

VAMC HOUSTON, TX
PO# 580-B40006

Line #	Description	Qty
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1	BRIGHTVIEW XCT	1
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BrightView XCT Camera with PinPoint detectors with caudal-cephalic tilt- 9.5 mm (3/8") crystal

BrightView XCT is a general-purpose variable angle gamma camera using leading-edge SPECT detectors and CT-based localization and attenuation correction. BrightView XCT provides exceptional flexibility, low dose-high resolution CT localization, flexible breathing protocols with CT-based attenuation correction, enhanced nuclear medicine-centric workflow, and a platform for emerging molecular imaging agents. Integrated CloseUp technologies provide superior ability to maintain close proximity to the patient for optimized resolution.

PinPoint Digital Detectors

PET-based PinPoint technologies include digital detectors and electronics with advanced iterative positioning algorithms.

- 59 Photo-multiplier tubes interfaced to 59 A/D Converters
- Dual NaI, 54 cm x 40.6 cm (21.25" x 16") FOV detectors, 9.5 mm (3/8") thick crystal
- Enhanced resolution and uniformity detector specifications
- Energy independent performance up to 300 keV
- Useful detector energy range: 56 to 662 keV
- Digital real-time energy, linearity, and uniformity correction

CT-Based Localization and Attenuation Correction

A high resolution flat panel detector and x-ray tube are positioned in the same field-of-view as the SPECT detectors to allow for a highly integrated and compact SPECT/CT system.

- Low dose-high resolution localization
- Volumetric CT coverage of 14 cm in a 12-second breath hold
- Co-planar acquisition to allow CT and SPECT acquisition without table indexing
- Attenuation correction with flexible breathing protocols (breath hold or tidal breathing)
- Sub-mm isotropic voxels for optimized oblique angle viewing
- Nuclear Medicine centric workflow allowing planning of the CT from the P-scope
- Folding storage of the flat panel detector inside the system gantry, when desired
- Reconstruction computer (x86, dual 2.33 GHz Intel Quad Core Xeon, 4 GB DDR2 memory, nVidia 8800 GTX with 768 MB DDR3 memory)
- Minimum of 1250 GB hard disk space for reconstruction computer (250 GB for OS, 1000 GB in RAID 0 configuration for image data)

Highly stable open gantry design

BrightView XCT has an open gantry with 10-axis design to provide exceptional mechanical stability and precise center of rotation. Advanced robotics feature automatic set-up of gantry, detectors, collimators, and patient table for improved workflow; automatic, single button touch for bed imaging, quality control, upright imaging, and other positions.

- CardioTrac: Automated cardiac setup and with tracking zoom electronics to avoid patient truncation
- CloseUp imaging for highest resolution with minimized patient-to-detector distance
- Generous gantry aperture of 91.4 cm (36 inches) for imaging large patients and for unobstructed patient monitoring
- LCD touch screen camera interface on the gantry
- Ergonomically designed, wireless (RF) hand controller
- Caudal-cephalic tilt- +/- 15 degrees perpendicular to the axis of rotation

Auto Body Contouring

BodyGuard automatic body contouring for SPECT and TB applications uses a conductive method (electrical impedance) to “see” the patient and other conductive material, such as the imaging pallet and wet IV lines. User programmable scan distance.

Patient Table

BrightView XCT comes with a general-purpose imaging table with vertical and translation control. It is permanently mounted at the far end of the table from the gantry. The table may be easily pivoted to either side of the room. The table has an open design for easy patient loading, patient restraining, and positioning. The table supports a 227 kg (500 lbs) patient weight limit.

JETStream Acquisition System

The JETStream is a user and site configurable acquisition system with an easy to use graphical user interface. Patients may be pre-scheduled in the JETStream, linked to the desired acquisition protocol with the click of a single button. Other key features include:

