

North Carolina Department of Health and Human Services Division of Health Service Regulation

Pat McCrory Governor Aldona Z. Wos, M.D. Ambassador (Ret.) Secretary DHHS

> Drexdal Pratt Division Director

February 22, 2013

Mr. Brad H. Weisner, COO Nash Health Care Systems 2460 Curtis Ellis Dr. Rocky Mount, NC 27804

Exempt from Review - Replacement Equipment

Facility:

Nash Day Hospital

Project Description:

Replace existing fixed MRI scanner

County:

Nash

FID #:

933370

Dear Weisner:

In response to your letter of January 18, 2013, the above referenced proposal is exempt from certificate of need review in accordance with N.C.G.S 131E-184(a)(7). Therefore, you may proceed to acquire, without a certificate of need, the GE Healthcare Optima MR450w 1.5 Tesla to replace the existing GE Healthcare 12XHD/S4 Tesla 1.5, serial number 2600MR9. This determination is based on your representations that the existing unit will be removed from North Carolina and will not be used again in the State without first obtaining a certificate of need. Further please be advised that as soon as the replacement equipment is acquired, you must provide the CON Section and the Medical Facilities Planning Section with the serial number of the new equipment to update the inventory, if not already provided.

Moreover, you need to contact the Construction and the Acute and Home Care Licensure and Certification Section, Division of Health Service Regulation to determine if they have any requirements for development of the proposed project.

It should be noted that this Agency's position is based solely on the facts represented by you and that any change in facts as represented would require further consideration by this Agency and a separate determination. If you have any questions concerning this matter, please feel free to contact this office.

Sincerely,

Bernetta Thorne-Williams

Project Analyst

Craig R. Smit, Chief Certificate of Need Section

cc:

Construction Section, DHSR

Acute and Home Care Licensure and Certification Section, DHSR

Medical Facilities Planning Section, DHSR

Certificate of Need Section

www.ncdhhs.gov Telephone 919-855-3873 • Fax 919-733-8139 Location: Edgerton Building • 809 Ruggles Drive • Raleigh, NC 27603 Mailing Address: 2704 Mail Service Center • Raleigh, NC 27699-2704

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Nash Health Care Systems

2460 Curtis Ellis Dr., Rocky Mount, NC 27804 • 252 443-8000 • Fax 252 443-8877



January 18, 2013

Mr. Craig Smith, Chief Certificate of Need Section **Division of Health Services Regulations** NC Department of Health and Human Services 2704 Mail Service Center Raleigh, NC 27699-2704

RE: Nash Hospital Exemption Letter: Replacement of MRI equipment - FID# 933368

Nash County

Dear Mr. Smith:

Nash Hospitals, Inc is providing written notice of an "exemption from review" to replace existing MRI equipment at Nash Day Hospital. This MRI has been in operation since early 1989. The computers and software have been updated but the main components, like the magnet, are still original. The current unit can no longer be upgraded so it needs to be replaced due to technology advances.

It is believed that this replacement does not qualify as a new institutional health services and qualifies as comparable replacement equipment per 131E-176 (22a) and 10A NCAC 14C.0303 and meets the criteria established in NCGS 131E-184(a)(7). The capital expenditure for this replacement is \$1,852,634 which does not exceed \$2,000,000. Below and attached is the information needed to confirm that the equipment being acquired is consistent with the requirements of replacement equipment.

1. Comparison of existing and replacement equipment

a. See Attachment 1



due to the age of the magnet. Both the current and replacement MRI will be 1.5 Tesla units and will be used to perform the same range of diagnostic studies. *Attachment 7* is some marketing information from GE Healthcare on the OptimaMR450w 1.5T MRI.

Since the beginning of 2013 the following types of MRI procedures have been performed. The replacement equipment will also be able to perform the same exams with improved image quality due to newer technology.

MRI Brain w/ + w/o Contrast

MRI Brain w/o Contrast

MRI Gallbladder w/o Contrast

MRI IAC w/ + w/o contrast

MRI Knee w/o Contrast Left

MRI Neck Soft Tissue w/ + w/o Contrast

MRI Pelvis w/o Contrast

MRI Shoulder w/o Contrast Left

MRI Spine Cervical w/ + w/o Contrast

MRI Spine Cervical w/o Contrast

MRI Spine Lumbar w/ + w/o Contrast

MRI Spine Lumbar w/ Contrast

MRI Spine Lumbar w/o Contrast

MRI Spine Thoracic w/o Contrast

MRI Foot w/ + w/o Contrast Left

MRI Foot w/o Contrast Right

MRI Gallbladder w/ + w/o Contrast

MRI Breast w/ + w/o Contrast Bilateral

MRI Femur w/ + w/o Contrast Right

MRI Liver w/+ w/o Contrast

MRI Orbits w/ + w/o Contrast

MRI Pelvis w/ + w/o Contrast

MRI Abdomen w/ + w/o Contrast

MRI Renal w/ + w/o Contrast

MRI Breast w/ + w/o Contrast Bilateral

MRI Femur w/ + w/o Contrast Right

MRI Spine Thoracic w/o Contrast

I have also attached (Attachment 8) the worksheet from the PACS system for MRI Room 1 for dates of January 11, 2013 to January 17, 2013. This reflects the schedule for that time period and documents that the existing MRI unit is operational.

2. Cost of Replacement Equipment

The cost to replace the MRI including design, studies, plans, working drawings, specification, construction, installation and other activities to acquire and make operational is \$1,852,634. The breakdown is as follows:

Cost of new equipment	\$1,401,567	(see Attachment 2)
Value of trade-in	(80,000)	(see Attachment 3)
Cost to install (Includes Architect/Engineering Fee, RF shielding, demo and removal Of current MRI and installation of	531,067	(see Attachments 4, 5, 6)

Total Cost

\$1,852,634

3. Financing

New MRI and contingency)

Nash Hospitals, Inc owns the current MRI and plans to purchase the new equipment and pay for installation cost with cash reserves. There will be no lease or financing cost.

4. Comparable Equipment and use

The replacement equipment is functionally similar to existing equipment and will be used for same diagnostic purposes but will have better and improved imaging due to technological improvements. The current 1.5 Tesla magnet was installed in early 1989. Several software and computer replacements have taken place but can no longer occur

5. Removal of existing equipment

The existing equipment has been sold and will be removed by UMT (United Medical Technologies Corporation) in Fort Meyers, Florida. The purchase of the existing equipment is included in Section 2 <u>Cost of Replacement of Equipment</u> and shown as Attachment 3. Also attached (Attachment 9) is a letter from UMT stating:

United Medical Technologies, A Florida Corporation are purchasing and removing a GE MRI from Nash General Hospital more or less the end of 2012 or beginning of 2013. We are hereby confirming that this MRI will not be for sale again in the state of North Carolina. The MRI will come to Florida, the magnet will be scrapped for metal and we will use the electronics. Please don't hesitate to contact us at the above address if you have any questions. Thank you.

I hope I have provided you all the information you need to confirm the replacement of the MRI as "exempt from review". However if you should need additional information please contact me at (252) 962-8227 or by email at bhweisner@nhcs.org if you prefer.

Sincerely,

Brad H. Weisner, COO

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Nash Hospitals, Inc.

Equipment Comparison	Nash Hospital, Inc - MRI Replacement	
	Existing Equipment	Replacement Equipment
Type of Equipment	1.5 Tesla MRI	1.5 Tesla MRI
Manufacturer of Equipment	GE Healthcare	GE Healthcare
Tesla Rating of MRIs	1.5T	1.5T
Model Number	12XHD/S4 magnet	Optima MR450w
Serial Number	2600MR9	TBD
Provider's Method of Identifying Equipment	Model name and/or number	Model name and/or number
Mobile or Fixed?	Fixed	Fixed
Mobile Trailer Serial Number/VIN#	not applicable	not applicable
Mobile Tractor Serial Number/VIN#	not applicable	not applicable
Date of Acquisition of Each Component	January-89	September-12
Does Provider hold title to equipment or have a capital lease	hold title	hold title
Specify if equipment was/is new or used when acquired	new	new
Total Capital Cost of Project including		
רטוזנו מכווסוו	yes	yes
Total Cost of Equipment		\$1,401,567
Total Market Value of Equipment		\$1,401,567
Net Purchase Price of equipment		\$1,401,567
Locations when operated	Nash Day Hospital, 2460 Curtis Ellis Dr. Rocky Mount, NC 27804	Nash Day Hospital, 2460 Curtis Ellis Dr. Rocky Mount, NC 27804
Number Days in Use/to be used in NC per year	365	365
Percent of change in Patient Charge (by procedures	no change	no increase
Percent of change in per procedure operating expense (by procedure)	no change	no change
Type of Procedures currently performed on existing equipment	brain, gallbladder, IAC, knee, neck, pelvis, shoulder, cervical spine, lumbar spine, thoracic spine, abdomen, femur, foot, liver, orbits, renal	
Type of Procedures new equipment is capable of performing		brain, gallbladder, IAC, knee, neck, pelvis, shoulder, cervical spine, lumbar spine, thoracic spine, abdomen, femur, foot, liver, orbits, renal

ATTACHMENT 2

Ouotation Number: P7-C148590 V 3

Nash General Hospital 2460 Curtis Ellis Dr Rocky Mount NC 27804-2237 Attn: Mr. David Hinkle

Date: 09-06-2012

This Agreement (as defined below) is by and between the Customer and the GE Healthcare business ("GE Healthcare"), each as identified herein. GE Healthcare agrees to provide and Customer agrees to pay for the Products listed in this GE Healthcare Quotation ("Quotation"). "Agreement" is defined as this Quotation and the terms and conditions set forth in either (i) the Governing Agreement identified below or (ii) if no Governing Agreement is identified, the following documents:

- 1) This Quotation that identifies the Product offerings purchased or licensed by Customer;
- 2) The following documents, as applicable, if attached to this Quotation: (i) GE Healthcare Warranty(les); (ii) GE Healthcare Additional Terms and Conditions; (iii) GE Healthcare Product Terms and Conditions; and (iv) GE Healthcare General Terms and Conditions.

In the event of conflict among the foregoing items, the order of precedence is as listed above.

This Quotation is subject to withdrowal by GE Heolthcore of any time before acceptance. Customer occepts by signing and returning this Quatotion or by otherwise praviding evidence of acceptance satisfactory to GE Healthcare. Upon acceptance, this Quotation and the related terms and conditions listed above (or the Governing Agreement, if any) shall constitute the complete and final agreement of the parties relating to the Products identified in this Quatation. The parties agree that they have not relied on any oral or written terms, conditions, representations or warranties outside those expressly stated or incorporated by reference in this Agreement in making their decisions to enter into this Agreement. No agreement or understanding, and or written, in any way purparting to modify this Agreement, whether contained in Customer's purchase order or shipping release forms, or elsewhere, shall be binding unless hereafter agreed to in writing by authorized representatives of both parties. Each party objects to ony terms incansistent with this Agreement proposed by either party unless agreed to in writing and signed by outhorized representatives of both parties, and neither the subsequent lock of objection to ony such terms, nor the delivery of the Products, shall constitute an agreement by either party to ony such terms.

By signing below, each party certifies that it has not made ony hondwritten modifications. Monual changes or mark-ups on this Agreement (except signatures in the signature blocks and an indication in the form of payment section below) will be void.

