



# Boost your image



**medRAD<sup>®</sup>** Stellant  
CT Injection System



## Precise contrast delivery

Referrers rely on prompt, accurate diagnoses to guide therapy and enable improved patient outcomes. **Precise contrast delivery** is expected for consistency to allow **optimal image quality**.

## Protocol management and precise contrast delivery

### Enhanced efficiency

- Perform complex CTA and cardiac CT protocols
- Create a tight contrast bolus
- Enable precisely timed contrast delivery
- Individualize contrast dose with Certegra® P3T® 2.0

### Dual syringe utilization benefits

DualFlow, simultaneous injection of contrast and saline in user-selected ratios can<sup>1</sup>:

- Enable better visualization of the right heart due to reduction of streak artifacts
- Visualize the right coronary arteries and right ventricles in a single study by achieving more uniform attenuation



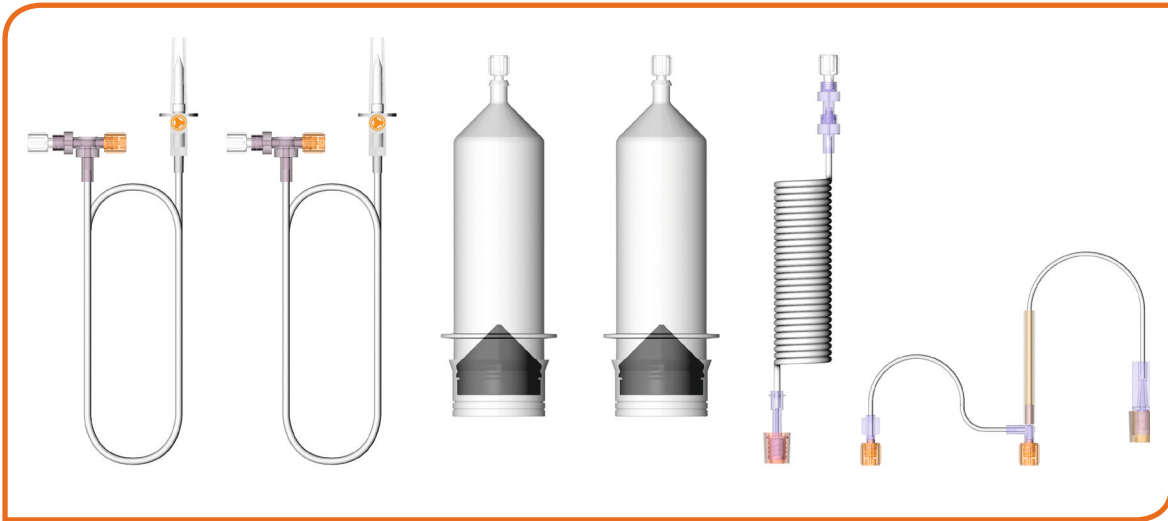
<sup>1</sup> Kerl JM, Ravenel JG, Nguyen SA, et al. Right Heart: Split-Bolus Injection of Diluted Contrast Medium for Visualization at Coronary CT Angiography, Radiology. 2008;247:356-364.



## Multi-Patient Syringe System

### Cost efficiency

- › Perform multiple studies with a single syringe kit (for up to 12 hours)
- › Recessed connections to avoid accidental contamination
- › Multi-patient tube for reuse plus single-patient tube that needs to be replaced after each study
- › Multiple check valves that prevent backflow from the patient



The Multi-Patient Syringe Kit for your Medrad® Stellant

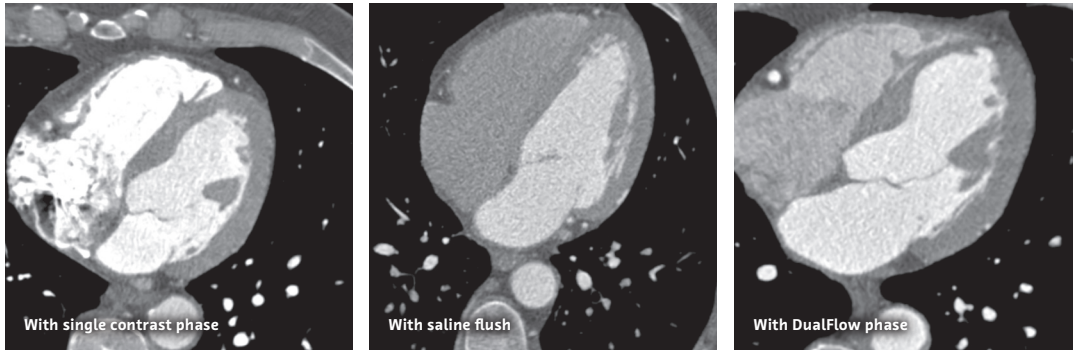
## Scalable options address your department's needs

Our customers look for **solutions** that can keep up with the changing demands of CT imaging at any time.



