***
- + **Dependable system performance**
- + **Automated precision crafting**



* Bayer conducts analytical chemistry studies on finished products to ensure that our syringes fully meet medical biocompatibility requirements and so do not contain any harmful substances.

Consumables

Perform multiple scans with a single syringe kit
for up to 12 hours

Bayer combines three safety features in one efficient multi-patient syringe system.



①

Multi-guard shroud

Protects the fluid path from
accidental contamination by touch

②

Intelligent tubing design

Helps protect patients from
backflow contamination

③

Dual check valves

Prevents backflow
from the patient



SmartPACK+

An all-in-one service to drive clinical and financial efficiencies within the CT contrast enhanced imaging workflow



SmartPACK+ leverages the Workstation to provide your department with:

- + A simple way to enhance your imaging quality now and over time
- + A reliable partner to deliver measurable success



Start your risk-free trial today



Optimize your MEDRAD® Stellant CT Injection System by activating SmartPACK+

This subscription-based investment provides you with three key features

Reliability
guarantee >



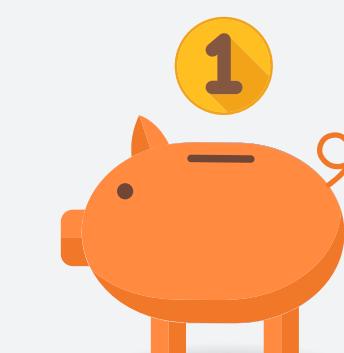
Trust Bayer to deliver
97.9% uptime

Technology
deployments >



Boost your capabilities
with new technology
deployments
every year

Capital
Access Program >



Access capital
equipment upgrades
through credits for your
operational spend



SmartPACK+

Benefits of the full subscription service

SmartPACK+ deploys the right technology and training at the right time

	Scanner Manufacturer Software	MEDRAD® Starter Package	SmartPACK+
MEDRAD® Stellant CT Injection System with Workstation		Prerequisite	Prerequisite (ask about our Workstation upgrade options)
Clinical training to ensure your success		Partial solution	Included
Risk-free trial			Included
Injector reliability guarantee			Included
Scanner connectivity	Partial solution	Partial solution	Full solution available in 2018
Automated documentation	Partial solution	Partial solution	Full solution available in 2018
Personalized protocols			Full solution available in 2018
Data-driven insights			Future deployment*
Capital Access Program			Included

* Anticipated 2019 technology deployment.



Reliability guarantee

Trust Bayer to deliver 97.9% uptime

SmartPACK+ provides subscribers with a reliability guarantee backed by
Bayer's VirtualCare® Remote Support



Bayer's service agreements and Technical Assistance Centre provides:

- 🕒 **38%** less downtime during an emergency service event
- 💻 **44%** of issues resolved remotely
- 📞 **15 minute** average call times

Bayer offers uncompromised quality by using only
genuine OEM parts and factory certified field service engineers



VirtualCARE® Remote Support

A service that provides real-time monitoring
and advanced diagnostics

VirtualCare® provides 24-hour remote monitoring for your MEDRAD® Stellant plus additional support.



- + Identifies issues before they become problems**
- + Diagnoses problems and resolves software issues remotely**
- + Supports hardware repair in one trip**
- + Issues software updates and patches seamlessly**
- + Provides current anti-virus protection**



Technology deployments

Boost your capabilities with new technology deployments every year

Yearly SmartPACK+ technology deployments provide the right software and clinical training to enhance your team's capabilities

Your SmartPACK+ technology deployments include:



Scanner connectivity*



Data-driven insights



Automated documentation*



Personalized protocols*

medRAD® Stellant
CT Injection System

* Initial deployment.

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Scanner connectivity

An interface that allows communication between your scanners and the MEDRAD® Stellant CT Injection System



Enhances clinical capabilities by ensuring appropriate scan timing and simplifying workflows.



- 🎯 Provides precision scanning techniques and improved contrast bolus timing
- ⌚ Saves time by starting the procedure from the control room
- ↔ Limits the amount of back and forth attention between injector and scanner controls
- ↗ Allows the flexibility to remain at your patient's side

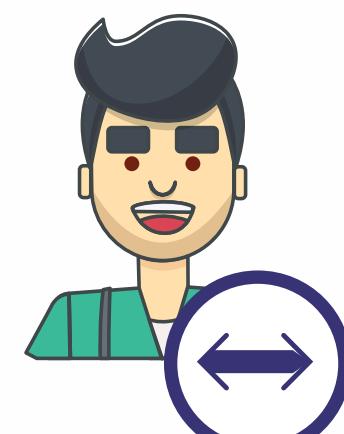


Scanner connectivity

Use one button to simultaneously trigger the scanner and the injector



New process



Technologist stays by patient's side and monitors patient during initial injection

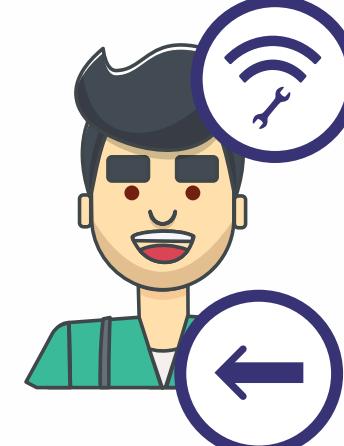
One button on either the scanner or the injector can initiate both the injection and scanner protocol

Current process



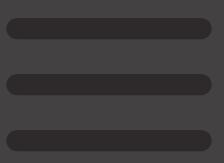
Technologist sets up patient and injector protocol