• Terms of Delivery:

FOB Destination

• Quotation Expiration Date:

09-28-2012

• Billing Terms:

80% delivery / 20% Installation

• Payment Terms:

NET 30

• Governing Agreement:

Novation-DI

Each party has caused this agreement to be signed by an authorized representative on the date set forth below. Please submit purchase orders to GE Healthcare
3200 N. Grandview Blvd., Mail Code WT-897, Waukesha, WI 53188

3200 N. Grand	dview Blvd., Mail Code WT-897, Waukesha, WI 53188	
GE HEALTHCA	RE Date Scott Ramsey Date Product Sales Specialist	INDICATE FORM OF PAYMENT:
CUSTOMER	Product Sales Specialist	(If there is potential to finance with a lease transaction, GE HFS or otherwise, select lease.)
	Authorized Customer Date	Cash * Lease HFS Loan
	Print Name and Title	If financing please provide name of finance company below*:
	PO #	
	Desired Equipment First Use Date	*Selecting Cash or not identifying GE HFS as the
	GE Healthcare will use reasonable efforts to meet Customer's desired equipment first use date. The actual delivery date will be mutually agreed upon by the parties.	finance company declines option for GE HFS financing.

Qty	Catalog No.	Description
1	······································	Loyalty - Optima MR450w 1.5T with GEM
1	S4500WN	Optima MR450w 1.5T with GEM MR System
		Patient expectations of MR have shifted in recent years, as patients have begun to demand a better, more comfortable scanning experience. Increasing the size of the bore is a good first step, but it's only the beginning. The right system should overcome traditional limitations of wide-bore MR, offering both excellent images and a user-friendly experience. Patients should be more comfortable during their scan, and clinicians more comfortable in making a diagnosis. All the while, organizations should expect their MR system to help them deliver solid financial returns, maintain a high standard of patient safety, and increase the quality of their care.
		The Optima MR450w with GEM 1.5T MRI scanner from GE Healthcare offers a range of new functionality, provides a more patient-friendly environment and is a clinical workhorse system for practices of all sizes and specialties.
		OpTix RF Receive Chain: GE's innovative Optical RF receive technology improves signal detection while simultaneously reducing electrical noise. By locating the receiver electronics on the side of the magnet and close to the origin of the MR signal, interference from external noise sources is reduced thus improving image quality and SNR. The result is a 27% SNR improvement over previous generation, non-optical systems for volumetric scanning.
		The use of optical transmission reduces the cabling footprint over conventional copper cable designs and enables high channel count configurations without requiring additional space. The OpTix technology can seamlessly route signals from any coil port to the receiver using a dynamic switching RF hub. To enable the simultaneous use of multiple coils, there are multiple high-density coil connections ports conveniently located where the detachable table docks to the scanner.
		Sampling Bandwidth 80MHz.Surface coil Receive ports 136.
		Volume Reconstruction Engine 2.0 (VRE): The backbone of any high-channel count receiver system is the reconstruction architecture. The Optima MR450w utilizes the latest dual-core 2.6 GHz processing technology with the VRE 2.0 recon architecture. With its 36 GB of memory, acquisition-to-disk technology, and 13000 2D FFT/s frame rate, the VRE delivers the processing power to quickly reconstruct high-resolution 3D volumetric data.
		eXtreme Gradient Platform: The powerful gradient performance of the Optima MR450w system enables high resolution and fast acquisitions. The gradient platform includes the eXtreme Gradient Driver (XGD) and the optimized large field of view gradient coil. The eXtreme Gradient Driver (XGD) is housed within a single cabinet to simplify installation. Each axis is driven by a dedicated power supply and amplifier to ensure consistent performance for all image

orientations. By incorporating a water-cooled architecture, this system supports continuous peak operation with a 100% duty cycle and excellent stability for both long-term serial studies

Description

and advanced applications.

- Peak Gradient Amplitude of 34 mT/m
- Peak Gradient Slew Rate of 150 T/m/s
- Peak XGD Current 660 Amps.
- Peak XGD Voltage 1650 Volts.

Gradient systems have historically been defined in terms of peak amplitude (mT/m) and slew rate of the generated field (T/m/s). While these parameters are important in achieving high temporal resolution parameters such as TR's and TE's, applications such as fMRI, PROPELLER, TRICKS, and spectroscopy rely more heavily on gradient fidelity, accuracy, and

reproducibility. Fidelity is defined as the degree to which an electronics system accurately and reproducibly amplifies an input signal. Applied to MR gradient systems, gradient fidelity refers to the system's ability to generate requested waveforms. The high fidelity of the Optima MR450w gradients is achieved through the use of an innovative design of the digital control architecture within the gradient amplifier. This architecture has two digital control paths.

- Dedicated active feedback loop to regulate current errors.
- Innovative feed-forward model to match amplifier output to gradient coil.

Gradient subsystem gradient fidelity, accuracy, reproducibility parameters:

- Maximum integrated error: 0.48 ppmFS-s.
- Shot-to-shot: 0.16 ppmFS-s.
- Symmetry error: 0.32 ppmFS-s.

MR450w GEM Express Patient Table with IntelliTouch Technology: The fully detachable GE Express Patient Table incorporates the Liberty Docking System to improve safety, exam efficiency, and patient comfort over fixed-table solutions.

Easily docked and undocked by a single operator, the patient table is simple to move in and out of the exam room for patient transport and preparation. These become vital features in those instances where multiple patient transfers can negatively impact patient care or when emergency evacuation is required; the table can be undocked and removed from the scan room in under 30 seconds with just one technologist. In time-sensitive situations there is no need to remove or disconnect surface coils as the system can automatically disconnect the coils for you.

Express Patient Table Comfort: The fully detachable table may help reduce patient anxiety and provide personal discretion by enabling patients to prepare for the exam in a private space. This is particularly important for patients undergoing a breast evaluation.

To improve patient comfort and safety, the GEM Suite includes a unique set of Patient Comfort pads. The pads are designed with variable density foam that uniquely compresses based on patient geometry and weight. Certain sections of the GEM Suite pads are designed to compress

Description

more easily than others and this optimal design may minimize pressure points and improve patient comfort.

In addition, the pads are made with UltraFresh protective coating, are strong, fluid-proof, air tight, and easily cleanable. An anti-skid undersurface reduces pad movement on the table and thus may simplify patient setup and egress.

Symmetric Scan: To help reduce patient anxiety, the GEM Express Patient Table is designed to accommodate head first or feet-first imaging for all neurologic, cardiac, abdominal, spinal, and peripheral vascular exams, as well as the majority of musculoskeletal imaging. Whole body imaging may also be completed in either patient orientation. All breast imaging is completed feet first.

Symmetrically positioned within the patient supporting cradle are three high-density coil connection ports. One at each end of the patient cradle, and another one embedded under the covers to connect the GEM Posterior Array. This design enables all components of the GEM Suite to support either patient orientation and helps ensure the most comfortable patient position. Two additional coil connection ports are included on the scanner docking mechanism.

Ergonomics: With one hand and with one simple motion, the integrated arm boards and IV pole can be optimally positioned to support the patient for injections or transportation. This unique capability of the Optima Express Table

also makes it ideally suited for multi-station exams with no scan room intervention, such as peripheral vascular (run-off) imaging.

- Patient table drive: Automated, power driven vertical and longitudinal.
- Longitudinal speed: 30 cm/sec (fast) and 0.5 cm/sec (slow).
- Total cradle length: 211 cm.
- Positioning accuracy: +/- 0.5 cm.
- Maximum patient weight for lift, scanning, and when mobile: 227 kg (500 lbs).

IntelliTouch patient positioning: The Optima MR450w has automated many routine tasks to both simplify patient preparation, and gain productivity. With IntelliTouch Technology, the technologist simply touches the side of the patient table and then a highlighted button to efficiently complete the following:

- Landmark the patient.
- Activate the surface coil.
- Center the patient in the bore.
- Start scanning.
- Acquire, process and network images.

For those patients where pinpoint alignment is desired, laser alignment lights may be used for either the selection or confirmation of landmark position.

Description

Additional tables may be purchased for use with the scanner. With a second table, the next patient can be fully prepared for the exam outside the magnet room while the current patient is being scanned, thus maximizing system utilization and productivity.

This GEM Express Patient Table is only compatible with the Optima MR450w with GEM system and cannot be docked to any other type of GE scanner. Multiple GEM Express Patient Tables may be used with a single system to enhance scanner productivity and workflow. All GEM Suite surface coil components (GEM Posterior Array, GEM Head/Neck Unit, GEM Anterior Array, GEM Peripheral Vascular Arrays) and other optional surface coils are sold as separate items with separate catalog numbers.

Optimally designed for patient safety, patient comfort, and efficient workflow, the external features of the Optima MR450w also provide an aesthetically pleasing look and feel that can reduce patient anxiety. The wide open flare of the covers increase the effective bore size and may reduce patient anxiety when entering the scan room or magnet bore. With patient-optimized lighting and air conditioning, the system can be ideally set for each individual, increasing their control of the environment.

Express Exam and ScanTools: The Express Exam and ScanTools includes a comprehensive suite of workflow features, advanced applications, and parallel imaging capabilities to enable the user to harness the Simply Powerful capabilities of the scanner efficiently and effectively.

The automated workflow features of the Express Exam interface includes the Modality Worklist, Protocol Library, AutoStart, AutoScan, AutoVoice, Linking, and Inline Processing that complete much of the work for the user.

Modality worklist: The modality worklist (MWL) provides an automated method of obtaining exam and protocol information for a patient directly from a DICOM Worklist server. For sites with full DICOM connectivity, once a patient has been selected from the MWL, a new session is opened on the host interface and the relevant exam details are highlighted for the user. The protocol may be selected well in advance of the patient's arrival at the MR suite thereby simplifying exam preparation and reducing necessary work by the technologist during the time-critical procedure.

Protocol libraries and properties: The MR system provides the user with complete control of protocols for simple prescription, archiving, searching, and sharing. The protocols are organized into two main libraries, a GE optimized set that are included with the system, and Site Authored.

ProtoCopy: Standard is the ProtoCopy feature which enables a complete exam protocol to be shared with the click of a mouse. The exam protocol can originate from either a library or previously acquired exam. This enables routine archive of protocols for emergency backup and simple management of libraries across multiple systems.

Description

Workflow Manager: Once a protocol has been selected for an exam, it is automatically loaded into the Workflow Manager. The Workflow Manager controls image prescription, acquisition, processing, visualization and networking and may fully automate these steps, if requested.

AutoStart: With AutoStart, once the landmark position has been set and the technologist leaves the room the Workflow Manager will automatically start the first acquisition in the exam.

Linking: Linking automates the prescription of images for each series in an exam. Once the targeted anatomical region has been located the Linking feature combines information from a prescribed imaging series to all subsequent series in the Workflow Manager.

AutoScan: With AutoScan enabled, the Workflow Manager will sequentially go through the list of prescribed series without any user interaction.

AutoVoice: The AutoVoice feature ensures that consistent and repeatable instructions are presented to the patient for each and every exam. User selectable, pre-recorded instructions are presented at defined points in the acquisition. The AutoVoice feature includes instructions in over 14 languages and the user can create and include their own unique voice instructions for local needs.

Inline processing: For certain tasks, the user must accept the results, or complete additional steps prior to saving the images to the database In these cases the data is automatically loaded into the appropriate tool, then the system will await further instruction by the user.

Inline viewing: Inline viewing allows the user to conveniently view, compare, and analyze images without having to switch to the Browser. Simply select the series to view from the Workflow Manager and the images are displayed along with standard image display tools.

Image fusion: To better visualize tissue and contrast, multiple images from separate acquisitions can be overlaid on one another. High-resolution anatomical images can be automatically fused with functional data or parametric maps for improved visualization by the user. The data is registered using translation and rotation and distortion correction to ensure accurate fusion.

Spin Echo: The single echo gold standard for generating T1, proton density and T2 images.