- Smart Step: Provides tremendous workflow efficiency with customizable and automatic acquisition setup
- Up to 16 energy windows: Important for multi-radionuclide imaging, advanced scatter corrections, and molecular imaging agents
- Basic Concurrent Imaging: Ability to save a single acquisition step into up to 3 simultaneous datasets (each with independent matrix, zoom, energy windows, gating parameters, stop criteria, and data type) that provide the benefit of improved throughput, optimized image quality, and additional diagnostic data
- 48.3 cm (19") Flat LCD monitor (wall mounted or cart-based)
- Includes keyboard and trackball, or mouse
- Linux server (x86-64, 3.4 GHz Intel Pentium 4, 1 GB DDR2 memory minimum)
- Windows-based user console client. (X86-64 3.2 GHz Intel Celeron D, 1 GB DDR2 memory minimum)
- Minimum of 160 GB hard drive for server (60 GB for image data, 80 GB for list mode data)
- Minimum of 80 GB hard drive for client
- Recordable DVD drive

DICOM Export and Storage Commit are standard.

Compatibility tested with EBW-Nuclear Medicine Applications Suite.

Includes one (1) camera interface cabling and system installation.

Clinical Education Program for BrightView XCT Camera

NM EBW OffSite Education: Philips will provide one (1) technologist, as selected by customer, with in-depth didactic, tutorial, and hands-on training covering basic applications of workstation functionality. This class is a prerequisite to Handover OnSite Education. In order to provide trainees with the ability to apply their new knowledge most effectively, this class should be

attended no earlier than two weeks prior to system installation. This twenty-eight (28) hour class is located in Cleveland, Ohio, and is scheduled based on equipment configuration, geography, and availability. Due to program updates, the number of class hours are subject to change without notice. Customers will be notified of current, total class hours at the time of registration. CEU credits may be available for each participant that meets the Guidelines provided by Philips during the scheduling process. Travel and lodging are not included, but may be purchased through Philips. **It is highly recommended that 989801292164 (NM Full Travel Package Offsite) is purchased with all Offsite courses.**

Handover OnSite Education: Philips Education Specialists will provide 28 hours of OnSite Education for up to four (4) students, selected by customer, including technologists from night/weekend shifts if necessary. The first 4 hours onsite will be spent configuring new equipment for specific clinical needs, as well as reviewing important safety features and quality procedures. Course content is intended to provide the framework for operational workflow and clinical applications as they pertain to your site specifically. Students should attend all 28 hours, and must include all Offsite education attendees. CEUs are not available in all cases. Please read Guidelines for more information, which will be provided to you during the scheduling process. Note: Site must be patient-ready. Philips personnel are not responsible for actual patient contact or operation of equipment during education sessions except to demonstrate proper equipment operation.

Additional Handover OnSite Education

: Philips Education Specialists will provide twenty-four (24) hours of OnSite Education for up to four (4) students, selected by customer, including technologists from night/weekend shifts if necessary. Course content is intended to provide the framework for operational workflow and clinical applications as they pertain to your site specifically. Students should attend all 24 hours, and must include all OffSite education attendees. CEUs are not available in all cases. Please read Guidelines for more information, which will be provided to you during the scheduling process. Note: Site must be patient-ready. Philips personnel are not responsible for actual patient contact or operation of equipment during education sessions except to demonstrate proper equipment operation.

FollowUp OnSite Education: Philips Education Specialists will provide twenty-four (24) hours of Follow-Up Education for up to four (4) students, selected by customer, including technologists from night/weekend shifts if necessary. This education is recommended to be scheduled 8 to 12 weeks following Additional Handover Education. Course content is intended to provide continuation of previous week's handover, specifically to offer review and practice with workflow and clinical applications pertaining to the BrightView-XCT Camera. Students should attend all 24 hours, and must include all Offsite and handover education attendees. CEUs are not available in all cases. Please read Guidelines for more information, which will be provided to you during the scheduling process. Note: Philips personnel are not responsible for actual patient contact or operation of equipment during education sessions except to demonstrate proper equipment operation.

