

**SIEMENS**  
Healthineers



[siemens.com/symbia-intevo](http://siemens.com/symbia-intevo)

# Symbia Intevo

SPECT/CT that improves your image.

Priorities in healthcare are shifting. Better care no longer means more care. It means more effective care. Now, you can discover expanded clinical reach and a higher standard of care and distinction for your organization—with the hybrid SPECT/CT technology of Symbia Intevo.<sup>TM1</sup>

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## Better care starts at the molecular level

In today's healthcare environment, small details can lead to significant value—for patients, caregivers and enterprises. Our advances in molecular imaging help you reveal critical details that result in meaningful improvements for all.



# Achieve success in a changing environment

More and more, success for your organization and your patients lies in eliminating unnecessary exams and extending your clinical reach. By having a system that combines functional SPECT and anatomical CT in one, you not only secure greater capabilities, but also a solid path to building a name as a leader in clinical imaging.

*“Being able to achieve the best possible outcome in a condensed time frame is very important to healthcare’s future success.”<sup>2,3</sup>*

Matthew Petkus, MBA, RT(R)(CV)  
Service Line Administrator  
Halifax Health, Florida, USA

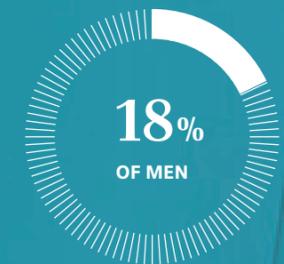
Symbia Intevo

## GREATER FOCUS ON PATIENT SATISFACTION

# #1

*priority for healthcare organizations is patient satisfaction.<sup>4</sup>*

## BETTER SERVE OBESITY NEEDS



*18% of men and 21% of women are expected to be obese worldwide by 2025.<sup>6</sup>*

## BE PART OF THE SHIFT TO SPECT/CT



# 46%

*46% of imaging departments have access to SPECT/CT.<sup>5</sup>*

# See what SPECT/CT can do for you

The advanced SPECT and CT technologies inherent across our Symbia Intevo SPECT/CT family of systems let you distinguish yourself in the eyes of patients, referring physicians and the medical community.

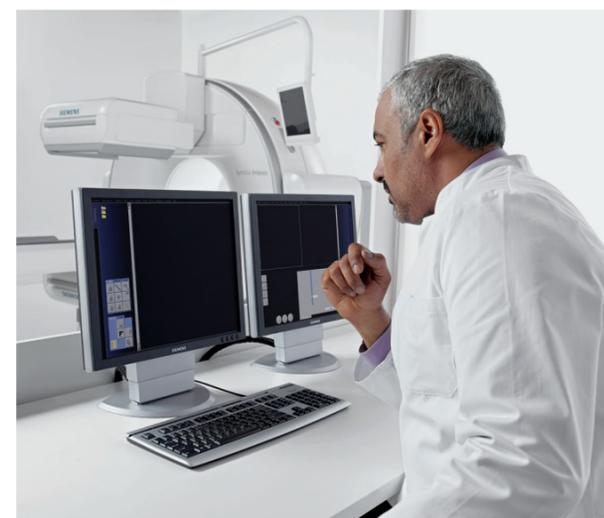


## Move your technology ahead of the rest

Have confidence in knowing that with the improved image quality and localization gained through the addition of CT, you have capabilities that are proven to enhance patient outcomes.

## Achieve satisfaction through efficient results

Take advantage of optimal efficiency in a single examination. With the industry's highest image quality,<sup>7</sup> you can move faster to a confident diagnosis and a successful treatment strategy.



## Build your business on better outcomes

Generate the kinds of competitive advantages that come from having a reputation for adopting innovative molecular imaging advancements.

# Move your technology ahead of the rest

With many of today's imaging systems, you may not get the full picture of a patient's condition, which could lead to taxing follow-up exams and unnecessary delays in patient care.