Fast Spin Echo (FSE), Fast Spin Echo-XL (FSE-XL): Uses a train of spin echoes to reduce total acquisition times and provide high resolution datasets. The XRB gradient performance allows for very short echo spacing, thus maintaining image resolution and SNR even in long echo train acquisitions.

Fast Recovery Fast Spin Echo (FRFSE): is an extension of the Fast spin Echo sequence and incorporates an additional refocusing pulse and 90 degree excitation at the end of the echo train. This additional forced recovery of the long T1 and T2 spins increases T2 contrast with shorter acquisitions times.

FLAIR: T1 and T2 Fluid Attenuated Inversion Recovery (FLAIR) pulse sequences have been designed expressly for neuro applications. FLAIR allows suppression of signal from cerebrospinal

Description

fluid (CSF).

Double/Triple IR: These pulse sequences are included to allow black-blood imaging for studies of cardiac morphology. Triple IR adds fat suppression to black-blood imaging.

3DFRFSE: A sequence for creating high resolution, three-dimensional T2-weighted images of all anatomies and is especially useful for MR cholangiopancreatography (MRCP) studies.

Single-Shot Fast-Spin Echo (SSFSE): An ultra fast technique that permits complete image acquisition following a single RF excitation. It can acquire slices in less than one second, making it an excellent complement to T2-weighted brain and abdominal imaging and MRCP studies.

GRE, FGRE, SPGR, FSPGR: This suite of gradient echo techniques uses short TR and TE times to generate Proton Density, T1, T2, T2* tissue contrast, or a combination thereof, in far less time than conventional spin echo acquisitions. The ultra-short TR and TE times possible with these sequences also ensure the performance needed for state-of-the-art vascular and contrast-enhanced MRA studies.

2D and 3D Dual Echo Gradient Echo: A vital tool for abdominal imaging. This variation on conventional gradient echo provides a pair of images for which the signals from water and fat either are in-phase or out-of-phase. By design, all of the images acquired within a single breath-hold are in perfect registration.

2D and 3D Time of Flight (TOF), 2D-Gated TOF: TOF Imaging and Enhanced 3DTOF Imaging are all ideal for MR angiography. Based on conventional gradient echo scanning, time of flight imaging techniques rely primarily on flow-related enhancements to distinguish moving from stationary spins.

2D Phase Contrast (2DPC), 3D Phase Contrast (3DPC): These techniques demonstrate flow velocities and directional properties in vessels and other moving fluids such as cerebral spinal fluid and aortic flow. These acquisitions provide the data for quantitative flow analysis.

2D MERGE: Multiple Echo Recombined Gradient Echo (MERGE) uses multiple echoes to generate high-resolution images of the C-spine with excellent gray-white matter differentiation. By combining early echoes with high SNR and late echoes with improved contrast, the result is improved cord contrast within the spinal column.

3D MERGE: The 3D MERGE sequence has been optimized to generate clear tissue contrast in the cervical spine. The high in-plane resolution and thin slices enable excellent image reformats for better tissue visualization for all angles.

COSMIC (Coherent Oscillatory State acquisition for Manipulation if Image Contrast): COSMIC is a 3D imaging technique specifically tailored for cervical spine evaluation. The unique fluid-weighted contrast yields improved visualization of the cervical nerve roots and intervertebral disks. The high resolution images are easily reformatted for better tissue visualization from any orientation.

Description

2D FIESTA: FIESTA (Fast Imaging Employing STeady-state Acquisition) is designed to produce high SNR images extremely rapidly. The technique features an extremely short TR and fully balanced gradients to rephase the transverse magnetization at the end of each TR interval. For very short TR sequences, the signal intensity depends strongly on the ratio T2/T1 and is largely independent of TR. As result, this pulse sequence accentuates the contrast of spins with a high T2/T1 ratio, such as CSF, water and fat while suppressing the signal from tissues with low T2/T1 ratio, such as muscle.

2D FatSat FIESTA: With the added capability to suppress the signal from fat, this sequence generates excellent contrast between the vasculature and surrounding tissues.

3D FIESTA: The 3D FIESTA technique is especially useful for the rapid acquisition of high spatial-resolution images of static structures such as cochlea, internal auditory canal, or joints.

3D FatSat FIESTA: 3D FatSat FIESTA is advanced software designed for imaging of the coronary arteries. The use of VAST (Variable Sampling in Time) technology greatly shortens breath-holding requirements or allows for higher spatial resolution.

BRAVO (BRAin VOlume Imaging): This IR-prepared T1-weighted 3D Gradient Echo imaging technique affords isotropic, whole-brain coverage with 1x1x1 mm resolution. Coupled with parallel imaging, this sequence produces superior gray white matter contrast in just 2 to 3 minutes.

SPECIAL: Spectral Inversion at Lipids is a spectral spatial inversion technique for fat saturation in 3D FGRE pulse sequences.

LAVA: LAVA is a three-dimensional (3D) spoiled gradient echo technique designed specifically to image the liver with unprecedented definition, coverage, and speed in a single breath hold. Excellent fat suppression, through a version of the SPECIAL technique customized for the liver, is one of the reasons for the high definition of anatomical structures. The coverage and speed of LAVA are the result of short TR, innovative use of partial k-space acquisition, and advanced parallel imaging.

For improved tissue contrast, LAVA is compatible with Flex imaging. The LAVA Flex acquisition will provide a water-only, fat-only, in-phase and out of phase data sets in a single acquisition and produce images with significantly reduced chemical shift and susceptibility artifacts.

FastCINE: This pulse sequence is included specifically for studies of cardiac function. Through the use of retrospective gating, it allows full R-R coverage with high multi-phase temporal resolution for excellent visualization of myocardial wall motion.

iDrive Pro: iDrive Pro brings real-time interactive imaging to the MR system, making it easier to generate detailed diagnostic information on just about any anatomy, including organs that are subject to motion artifacts, such as spine, heart, diaphragm and GI tract. The iDrive Pro technique allows the user to change scan parameters on the fly, during scanning, to evaluate

Description

the results immediately.

SmartPrep: SmartPrep uses a special tracking pulse sequence to monitor the MR signal through a user-prescribed volume to detect the arrival of an injected contrast bolus and to trigger the acquisition when the contrast agent has arrived in the target tissue. Use of SmartPrep provides optimum timing of contrast enhancement.

EchoPlanar: EchoPlanar imaging enables rapid imaging required for such studies as functional brain mapping. Both EchoPlanar and FLAIR EchoPlanar techniques make it easier to generate neuro studies from patients who cannot or will not stay still long enough for conventional techniques.

Diffusion EchoPlanar Imaging: This Diffusion Weighted Single Shot Echo-Planar Imaging (EPI) technique is especially useful for detecting acute and hyper-acute stroke. Its functionality includes Single Shot EPI and FLAIR EPI, Multi-NEX capability, isotropic Diffusion-Weighting imaging and on-line image processing. To enhance body diffusion, Adiabatic SPectral Inversion Recovery (ASPIR) and STIR saturation techniques are supported.

Array Spatial Sensitivity Encoding Technique: ASSET imaging option is an image-based parallel imaging technique used to speed data acquisition. For temporally sensitive acquisitions, ASSET reduces image blurring and motion, enables greater anatomical coverage, and reduces SAR. Parallel imaging acceleration factors up to 3.0 are supported in one dimension depending on the coil selected.

Auto-Calibrating Reconstruction (ARC): Is a GE exclusive self-calibrated parallel imaging technique that eliminates breath-hold mismatch errors by imbedding the calibration data within the scan data. In addition, this unique reconstruction permits small FOV imaging by minimizing focal parallel imaging artifacts from the exam. Supporting both 1D and 2D acceleration, ARC supports high acceleration factors for reduced scan time.

Parallel imaging is supported across all anatomies with acceleration factors that are dependent on the phased-array coils utilized.

Automated 3D Distortion Correction: Included is automated 3D distortion correction software that corrects for spatial distortions induced by non-linearities in the gradient field. The process is completely automated and is imbedded with the MR data reconstruction process. It is compatible with 2D and 3D imaging acquisitions.

IVI: The Interactive Vascular Imaging (IVI) user interface allows operators to quickly remove background from MRA images in order to generate angiographic and maximum intensity projections (MIP) in multiple scan planes.

Multi-Projection Volume Reconstruction (MPVR): MPVR provides quick and easy generation of reformations through any 3D MR data sets.

FuncTool Performance: This package enables advanced MR-image post-processing using a wide

Description

range of sophisticated algorithms, including eADC maps, correlation coefficients for mapping of motor strip and visual/auditory stimuli, NEI (Negative Enhancement Integral), MTE (mean time to enhance), Positive Enhancement Integral, Signal Enhancement Ratio, Maximum Slope Increase, Maximum Difference Function, Diffusion Tensor Post-Processing, (requires DTI option), 3D CSI Post Processing.

MR Pasting: Combine images from separate acquisitions into a single series with MR Pasting. MR Pasting is an image analysis software package that facilitates the display and filming of multiple station MR data sets in body applications (total spine, total body), as well as peripheral MR angiography data. MR Pasting will automatically register and combine multiple acquisition stations into a single image of covered anatomy.

BrainSTAT software for time course analysis: The BrainSTAT post-processing application automatically generates parametric maps for neuro Blood Flow, Blood Volume, Mean Transit Time, and Time to Peak signal intensity. A Gamma Variant fitting algorithm is used to automatically estimate the arterial input function, then calculate the quantitative values for the four parametric maps.

R2* Tool: Generate quantitative relaxation maps with the R2 Star (R2*) analysis tools in Functool. With the Express Exam workflow, this feature can automatically generate R2* maps (in units of Hz) and T2* maps (in units of milliseconds) after the multi-echo data has been acquired.

Included is the host computer, keyboard, mouse, monitor, and a quadrature transmit/receive RF head coil.

1 M7000ZR

Optima MR450w with GEM Magnet Design

To improve the patient experience and provide high image quality, no other component of an MRI system has greater impact than the magnet. The Optima MR450w system features a short, wide bore magnet that delivers a large field of view. The magnet geometry has been optimized to reduce patient anxiety by providing more space in the bore and more exams with the patient's head outside of the magnet. The 50cm field of view provides uniform image quality and can reduce exam times since fewer acquisitions may be necessary to cover large areas of anatomy. Complemented by GE's active shielding technology, the Optima MR450w has very flexible installation specifications to provide easy siting. And with zero-boil-off magnet technology, helium refills are effectively eliminated, thus reducing operating costs and maximizing uptime.

Magnet:

- Manufactured by GE Healthcare.
- Operating field strength 1.5T (63.86 MHz).
- Active magnet shielding.
- Zero boil-off Cryogens.

Description

- Magnet length 145cm.
- Patient Aperture 76 cm.
- Patient Bore Diameter 70cm.
- Patient Bore Length 105cm.
- Maximum Field of View 50 cm x 50 cm x 50 cm.

Magnet Homogeneity: Typical ppm and Guaranteed ppm shown.

- 10cm DSV 0.007 and 0.02.
- 20cm DSV 0.035 and 0.06.
- 30cm DSV 0.11 and 0.18.
- 40cm DSV 0.5 and 0.7.
- 45cm DSV 1.2 and 1.6.
- 50x50x45cm 2.3 and 3.6.
- 50cm DSV 3.3.

DSV = Diameter Spherical Volume. Homogeneity for an elliptical volume of 50 cm (x,y) by 45 cm (z) dimension volume is shown for reference. Fringe field (axial x radial):

- 5 Gauss = $4.0 \text{ m} \times 2.5 \text{ m}$.
- $1 \text{ Gauss} = 6.2 \text{ m} \times 3.7 \text{ m}.$

Quiet Technology: GE has implemented Quiet Technology on critical components of the Optima MR system to reduce acoustic noise and improve the patient environment. This technology enables full use of the eXtreme Gradient Platform for excellent image quality, while maintaining a safe environment for the patient. The technology encompasses the gradient coil, RF body coil, and magnet mounting.

