

REQUESTING SERVICE: NUCLEAR MEDICINE-BK
SHIP TO: BROOKLYN WAREHOUSE
V.A. Medical Center
DEPT OF VETERANS AFFAIRS
800 POLY PLACE BROOKLYN, NY 11209
PO#: 630-B70006

Item No.	Qty	Description
	1	Optima NMCT 640 Americas
1	1	<p>O640 NM/CT - 3/8" EXCEL</p> <p>Optima NM/CT 640 EXCEL is a general-purpose high performance hybrid SPECT imaging system. It combines integrated nuclear imaging sub-system featuring a free-geometry slim gantry, advanced all-digital Elite NXT detectors with 3/8" detectors, cantilevered patient table and powerful acquisition station, with a dedicated low-dose high resolution CT imaging sub-system designed for attenuation correction of SPECT and anatomic localization of radiotracer uptake in the body.</p> <p>Including:</p> <p>2 x Slim-All-Digital NM Elite™ NXT detectors with the following key features :</p> <ul style="list-style-type: none"> o 3/8" crystal thickness o 59 high quantum efficiency PMT's, each PMT coupled with one ADC o Extra large, rectangular UFOV with uncut corners: 540 mm x 400 mm (21.25 Inches x 15.75 Inches) o Shielded for 40-620 keV energy range o Contoured detector housing for optimal cardiac and brain SPECT imaging <p>· 1 x Free-geometry 70 cm bore gantry, featuring real-time automatic body contoured scanning in both 180D and 90D detectors orientations for high efficiency SPECT and WB scans. The gantry features also upright and horizontal detector orientations for maximum clinical versatility and ultra-fast, simultaneous multi-axes motion which provides fast setup with the following key features :</p> <ul style="list-style-type: none"> o Externally mounted detectors, with flexible positioning for all Major clinical studies, including stretcher, standing and seated Patients o Automatic, application-specific home positioning for table and detectors o Real-time status display o Intuitive, icon-based 20 function handset accessible from either side of the gantry o Real-time, infrared automatic body contouring system too safely minimize detector-to-patient distance in whole body, 90 degree SPECT and 180 degree SPECT o Fast, semi-automatic dual collimator exchange <p>· 1 x Dual-axis premium ergonomic patient imaging table with low-attenuation carbon fiber table-top with the following key features :</p> <ul style="list-style-type: none"> o Fast, manually controlled emergency patient egress

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		<ul style="list-style-type: none"> o Telescopic transporter ensuring accurate CT-SPECT registration o Easy patient handling, comfortable tabletop o Obstruction-free floor installation enables table pivot to 45 or 60 degree angles o Automatic home positioning for common imaging procedures o Optional integrated EKG
		<ul style="list-style-type: none"> · 1 x user-friendly Hybrid SPECT/CT acquisition station.
		<p>The integrated SPECT-CT acquisition console employs a Graphic User Interface for exam scheduling, scan acquisition, CT reconstruction and scan QC as well as utilities for protocol editing and routine quality control and analysis.</p> <p>In addition, the Bright Speed Elite CT desktop environment is available for CT imaging including: protocol definition, networking and archiving manual film control, as well as CT image processing such as multi-planar reformatting (MPR), multi – projection volume rendering (MPVR) and MR image display. Including the following key features:</p>
		<p>(a) H/W</p> <ul style="list-style-type: none"> o XW4600 HP workstation o Intel® Core 2 Quad Q9300 o Graphic card – NVIDIA Quadro NVS 290 o RAM graphic card - 256MB o 2 GB RAM o Hard drive size 2x80GB o Multi-Tasking, Multi-Windows Environment Connectivity via DICOM 3.0 o Choice of various LCD monitors to be ordered separately o Broadband Connectivity to broadband/highspeed VPN (Virtual Private Network) connection, single point of access using 3DES encryption technology
		<p>(b) S/W</p> <ul style="list-style-type: none"> o Multi-scan protocols define the normal sequence of scans for the selected study protocol and additional scans can be added. o Factory defined protocols support standard NM and SPECT-CT clinical applications. o Preview of scan conditions including display of: <ul style="list-style-type: none"> § Spectrum for each detector is also shown and can be used to adjust the energy window § Persistence display during patient positioning (visible on the console as well as the gantry-side display).