With Symbia Intevo<sup>1</sup> SPECT/CT, the industry's highest SPECT sensitivity<sup>7</sup> and finest reconstructed resolution<sup>7</sup> along with high-performance CT come standard on every system. This brings you fast, diagnostic-quality CT for attenuation correction and localization, putting the industry's highest<sup>7</sup> image quality right in your hands, every time.

INCREASE SENSITIVITY UP TO<sup>7</sup>



## The function of SPECT

While others outsource their manufacturing, we own our entire manufacturing process, thus maintaining the quality and consistency of the SPECT imaging components that go into every one of our systems. As a result, with Symbia Intevo, you have the assurance of knowing that every exam is performed with the industry's highest<sup>7</sup> image quality.

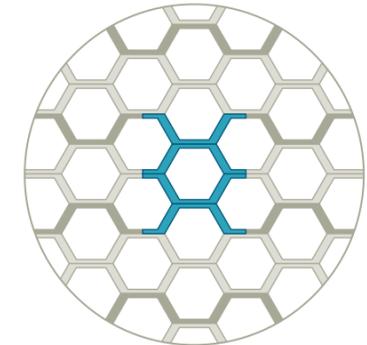
### HD DETECTOR

High-definition detectors feature crystals that are uniquely grown in-house, thus supporting scanning with the highest<sup>7</sup> image quality for all energies, up to 364 keV for <sup>131</sup>I.



### AUTOFORM COLLIMATOR

Our proprietary collimator design provides the industry's highest<sup>7</sup> collimator sensitivity.



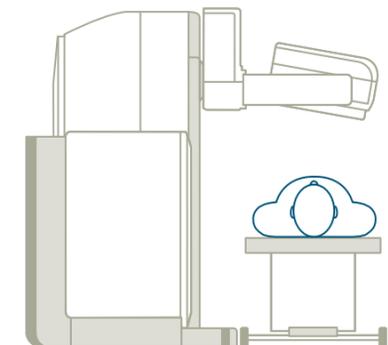
### FLASH 3D

Advanced iterative image reconstruction technology creates images with more counts in the correct volume, making identification easier.



### DETECTOR FLEXIBILITY

Unrestricted patient positioning for virtually any exam.

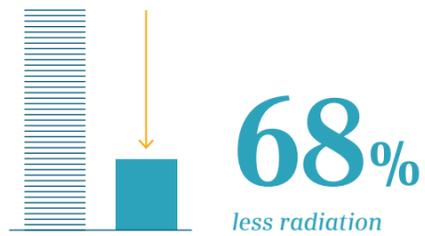


## The precision of CT

In conventional CT, patient-specific localization comes with the challenge of managing additional patient radiation. However, more than three decades of experience perfecting our technology has allowed us to develop CT solutions that lead the way. Our demonstrated capabilities let you deliver a reduced dose while preserving greater image detail and high performance.

### CARE DOSE4D

Our industry-recognized dose modulation practice automatically adapts radiation dose to a patient's size and shape, letting you reduce radiation exposure by up to 68%.<sup>7</sup>



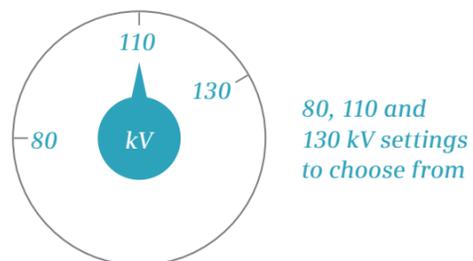
### SUREVIEW

We created SureView™ fast spiral image reconstruction software to offer intuitive scan protocols—with most parameters automatically calculated—so you can realize up to 20%<sup>7</sup> dose reduction.