1 S4500WL

Optima MR450w Preinstallation Collector

The Preinstallation Collector delivers to the site in advance of the magnet and main electronic components. This facilitates the later delivery and installation of supporting electronics. The following are the main components in the Preinstallation collector:

- Heat exchange cabinet for distribution of chilled water.
- Primary Penetration wall panel for support of the penetration cabinet.
- Secondary Penetration wall panel for support of gradient filters, helium cables, and chilled air and water.
- Helium cryocooler hose kit.
- Cabinet Dollies are provided to install the System Cabinets. Dollies remain the property of GE to be returned after cabinets are in place at customer site.

1 M7000ZP

MR450w Dock and 32-Channel Switch Collector

Qty	Catalog No.	Description
		The MR450w Dock and 32-Channel Switch collector provides the interface between the magnet and GEM Express Patient Table with IntelliTouch. Also included is the RF signal switching hardware that routes the input signals to the respective OpTix receivers.
1	S4500WH	Optima MR450w Cable Configuration - A
		To accommodate various electronic and scan room configurations and sizes, the MR450w has preset lengths of cables and connector kits to speed system installation. This cable collection is compatible with fixed and relocatable building configurations.
1	M1060MA	Vibroacoustic Damping Kit
		Material in the Vibroacoustic Damping Kit can significantly attenuate the transmission of gradient-generated acoustic noise through the building structure to nearby areas, including adjacent rooms and floors above or below the MR suite. If this kit is applied during the installation of a new magnet, no additional service charges are necessary. However, installation of the Vibroacoustic Damping kit under an existing magnet requires special steps. The steps to prepare the site and steps to install, such as modifications to the RF screen room, and other magnet rigging, modifications to the RF screen room, and other finishing work, are not covered in the pricing.
1	M7000WL	MR450/MR750 Main Disconnect Panel
		The Main Disconnect Panel safeguards the MR system's critical electrical components, by providing complete power distribution and emergency-off control.
1	M1000LH	MR Safety Warning Kit - English
		Maintaining awareness around both patient and personnel safety is of paramount concern. This versatile kit contains signage in the English language that can be posted around the MR suite to heighten awareness of a high field MR system and the special precautions that ensure the safety of patients, technologists, and other people who come into close proximity with the MR system.
1	M3335JZ	English Keyboard
		Required for our operator console. This keyboard is ergonomically designed to keep your staff comfortable even through the longest shifts. The scan control keyboard assembly has an intercom speaker, microphone, volume controls and emergency stop switch.
1	M7000ZT	Cable Concealment Kit - MR450w GEM, MR750w, MR750w GEM
		The Cable Concealment Kit option accommodates a wide-range of scan room ceiling heights and is designed to provide a clean-look installation by concealing the overhead cabling from view.

Quotation Number: P7-C148590 V 3

Qty	Catalog No.	Description
1	M1000MW	Operator's Console Table
		Wide table designed specifically for the color LCD monitor and keyboard.
1	M3335CB	1.5T Calibration Phantom Kit
		This 1.5T calibration kit contains a large volume shim phantom, a daily quality assurance phantom, an echo-planar calibration phantom, and the associated loader shells.
1	M3335CA	Calibration Kit Phantom Holder Cart
1	S7505ZY	2012 Discovery Imaging Pak
		The Discovery Imaging Pak includes the following: IDEAL and Flex PROPELLER 3.0 TRICKS Inhance with Delta Flow Cube IDEAL Generate consistent tissue contrast and reduce the number of series in an exam with IDEAL. The IDEAL acquisition and reconstruction methods can generate a water-only, fat-only, in-phase
		and out-of-phase data sets for clear tissue differentiation in a single series. In addition susceptibility artifacts common to MR imaging such as incomplete or inaccurate fat saturation, and chemical shift can be eliminated as well. The IDEAL application acquires multiple echoes and uses unique reconstruction routines to generate the four image contrasts and correct correct for errors due to tissue susceptibility. IDEAL is ideally suited for imaging anatomical regions such as the brachial plexus, neck, spine, chest, foot, ankle, and axilla where where inhomogeneous magnetic fields may yield failures with traditional fat saturation techniques. IDEAL is compatible with Fast Spin Echo, 3D Gradient Echo and parallel imaging.
		For fast T1w multi-phase imaging of the abdomen and pelvis, LAVA Flex acquisition uses 2D ARC parallel imaging to reduce artifacts from breath hold misregistration and incorrect FOV placement while providing up to four types of T1w-based tissue contrasts: water-only, fat-only, in-phase and out-of-phase. LAVA Flex requires LAVA which is included in the Express Exam ScanTools and is standard with the MR750, MR450, and MR450w system.
		For fast T1w multi-phase imaging of the breast, VIBRANT Flex acquisition uses 2D ARC parallel imaging to enable higher acceleration factors over ASSET parallel imaging, and reduce artifacts from breath hold misregistration and eliminates artifacts due to incorrect FOV placement, while providing up to four types of T1w-based tissue contrasts: water-only, fat-only, in-phase and out-of-phase. VIBRANT Flex requires VIBRANT, which must be purchased separately.

Description

The IDEAL method is compatible with ASSET and ARC parallel imaging and is optimized based on the anatomy of interest.

PROPELLER 3.0

PROPELLER 3.0 uses an innovative k space filling technique and post processing algorithms to help reduce and correct for motion and minimize magnetic susceptibility artifacts. Radial k space filling pattern causes oversampling of the k space center, generating more SNR and providing excellent tissue contrast. Radial k space filling is inherently less sensitive to motion compared to the Cartesian method. In addition, a sophisticated motion correction post-processing algorithm is deployed to reduce effects of motion originating from CSF flow, breathing, patient tremor or voluntary movements. PROPELLER 3.0 has been enabled for all anatomies, and T1 FLAIR, T2, T2 FLAIR, DWI as well as PD contrasts in all planes.

TRICKS

TRICKS (Time Resolved Imaging of Contrast KineticS) provides high resolution multi-phase 3D volumes of any anatomy for fast accurate visualization of the vasculature. With segmented complex data recombination, TRICKS can accelerate 3D dynamic vascular imaging without compromising spatial detail. TRICKS also uses elliptic centric data collection for optimized contrast resolution and auto-subtraction for optimized background suppression. The result is time course imaging that does not require timing or triggering, provides high temporal and high spatial resolution, and enables the extraction of optimum phases of data. As a result, TRICKS enables reliable, high quality vascular imaging.

TRICKS is compatible with surface coils and supports parallel imaging for even higher temporal resolution.

Inhance (Inherent Enhancement) Suite Non-Contrast MRA

The Inhance application suite consists of several sequences designed to provide high-resolution images of the vasculature with short-acquisition times and excellent vessel detail. These sequences include:

Inhance Inflow IR: Inhance Inflow IR is a new angiographic method, which has been developed to image renal arteries with ability to suppress static background tissue and venous flow. This sequence is based on 3D FIESTA, which improves SNR, as well as produce bright blood images. A selective inversion pulse is applied over the region of interest, which inverts arterial, venous, and static tissue. At the null point of the venous blood, an excitation pulse is applied to generate signal. The net result is an angiographic image with excellent background suppression and without venous contamination. Uniform fat suppression is achieved using a spectrally selective chemical saturation (SPECIAL) technique to provide uniform fat suppression, while respiratory gating compatibility reduces respiratory motion artifacts during free-breathing renal exams.

Inhance 3D Velocity: Inhance 3D Velocity is designed to acquire angiography images in brain

Description

and renal arteries with excellent background suppression in a short scan time. By combining a volumetric 3D phase contrast acquisition with parallel imaging, efficient k-space traversal, and pulse sequence optimization, Inhance 3D Velocity is faster than previous generations and is capable of obtaining complete neurovascular imaging in 5-6 minutes. Furthermore, background suppression is improved by the optimized pulse sequence design, resulting in better visualization of small branches. Respiratory trigger is also compatible with 3D Velocity to enable abdominal angiography, especially renal arteries. The result is the Inhance 3D Velocity technique offers improved productivity and image quality.

Inhance 3D DeltaFlow is a 3D non-contrast enhanced MRA application for peripheral arterial imaging. Inhance 3D DeltaFlow is based on the 3D Fast Spin Echo technique and it utilizes the systolic and diastolic flow differences to help generate arterial signal contrast. A subtraction of the systolic phase from the diastolic phase images results in arterial only images, with good venous and background suppression. Interleaved acquisition and parallel imaging (ASSET) with optimized k-space trajectory helps reduce motion misregistration and improve vessel visualization respectively. In addition, with the use of partial-Fourier and coronal plane acquisition, the scan time is considerably reduced. Inhance 3D DeltaFlow is a robust 3D NCE MRA technique that provides excellent, high SNR visualization of peripheral arteries.

Inhance 2D Inflow: The Inhance 2D Inflow pulse sequence is designed to acquire angiography images of arteries, which follow almost a straight path, i.e. femoral, poplitial, carotid arteries, etc. Arterial blood flow is faster during systolic phase and slows down during diastolic phase. Inhance 2D Inflow is designed to acquire data during systolic phase and offers the following:

- Optimized spatial saturation gap to improve fat suppression and background suppression. With this saturation gap optimization, higher views per segment (vps up to 48) could be used, resulting in significant scan time reduction.
- Peripheral Gating that minimizes the pulsatile artifacts.
- Optimized View Ordering to improve arterial signal.
- ASSET acceleration compatibility to reduce scan time.

Cube 3D

The Cube technology can eliminate multiple independent two-dimensional datasets with a single three-dimensional volume (or cube) of high resolution data to provide better image quality in shorter exam times. Compared to traditional 3D fast spin echo acquisitions, Cube uses a combination of optimized echo train pulses and ARC parallel imaging to reduce SAR, extend the duration of the acquisition echo train, and reduce the echo spacing. The system automatically adjusts the echo train flip angle amplitudes to provide optimized tissue contrast based on the specific tissue T1 and T2 characteristics and prescription parameters. To further reduce exam time and improve image quality, Cube is compatible with ARC self calibrating parallel imaging.

Description

Isotropic Cube datasets may be automatically reformatted from a single acquisition into any plane, without gaps, and with the same resolution as the original plane for improved anatomical review and tissue visualization. The maximum parallel imaging acceleration is dependent upon the surface coil in use.

High resolution Cube data can be acquired with T1, T2, T2 FLAIR, or Proton density weighted tissue contrasts for neuro, abdominal, pelvic, and musculoskeletal imaging.

1 M7000LK

MR450w GEM Suite - Core Components

The Geometry Embracing Method (GEM) Suite of surface coils and accessories improves image quality and patient comfort while simplifying workflow for the operator. The GEM design ensures that the geometry of the surface coil matches the geometry of the patient. By matching size and shape of the coil with the size and shape of the patient, the GEM Suite embraces the natural shape of the anatomy thus improving image quality and patient comfort. In addition, the GEM Suite is fully integrated into the Express Patient Table and provides a simple method for the operator to prepare each patient with minimal effort and maximum productivity.

The core components of the GEM Suite include the fully integrated Posterior Array, the Head and Neck Unit, and the Large Anterior Array. Each component of the GEM Suite may be used individually or combined together to increase anatomical coverage. The GEM Suite of surface coils is used with the fully detachable GEM Express Patient Table. This combination of technologies can dramatically simplify technologist and radiographer workflow and enables the patient to be positioned head-first or feet-first for all exams.