Recommendations:

To enhance customer satisfaction with the camera and workstation over the first year of use, **an additional FollowUp, 989801292154 (NM Add OnSite Clin Educ 16h)** should also be purchased and scheduled no later than three (3) months after installation. To maximize customer satisfaction with workstation software options, **989801292153 (NM Add OnSite Clin Educ 08h)** should be purchased for options 4DMSPECT, Syntegra, AQMD, AQ Xcelera, and JetPack. To assist customers in maximizing the potential of their workstation, **989801292354 (NM Advanced EBW OffSite 20h)** should also be purchased with corresponding **989801292446 (NM Partial Week Travel Package Offsite).**

Education expires one (1) year from equipment installation date (or purchase date if sold separately). Ref#351352578353-101215

2	BrightView XCT Loc Kit- English	1
	BrightView XCT localization kit includes keyboard, system labels, GUI software, Quick Reference Guide, Release Documents, and electronic copy of User Manual in English	
3	Wall Mounted Acquisition	1
	BrightView XCT wall mounted flat LCD monitor for the acquisition station	
4	BV XCT Premium Comfort Kit	1
	Premium patient comfort kit includes:	
	<ul style="list-style-type: none"> • Memory foam pallet pad • Wide Velcro body wrap • Premium IV pole • SPECT shoulder support • Knee support wedge • Total Body arm boards • Slicker to improve large patient comfort during pallet indexing 	
5	IVY BIOMEDICAL CARDIAC GATE	1
	IVY Biomedical Cardiac Gate	
	ECG gating system for Medical Imaging workstation.	
	System provides 7" CRT display of ECG and trigger indicator with variable gain control that automatically adjusts to individual ECG amplitude.	
	System includes 6-foot 3 ECG cable.	
6	XCT LEHR Collimator Pair	1
	Low-energy (140 keV) high-resolution collimator pair with exchange cart for semi-automatic and simultaneous exchange of both collimators.	
7	XCT MEGP Collimator Pair	1
	Medium energy (300 keV) general-purpose collimator pair with exchange cart for semi-automatic and simultaneous exchange of both collimators.	
8	XCT HEGP Collimator Pair	1
	High-energy (364 keV) general-purpose collimator pair with exchange cart for semi-automatic and simultaneous exchange of both collimators.	
9	XCT HEPH Collimator	1
	High-energy (364 keV) pinhole collimator for BrightView, used for thyroid, pediatrics, and small organ imaging. Includes semi-automatic exchange cart.	
10	4MM Insert Aperture for HEPH	1

4mm collimator aperture designed for the high-energy pinhole (HEPH) Collimator

11	Intrinsic 4-Bar Phantom	1
	Intrinsic and extrinsic 4-Bar quadrant phantom: each model contains four sets of lead bars measuring resolution at 0.4, 0.3, 0.25, and 0.2 cm (1/6, 1/8, 1/10, 1/12 inch)	
12	BrightView XCT User Manual-ENG	1
	Printed English language fully illustrated Instructions for Use manual for BrightView XCT	
13	PASY,GD-153, 100uCi CAPS	1
	The Gd-153 point sources are used in various calibration procedures for Precedence and BrightView XCT	
14	In-room Control with Lead Shield	1
	Option for in-room SPECT and CT acquisition control including wall-mounted or floor-mounted foldable lead shield. 1/8", 8 lbs/square inch, (0.3 mm) lead equivalent. Includes a small shield-mounted CT acquisition console. Can be used in combination with either wall-mount or cart-based JETStream acquisition system. Sensors in folding screen only allow x-ray activity when shield is open and locked. 34" wide x 28" tall (86 x 71 cm) leaded acrylic window. Overall shield height: 6'6" (198 cm); width: 4'8" (143 cm)	
15	SPECT	1
	SPECT	
16	IntelliSpace Portal IX	1
	The IntelliSpace Portal IX Workstation is a single-user advanced multimodality imaging system workspace that can support radiology, cardiology, oncology, neurology, orthopedics, and other specialties' imaging needs, to support your imaging workflow. Clinicians can review the results of multiple imaging modalities – including studies acquired from multiple vendors' imaging equipment – from one workspot.	
	The IntelliSpace Portal IX Workstation offers powerful capabilities, both standard and optional. Standard capabilities include:	
	<ul style="list-style-type: none">• Multivendor compatibility that makes image data and applications available for all CT, MR, Nuclear Medicine images• IntelliSpace Portal IX Workstation is based on the Extended Brilliance Workspace, which has been ranked at or near the top in the "Best in KLAS" awards in Ease-of-Use for four consecutive years; and was also the 2008 and 2010 "Best in KLAS" designee for Software & Professional Services for Advanced Visualization• Guided Task workflow walks users through each processing stage from start to finish• Use of bookmarks, interactive snapshots and other convenient tools to increase efficiencies and minimize training needs• Multimodality Viewer for display of CT, MR and Nuclear Medicine datasets• Smart MR Viewing, smart linking, cine movie loop for MR datasets• Multimodality Fusion: PET-CT, SPECT-CT, NM-CT, CT-CT, CT-MR, and MR-MR• Automatic Registration: PET-CT, SPECT-CT, CT-CT and MR-MR• PET/CT Alpha blending and 2D/3D SUV calculations• Display of multi-frame secondary captures	