Technologist walks to scan room



Technologist sets up scanner protocol

Technologist walks back to control room

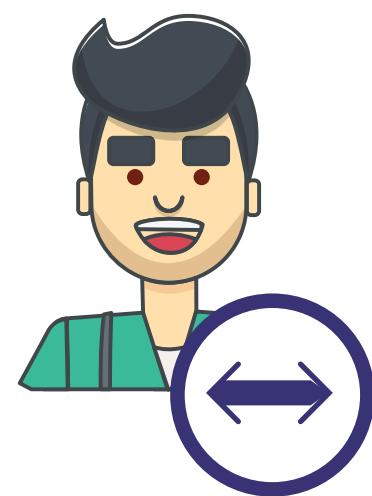


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Technologist sets up scanner protocol



Technologist walks back to control room



Technologist walks back to control room



Automated documentation

Software designed to automatically capture and distribute key data for contrast enhanced procedures



Allows radiology teams to reduce administrative rework and multiply efficiencies.

- ↑ Import patient and procedure details to Modality Worklist
- Aa Auto-populate individual contrast injection records into PACS, RIS and Speech Recognition
- 🎯 Improve reporting accuracy and traceability
- 🕒 Reduce dictation and rework time for Radiologists



See how Automated Documentation reduces administrative tasks

Automated documentation

Select patient directly from Modality Worklist/Patient Worklist

Patient Worklist v1.4

	Patient Name	DOB	ID	Time & Date	Accession Number	Study Description	▲
(i)	SEXTON, EMMANUEL	05/06/2007	ID-00000...	13:48 PM 09/22/2011	SSS-000000000806	Study info goes here: 0806	
(i)	PECK, RUFUS	12/01/1990	ID-00000...	14:48 PM 09/22/2011	SSS-000000000061	Study info goes here: 0061	
(i)	ATKINS, LINO	01/05/1992	ID-00000...	14:48 PM 09/22/2011	SSS-000000000291	Study info goes here: 0291	
(i)	MORSE, ALPHONSE	09/05/1976	ID-00000...	14:48 PM 09/22/2011	SSS-000000000726	Study info goes here: 0726	
(i)	HARPER, RALEIGH	08/27/1993	ID-00000...	15:48 PM 09/22/2011	SSS-000000000164	Study info goes here: 0164	
(i)	MIDDLETON, BARTON	02/08/1993	ID-00000...	15:48 PM 09/22/2011	SSS-000000000984	Study info goes here: 0984	
(i)	MEJIA, STEPHAN	11/15/1955	ID-00000...	16:48 PM 09/22/2011	SSS-000000000055	Study info goes here: 0055	
(i)	MUNOZ, EMILE	08/19/1964	ID-00000...	16:48 PM 09/22/2011	SSS-000000000180	Study info goes here: 0180	
(i)	VANG, DALLAS	10/29/1920	ID-00000...	16:48 PM 09/22/2011	SSS-000000000478	Study info goes here: 0478	
(i)	SUMMERS, EDDIE	06/02/1979	ID-00000...	16:48 PM 09/22/2011	SSS-000000000529	Study info goes here: 0529	▼

Patient Name: Update Cancel

Automated documentation

Enter and capture vital injection details directly into PACS

.....Administered 100.0 ml of 370 mg/ml "Contrast Brand"

Injection Start:	10-02-2012 11:48	Image Created:	10-02-2012 11:49
Accession Number:	CT10885-12	Patient Name:	John Doe
Patient ID:	0000000	Date of Birth:	22 June 1941
Patient Height:	68 inches	Patient Weight:	211.0 lb

CARDIAC 370 Inputs:		Weight: 211.0 lb	Concentration: 370	Scan Delay: --			
Programmed		ml/s	ml	Actual	ml/s	ml	
1	B	5.8	58	1	B	5.5	57.9
2	Hold			2	Hold		
3	A	5.8	93	3	A	5.7	92.7
4	B 30%	5.8	24	4	B 32%	5.6	22.0
5	B	5.8	30	5	B	5.1	31.4

Total Contrast (A):	100 ml	Total Contrast (A):	100.0 ml
Total Saline (B):	105 ml	Total Saline (B):	104.9 ml
Delay:	NONE		
Pressure Limit:	325 psi		

Pressure Graph

Pressure (psi)

Time (sec)

Flow Graph

Flow Rate (ml/s)

Time (sec)

Injection	Contrast	Saline	Fluid Usage	Contrast	Saline
Peak Pressure:	249 psi	195 psi	Loaded:	100.3 ml	133.5 ml
Peak Flow Rate:	6.0 ml/s	5.9 ml/s	Used:	100.0 ml	104.9 ml
Injection Completed:	YES		Remaining:	0.3 ml	28.63 ml
Transient Events:	NO		Total Fluid:	204.9 ml	
			Total Iodine:	37.0 g	

Contrast

Brand: "Contrast Brand"