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		<ul style="list-style-type: none"> § ECG trigger signal display for quality control purposes o Synchronizing patient ECG trigger data with multi-gated nuclear image data framing o Storing the acquired data in the patient database o Online live display of: <ul style="list-style-type: none"> § Acquired data and imaging parameters § ECG trigger signal § Gantry status including gantry position & detector orientation § Progress and elapsed time § X-Ray exposure indicator o Data Viewer <ul style="list-style-type: none"> § Threshold and windowing control in multiple window settings § Cinematic display and scroll of dynamic and all multi-frame datasets § Selection of display color maps
		<ul style="list-style-type: none"> · 1 integrated low-dose CT with 4 slice functionality , inherently SPECT-registered CT Transmission attenuation correction and localization with the following key features : o Tube: GE MX135CT o Tube anode Heat Storage capacity : 2.0 MHU o Generator: GE Gedi 42 AC, 4.2 kW o Clinical operation tube current : 10-30 mA. o Scan Times: 1 or 2 sec per rotation o Pitch factors: 0.75:1, 1.25:1,1.75:1 o Detector type: Ceramic - gadolinium oxysulfide (Gd2O2S) o Number of slices: 4 o Slice thickness : 2.5 mm
2	1	<p>NM 600 LEHR Collimators with Cart</p> <p>NM 600 Low Energy High Resolution Collimators</p> <p>Includes:</p> <ul style="list-style-type: none"> o Two LEHR Collimators o Collimators Mounted on a Dedicated Collimator Cart
3	1	<p>NM 600 MEGP Collimators with Cart</p> <p>NM 600 Medium Energy General Purpose Collimators</p>

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		Includes: o Two MEGP Collimators o Collimators Mounted on a Dedicated Collimator Cart
4	1	An L-shaped metal plate attachable to the wall with an opening for a syringe in order to acquire point source-based flood acquisition at a few meters distance from vertically positioned detector for QA purposes.
5	1	Quality Control Flood Source Holder Kit A large plate mounted at a small distance above the NM detector on which the flood source is positioned in order to perform acquisition of flood studies for QA/QC purposes.
6	1	Center of rotation source holder for Quality assurance , easily attached to Infinia or Ventri table.
7	1	bar phantom for spatial resolution and linearity tests of gamma cameras. The phantom consists of four quadrants with different bar specification: For each of the quadrant, bar spacing is 2.5mm, 3.2mm, 3.5mm & 4.0mm.
8	1	A set of cables designed to support the connection of the system to a 480V UPS for O640 power regulation purposes.
9	1	Long table pad and straps
10	1	D670 AXIAL HEAD HOLDER The Axial Head holder is ergonomically designed to position patient's head outside of the patient tabletop pallet , enabling brain SPECT orbiting as close as possible to the patient's skull with maximal coverage of the target tissue
11	1	NM 600 Touch Ruler An interactive touch-sensitive device mounted at one side of the patient table, used to define nuclear imaging scan range (start and stop points), saving the need to enter these values manually from the operator console
12	1	NM 600 Series Patient Pallet Extender The patient pallet extender for NM 600 Series

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		<p>products can be used to extend the table top for multi-FOV SPECT, SPECT/CT and whole body studies.</p> <p>Length is 600mm; Width is 391mm; 300mm extension</p> <p>Note - The use of the extender requires more space between the camera and the back wall of the scan room. Consult with GE Healthcare project manager for minimum room size requirements.</p>
13	1	<p>NM600 DETECTORS DISMOUNT</p> <p>An option enabling transportation and mobilization of the NM600 series gantry separated from the detectors for easier load in elevators or easier access through restricted paths such as narrow hallways or doorways</p>
14	1	<p>EfB SPECT CAMERA LICENSE</p> <p>Enables Camera capability to provide data for Evolution for Bone (EfB). EfB provides Evolution Resolution Recovery reconstruction on SPECT bone scans. The EfB application may be utilized to provide equivalent image quality on half-dose or half-time bone scans.</p>
15	1	<p>EfB PLANAR CAMERA LICENSE</p> <p>Enables Camera capability to provide data for Evolution for Planar Bone (EfPB). EfPB provides adaptive Structure Matching non-Local filtering on planar bone scans. The EfPB application may be utilized to provide equivalent image quality on half-dose or half-time bone scans.</p>
16	1	<p>EfC SPECT CAMERA LICENSE</p> <p>Enables Camera capability to provide data for Evolution for Cardiac (EfC). EfC provides Evolution Resolution Recovery reconstruction on SPECT Myocardial Perfusion Imaging (MPI) scans. The EfC application may be utilized to provide equivalent image quality on half-dose or half-time MPI scans.</p>