## DualFlow by comparison

### Improve visualization



Jensen, CT, "Dual Flow Contrast Injection for Coronary CTA Improves Visualization of the Right Heart," NASCI Abstract # 05-A-69-NASCI.

DualFlow can provide the ability to perform simultaneous injection of contrast and saline with user-selected ratios with the Medrad® Stellant Dual Injection System.

## Certegra® P3T® 2.0

### Individualize protocols

Powered by the Medrad® Stellant Injection System with Certegra® Workstation, Certegra® P3T® 2.0 calculates individually optimized patient protocols for cardiac CT, pulmonary angiography and abdomen studies.

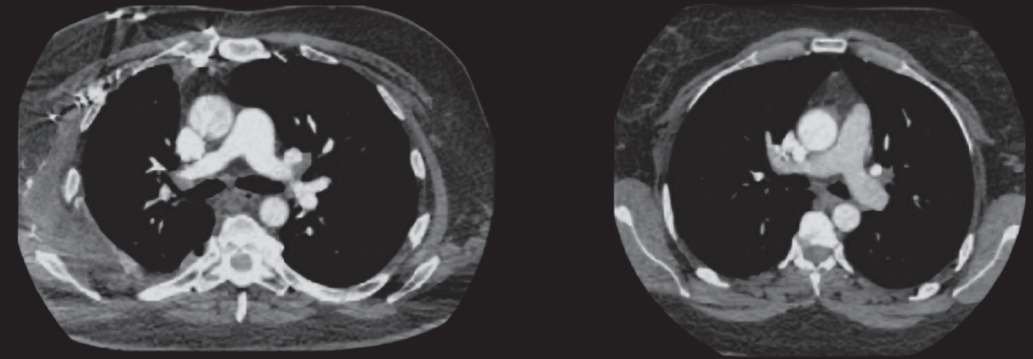
Standardizing and easing implementation of personalized patient protocols offers important benefits, including:

- › Facilitating implementation of multiple CT abdomen protocol strategies
- › Reducing occurrences of suboptimal CT pulmonary angiography studies<sup>2</sup>

## P3T® PA vs. Standard

P3T® PA weight: 300 pound; contrast: 116 cc; main PA HU: 274

Standard weight 295 pound; contrast: 80 cc; main PA HU: 171



When compared to standard protocols, P3T® PA protocols result in a higher percentage of exams ranked diagnostic without limitation.<sup>\*3,4</sup>

\* Albeit at a slightly higher contrast dose than the standard protocol of 80 mL. 2 A Clinical Evaluation of an Automated Software Program (Certegra® P3T® PA) for Patient Specific Contrast Injection During Chest CTA to Exclude Pulmonary Embolism; Christopher R Deible MD, PhD, Jacob Alexander MD, Iclal Ocak MD, Maryam Ghadimi Mahani MD, John Kalafut BS, MS, Janet E Durick MD, Carl R Fuhrman MD, Darlene Frasher RN, MSN, Karen M Pealer BA, CCRC, Michael P. Federle MD, Joan M Lacomis MD Department of Radiology, University of Pittsburgh Medical Center, Pittsburgh, PA, Medrad, Inc., Pittsburgh, PA RAD-INF-14-06087 May 2014 3 Presented at Society of Thoracic Radiology (2008) Poster Session; Christopher R. Deible MD, PhD. 4 510(k) FDA clearance number: K082905.



# Boost your workflow with Automated Documentation

Automated Documentation offers you greater peace of mind when it comes to **complying with documentation requirements**. By effortlessly capturing contrast and injection parameters along your workflow, it **reduces the number of manual tasks and potential errors**. It makes the right information available when needed so you can spend more time focusing on patient care.



Reliable and efficient contrast documentation

## Accurate

- Scan barcode data quickly at the source for fewer transcription errors and more peace of mind.

## Accessible

- Have contrast and injection details available effortlessly in the imaging workflow for less time on the phone and more focus on results.

## Automated

- Automatically propagate data to connected systems for fewer administrative steps and more time for patient care.