Concentration: 370

Vial Volume: 100

Lot Number: 2C85341

Expiration Date: 03-02-2015

Procedure

Tech ID: 168

Injection Site: LeftForearm

Catheter Gauge: Gauge 18

Injector Name: STELLANT 33259

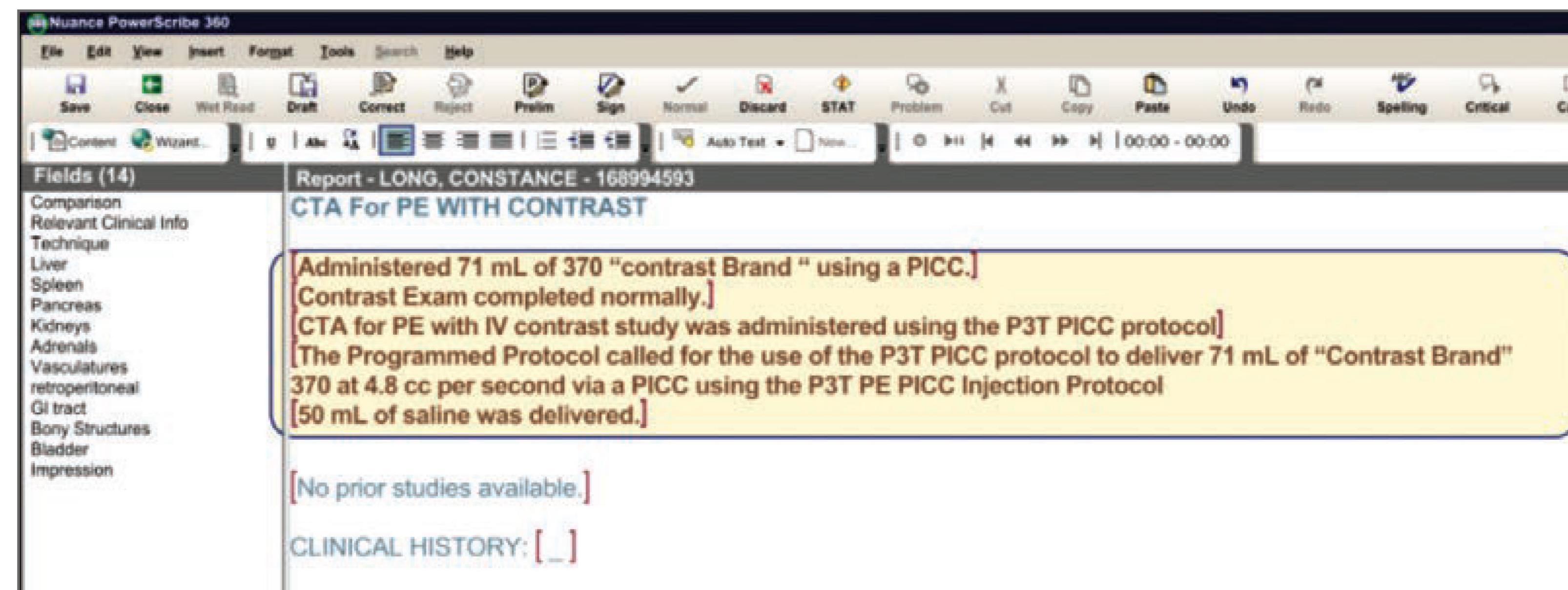
Notes

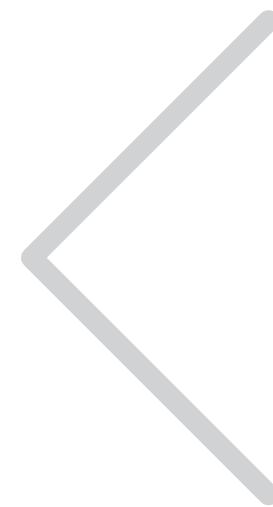
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Automated documentation

Enter and capture vital injection details directly into Speech Recognition





FPO

Automated documentation

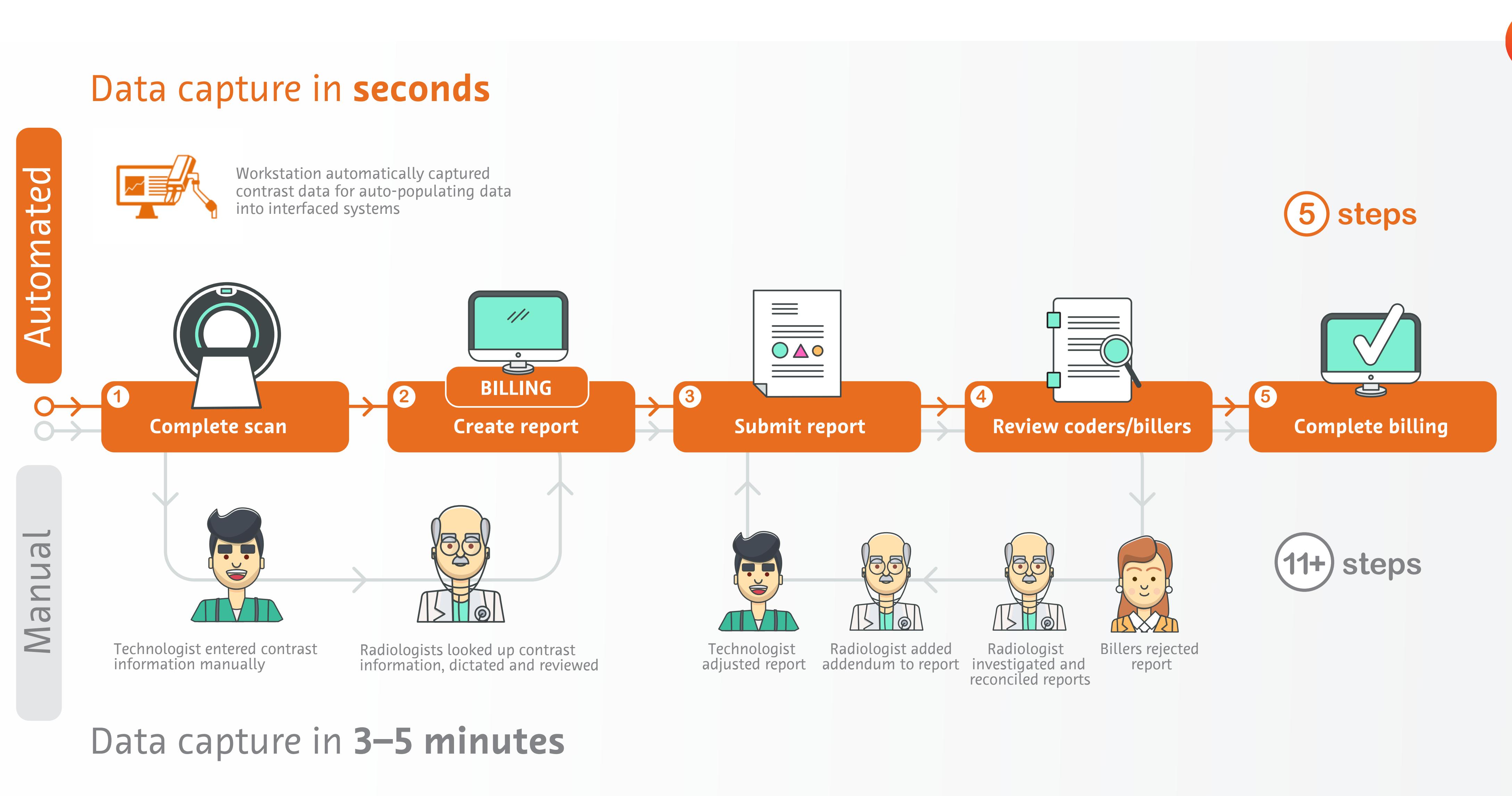
Enter and capture vital injection details directly into RIS