GEM Posterior Array: The GEM Posterior Array (PA) is designed to provide optimum element geometry for each targeted anatomy. Unlike matrix arrays that use the exact same coil element size and shape for all anatomy, the GEM PA uses different element geometries for the cervical-to-thoracic spine transition, thoracic and lumbar spine, and body and cardiac anatomy. This approach maximizes signal-to-noise by matching the size and shape of the coil elements to the size and shape of the targeted anatomy. Four different sizes and shapes of elements are used throughout the design, and parallel imaging is supported in all three planes.

The GEM PA is symmetrically positioned within the patient cradle and is fixed in location. This design enables all components of the GEM Suite to support either head-first or feet-first patient orientation to support either patient preference.

The GEM PA is invisible to additional surface coils when they are placed directly on top of the surface. Unique electronic decoupling circuits ensures there is no electrical interference between surface coils. This feature is critically important for patient and operator workflow and enables the PA to be stationary for all exams, including breast and musculoskeletal exams where dedicated coils are typically used for these anatomies.

PA Coil Specifications:

Description

- S/I Coverage: 100cm.
- Head or Feet-first imaging.
- Elements: 40.

The GEM PA Array is designed to be used in conjunction with the GEM Head and Neck Unit, the Large Anterior Array, the Small Anterior Array (purchased separately) and the GEM Peripheral Vascular Array (purchased separately). In addition, the PA may co-reside with a suite of flexible coils or dedicated anatomy-specific coils (each purchased separately). Additional GE PA coils may be purchased for use in additional patient tables.

GEM Head and Neck Unit and Comfort Tilt: The GEM Head and Neck Unit (HNU) is a standard component of the GEM Suite. The HNU consists of four imaging components, a HNU Base Plate and three anatomy-optimized anterior components. The inclusion of separate anterior components ensure that the geometry of the surface coil matches the geometry of the patient to improve both image quality and patient comfort. The three anterior components are the Neuro Vascular

Array, a dedicated Cervical Array, and the Open Face Adapter.

The HNU Base Plate supports the patient's head and includes three rows of elements separated in both the superior/inferior and right/left dimensions. Any of the three separate anterior arrays may be connected to the Base Plate.

The Comfort Tilt is a variable-degree ramp that may be positioned under the HNU. The Comfort Tilt can elevate the superior end of the coil to match the curvature of the patient's head and thoracic spine angulations. The operator may easily adjust the angle of tilt with a single motion.

The HNU Base Plate, Comfort Tilt, and any of the anterior components may be positioned at either end of the GEM Express Patient Table to support head-first or feet-first imaging. The HNU Base plate may remain in place for all body, vascular, spine, and the majority of musculoskeletal exams for either patient orientation.

GEM Head and Neck Unit Coil Specifications:

- Length: 49.5 cm (19.5 in).
- Width: 38.8 cm (15.3 in).
- Height: 36.8 cm (14.5 in).
- Height: 33.6cm (13.2in) with Cervical Array.
- Height: 25.7cm (10.1in) with Open Face Adapter.
- Weight: 8.8kg (19.4 lb).
- S/I Coverage: 42 cm.
- R/L Coverage: 50 cm.
- · Head or feet-first imaging.
- Elements: up to 28 elements in the Field of View.

Description

GEM Anterior Array: The GEM Anterior Array (AA) is a standard component of the GEM Suite that facilitates chest, abdomen, pelvis, and cardiac imaging. The GEM AA is lightweight, flexible, thin, and pre formed to conform to the patient's size and shape. With 54 cm of S/I coverage, the coil permits upper abdominal and pelvic imaging without repositioning the patient.

GEM Anterior Array Specifications:

- Length: 56.2 cm (22.1 in).
- Width: 69.8 cm (27.5 in).
- Height: 4.4 cm (1.7 in).
- Weight: 2.4 kg (5.3 lb) resting on patient.
- Weight: 3.6 kg (7.9 lb) with cable.
- S/I Coverage: 54 cm.
- Head or feet-first imaging.
- Elements: up to 36 elements in the field of view when used with the GEM Posterior Array.

1 S7505DW

1.5T MSK Coil 2-Pak for MR450w GEM

The MSK Coil 2-Pak for MR450w GEM includes the following:

- 8-channel Foot and Ankle Array
- 8-channel GEM Wrist Array

The 1.5T compatible foot/ankle coil produces high-resolution images of the foot and ankle by incorporating an 8-channel phased array design in a unique "ski" boot design. The unique coil design has excellent distal coverage and supports multiple foot positions for optimizing studies. Parallel imaging is supported to reduce acquisition times.

The 8-Channel GEM Wrist Array generates high definition images of the hand and wrist. The one-piece, ovoid, hinged design is optimal for small-FOV imaging and provides 12-cm S/I coverage. The coil can be positioned overhead or at the patient's side in either a vertical or horizontal orientation.

The array is compatible with PURE processing for uniform signal intensity, and ASSET and ARC parallel imaging methods for accelerated acquisition speed.

1 M7000SB

1.5T GEM Flex Suite, Premium - P Connector

The GEM Flex Suite is a versatile set of high density 16-channel receive coils designed to give high quality images in a wide range of applications. The high degree of flexibility is particularly advantageous when imaging patients that do not fit the constraints of rigid coils, improving the patient and technologist experience. Consistent with the GEM philosophy, the size and shape of the elements in each flex coil have been optimized for high SNR and parallel imaging for the volume embraced by the coil.

Description

This extended set includes all three sizes of coils, Small, Medium, and Large, and a knee stabilization fixture that is designed for compatibility with the flat GEM table. They cover a broad range of musculoskeletal applications, including hand, wrist, elbow, shoulder, hip (unilateral and bilateral), knee, ankle, and foot. In addition, the coils' versatility has been shown in a range of general purpose applications that include head, neck, and spine exams.

Includes:

- 1.5T GEM Flex Coils Small, Medium, and Large Arrays.
- 1.5T GEM Flex Interface Module 16-channel Fixed, P-Connector.
- GEM Flex Knee Stabilization fixture for flat table.
- GEM Flex GP Strap and Interface Module Cover.
- GEM Flex Cable Take-up Pad and General Purpose Stabilization Pad.

1 E8911CG

GE MR Heat Exchanger Manual Cryogen Compressor Water Bypass Option

Add a level of magnet protection with a Manual Cryogen Compresor Bypass. In case of a power failure, you can cycle municipal or facility water through the cryogen compresor and reduce cryogen loss and reduce the likelihood of quenching.

FEATURES AND BENEFITS

- Easy to install and simple to use
- Helps switch over water supply to your cryogen compressor in the event of loss of power to reduce cryogen loss
- Includes fluid supply pressure gauge, temperature gauge and flow rate meter for easy verification of operation
- Manual operation reduces unintentional switch-overs and coolant dumping during brown-outs and supply power glitches

COMPATIBILITY

Must be used with a GE MR Heat Exchanger:

- E8911CA
- E8911CB
- E8911CC
- E8911CD
- E8912CA
- E8912CB
- E8912CC
- E8912CD

NOTES:

Oty Catalog No. Description

Item is NON-RETURNABLE and NON-REFUNDABLE

1 E8912CA

GE Optima MR450w Heat Exchangers - 49kW (20 Tons)

Cooling for your GE Healthcare MR system has never been so easy. GE Healthcare has partnered with the Glen Dimplex Group, a world leader in cooling systems, to offer heat exchangers designed to meet the needs of your Discovery MR System. Now you can look to GE Healthcare for your entire MR purchase and support.

This heat exchanger is highly reliable and the only unit verified to perform with the new platform of GE Healthcare MR systems. As part of your integrated GE Healthcare solution, you'll work with a single contact throughout the whole installation. A Project Manager of Installation will help with building layout, room designs, delivery and installation – every step until your system is ready to scan. Our team will work seamlessly with architects, contractors and your internal team to help ensure timely, cost-effective completion.

Once your cooling system is running, you'll get fast, highly-skilled service support managed through GE Healthcare - with the same quality and response time you expect from your MR system.

FEATURES AND BENEFITS

- Designed to provide stable fully dedicated cooling for your MR system's needs
- Water/glycol outdoor-air-cooled heat exchangers to support your highest exam volumes and your full range of diagnostic procedures
- Redundant fluid pumps with automatic switchover let you keep operating with no loss of cooling even if one pump goes down
- Quad compressor, dual tandem refrigeration circuit design saves on energy while your system smoothly transitions through the 10% to 100% heat load capacity cycles of patient scanning and idling
- Quiet operation between patient exams and overnight ideal for facilities in residential areas
- Comes with installation support, installation visits, preventative maintenance visit and 1 full year of parts and labor warranty
- Installation support includes: support through GE's Project Manager of Install, GE's Design Center, technical support from the Glen Dimplex company, two (2) installation visits
- Comprehensive and quality service rapidly delivered through our CARES service solution
- 65 gallons of 100% glycol concentrate for complete system filling and diluting
- Wall mounted remote display panel provides the ability to monitor the system's operation and indicates possible system errors
- Filter kit with flow meter helps to ensure purity of water prior to entry to the MR system

Description

 Highly recommended that Vibration Isolation Spring Kit (E8911CJ) be added for systems that will be roof top mounted

SPECIFICATIONS

- Net Cooling Capacity: 49 kW / 20 Ton
- Maximum Coolant Flow: 35 gpm (132 l/m)
- Coolant Outlet Temperature: 48 F (8.9 C)
- Coolant Temp Stability: E 1.8 F (E1.0 C)
- Max Coolant Pressure: 70 Psi (4.8 Bar)
- Refrigerant: R407C
- Ambient Temp Range: -20 to 120 F (-30 to 50 C)
- Condenser Air Flow (Approx): 18,000 Cfm
- Tank Capacity: 100 gal (378 l)
- Flow Meter Range: 4-40 gpm
- Filters: 50 micron cartridge filters
- Supply Voltage: 460v / 3 phase / 60 Hz
- Coolant Connections: 2" NPTF
- Overall Size (L x W x H) 44" x 136" x 84.5"

COMPATIBILITY:

GE Optima MR450w 1.5T MR System

NOTES:

• Item is NON-RETURNABLE and NON-REFUNDABLE

1 E9200AF

MR Accessories Kit

The Accessories Kit combines a physician's chair, a complete set of positioning pads, and a set of Velcro security straps.

The Physician's Chair has padded arms for comfort and comes in a charcoal gray color that blends with any environment.

The MR Accessories Kit contains a complete set of coated positioning pads in a lightweight tote case that can be a permanent fixture in an MR suite or can be easily carried from room to room. The following pads are included: 1 knee rest, 1 knee coil insert, 1 extremity rest, segment table pads, 4 body wedges, 4 rectangle stack pads, and 2 rectangle elbow pads.

The Velcro Security Straps include one 14 inch wide set and one 6 inch wide set.

1 E8804SB

Medrad Spectris Solaris EP MR Injection System

Description

Medrad Spectris Solaris EP MR injector for use use in all MR scanner field strengths up to and including 3.0T. Optimized touch-screen for fewer keystrokes, KVO (keep vein open) allows patient to be prepared before beginning the scan. Larger 115 ml saline syringe for longer KVO or multiple flushes. Includes cables and starter kit...E

NOTE: GE is responsible for unpacking, assembly, and installation of equipment. Medrad will be available for technical assistance by phone at (412)767-2400. An additional charge will apply for on-site installation assistance. Medrad will be responsible for operational checkout, final calibration, in-service of the equipment, and initial applications training. Please contact the local Medrad office two weeks in advance of installation.