# Clinical, organizational and financial benefits

## Clinical benefits

- › Capture iodine load, imaging fluid and contrast type in the patient record for patient management
- › View injection parameters to correlate with enhancement levels for protocol optimization or follow-ups

## Organizational benefits

- › Access contrast information when and where you need it
- › Achieve standardized information flow and record keeping

## Financial benefits

- › Comply efficiently with contrast documentation requirements
- › Streamline correct invoicing of contrast usage where applicable



## Prepare



### Contrast information captured\*

- › Brand
- › Concentration
- › Vial Volume
- › Lot Number\*\*
- › Expiry Date\*\*

## Plan



### Patient information captured

- › Patient ID
- › Patient name
- › Date of birth
- › Gender
- › Height
- › Accession number
- › Study description
- › Study unique ID

## Perform



### Injection parameters captured

- › Peak pressure and flow rate
- › Pressure limit
- › Total fluid (ml) and iodine (g)
- › Volume loaded
- › Volume used and remaining
- › Delay
- › Start and end times
- › Injector model

## Manage



### Parameters

- › Injection count
- › Repeat injections
- › IV issue count
- › Lost time
- › Atypical injections
- › Injection template deviations
- › Cumulative patient dose

\* Pre-configured for Bayer contrast agents with 2D barcode

\*\* Only with Bayer 2D barcode contrast agents



## Automated Documentation in your workflow



Boost  
**your workflow**





# Make injectors and scanners work together with Imaging System Interfaces (ISI)

The Certegra® ISI enables injectors and scanners to communicate, enhancing clinical capability and simplifying workflow.

As scanners become faster, ISI provides a robust interface between the injector and scanner that enhances synchronization.

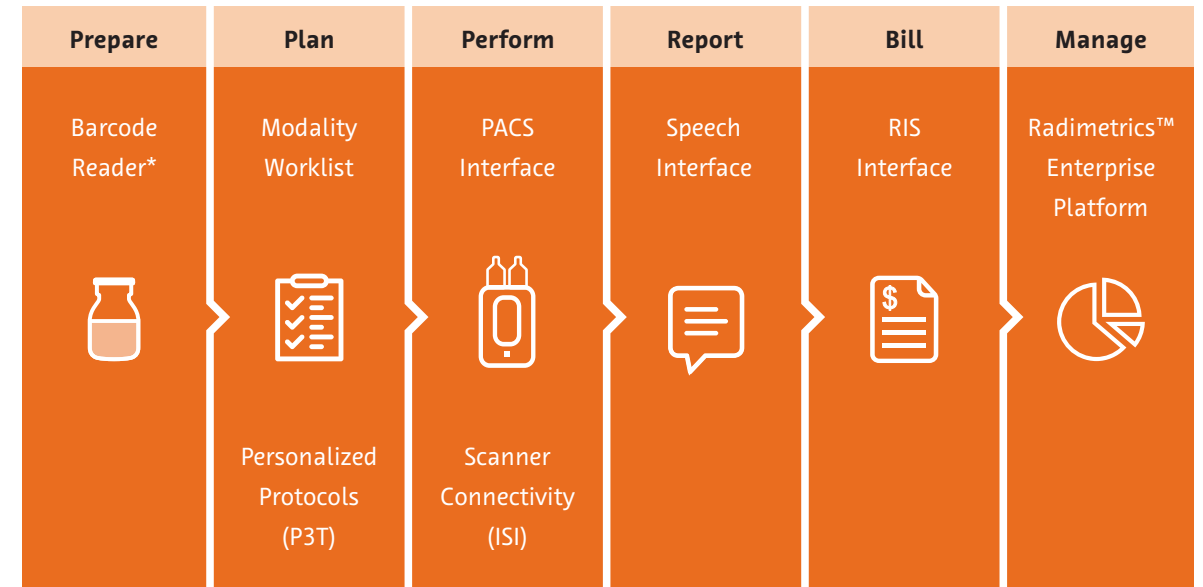
## Scanner Connectivity (ISI):

- > **Certegra® ISI 700**  
(for Philips scanners)
- > **Certegra® ISI 800**  
(for Siemens and Canon)
- > **Certegra® ISI 900**  
(for Siemens, General Electric, Hitachi and Canon)
- > **Connect.CT sold as Philips SyncRight**  
(for Philips scanners)

## Scalable Solutions Supporting your imaging workflow

The described software options can be combined to support individual or multiple workflow steps.

Choose from Automated Documentation, Personalized Protocols, Scanner Connectivity and Contrast Management to create a solution that works for you.