Automated documentation

Complete the same data capture and reporting process in fewer steps



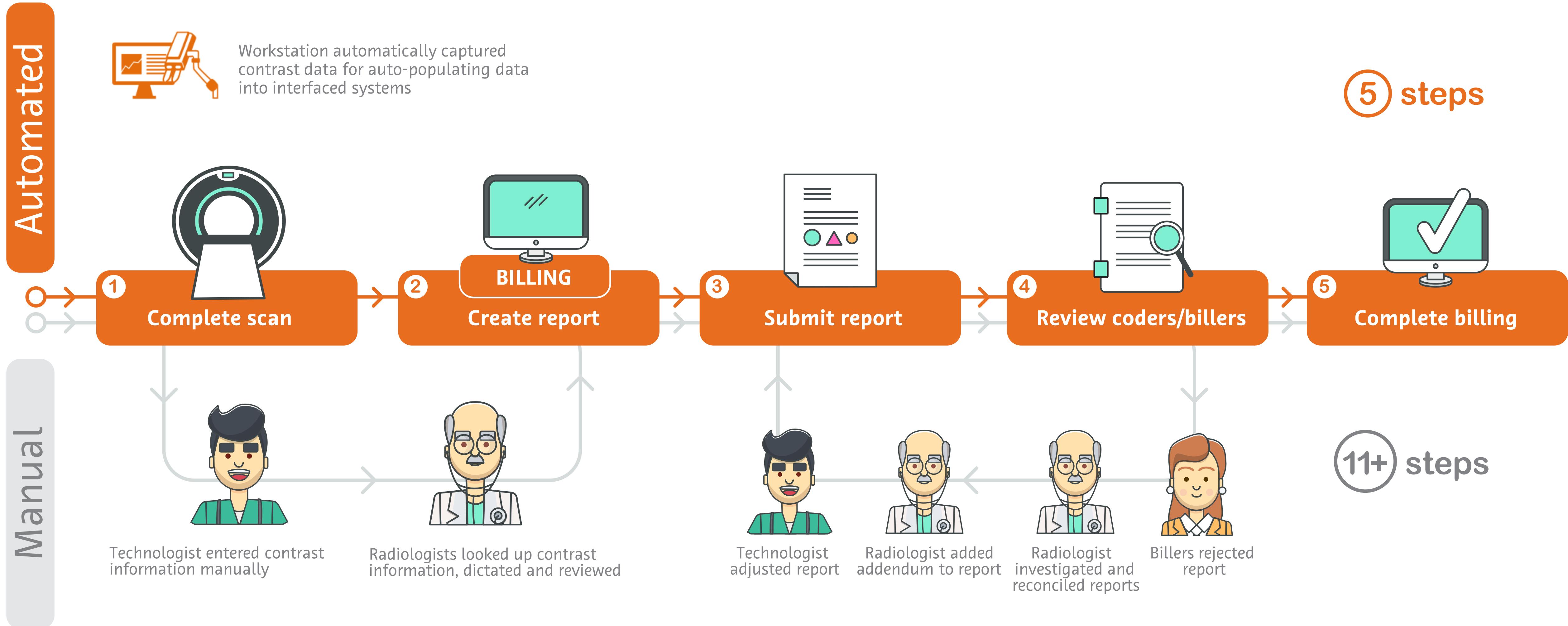


Automated documentation

Complete the same data capture and reporting process



Data capture in **seconds**



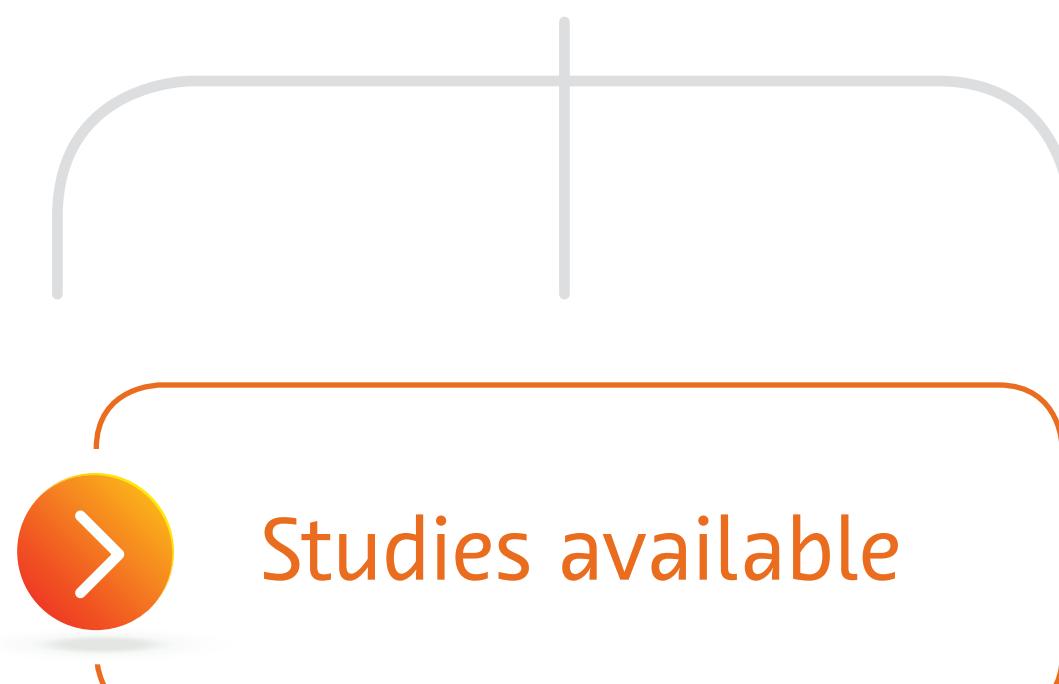
Data capture in **3–5 minutes**



Personalized protocols

An algorithm that allows technologists to personalize injection protocols and provide consistent image quality amongst clinicians

Allows technologists to account for unique patient and study variables.