1 E8823M

Magnacoustics Genesis ULTRA Communication & Music System

The Magnacoustics Genesis ULTRA is the only MRI Communication & Music System to interface directly with GE's MRI hardware and software. This allows software driven Auto Voice Commands from GE's computer to be delivered directly into the patient's ears for breath-hold sequences. This same interface allows the Technologist to talk directly to the patient through the console Mic even while the scan is in progress. The Genesis ULTRA also features an exclusive Patient Ready Signal. By simply depressing a small button on the handheld control an audible and visual signal is transmitted to the Technologist indicating the patient's readiness for the scan to begin. This simple step streamlines the breath-hold exam which amounts to approximately 30% of all exams. Patient Handheld Volume and Media Selection Controls with Voice Feedback interface with an FM/AM stereo, CD player, and iPod interface. This distracts even the most apprehensive of your patients by allowing them to be in control of their own environment. Additionally, the Auto Gain feature automatically raises and lowers the volume level for the patient based on the Sound Pressure Level of the MRI. Magnacoustics also provides the only patented 8-driver transducer that provides the highest sound directly to the patients ears with the MagnaLink Headset System. This patented system includes a stethoscope-style headset with the MagnaPlug (replaceable earplug) that provides 29dB of attenuation and complies with GE Healthcare MR Safety Guide Operator Manual.

The Genesis ULTRA's See-In-the-Dark GUI Electroluminescent Backlit Technologist Control Unit enhances operation in the normally low-lit MRI environment allowing the Technologist to operate the entire system with the touch of a button.

The Genesis ULTRA includes an integral interface for fMRI with built-in input for audio stimulation and output for responses...E

1 E4504FM

700 VA Partial System UPS - MR

Tested with all MR system computers, the 700VA Partial System UPS provides reliable, clean, consistent power for the data processing portion of the MR imaging system. The use of the double conversion UPS enables the MR system data processing portion electronics to operate

Description

when there is a power anomaly or total power loss. Valuable data and the system operating software are protected, if there is an extended outage the UPS allows for an orderly shutdown of the system.

FEATURES/BENEFITS

- True double-conversion, online technology provides reliable operation and uninterrupted glitch free power
- Automatic frequency selection eases startup, i.e., 50 or 60 Hz compatible
- Integral Electronic Static Bypass switch means zero transfer time
- Improves user productivity, system reliability, reduces service costs and increases system uptime
- Advanced Battery Management (ABM) software monitors / indicates battery health and improves battery service life

SPECIFICATIONS

- Dimensions (H x W x D): 9.09" x 6.3" x 13.9"
- Weight: 26 lbs.
- Input Voltage Range: Single Phase 80-138 V
- Input Frequency Range: 47-70 Hz
- Rating: 700 VA / 630 W

COMPATIBILITY

MR Systems

NOTES

- This is a partial system UPS it covers only the computer, not the entire MR imaging system. After a power event portions of the system will have to be reset before operation can resume
- Customer is responsible for rigging and arranging for installation with a certified electrician
- ITEM IS NON-RETURNABLE AND NON-REFUNDABLE

1 E4502SE

18 KAIC 28 Amp MR Maximum Constant Lighting Level System

The GE DC Lighting Control Panel converts three-phase 208 V, AC to 115 VDC for lighting power used within the MR shielded suite. Use of DC powered lighting is required in GE Signa System exam rooms and eliminates RF noise generated by 60 Hz incandescent lamps. The DC Lighting Controller System is compatible with any imaging system or application requiring 115 VDC lighting. The use of variable DC lighting also offers additional comfort to the patient.

FEATURES/BENEFITS

	and the second s	
Otu Co	ataloa No.	Description

- Standardized design and testing improves product quality and system reliability
- Prevents AC interference when using radio frequency imaging
- Uniform factory design eliminates individual project design, delays and engineering costs of obtaining a locally manufactured panel
- 20 Amp or 28 Amp continuous current rated units to fit any imaging application
- Internal current limiting fuses and branch circuit breakers protects individual DC circuits and rectifier
- OSHA lockout/tagout padlock provisions
- Surface or semi-flush mounting

SPECIFICATIONS

- Dimensions (H x W x D): 30.37" x 20.5" x 9"
- Weight: 171 lbs.

NOTES:

- Customer is responsible for rigging and arranging for installation with a certified electrician
- ITEM IS NON-RETURNABLE AND NON-REFUNDABLE

1 F8803BF

Physician's Chair with Padded Arms

Physician's chair has padded arms for comfort and comes in a charcoal gray color that blends with any environment. Chair adjusts from 16.75 in. to 21 in. (42.5 cm x 53.3cm) and is only for use in the MR Control Room. Weighs 45 lbs.

1 W0106MR

TiP Discovery and Optima Family Training 10 Days Onsite Plus 10 Hrs TVA

The TiP Training Choices program is designed for CURRENT GE customers WITHOUT HDx experience who purchase a Discovery or Optima system. Training is delivered onsite at the customer's facility and instructs students in start-up operation of the system and introduces participants to the system design, workflow, new options and clinical applications included. Extended TVA support ensures learners maintain performance over the long term.

This training program must be scheduled and completed within 36 months after the date of product delivery.

1 W0012MR

TiP Applications Onsite MR Training 2 Days per year over 3 Years

Two consecutive days of TiP Applications Onsite MR training presented during the 2nd, 3rd, and 4th year after system purchase.

Onsite training provided from 8AM to 5PM, Monday through Friday. Includes T&L expenses.

Description

Quote Summary:

Total Quote Net Selling Price

\$1,401,567.05

(Quoted prices do not reflect state and local taxes if applicable. Total Net Selling Price Includes Trade In allowance, if applicable.)



UNITED MEDICAL TECHNOLOGIES CORP. 2196 Andrea Lane; Fort Myers, Florida 33912 PH. (239)433-5332 FX. (239)433-3919

OFFER TO PURCHASE EQUIPMENT #091278

UNITED MEDICAL TECHNOLOGIES CORP., Hereby makes an offer to purchase the following equipment subject to satisfactory inspection.

EQUIPMENT LOCATION AND SELLER:

System Location: Nash General Hospital. 2460 Curtis Ellis Drive; Rocky Mount, NC. 27804 (252) 962-8932. Attn: Jay Streater.

DESCRIPTION OF EQUIPMENT:

USED 1989 GE MRI S2 magnet, 1.5 tesla upgraded recently to 12X in 2006. Includes a total of 12 coils including a 8 channel body coil and 8 channel brain coil. Complete working MRI.

Februa 28,201

OFFER TO PURCHASE MRI AT: \$80,000.USD Removal Costs, Rigging and Shipping Costs to be Paid by the Buyer. This offer is valid provided the MRI is available for removal on or prior to December 31, 2012. The MRI must be in good working condition up to the time of removal by our technicians.

CONDITIONS:

- 1. UNITED MEDICAL TECHNOLOGIES CORP., assumes responsibility for De-Installation and Shipping. Our offer is subject to satisfactory inspection prior to removal.
- 2. We also agree to Full Payment via Corporate Check.
- 3. Seller agrees to maintain the unit in Good Working Order up to the Time of Removal. The Unit is Free of all Liens and Ownership will be Transferred with Clear Title to United Medical Technologies Corp. upon receipt of Full Payment.
- 4. Seller will provide Physical Access for the Removal of the System from its Location, which includes any Structural Access necessary. Including walls, windows, etc.

ACCEPTANCE:

If this offer is acceptable to you, please sign below and send via FAX to (239) 433-3919. A deposit of 10% will be sent upon signed OFFER.

2196 Andrea Lane	NASH GENERAL HOSPITAL
Fort Myers, Florida 33912	
PH. (239)433-5332 FX. (239) 433-3919	O DABI Y
	NAME: Delle
John Pereira	Brad HWesner/COO
September 24, 2012	Signature/Title
Date	Date DA

STATEMENT OF PROBABLE COST

Nash General Hospital MRI Replacement Oakley Collier Architects, PA Architect's Project #: 12031 December 18, 2012

Demolition of Existing MRI 720 General Construction MRI 720 Mechanical, Electrical, Plumbin MRI Shielding	sf x 275	\$25,200.00 \$198,000.00 \$162,000.00 \$48,195.00
	Subtotal	\$433,395.00
	8% Contingency	\$34,672.00
	Subtotal	\$468,067.00
	A/E and Interior Design Fees	\$63,000.00
	TOTAL CONSTRUCTION	\$531,067.00

In providing this statement of probable cost, it must be understood that we have no control over costs or the price of labor, equipment or materials, contractors' methods of determining bid prices, competitive bidding, market or negotiating conditions. Accordingly, we cannot and do not warrant that bids or negotiated prices will not vary from our opinion.

12-18-2012

MOUNT MOUNT

tering that, to the best of my knowledge, the costs of the proposed project hance	above are complete and correct.
Turky Dally	MANAGER D. O. O. O. A. T. MANAGER D. O.
Date Certified: December 18, 2012	SCRED ARCHING
Signature of Licensed Architect or Engineer)	MOUNTHING MOUNTHING
assure that, to the best of my knowledge, the above costs for the proposed project s my intent to carry out the proposed project as described.	are complete and correct and that it
Date Signed:	
Signature and Title of Officer Authorized to Represent Provider/Company)	
. G	

ATTACHMENT 5

PROJECT CAPITAL COST

A.	<u>Site Co</u>	<u>ests</u>	
	(1)	Full purchase price of land	
		Acres 0 Price per Acre	\$ <u>N/A</u>
	(2)	Closing costs	\$ <u>N/A</u>
	(3)	Site Inspection and Survey	\$ <u>N/A</u>
	(4)	Legal fees and subsoil investigation	\$ <u>N/A</u>
	(5)	Site Preparation Costs [Include]	
		Soil Borings Clearing and Grading	
		Roads and Parking Sidewalks	
		Water and Sewer Excavation and Backfill Termite Treatment	
		Sub-Total Site Preparation Costs	\$N/A
	(6)	Other	\$N/A
	(7)	Sub-Total Site Costs	\$N/A
В.		uction Contract	T
	(8)	Cost of Materials [Include]	
	1-7	General Requirements Concrete/Masonry	
		Mechanical/Electrical Woods/Doors & Windows/Finishes	
		Thermal & Moisture Protection Equipment/Specialty Items	* 000 457
		Sub-Total Cost of Materials	\$ 282,167
	(9)	Cost of Labor	\$ 185,900
	(10)	Other:	\$ <u>N/A</u>
		Other:	\$N/A
	(11)	Sub-Total Construction Contract	\$ 468,067
C.		laneous Project Costs	A 4.
	(12)	Building Purchase	\$ <u>N/A</u>
	(13)	Fixed Equipment Purchase/Lease	\$ N/A
	(14)	Movable Equipment Purchase/Lease	\$N/A
	(15)	Furniture	\$ N/A
	(16)	Landscaping	\$ <u>N/A</u>
	(17)	Consultant Fees	
		Architect and Engineering Fees	\$ <u>63,000</u>
		Administrative & Legal Fees	\$ <u>N/A</u>
		Market Analysis	\$ <u>N/A</u>
		Other (Specify)	\$ <u>N/A</u>
		Sub-Total Consultant Fees	\$ <u>63,000</u>
	(18)	Financing Costs (e.g. Bond, Loan etc.)	\$ <u>N/A</u>
	(19)	Interest During Construction	\$ <u>N/A</u>
	(20)	Other:	\$ <u>N/A</u>
	(21)	Sub-Total Miscellaneous	\$ 63,000
	(22)	Total Capital Cost of Project (Sum A-C above)	\$ 531,067

4. <u>Building Requirements</u>: Respond to each of the following items.

Existing/Proposed Project	Square Feet
(a) Total square feet in existing facility	720
(b) Add: Total square feet of new construction	0
(c) Total square feet at the completion of the proposed project	720
(d) Total square feet in the existing facility to be renovated	720

(d) Provide a table identifying the proposed square footage for each department/section in the proposed project. Include actual square feet, estimated square feet of new construction, estimated square feet to be renovated and total projected square feet for each department/section included in the proposed project.