- 3D Volume rendering, MIP, VIP, minIP, SurfaceMIP
- Slab Review capabilities including regional investigation and curved MPR
- Volume Explorer: for instant and interactive seed-growing 3D segmentation
- “Glass View” to display bony structures in relation to 3D volumes
- Comprehensive DICOM Printing (“Filming”)
- DICOM 3.0 & IHE compliance

IntelliSpace Portal IX Workstation specifications

- DELL Precision workstation
- 12 GB RAM
- 300 GB hard-disk for storage of up over 300,000 (512 x 512 matrix) images
- 19" LCD color monitor
- CD-DVD Writer: DICOM image storage on CDs or DVD-R

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NM NeuroQ WS

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The NeuroQ application provides a comprehensive quantitative analysis tool for brain PET scans:

- Automated analysis and quantification of relative activity in multiple brain regions
- Compares the regional brain activity in an individual scan to activity values derived from a group of asymptomatic control subjects
- Detects clinically meaningful abnormalities of regional brain metabolism
- Powerful tool to assist clinicians with interpretations of brain PET scans

The option provides one fixed license node locked to a specific IntelliSpace Portal workstation.

Prerequisites: IntelliSpace Portal v5

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NM AutoQUANT WS

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The CSMC Cardiac Suite - Nuclear Medicine Software is a comprehensive application suite for nuclear cardiology. NM AutoQUANT WS includes SPECT AutoQUANT and QPET. SPECT AutoQUANT is an automated approach to the analysis, quantification and review of perfusion and function from myocardial perfusion SPECT and Gated SPECT images. It includes:

QPS: Quantitative Perfusion SPECT

- QGS: Quantitative Gated SPECT
- QBS: Quantitative Gated Blood Pool SPECT
- Normals Databases (TI-TI, Dual Isotope, MIBI-MIBI, VantagePro, Astonish, User- Definable) Astonish Stress/Rest Sestamibi normal limits

PET Review (QPET) - allows user to compare perfusion and viability data for a quantitative assessment of hibernating myocardium.

The feature provides one fixed license node locked to a specific IntelliSpace Portal.

Prerequisites: IntelliSpace Portal v5

Note: This option is not commercially available in the following countries: Croatia, Estonia, Greece, Kazakhstan, Latvia, Lithuania, Romania, Slovakia, Slovenia and Ukraine.

NM Review application that provides a comprehensive review and analysis environment for Planar, SPECT, SPECT/CT, and PET/CT studies

- Image display modes for PET, PET/CT, PET/MR, CT, MR, Planar, SPECT and SPECT/CT data in all orthogonal planes and registered image displays
- Viewer for oblique slices (Slab View) and ability to change slice thickness on the fly
- Fused 3D volume rendering
- Advanced visualization tools supporting 4D TOF data
- Automated and Interactive multimodality 3D co-registration
- Quantitative 2D and 3D measurement tools (SUV)
- 3D ROI generation for tumor segmentation
- Layout editor for user customizable review layouts
- Image and curve manipulation tools
- Saving ROIs as DICOM RT for export to radiation treatment planning systems

NM Review application provides multimodality co-registration tools for automated 3D registration of multimodality studies (PET, SPECT, CT and MR). The following automatic co-registration methods are supported: Mutual information, cross correlation, and local correlation. It also supports an interactive registration method based on fiducial points selected by the user

Pre-requisite: IntelliSpace Portal IX Workstation

Provides a comprehensive analysis, and processing environment for Planar and SPECT studies on the IntelliSpace Portal IX workstation.