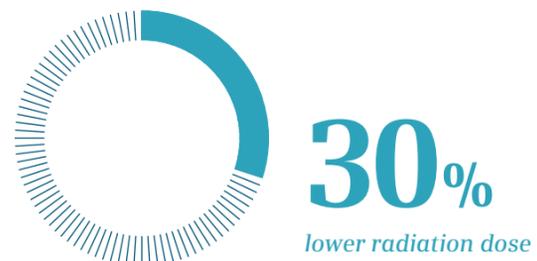
### FLEXIBLE KV

Unlike conventional SPECT/CT that's restricted to 120 kV, choose from 80, 110 and 130 kV settings to adapt voltage to patient needs, significantly reducing dose for each patient.



### ULTRA FAST CERAMIC (UFC) DETECTOR

Benefit from our cutting-edge UFC™ technology, which gives you improved light output, fast decay, short afterglow, less noise, a brighter image and up to 30%<sup>7</sup> dose reduction.



# Innovation that supports a new standard of care



## HD DETECTORS

High-definition digital detectors provide energy-independent performance

## DETECTOR FLEXIBILITY

A wide variety of detector configurations adjustable to any study and patient type

## AUTOFORM COLLIMATORS

The industry's leading<sup>7</sup> sensitivity

## FLASH 3D

Iterative reconstruction for the industry's finest<sup>7</sup> reconstructed resolution