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17	1	<p>EVOLUTION TOOLKIT CAMERA LICENSE</p> <p>Enables Camera capability to provide data for Evolution Toolkit. The Evolution Toolkit provides Evolution Resolution Recovery reconstruction on SPECT scans resulting in improved resolution and contrast. The Evolution Toolkit application may be utilized with included statistical re-sampling tools to determine optimal dose or time reduction on SPECT studies. Evolution Toolkit supports Tl201, Tc99m, I-123, Ga67, In111, & I-131 isotopes.</p>
18	2	<p>4 Days NM TiP Onsite Training</p> <p>Four Days NM Onsite Training provided from 8AM to 5PM, Monday through Friday. Includes T&L expenses. Days provided consecutively.</p> <p>This training program must be scheduled and completed within 12 months after the date of product delivery.</p>
19	1	<p>6 KVA UPS for Nuclear Medicine</p> <p>FEATURES/BENEFITS</p> <ul style="list-style-type: none"> • The use of uninterruptible power enables the system imaging to be completed after the loss of supply power, and allows for saving of valuable data and orderly system shutdown • The Online Double Conversion UPS eliminates all power anomalies such as noise, transients, overvoltage and undervoltage, which could damage the imaging system's sensitive computer components • Improves imaging system reliability, reduces service costs, and increases system uptime • Cell Saver Technology provides conditioned power even during severe brownout conditions without depleting battery resources • System monitoring via: LanSafe III / FailSafe III software, (2) RS-232 Ports • PowerPass Module further enhances reliability through Maintenance Bypass Switch which performs maintenance or upgrade your UPS without powering down your critical systems <p>SPECIFICATIONS</p>

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		<ul style="list-style-type: none"> • Dimensions (H x W x D): 33.6" x 9.9" x 15.8" • Weight: 218 lbs. • Input Voltage: 200 - 240 VAC • Output Voltage: 120/240, 120/208 VAC • Frequency: 45-65 Hz <p>COMPATIBILITY</p> <ul style="list-style-type: none"> • Maxxus NM <p>NOTES:</p> <ul style="list-style-type: none"> • Customer is responsible for rigging and arranging for installation with a certified electrician • ITEM IS NON-RETURNABLE AND NON-REFUNDABLE
20	1	Main disconnect panel for GE 640 NM-CT system
21	1	<p>Butterfly (R-Made) Armrest</p> <p>Designed to support a patient's arms during cardiac SPECT and other imaging procedures. Armrest offers new solution to motion artifact caused by the discomfort and pain of prolonged upper extremity hyperextension and abduction. Fast and easy to use, can be mounted and removed in one piece. and is tightly secured by adjustable mounting straps. Polyethylene construction is durable, nonbreakable, and easily learned. Measures 18 in. L x 14 in. W x 8 in. H; weighs 2.5 lb. Recommended for use with GE Optima Systems. Warranty Code H</p>
22	1	<p>Patient Leg Rest for Nuclear, PET/CT, MRI</p> <p>Contoured Leg Rest prevents low back stress and pain that occurs during supine imaging and treatment, measures 7 in. H x 17 in. D x 13 in. W. Designed to accommodate virtually all patients. Compatible with most Nuclear Imaging systems and can also be used in MRI, CT and PET applications. Constructed with a comfortable, full support polyfoam with a seamless coated finish. Warranty Code: H</p>
23	1	<p>The Model 7600 is Ivy Biomedical's fifth generation of cardiac trigger monitors intended primarily for use on patients in applications requiring precision R-wave synchronization. Incorporating a simple, easy to use touchscreen interface, the 7600 displays two simultaneous ECG vectors along with the patient's heart rate.</p>