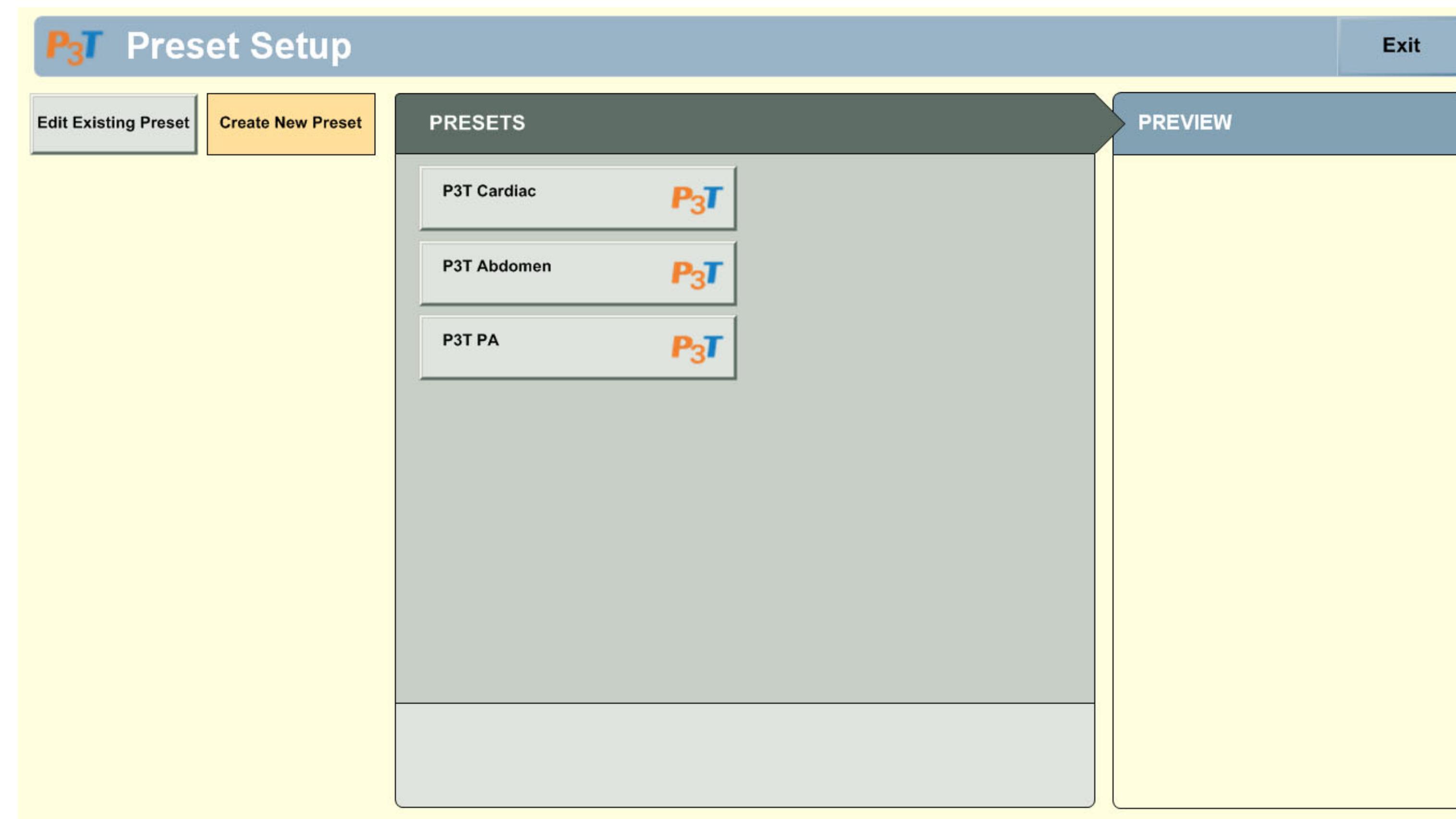


Abdomen Cardiac PA

- Adjust contrast media protocols automatically**
- Personalize the volume and flow rate for each patient**
- Improve image quality**
- Configure according to the workflow, policies and preferences of each facility**

Personalized protocols

A clinically validated algorithm designed to improve image quality by managing personalized contrast delivery protocols with flexibility to incorporate pre-set Radiologist preferences for dosing, contrast concentrations and scan timing



Cardiac studies

Manage cardiac-imaging complexity

Preset: P3T Cardiac

Review Preset values

	DEFAULT	CURRENT	MUST REVIEW	MUST ENTER
Contrast Type	-- 350 -- ml	-- 350 -- ml	X	<input type="checkbox"/>
Test Inject	no	no	X	<input type="checkbox"/>