NM Processing App Suite includes Renal, Lung, Bone /Whole Body, Cardiac (First Pass, Shunt and MUGA), Gastric, Liver, Gallbladder, Esophageal, and Thyroid/Parathyroid, applications. These applications are fully integrated with Viewing, Image and Curve Manipulation tools. The users can invoke these tools "when needed where needed". All applications support "state-of-the-art" protocol and preference management that allows the users to configure their workflow and usability "on the fly".

NM Processing App Suite includes also JETPack, a complementary suite of organ-specific applications for general nuclear medicine developed within IDL(TM) programming environment.

AutoSPECT Pro provides for SPECT and SPECT/CT reconstruction workflows with a goal of reducing the number of user interactions through protocols. It integrates into one user interface, the following:

- Fast and fully automated reconstruction and reorientation software with motion correction
- SPECT/CT registration and fusion display with alpha-blending and triangulation to facilitate CT AC
- Image review with fusion display

AutoSPECT supports CT-based attenuation and scatter correction for the following radionuclides: Tc-99m, Tl-201, In-111, Ga-67, I-123, Lu-177 and I-131.

The QA Suite provides a comprehensive set of tools to perform daily and periodic QA.

Notes:

- 1) One JETPack license is included with the NM Processing App Suite option on IntelliSpace IX Workstation.
- 2) For cardiac quantification/review, optional AutoQUANT, ECTb or Corridor4DM software is recommended

Prerequisite: IntelliSpace Portal IX workstation and NM Review IX

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NM Astonish Recon Suite WS 1

Astonish is a family of advanced reconstruction algorithms to improve image quality in SPECT by modeling the characteristics of the imaging system and removing the resolution losses due to distance-dependent blurring.

- SPECT Astonish includes 3-D OSEM reconstruction and resolution recovery with usercontrolled noise dampening SPECT reconstruction is provided for SPECT, gated SPECT and CT based attenuation correction protocols.
- SPECT Astonish supports CT-based attenuation and scatter correction for the following radionuclides: Tc-99m, Tl-201, In-111, Ga-67, I-123, Lu-177 and I-131
- Astonish Provides Enhanced image contrast and enhanced signal to noise ratio with sub-5mm resolution for SPECT reconstructed data.

Note: NM Astonish Recon Suite is compatible with the following Philips cameras only: CardioMD, Forte, BrightView, BrightView X, BrightView XCT, and Precedence.

Prerequisites: IntelliSpace Portal v5, NM Processing App Suite, or SPECT Review/Processing LX.

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ICAP Portal Entitlemnt 1

Initial Handover Education: The Philips Clinical Education Specialist will provide twenty-four hours of initial handover education to the Principal User over a scheduled period of time. Philips will provide a Clinical Education Project Manager who will provide a customized training plan of up to 48 additional hours based on your implementation and workflow. A Principal User for each modality who possesses knowledge of the clinical workflow will be designated by the facility. The education will cover the fundamentals of image manipulation and processing associated with the specific software (application packages) purchased. The Principal User(s) is responsible for reading, and adhering to, the Philips clinical education guidelines that are provided during the scheduling/enrollment process and completing the prerequisite on line training modules. ASRT CEU credits may be available for each participant who meets Philips Guidelines.

Education expires one (1) year from equipment installation date (or purchase date if sold separately). Ref#587588589-110412

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Food Transpt Lodging for Cleveland Biomed Training 9

Includes one (1) day of modest lodging, ground transportation, and meal expenses in Cleveland, Ohio for one (1) attendee. All other expenses will be the responsibility of the attendee. Details are provided during the scheduling process. Note: Cancellation/rescheduling policy strictly enforced. Although this part is only for one day, it is sold in multiple quantities to account for entire length of course. Expires one (1) year from the earlier of equipment delivery date or purchase date.