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24	1	<p data-bbox="526 367 1133 699">The Trigger ECG vector (top waveform) can be selected from Leads I, II III or Auto Lead Select. The Second ECG vector (bottom waveform) can be selected from Leads I, II or III. If required, High and Low heart rate alarm limits can be adjusted to bracket the patient's heart rate so that a violation of these limits produces an audible and visual indication of the alarm. Includes roll stand</p> <p data-bbox="526 737 773 762">Xeleris 4 Workstation</p> <p data-bbox="526 787 1159 1732">Xeleris* 4.0 SPECT/CT functional imaging workstation is a Nuclear Medicine, PET, NM/CT, and PET/CT processing, analysis, and review system. Designed with productivity in mind, it can accelerate workflow and provides a powerful clinical diagnostic tool to the medical imaging community. Combining streamlined workflow with a comprehensive clinical library and extensive networking capabilities on a functional imaging workstation, Xeleris 4.0 is at the nucleus of productivity in the clinical imaging department. Utilizing the GE Healthcare-wide graphical user interface, Xeleris 4.0 is the processing and review platform of the Discovery*, Optima* and Brivo* NM and NM/CT series, Infinia* Hawkeye* 4, Ventri, Discovery PET/CT 600 series, and all other molecular imaging cameras in GE Healthcare's current offering. Xeleris 4.0 provides the automated processing and connectivity necessary in today's demanding environment.</p> <p data-bbox="526 1749 1438 1816">Xeleris 4.0 SPECT/CT includes Motion detection & correction software, is Evolution*-ready with the capability to process studies acquired with Evolution GE</p>

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		cameras, and Volumetrix IR & 3D for SPECT/CT and fused image review.
25	1	<p>Cedars Sinai Cardiac Packages (option)</p> <p>A comprehensive set of nuclear cardiology protocols for advanced cardiac analysis, including:</p> <ul style="list-style-type: none"> o Cedars Sinai Quantitative Perfusion SPECT (option) o Automatic 3-Dimensional software approach to quantitative Perfusion SPECT. o Cedars Sinai Quantitative Gated SPECT (option) o An application calculating the ejection fraction of the left ventricle and a 3D surface display is generated. o Cedars Sinai Companion (option) o Optional module for QGS and QPS applications features <ul style="list-style-type: none"> - 17 segment scores and templates in QPS - Diastolic filling parameters in QGS - Eccentricity ratio in QGS
26	1	<p>Cedars Sinai Blood Pool Gated SPECT (BPGS) is an Application for the Quantitative Analysis of Gated Cardiac Blood Pool Data sets. It Automatically Computes Volumes and Ejection Fractions for Both Ventricles and Displays Motion Polar Maps as Well as Static Parametric Surfaces and Gated Endocardial Surfaces. The Protocol Consists of Several Modules Including:</p> <ul style="list-style-type: none"> o The Slice Pages Display Two Vertical Long Axis Images Allowing Side-by-Side Viewing of Both the Left and Right Ventricles. <p>The Information Display Box Contains Information Pertaining to Both Ventricles Including Volume at Current Interval, EDV, and ESV, EF, and Stroke Volume.</p> <ul style="list-style-type: none"> o The Splash Screen Displays Four Rows of Images, with Contours that can be Separately Toggled On and Off for the LV