Test Inject Fluid	Saline	Saline		
Test Inject Delivery Method	Volume	Volume		
Test Inject Volume	20	20 ml	<input type="checkbox"/>	<input type="checkbox"/>
Test Inject Duration	00:05	00:05 mm:ss		

HEAD
NECK
CHEST
ABDOMEN
PELVIS
EXTREMITIES

Select Region To Save

Cancel

Reset

350
no
Saline
Volume
20
0:05
no
20

Abdomen studies

Facilitate implementation of multiple CT abdomen protocol strategies

Preset: P3T Abdomen

Review Preset values

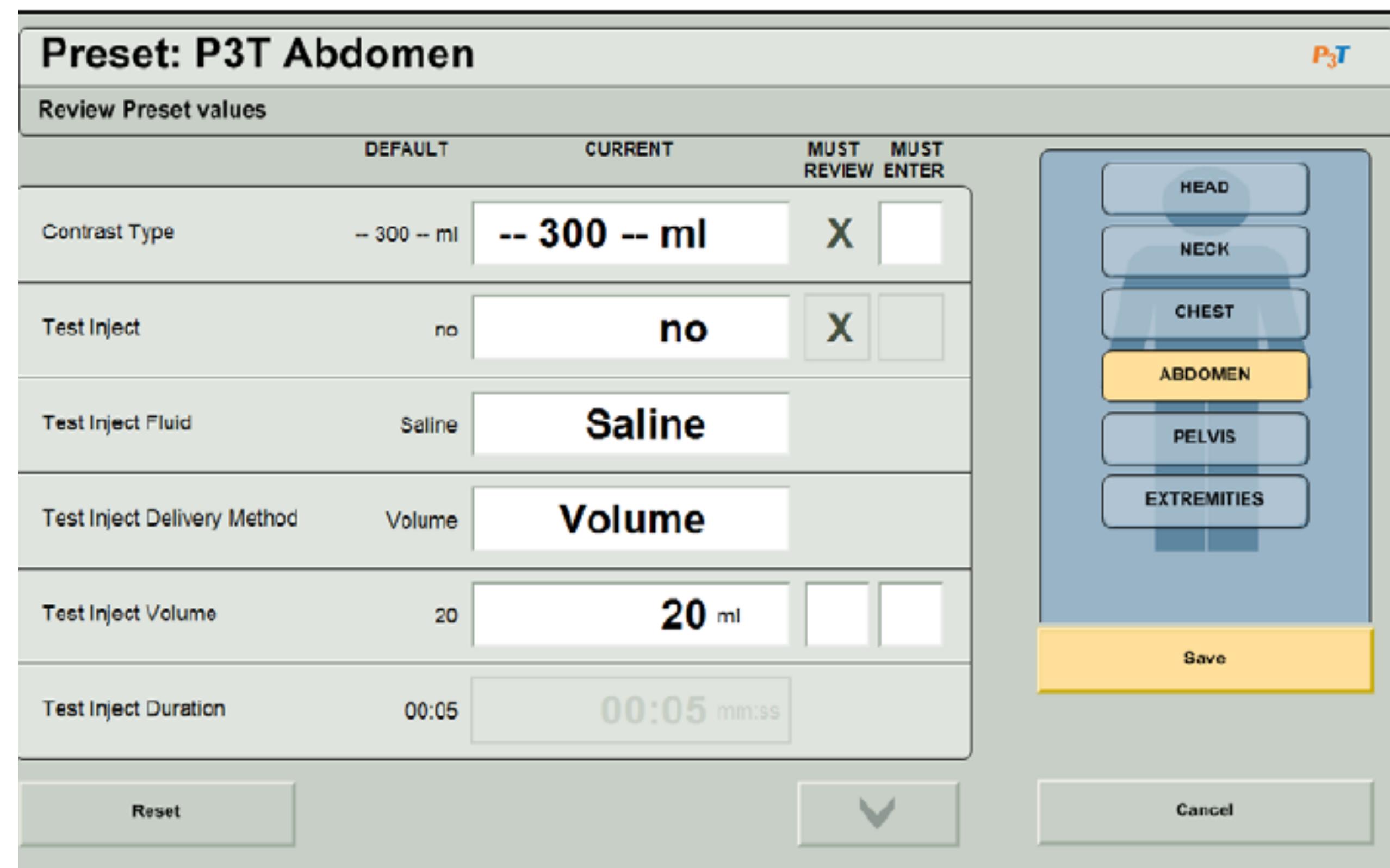
	DEFAULT	CURRENT	MUST REVIEW	MUST ENTER
Contrast Type	- 300 -- ml	-- 300 -- ml	X	<input type="text"/>
Test Inject	no	no	X	<input type="text"/>
Test Inject Fluid	Saline	Saline		
Test Inject Delivery Method	Volume	Volume		
Test Inject Volume	20	20 ml	<input type="text"/>	<input type="text"/>
Test Inject Duration	00:05	00:05 mm:ss		

