

Boost your image

MEDRAD[®] 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 can¹:

- > 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

1 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 studies²

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.*^{3,4}

* 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

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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

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

** Only with Bayer 2D barcode contrast agents

Manage

Parameters

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

Automated Documentation in your workflow



Prepare

Plan



Barcode Reader*

- > 2D barcode located on the bottle**
- > Includes lot and expiry information**
- > Pre-configured for Bayer contrast**
- > In both single- and multi-patient use cases, contrast details can be recalled with the "Fluid A" button

Modality Worklist

Patient demographics and study information are presented on one screen

Benefits

- > Accurately captures data at the source
- > Helps meet documentation requirements
- > Accessible for reporting and billing
- Less administrative steps and more patient focus

Benefits

- > Matches the correct procedure to the correct patient
- > Quick selection to match the procedure to the correct patient

* Not available in all countries ** Only with Bayer 2D barcode contrast agents

Perform

Report

PACS

- The workstation combines contrast, patient and injection information into a secondary capture file
- > The file is automatically sent to PACS

Speech Recognition

- > Speech recognition interface can be configured to auto-populate contrast and injection details in the report
- The details are also visible in PACS as secondary capture

Benefits

- > Helps save time from manual data entry
- Contrast and injection details become part of the patient's PACS file
- The information is accessible for reporting and quality management

Benefits

- Saves time dictating and reviewing contrast details
- > Allows the correlation of injection parameters with enhancement levels in the imagess
- Information assists with protocol optimization

Bill

RIS

 Contrast details can be automatically sent to RIS

Benefits

If a billing system is connected to the RIS, accurate invoicing of contrast-enhanced procedures can be streamlined

Radimetrics[™] Enterprise Platform

- ➤ Contrast and injection details can be automatically sent to the available Radimetrics[™] Enterprise Platform as an optional extension
- Information from multiple procedures can be used for statistical analysis

Benefits

- > Helps identify abnormal injections that were aborted or repeated for future corrections
- > Allows for root-cause analysis to reveal possible reasons for abnormal injections
- Helps identify measures to enhance reproducible image results and timely completion of exams

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.



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

- > 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



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



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

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

	leight N	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

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), Toshiba (ISI 900T), Hitachi (ISI 900H), Siemens (ISI 900S, ISI 800); Connect.CT sold as Philips SyncRight (for Philips scanners)

Miscellaneous Specifications

Electrical Requirements (VAC/Hz): 100–240 VAC, 50/60 Hz, 300 Volts-AMPs Syringe Heat Maintainer: 35 degrees C +/-5 degrees, 95 degrees F +/-9 degrees Head Mounting Options: Overhead Counterpoise System or Floor Pedestal (Floor Pedestal includes an Integral IV Pole) DualFlow: Simultaneous Injection of Contrast and Saline is integrated in the CWS and included VirtualCare®*: Remote service on the injector and software to ensure faster uptime

*Not available in all countries

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.

Clear Direction. **>** From Diagnosis to Care.

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