## AUTOCONTOUR

An infrared body contour system to minimize patient-to-detector distance

## REAR BED SUPPORT

Pallet-flex minimization through SPECT and CT field of view

## PATIENT POSITIONING MONITOR

Self-guided touch screen interface with intuitive icons

## INTUITIVE HAND CONTROLLER

Easy-to-use, descriptive controls

## DIAGNOSTIC-QUALITY SPIRAL CT

2-, 6- and 16-slice CT configurations

## OPEN GANTRY

Integrated gantry with 70 cm (27.5 in) opening for greater patient comfort

## INNOVATIVE BED DESIGN

Low bed, ergonomic accessories and 227 kg (500 lb) capacity for patient comfort

## INTERNAL ELECTROCARDIOGRAM

Fully integrated bed ECG for fast patient setup and fewer cumbersome cables

## UFC DETECTOR

Fast detector response time and fast acquisitions

## FLEXIBLE KV

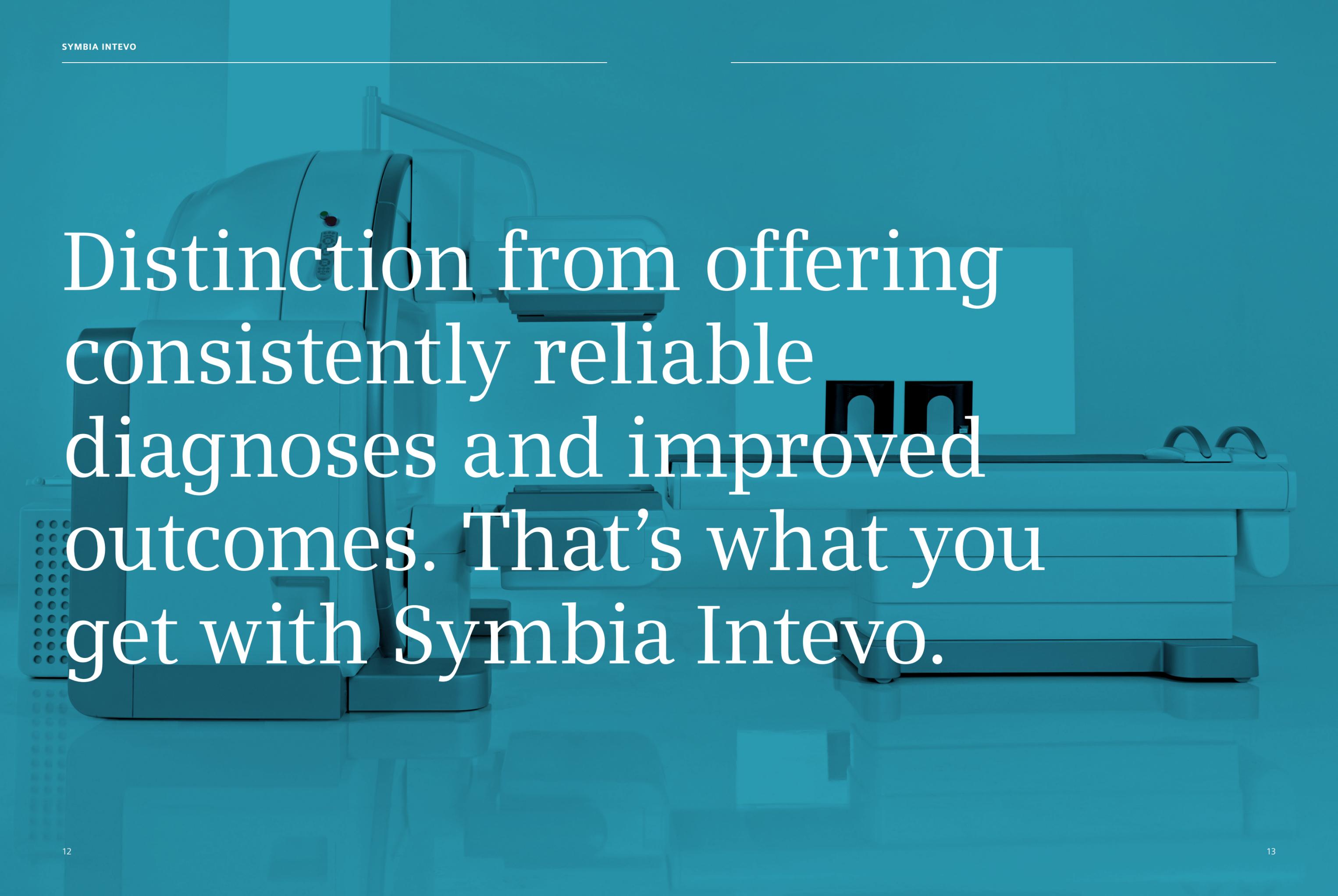
Flexible voltage settings to select the right dose for each patient

## CARE DOSE4D

Automated real-time dose modulation

## SUREVIEW

Excellent image quality regardless of pitch



Distinction from offering consistently reliable diagnoses and improved outcomes. That's what you get with Symbia Intevo.

# Achieve satisfaction through efficient results

The path to a clear answer often involves multiple tests, which can delay diagnosis and treatment—jeopardizing satisfaction and giving you less time for other patients. In one exam, high-quality SPECT/CT imaging provides a more complete picture of your patient’s condition—resulting in a sound decision, more efficient care and better patient satisfaction.

*“The radiology department’s initiative with Siemens SPECT/CT for osteomyelitis... led to better patient care, improved clinician satisfaction, reduced length of stay and, overall, a more efficient episode of care.”<sup>3</sup>*

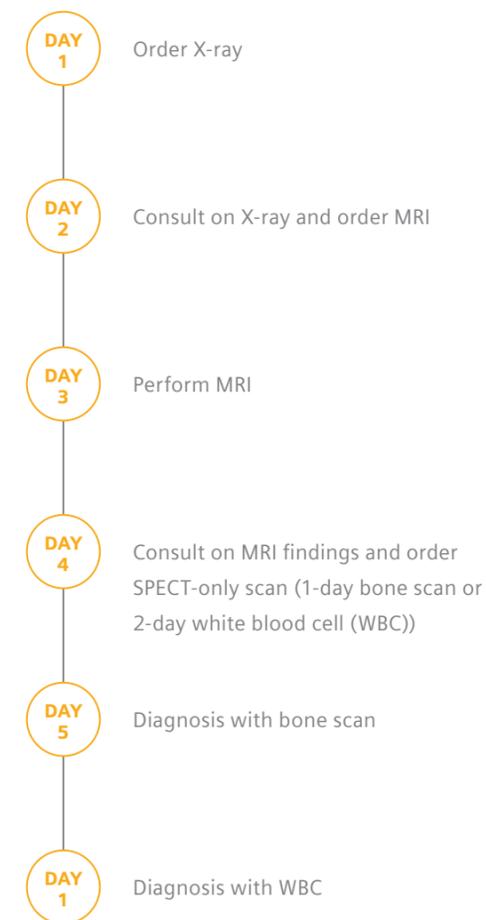
Matthew Petkus, MBA, RT(R)(CV)  
Service Line Administrator  
Halifax Health, Florida, USA