HEAD
NECK
CHEST
ABDOMEN
PELVIS
EXTREMITIES

Save

Reset

Cancel



Pulmonary angiography studies

Reduce occurrences of suboptimal CT pulmonary angiograph studies

Preset: PA

Review Preset values

	DEFAULT	CURRENT	MUST REVIEW	MUST ENTER
Contrast Type	-- 350 -- ml	OMNIPACQUE 350 100 ml	X	
Test Inject	no	yes	X	
Test Inject Fluid	Saline	Saline		
Test Inject Delivery Method	Volume	Volume		
Test Inject Volume	20	20 ml		
Test Inject Duration	00:05	00:05 mm:ss		

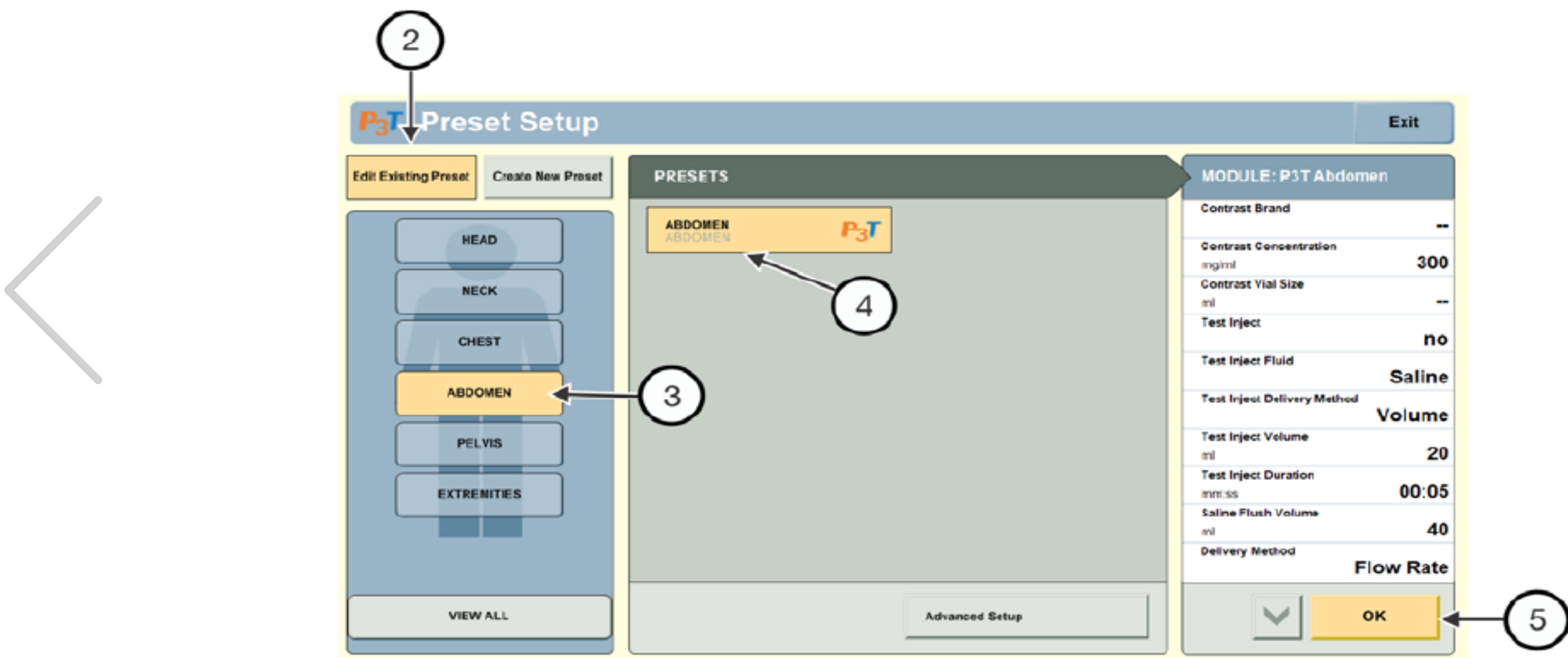
Save **Move**

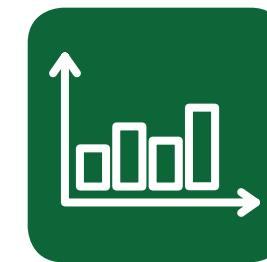
Save As

Cancel

Personalized protocols

Edit an existing pre-set

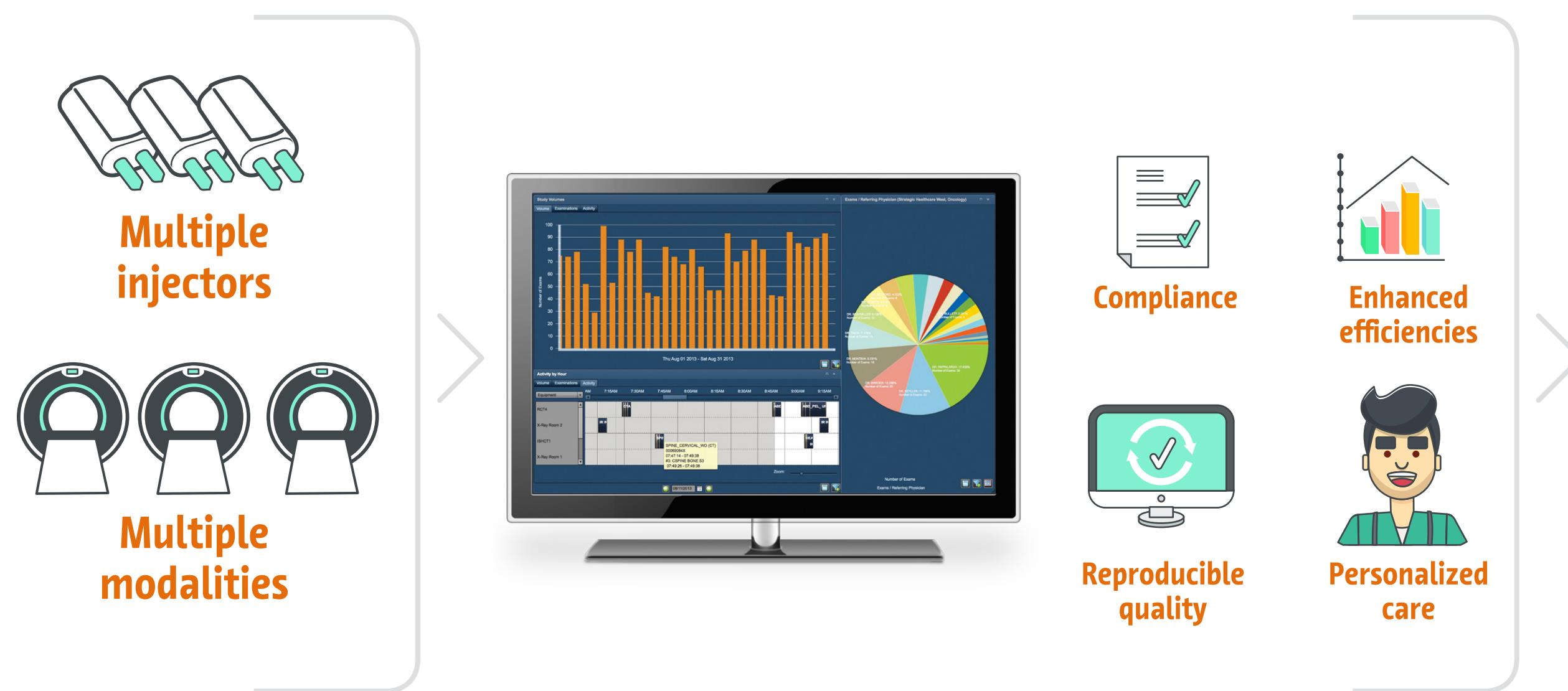




Data-driven insights

A platform that connects contrast, injector and scan information to provide critical insights

Allows radiology practices to generate diagnostic quality images more safely, consistently and efficiently.



- 深厚的药水瓶图标 **Easily track injection volumes, brand and vial size by injection protocol, device or across the enterprise**
- 心电图图标 **Track injection protocol adherence to optimize appropriate injections**