\*not available in all countries

## Dedicated experts for continuous uptime

MEDRAD® Stellant with VirtualCare® Remote Support: delivers confidence with a connection to world-class monitoring, diagnosis and support:

### VirtualCare™ Remote Support Equipment Service



#### Benefits

- › Software issues are often resolved remotely, in minutes rather than hours
- › Hardware can be repaired in one trip, with the right parts, the first time



#### Security

- If your injector is enhanced with a Certegra® Workstation:
- › Proprietary software updates and patches arrive seamlessly
  - › Antivirus protection remains current\*
  - › System alerts are monitored and resolved proactively



#### Support

- › Problems are diagnosed remotely
- › Solutions are developed quickly
- › The recovery plan is completed quickly

\*Periodic updates provided per defined schedule

## High quality and reliability

### Maximize trust

Not all syringes are equal. Bayer delivers a high-quality and reliable injection solution that can save costs, equipment and downtime. When choosing contrast and saline syringes, you need to consider:



#### Particulates

Particulates from the manufacturing process can be directly injected into the patient if the syringe barrels are not thoroughly cleaned and inspected.



#### Biocompatibility

If syringes are made from non-biocompatible material, then harmful substances, e.g. BPA or DEHP, can leach into the saline or contrast agent and enter the bloodstream.



#### Application of silicone

If the application is not precisely controlled, then silicone can be over- or under-applied, impacting fluid-delivery performance and the well-being of your patients.



#### Compatibility

If a non-compatible syringe is used on a MEDRAD® injector, then its failure can result in over- or under-injection of contrast and may require rescanning and re-dosing the patient.



# System Specifications

	Height	Width	Depth	Weight
Dual Injector Head	15.5 cm (6.1")	30.7 cm (12.1")	36.8 cm (14.5")	8.1 kg (17.9 lb) (without syringe)
Base Unit	29.2 cm (11.5")	27.9 cm (11.0")	22.2 cm (8.8")	6.2 kg (13.6 lb)
Certegra® Workstation (CWS)	34.2 cm (13.5")	40.0 cm (15.8")	30.0 cm (10.2")	8.0 kg (17.6 lb)

## Ordering Information

Systems listed include all standard cabling

**MEDRAD® Stellant D Injection System**  
with Pedestal Head Mount  
(Catalogue Number: SCT 211)

**MEDRAD® Stellant D Injection System**  
with Counterpoise System  
(Catalogue Number: SCT 212)

**MEDRAD® Stellant D CT Injection System**  
with Certegra® Workstation with a Pedestal Head Mount  
(Catalogue Number: SCT 321\*)

**MEDRAD® Stellant D CT Injection System**  
with Certegra® Workstation with Counterpoise System Head Mount  
(Catalogue Number: SCT 322\*)

## Injection Specifications

**Flow Rate (range & increments):**  
0.1–10 mL/sec in 0.1 mL Increments

**Volume (range & increments):**  
1 mL to Syringe Capacity in 1 mL Increments

**Programmable Pressure Limit (psi/kPa):**  
200 mL Syringe: 325 psi, 2241 kPa

**Scan Delay:**  
0–300 Seconds (5 minutes) in 1 Second Increments

**Pause:**  
1–900 Seconds (15 minutes) in 1 Second Increments

**Hold:**  
Maximum HOLD Time is 20 Minutes

**Syringes (Volume capacity):**  
200 mL Sterile Disposable Syringe

**Maximum Number of Phases:** 6

## Software and Interface Specifications

**Certegra® P3T® 2.0 Cardiac Application:** Cardiac CTA Protocol Optimization Software (Catalogue Number: UFK P3T C)

**Certegra® P3T® 2.0 Abdomen Application:** Abdominal Protocol Optimization Software (Catalogue Number: UFK P3T A)

**Certegra® P3T® 2.0 PA Application:** Pulmonary Angiography Protocol Optimization Software (Catalogue Number: UFK P3T PA)

**Informatics Starter Package:** Barcode Reader\* and Modality Worklist Access (Catalogue Number: CWKS STARTER PKG)

**PACS Outbound Interface:** Send Secondary Capture of Contrast Injection to PACS (Catalogue Number: MIS PCS 105)

**RIS Outbound Interface:** Send Contrast Injection Information to RIS (Catalogue Number: MIS PCS 301)

**Speech Recognition Outbound Interface:** Send Contrast Injection Information to Nuance Speech Recognition System (Catalogue Number: MIS PCS 300)

**Imaging System Interfacing (ISI):** Several Types of Interfacing with the Scanner: GE (ISI 900G), Canon (ISI 900T), Hitachi (ISI 900H), Siemens (ISI 900S, ISI 800); Connect.CT sold as Philips SyncRight (for Philips scanners)

# Quality and service at every step

What separates good from great?  
A reliable partner with a continued commitment to **quality and service at every step** to keep our operations performing.



\*Not available in all countries

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