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		<p>and RV.</p> <ul style="list-style-type: none"> o Surfaces can be Displayed in Various Ways, Including Wireframed Shaded Surfaces, Grid (Wireframe Overlaid on a Shaded Surface) With or Without Superimposed ED. All Surfaces can be Rotated and Gated in Real Time. o The Splash3D Display Allows Viewing of Three Synchronized Pairs of 3D Views, which can be Gated and Rotated Interactively. o The Results Display Summarizes the Results Using Motion Polar Maps, Parametric Motion Surfaces and Regular Endocardial Surfaces, in Addition to the Image Display to the Left of the Screen. <p>Requirement for H3901PB - Cedars plug-in</p>
	1	Xeleris 4 Workstation
27	1	<p>Xeleris* 4.0 SPECT functional imaging workstation is a Nuclear Medicine, PET, NM/CT, and PET/CT processing, analysis, and review system. Designed with productivity in mind, it can accelerate workflow and provides a powerful clinical diagnostic tool to the medical imaging community.</p> <p>Combining streamlined workflow with a comprehensive clinical library and extensive networking capabilities on a functional imaging workstation, Xeleris 4.0 is at the nucleus of productivity in the clinical imaging department. Utilizing the GE Healthcare-wide graphical user interface, Xeleris 4.0 is the processing and review platform of the Discovery* and Brivo* NM and series, Infinia*, Ventri, and all other SPECT cameras in GE Healthcare's current offering. Xeleris 4.0 provides the automated processing and connectivity necessary in today's demanding environment.</p>

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		Xeleris 4.0 SPECT includes Motion detection & correction software.
28	1	<p>Xeleris 4 Evolution Bundle Software License for a single Xeleris 4 Workstation and all its XFL clients. This item contains the following Evolution licenses.</p> <ul style="list-style-type: none"> - Xeleris 4 Evolution for Bone (EfB): Provides Evolution Resolution Recovery reconstruction on SPECT bone scans. The EfB application may be utilized to provide equivalent image quality on half-dose or half-time bone scans. This license processes Infinia 2, Infinia Hawkeye 4, and Discovery 600 family of camera data. EFB SPECT CAMERA LICENSE (H3602NH) required. - Xeleris 4 Evolution for Planar bone (EfPB): Enables reduced time or dose on whole body or spot bone studies. EfPB provides adaptive Structure Matching non-Local filtering on planar bone scans. The EfPB application may be utilized to provide equivalent image quality on half-dose or half-time bone scans. This license processes Infinia 2, Infinia Hawkeye 4, and Discovery 600 family of camera data. Evolution Planar Bone Camera license (H3901NF) required. - Xeleris 4 Evolution for Cardiac (EfC): Provides Evolution Resolution Recovery Reconstruction on SPECT Myocardial Perfusion Imaging (MPI) scans. The EfC application may be utilized to provide equivalent image quality on half-dose or half-time MPI tc99m scans. This license processes Infinia 2, Infinia Hawkeye 4, Ventri, and Discovery 600 family of camera data. EFC SPECT CAMERA LICENSE (H3602NJ) required. - Xeleris 4 Cardiac Morphing (CM): Provides Elastic registration of gated cardiac cycle to the end diastolic bin. The removal of blurring in the cardiac cycle provides enhanced clarity of myocardial wall visualization. Processes data from Infinia 2, Infinia Hawkeye 4, Ventri and Discovery 600 family of camera data. CARDIAC MORPHING CAMERA LICENSE (H3602PT) required. - Xeleris 4 Evolution Toolkit - A package enabling improved resolution and reduced noise for SPECT studies of 99mTc, 123I, 111In, 131I, Ga67 by the use of the Evolution reconstruction technique with resolution-recovery. This license processes Infinia 2, Infinia Hawkeye 4, and Discovery 600 family of camera data. Evolution Toolkit Camera License (H3602Nk) required.
29	1	<p>Cedars Sinai Cardiac Packages (option)</p> <p>A comprehensive set of nuclear cardiology protocols for advanced cardiac analysis, including:</p> <ul style="list-style-type: none"> o Cedars Sinai Quantitative Perfusion SPECT (option) o Automatic 3-Dimensional software approach to

