



CT

## Focus Your Control. Broaden Your Perspective.

### Optibolus™ Bolus Shaping Software

OPTIBOLUS™ SOFTWARE

Optibolus software was designed to employ multiphasic injection, to expand the window of enhancement for contrast procedures.

Optibolus software optimizes the contrast media injection process through:

#### UNIFORM DISTRIBUTION

Optibolus software is designed to deliver contrast media at a controlled flow rate and volume, to help ensure uniform vascular enhancement of the pulmonary arterial system throughout the scan. This helps decrease the possibility of missing the bolus.

#### MORE FROM CONTRAST INJECTIONS

Optibolus software could potentially reduce IV contrast agent volume. This can allow you to use contrast media more efficiently, while also improving visualization at the bolus peak.<sup>1</sup>

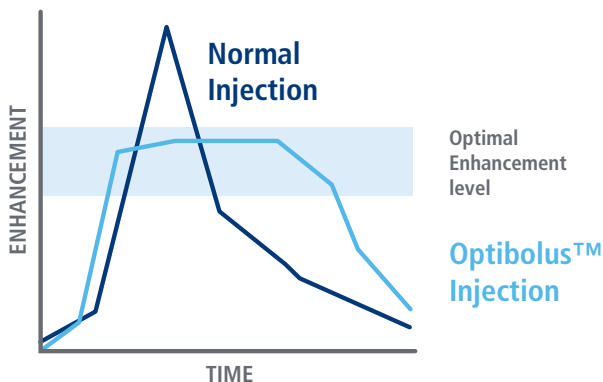
#### EASE OF USE ON INJECTORS EQUIPPED WITH OPTIBOLUS SOFTWARE

Your existing protocol converts to an Optibolus protocol at the touch of a button.

Optibolus bolus shaping software helps you control flow rate, allowing you to manage your contrast media injection while helping to potentially increase contrast media utility. Covidien's Optivantage™ dual-head CT contrast delivery system with the optional Optibolus software precisely controls contrast media. By increasing the value of the contrast, it helps you optimize confidence in patient care — which gives you more reasons to choose Covidien.

*“Optibolus software has allowed my CT department to fully utilize the CT scanner technology instead of relying on historical protocols that have been passed down from technologist to technologist.”*

— Jamie Easterling, Administrator of Imaging Services, Cincinnati, OH

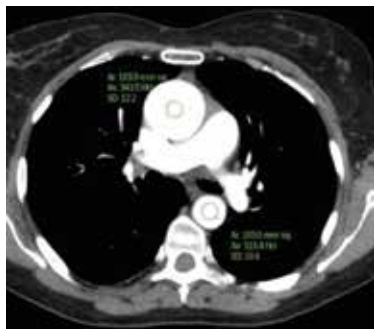


# Case Studies.

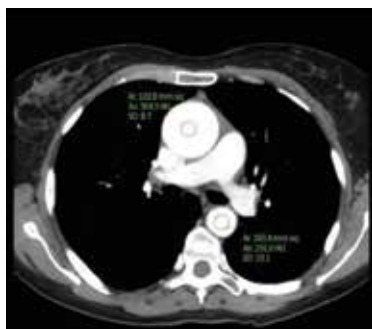
Optibolus™ software utilizes multiphasic protocol, for dynamic scanning procedures.

## Routine Thoracic Aorta CT Scan

Uniphasic protocol – Sept 2008



Optibolus protocol – Feb 2010



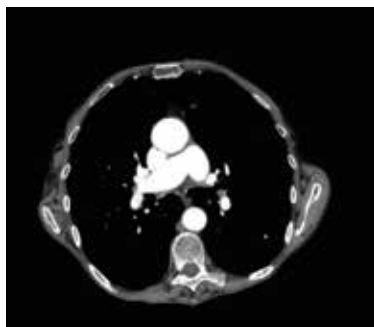
First scan taken using 90 mL/300 concentration contrast media, for an iodine load of 27 grams, injected at a continuous rate of 3 mL per second.

Second scan taken using 75 mL/300 concentration, for an iodine load of 22.5 grams, with a beginning flow rate of 3 mL per second, and exponentially decelerating to a rate of 2.2 mL per second at the end of the injection, following the Optibolus deceleration algorithm.

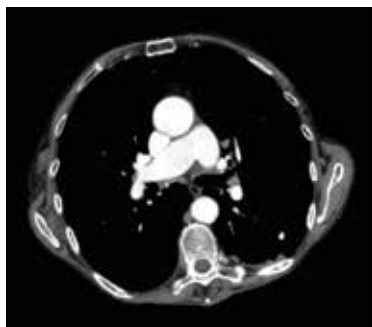
This case study provided courtesy of Raigmore Hospital, Inverness, Scotland.

## Routine Uniphasic Injection Protocol vs. Optibolus Injection Protocol in the Thorax

Uniphasic protocol – Sept 2009



Optibolus protocol – Jan 2010



First scans taken using 90 mL/300 concentration contrast media, for an iodine load of 27 grams, injected at a continuous rate of 3 mL per second.

Second scans taken using 75 mL/300 concentration, for an iodine load of 22.5 grams, with a beginning flow rate of 3 mL per second, and exponentially decelerating to a rate of 2.2 mL per second at the end of the injection, following the Optibolus deceleration algorithm.



This case study provided courtesy of Raigmore Hospital, Inverness, Scotland.

1 Bae KT, Tran HQ, Heiken JP. Uniform vascular contrast enhancement and reduced contrast medium volume achieved by using exponentially decelerated contrast material injection method. *Radiology*. 2004;231:732-736.

CM16712C | 11/2012

Learn more about Optibolus software at [OptimizingConfidence.com](http://OptimizingConfidence.com) or contact your sales representative.

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