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NM3290 Brightview Sys CTC 9

1

The Brightview system is stand-alone SPECT scanner for creating medical diagnostic images. This course combines a series of lectures and skill sessions that will prepare the field service engineer in the disciplines of system operation, safety, calibration, planned maintenance, diagnostics, troubleshooting, and repair. Upon completion of this course the student will be able to do the following things: Given the Brightview system installation manual and all supporting documentation, evaluate an installation site to determine if the site meets all of the requirements to allow a system installation process to begin; Given the system schematics, all supporting documentation, and access to an installed Brightview system, evaluate the system to determine that all electrical and signal cables are properly and completely connected for normal system operation; Given an operational Brightview camera and the Brightview Operator's manual, perform standard scan sequences to obtain diagnostic images for use in image quality evaluation; Given a list of normal system service procedures, identify the various electrical and mechanical safety hazards associated with each procedure; Given a Brightview system and the system Calibration manual, perform all service-level calibration procedures to bring the system within specification for performing normal diagnostic imaging scans; Given a Brightview system and the Planned Maintenance manual, perform all service-level planned maintenance procedures; Given a Brightview camera, the system Troubleshooting manual, the system Diagnostic manual, and all supporting documentation, diagnose, troubleshoot and repair faults in the system using the proper tools and test equipment, and following the proper procedures; Given a Brightview camera and the system Repair manual, successfully remove and replace various field-replaceable-units according to the documented procedures; Given an operational Brightview camera and another diagnostic imaging system or workstation, successfully establish a network connection for transferring data and DICOM image files.

The following key topics will be covered in this course:

- System Installation
- System operation and basic operating procedures
- General safety precautions
- System Calibration
- System Planned Maintenance
- System Troubleshooting and Repair
- System Networking

Prerequisites: Prior attendance to: NM9111 Nuclear Fundamentals. Accreditation: None. Location: CTC - Cleveland, OH, USA. Class Length: 9 days (excludes Saturdays, Sundays, and Philips holidays). Materials: System schematics, Training manuals, Course disk that contains lecture presentations and skill session procedures, Network access to associated electronic service documentation.

* PHILIPS PROPRIETARY MATERIALS SUCH AS DIAGNOSTIC SOFTWARE AND SERVICE DOCUMENTATION ARE NOT INCLUDED IN THE TRAINING AND WILL NOT BE AVAILABLE FOR USE OUTSIDE OF THE TRAINING ENVIRONMENT. THE TRAINEE MUST RETURN ALL PROPRIETARY MATERIALS RECEIVED DURING THE TRAINING AT THE END OF THE TRAINING. CUSTOMER ACKNOWLEDGES AND AGREES THAT NEITHER CUSTOMER NOR TRAINEE WILL RECEIVE A LICENSE TO SUCH PROPRIETARY MATERIALS AND THAT THE TRAINEE MAY NOT BE ABLE TO FULLY UTILIZE THE TRAINING WITHOUT THE USE OF

SUCH PROPRIETARY MATERIALS. (CERTAIN LICENSES MAY BE OBTAINED THROUGH PURCHASE OF AN ALLIANCE CO-OP AGREEMENT.) Course dates and location to be finalized by Philips. Philips shall attempt to accommodate Customer requested dates and training location. The price quoted includes course tuition. Travel and living expenses are not included, but may be purchased separately through Philips.

IMPORTANT Notes Regarding Admission to Philips Customer Engineer Training Courses:

1. Trainee must meet all prerequisites
2. Course expires one (1) year from equipment installation date (or purchase date if sold separately)
3. Customer must sign Philips Nondisclosure statement
4. Trainee must sign Philips Nondisclosure statement
5. Customer must sign Philips terms and conditions of training

25 **Full Travel Package for OffSite Education** **1**

Includes one (1) participant's airfare from North American customer location to Cleveland, Ohio, with modest lodging, ground transportation, and meal expenses. Breakfast/dinner provided by the hotel, and lunch/breaks are catered by Philips. All other expenses will be the responsibility of the attendee. Details are provided during the scheduling process. Note: Cancellation/rescheduling policy strictly enforced.

Expires one (1) year from the earlier of equipment delivery date or purchase date.

26 **24 Hours of Additional OnSite Clinical Education** **2**

Clinical Education Specialists will provide twenty-four (24) hours of tailored Nuclear Medicine OnSite Education for up to four (4) students, selected by customer, including technologists from night/weekend shifts if necessary. CEUs are not available in all cases. Please read Guidelines for more information, which will be provided to you during the scheduling process. Note: Philips personnel are not responsible for actual patient contact or operation of equipment during education sessions except to demonstrate proper equipment operation. Education expires one (1) year from the earlier of equipment delivery date or purchase date.