Schedule of Department Square Footages

Department	Existing SF	New SF	Renovation SF	Total Department SF
MRI	720	0	720	720
Total	720	0	720	720

(f) Complete the following table using the square feet identified in XI.4(b) and (d) and the project capital costs entered in Section VIII.

	Estimated Square Feet	Construction Cost Per Sq. Ft. (Use VIII (11))	Construction Cost per Bed (Use VIII (11))	Total Cost per Square Foot (Use VIII (22))	Total Cost Per Bed (Use VIII (22))
Nursing Units	Control of the Contro	N/A	N/A	N/A	N/A
Ancillary Areas	Toronto and the second and the secon	N/A	N/A	N/A	N/A
Support Services	The property of the control of the c	N/A	N/A	N/A	N/A
TOTAL		N/A	N/A	N/A	N/A

5. (a) Provide a certified estimate of the construction cost of the proposed project from an architect or engineer licensed to do business in North Carolina.

See attached.

(b) Explain the assumptions or the basis for the projected construction costs.

The cost of the MRI is based upon historic cost factors of similar projects and quantitative take offs of the construction documents.

(c) Provide a legible line drawing of the floor plan of the total facility or renovated areas following completion of the project. Where appropriate, the drawing should show individual patient rooms, operating and procedure rooms, and the location of medical equipment.

See attached.

(d) Provide a site plan for the proposed project.

No site improvements are proposed.

(e) If the project involves renovation of existing space, provide a line drawing which indicates the exact location of all components of the project in the facility.

See attached.

6. Specify the number of wards, private and semi-private rooms in the facility following completion of the project.

N/A

7. Describe the methods that will be used by the facility to maintain efficient energy operations and contain costs of utilities.

As the designer of the proposed facility renovation we are a LEED (Leadership Engineering & Environmental Design) accredited professional. All the design elements of the project shall follow recommendations of the Green Building Council. Components selection shall also be subject to Life Cycle Cost Analysis.

(e) If the project involves renovation of existing space, provide a line drawing which indicates the exact location of all components of the project in the facility.

See attached.

6. Specify the number of wards, private and semi-private rooms in the facility following completion of the project.

N/A

7. Describe the methods that will be used by the facility to maintain efficient energy operations and contain costs of utilities.

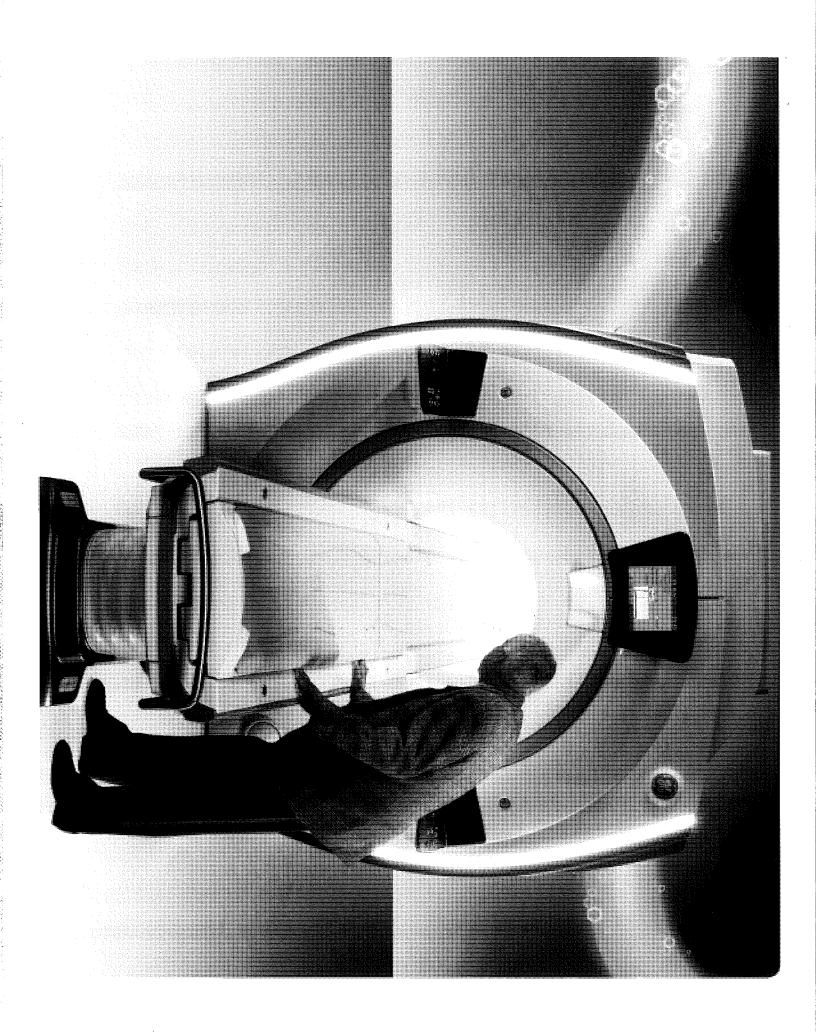
As the designer of the proposed facility renovation we are a LEED (Leadership Engineering & Environmental Design) accredited professional. All the design elements of the project shall follow recommendations of the Green Building Council. Components selection shall also be subject to Life Cycle Cost Analysis.



Every piece of equipment you own represents a balance of technology and design The Optima MR45Dw not only evernplifies this philosophy, it takes it further. We've brought together the versatility of 1.5T performance with the care of a wider bare design. And that's just the beginning.

See how the Optima MR45Ow gives you the right experience, the right capabilities

See how the Optima MRASOW gives you the right experience; the right capabilities and the right investment.



DAR RESIDENCE

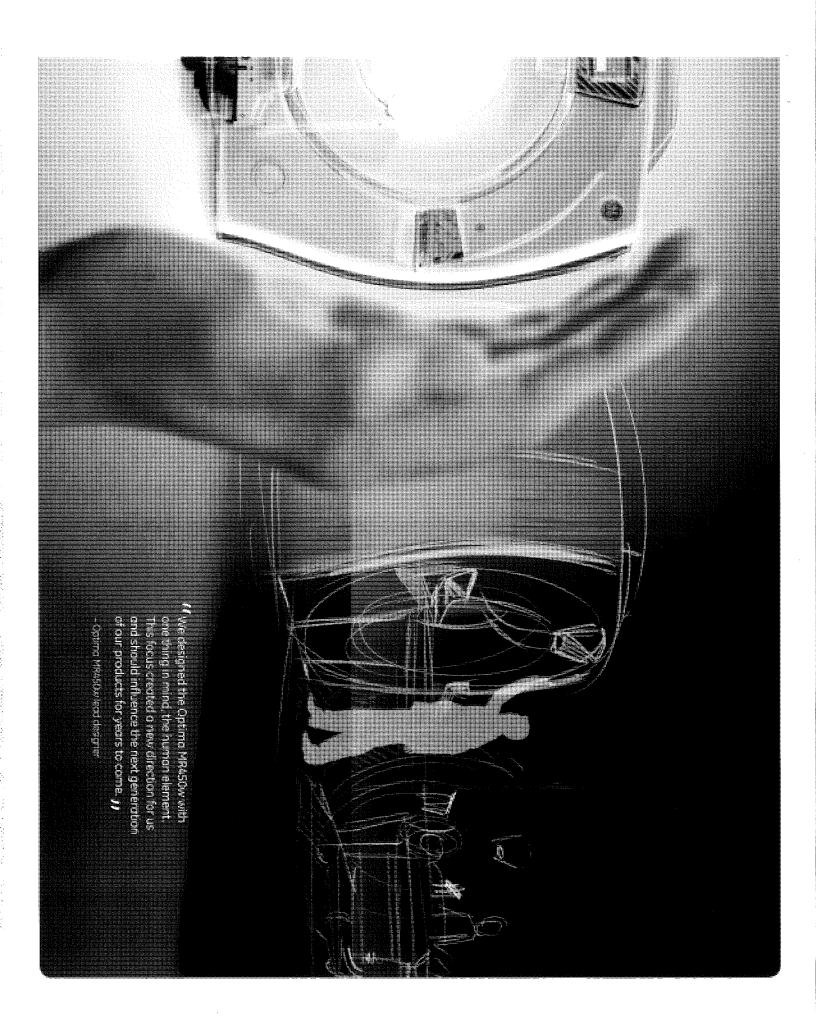
MR IN A NEW LIGHT.

Sametines something assimple as a light, such as the sophythod lighting on the Optima MRASAW can be enough to get people's at This small but important design choice represents our facus on th

Using the symbol of coring hands as our reproduct the Oathno MRANDW was designed to be welcoming to the patient and intuitive for the perfection we listened to patients who asked us for a comfortable anniversal variety. We have the three and research with the back and we want only wideness the back and research with the way we have any treated with the wife out and we

tale so we call a special expression of a problem in the company of the company o

1



CUTTING-EDGE MADE PRACTICAL.

Sometimes of you need is the right tool for the right job. With the Optima MRASAN, we've taken the right amount of bioincipally and combined it with the right gantry design. Namely the performance you only get from 1.5T with the open architecture of a 70 cm wide bore. It's cutting edge technology fine-tuned to meet your everyday needs.

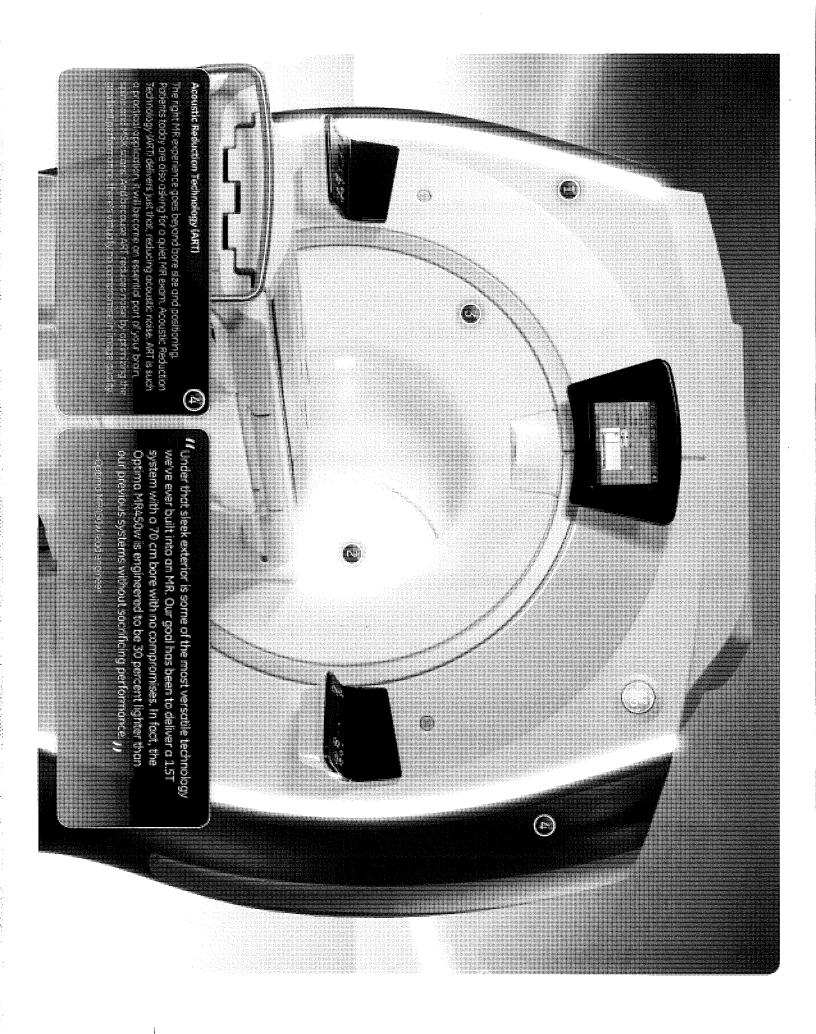
iptical RFIOPTIXI

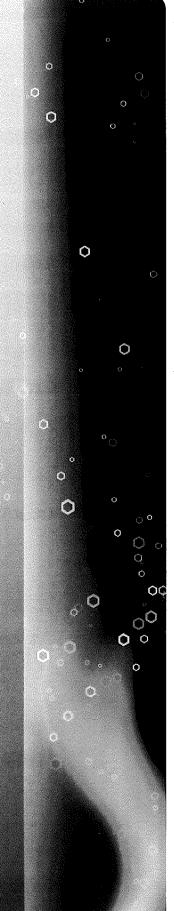
OpTix Optical RF affers high channel count, and og to digital-optical signal convension where it matters - inside the scan room to minimize naise and signal degradation, but away from the

. Usable PC

Our 70 cm flared, open bare design with a large 50 x 50 x 50 cm field of view results from excellent homogenety, gradient linearity and PS uniformity. In order to properly image officially actions such as a shoulder or hip you

Gradient spend, accuracy and reproducibility after determine the success of demonstrating acquisitions like firth, D11 and Fiesta. The gradient and RF body colls are water and air-cooled for approximation with defendance short. Till and the performance short.