## Shorten the time between diagnosis and treatment

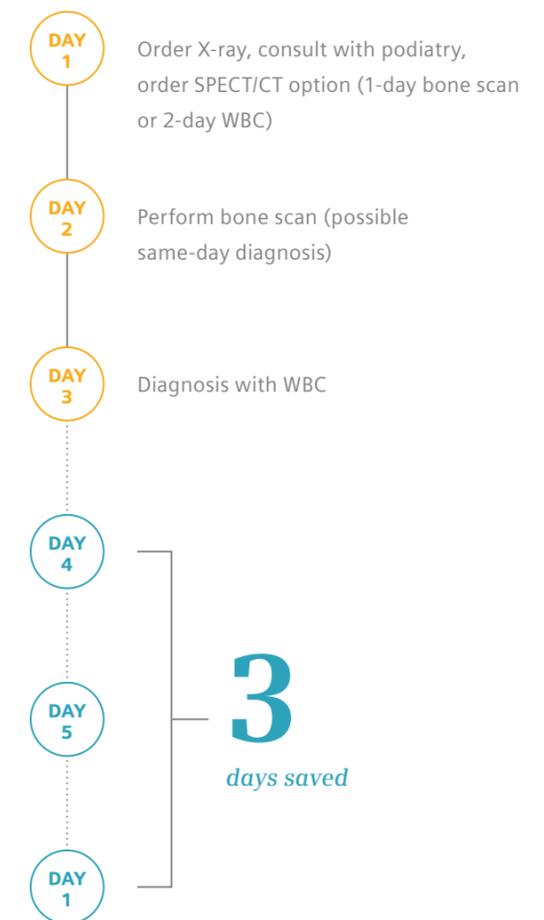
The radiology department at Halifax Health, a network of hospitals in the United States, needed to improve its inefficient process for the diagnosis and management of osteomyelitis. Using Siemens SPECT/CT technologies, the department decreased its process from six days to three. Accelerated diagnosis and localization has led to early intervention and more targeted surgical planning, thus sparing patients from unnecessary procedures and hospitalization.<sup>3</sup>

### Impact of SPECT/CT on osteomyelitis diagnosis at Halifax Health

#### CONVENTIONAL PROTOCOL



#### NEW PROTOCOL WITH SIEMENS SPECT/CT



# Build your business on better outcomes

Your ability to provide timely answers that lead to better outcomes can generate long-lasting relationships with patients and referring physicians. While SPECT alone has well-proven benefits, it may not reveal the full extent of disease, limiting your capacity to deliver definitive reports or offer the full spectrum of nuclear medicine exams.

Moving from SPECT to SPECT/CT brings you enhanced sensitivity, specificity, localization and identification. The proven technologies of Symbia Intevo further elevate the benefits of hybrid imaging—helping you expand your imaging services and your reputation for providing quick, accurate and meaningful results.