- 图表图标 **Compare point-of-care data capture adherence across the enterprise for quality management**
- 放大镜图标 **Analyze scanner performance for contrast enhanced exams**

Anticipated 2019 technology deployment



Capital Access Program

Access capital equipment upgrades through credits
for your operational spend



Receive a 15% credit
for every dollar spent
on the SmartPACK+
subscription service
and Bayer CT Injection
System consumables

Accumulate credits
in your virtual Bayer
Capital Access account

Apply credits
to upgrade capital
equipment over time



MEDRAD® Stellant & SmartPACK+

Redefine efficiencies with one simple solution

SmartPACK+ is designed to address your clinical and financial needs.



- + A simple way to enhance your imaging quality now and over time
- + A reliable partner to deliver measurable success



Start your **risk-free trial** today



Learn more

Steps to initiating SmartPACK+ in your clinic





Resources

Sales handover form



Software agreement



MEDRAD® Stellant & SmartPACK+ Presentation



MEDRAD® Stellant Injector + Workstation



SmartPACK+



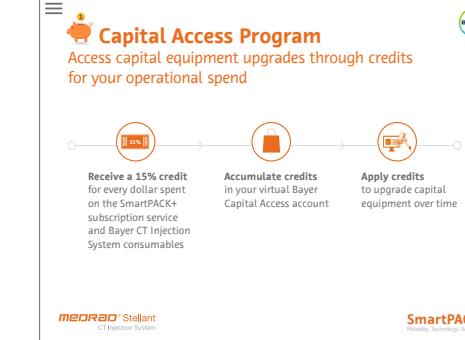
Reliability



Technology



Access



Summary