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		<p>quantitative Perfusion SPECT.</p> <ul style="list-style-type: none"> o Cedars Sinai Quantitative Gated SPECT (option) o An application calculating the ejection fraction of the left ventricle and a 3D surface display is generated. o Cedars Sinai Companion (option) o Optional module for QGS and QPS applications features <ul style="list-style-type: none"> - 17 segment scores and templates in QPS - Diastolic filling parameters in QGS - Eccentricity ratio in QGS
30	1	<p>Cedars Sinai Blood Pool Gated SPECT (BPGS) is an Application for the Quantitative Analysis of Gated Cardiac Blood Pool Data sets. It Automatically Computes Volumes and Ejection Fractions for Both Ventricles and Displays Motion Polar Maps as Well as Static Parametric Surfaces and Gated Endocardial Surfaces. The Protocol Consists of Several Modules Including:</p> <ul style="list-style-type: none"> o The Slice Pages Display Two Vertical Long Axis Images Allowing Side-by-Side Viewing of Both the Left and Right Ventricles. The Information Display Box Contains Information Pertaining to Both Ventricles Including Volume at Current Interval, EDV, and ESV, EF, and Stroke Volume. o The Splash Screen Displays Four Rows of Images, with Contours that can be Separately Toggled On and Off for the LV and RV. o Surfaces can be Displayed in Various Ways, Including Wireframed Shaded Surfaces, Grid (Wireframe Overlaid on a Shaded Surface) With or Without Superimposed ED. All Surfaces can be Rotated and Gated in Real Time. o The Splash3D Display Allows Viewing of Three Synchronized Pairs of 3D Views, which can be Gated and Rotated Interactively. o The Results Display Summarizes the Results Using Motion Polar Maps, Parametric Motion Surfaces and Regular Endocardial

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		Surfaces, in Addition to the Image Display to the Left of the Screen. Requirement for H3901PB - Cedars plug-in
31	1	Xeleris 4 Dual LCD Monitor & License for a single Xeleris 4 Workstation. This item contains: o One 22" WideScreen format monitor for Xeleris 4 MI workstation. Provides 40% greater viewing area. o One Dual monitor license
		Dual Monitor license enables the option on Xeleris 4 Workstation and all its XFL clients
	1	NonProducts
32	1	MedFACS Turnkey - Proposal #20160214
		Infinia HE4 Trade-in

Options

Item No.	Qty	Description
33	1	Q.Metrix enables employment of SPECT and CT segmentation tools for quantifying radiopharmaceutical uptake using patient demographics information.
34	1	A package enabling quantitative SPECT results in the form of MBq/ml and SPECT SUV (Standard Uptake Value). The Q.Metrix application utilizes advanced Evolution reconstruction with compensation for

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35 1	<p>Attenuation, Resolution and Scatter. Patient demographics and dose information are incorporated to provide accurate quantitative results. Quantitative SPECT results are further enhanced with advance segmentation tools providing 2D and 3D organ and lesion characterization.</p> <p>Q.Metrix supports data from Discovery NM/CT 670 and Optima NM/CT 640 using the following isotopes: 99mTc, 201Tl, 111In, 123I, 131I, and 67Ga and collimators: LEHR, MEGP, HEGP, ELEGP</p> <p>Q.Brain allows the user to visualize and quantify relative changes in the brain's metabolic function or blood flow activity</p> <p>between a subject's images and controls, when used with radiopharmaceuticals approved by the regulatory authority</p> <p>in the country of use, which may be resulting from brain function alterations in:</p> <ul style="list-style-type: none"> • Epileptic seizures • Dementia, such as Alzheimer's disease, Lewy body dementia, Parkinson's disease with dementia, vascular dementia, and frontotemporal dementia. • Inflammation • Brain death • Cerebrovascular disease such as acute stroke, chronic and acute ischemia • Traumatic Brain Injury (TBI) <p>When integrated with the patient's clinical and diagnostic information,</p> <p>Q.Brain application may aid the physician in the interpretation of cognitive complaints, neuro-degenerative disease processes and brain injuries.</p>	

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36	1	Q.Brain Normals Data base for HMPAO Ceretec
37	1	<ul style="list-style-type: none"> • Diagnosis of Pulmonary Embolism (PE), Chronic Obstructive Pulmonary Disease (COPD), Emphysema and other lung deficiencies. • Assess the fraction of total lung function provided by a lobe or whole lung for Lung cancer resection requiring removal of an entire lobe, bilobectomy or pneumonectomy.