## ONCOLOGY

With SPECT/CT compared to SPECT alone, sensitivity increased from 83% to 98%, and specificity increased from 67% to 94%.<sup>8</sup>

**98%**  
SENSITIVITY

**94%**  
SPECIFICITY

## PARATHYROID

With SPECT/CT compared to SPECT alone, localization in metastatic lesions increased from 61% to 100%, and identification increased from 36% to 85%.<sup>9</sup>

**100%**  
LOCALIZATION

**85%**  
IDENTIFICATION

## CARDIAC

With SPECT/CT compared to SPECT alone, sensitivity increased from 86% to 94%, while specificity increased from 81% to 94%.<sup>10</sup>

**94%**  
SENSITIVITY

**94%**  
SPECIFICITY

## CARDIAC OBESITY

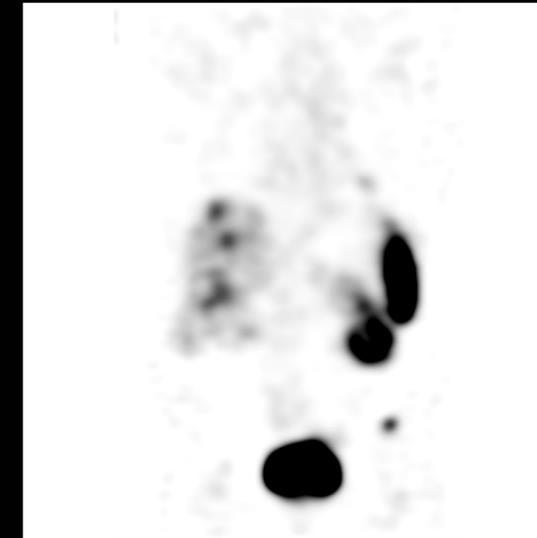
With SPECT/CT compared to SPECT alone, sensitivity increased from 76% to 94% in obese patients, while specificity increased from 48% to 83%.<sup>10</sup>

**94%**  
SENSITIVITY

**83%**  
SPECIFICITY

## OCTREOTIDE IMAGING

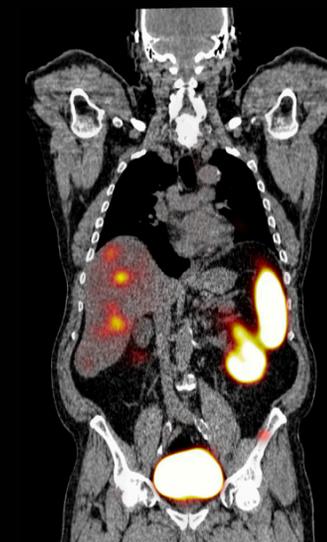
### SPECT/CT instrumental in defining a potential treatment strategy



SPECT does not offer clear distinction of soft tissue or osseous lesions, thus limiting localization.



CT-only offers incomplete delineation of liver lesions, unclear bone lesions and no apparent change in morphology.



With SPECT/CT, metastases can be identified and differentiated between not only soft tissue and bone metastasis but the actual organ. With the disease mostly in the liver, the patient can be considered for Y-90 radio-embolization therapy.

*Protocol: Symbia Intevo 16, 111In-Octreotide [Octreoscan™], 214 MBq [5.8 mCi] at four hours post-injection and 24 hours post-injection*

*Data courtesy on file.*

## Grow your audience

With a more diverse range of offerings, you can provide a higher quality of care to more patients.

*“Referring doctors expect us to make precise interpretations. Virtually from day one [with Symbia Intevo], we’ve had a high volume of patients. We accomplished this without any advertising. We simply offer good medicine.”<sup>3</sup>*

Philipp Peloschek, MD  
Radiology Specialist  
Radiology Center, Vienna, Austria

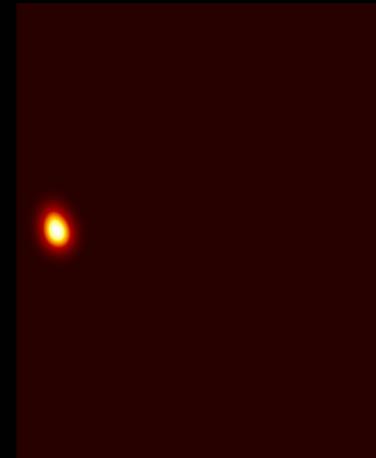
## Look to boost your revenue by offering new clinical indications

The benefits of expanding your range of clinical exams can be far-reaching. Consider, for example, the impact of adding even one parathyroid or cardiac study to your daily exam schedule:

$$\begin{array}{ccccccc}
 \$500 & \times & 5 & \times & 52 & = & \$125K \\
 \text{PER EXAM} & & \text{DAYS} & & \text{WEEKS} & & \text{PER YEAR}
 \end{array}$$

### LYMPHOSCINTIGRAPHY IMAGING

## Precise localization of primary tumor drainage with SPECT/CT



SPECT with focal uptake alone makes it difficult to know the exact localization of the sentinel lymph node.

A regular low-dose CT without functional information does not provide additional information, as no pathological changes in morphology are present.



SPECT/CT delivers the correct anatomical localization of the sentinel lymph node, allowing the referring physician to precisely identify the first lymph node into which the primary tumor drains.

Protocol: Symbia Intevo 2 SPECT/CT, <sup>99m</sup>Tc-Sc, 7.6 MBq

Data courtesy of Holy Cross Hospital, Oakland Park, Florida, USA.

It's time to discover how the advanced SPECT/CT technologies of Symbia Intevo can help position you for the future.



## Siemens Healthcare Headquarters

Siemens Healthcare GmbH  
Henkestr. 127  
91052 Erlangen  
Germany  
Phone: +49 9131 84-0  
[siemens.com/healthcare](http://siemens.com/healthcare)

## Global Business Line

Siemens Medical Solutions USA, Inc.  
Molecular Imaging  
2501 North Barrington Road  
Hoffman Estates, IL 60192  
USA  
Phone: +1 847 304-7700  
[siemens.com/mi](http://siemens.com/mi)

## Disclaimers

<sup>1</sup> Symbia Intevo is not commercially available in all countries. Due to regulatory reasons, its future availability cannot be guaranteed. Please contact your local Siemens organization for further details.

<sup>2</sup> [siemens.com/imaginglife](http://siemens.com/imaginglife)

<sup>3</sup> The statements by Siemens' customers described herein are based on results that were achieved in the customer's unique setting. Since there is no "typical" hospital and many variables exist (e.g., hospital size, case mix, level of IT adoption), there can be no guarantee that other customers will achieve the same results.

<sup>4</sup> IMV 2015, Nuclear Medicine Outlook Report, April 2015.

<sup>5</sup> Based on European camera market.  
<http://www.auntminnieeurope.com/index.aspx?sec=ser&sub=def&pag=dis&ItemID=606759>

<sup>6</sup> The Lancet, *Trends in adult body-mass index in 200 countries from 1975 to 2014*, Volume 387, 2 April 2016. OR: [http://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(16\)30054-X/abstract](http://www.thelancet.com/journals/lancet/article/PIIS0140-6736(16)30054-X/abstract)

<sup>7</sup> Based on competitive literature available at time of publication. Data on file.

<sup>8</sup> Zhao, Z. et al. (2010). *Single photon emission computed tomography/spiral computed tomography fusion imaging for the diagnosis of bone metastasis in patients with known cancer*. *Skeletal Radiology*, 39(2), 147–153.

<sup>9</sup> Serra, A. et al. (2006). *Role of SPECT/CT in the preoperative assessment of hyperparathyroid patients*. *La Radiologia Medica*, 111(7), 999–1008.

<sup>10</sup> Corbett, JR et al. (2008). *Diagnostic Accuracy Of Hybrid Cardiac SPECT/CT For Attenuation Correction Of Stress Myocardial Perfusion Imaging In Obese Compared To Normal Weight Patients*. *Journal of Nuclear Cardiology*, 15(4), S15–21.

Order No. A91MI-10444-1C-7600 | Printed in USA | MI-3191.TM.VSA.TW.1500  
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