EMBRACE THE PATIENT.

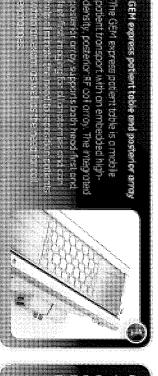
Coils are ta MR what lenses are to a camera. They help focus the energy of MR into a clearer picture of your patients. However, no two patients are alike and traditional cail design con sometimes emphasize function over comfort. And an uncomfortable, moving patient can sometimes lead to poor image quality and time-consuming re-scans.

Not any more. The Geometry Embracing Method (GEM) Suite is designed to bring a new level of comfort to patients, minimizing anxiety and motion during the exam. Crafted to embrace the patient, these flexible coils make for a relaxed scan experience. This also makes it easier for technologists to correctly position their patients without strain or difficulty.

Imagine what your potients will say when you can now offer feet-first imaging for all exam types, lightweight, flexible coils and a re-designed table surface that alleviates pressure points. They'll probably thank you.

We've completely changed how we think about coil design. With GEM Suite, patients can expect a more comfortable exam with open, flexible coils that naturally follow the contours of the human body.

GEM Suite lead coil engineer



GEM anterior array

The GEM priterior array facilitates extended coxerage of chest, alcohomer, pelvis and cardoc imaging. It is tightweight, flexible, the and pre-facered to comform to the pottenties are and shape.

GEM lower extremity array

The GEM lower extremity array
fod litakes imaging of the thight and
lower legs. The coll incorporates on
making between the upper and
congridence with the upper and another
congridence with the upper anoth



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SEE TO UNDERSTAND.

Even with the right balance of design and technology intuitive applications are what truly drive better understanding of whom you need to see. The Optima MRASOW affers the latest advanced applications to help you utilize the full potential of 1.5T MR imaging.

How about acquiring contrast-quality images without using contrasts with inhance Delication, one of the many applications available on the Optima MRASON, you can Patients can now be evaluated without contrast injections. That's a win-win for you and the patient.

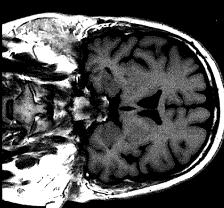




 $384 \times 3845 \text{ mm}$ T2 PROPELLER Sagittal

 $288 \times 288 3 \text{ mm}$

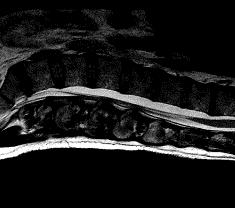
T1 FLAIR PROPELLER Coronal



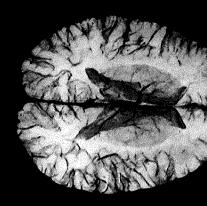
 $320 \times 320 3 \text{ mm}$



T-Spine T2 PROPELLER Sagittal



T2 frFSE Sagittal Whole Spine



 $384 \times 224 3 \text{ mm}$ T2 frFSE Sagittal C-Spine

Brain

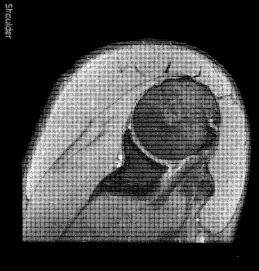
384 x 288 2.2 mm 3D SWAN Axial



L-Spine T2 frFSE Sagittal 448 x 256 4 mm



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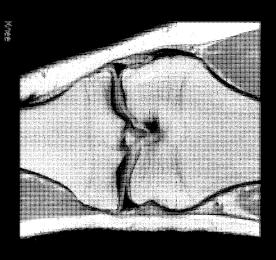


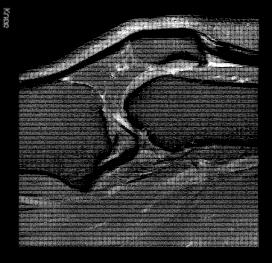


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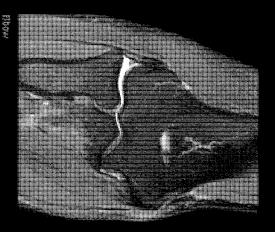


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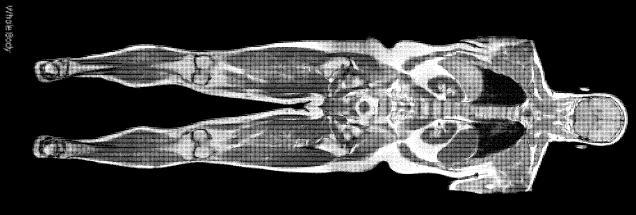




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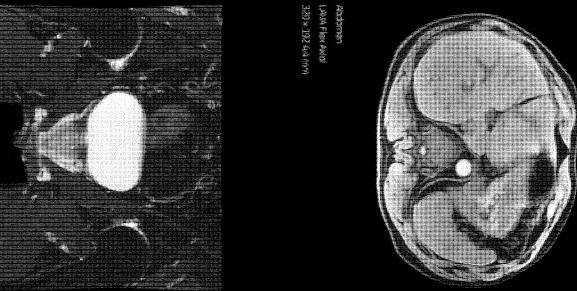
TZMFSE For SAL Coronal 320 m.224 3 MM



haka embadi

Tatin 256 filling

AEG PER PER



加州 中级宏大组数 Maha Hafiria

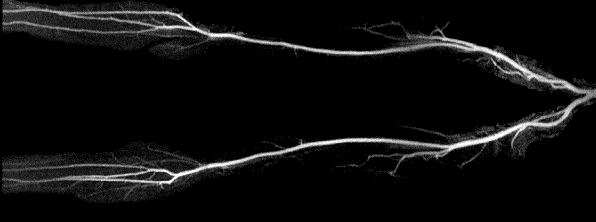
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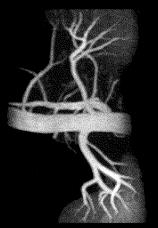
山口 物數 外层槽 有有影 地 \$ 每条



1343. 等情 提出 神過點



Inhance 3D Velocity 320 x 256 1.2 mm



256 x 256 2 mm Inhance Inflow IR

3 stations w/ ARC Inhance Delaflow

INTUITIVE APPLICATIONS.

CONTRAST WITHOUT CONTRAST

perfusion imaging without contrast. Non-contrast brain perfusion. Quantitative

Inhance Inflow IR

vascular, such as the renal and portal vein breathing imaging of the arterial and venous Consistent and reliable non-contrast, free-

Inhance DeltaFlow

imaging typically in less than six minutes. extremity/peripheral vascular three-station High-resolution, rapid, non-contrast lower

Inhance 3D Velocity

High-resolution, fast, non-contrast imaging of the

arterial and venous structure in the brain.

VIBRANT Flex

BREAST

suppression failures in breast imaging, even over a large FOV with irregular anatomy. Generates up to four contrasts with high-resolution in just one short scan and virtually eliminates fat

VIBRANT

combined spatial detail and scanning speed including bilateral shimming to ensure uniform bilateral fat saturation. Lays the foundation of breast MRI with a high

Breast Biopsy

localization for breast biopsy. In-room Operator Console (IROC) supports needle

NEURO

Cube

SWAN High-resolution visualization and delineation of

small vessels and microbleeds.

PROPELLER

Motion-insensitive T1 FLAIR, T2, T2 FLAIR and DWI for efficient imaging of uncooperative patients.

3D MERGE

spinal cord. improves grey-white matter contrast in the

MUSCULOSKELETAL

Motion-insensitive T1, T2 and PD imaging to

as cartilage, meniscus, ligaments and labrum. improve the visualization of subtle structures such

every time. provides multiple contrasts from one acquisition This unique fat/water separation technique for consistent, uniform fat suppression virtually

CartiGram

articular cartilage integrity, detect early cartilage A non-invasive imaging method to assess degeneration and monitor patient progress.

BODY

LAVA Flex

A rapid 3D sequence for consistent and reliable fat saturation in one breath hold.

MRCP (MR cholangiography)

High-resolution reliable visualization of the biliary

PROPELLER

ımagıng. Motion-insensitive, free-breathing T2 abdominal

Whole Body w/ GEM Suite

repositioning the patient or coils. Perform whole body imaging without

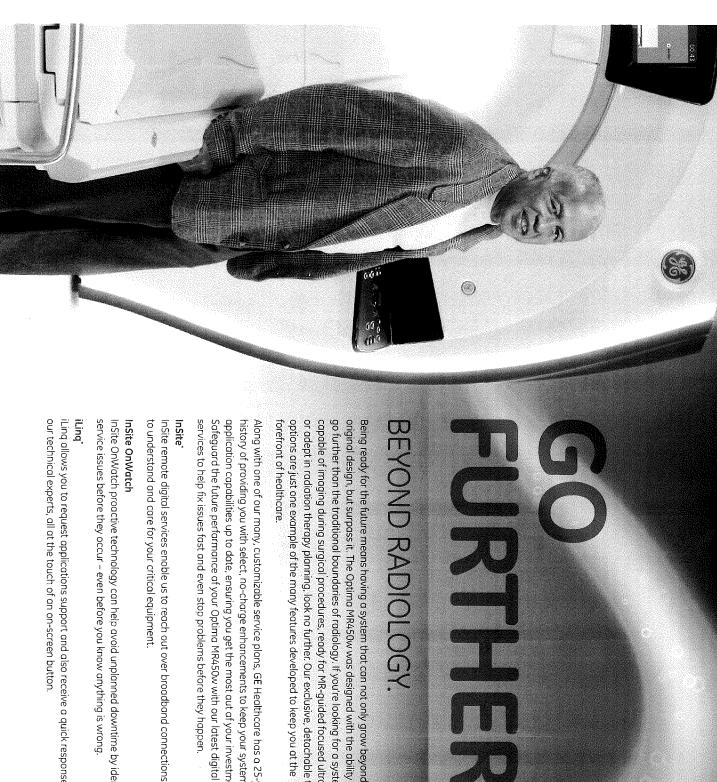
MR-Touch

3D FSE-based sequence for isotropic resolution in all contrasts (T1, T2, & T2 FLAIR).

Non-invasive measure of liver stiffness

eDWI

Ability to visualize pathology and measure ADC values in a single breath hold in the liver and



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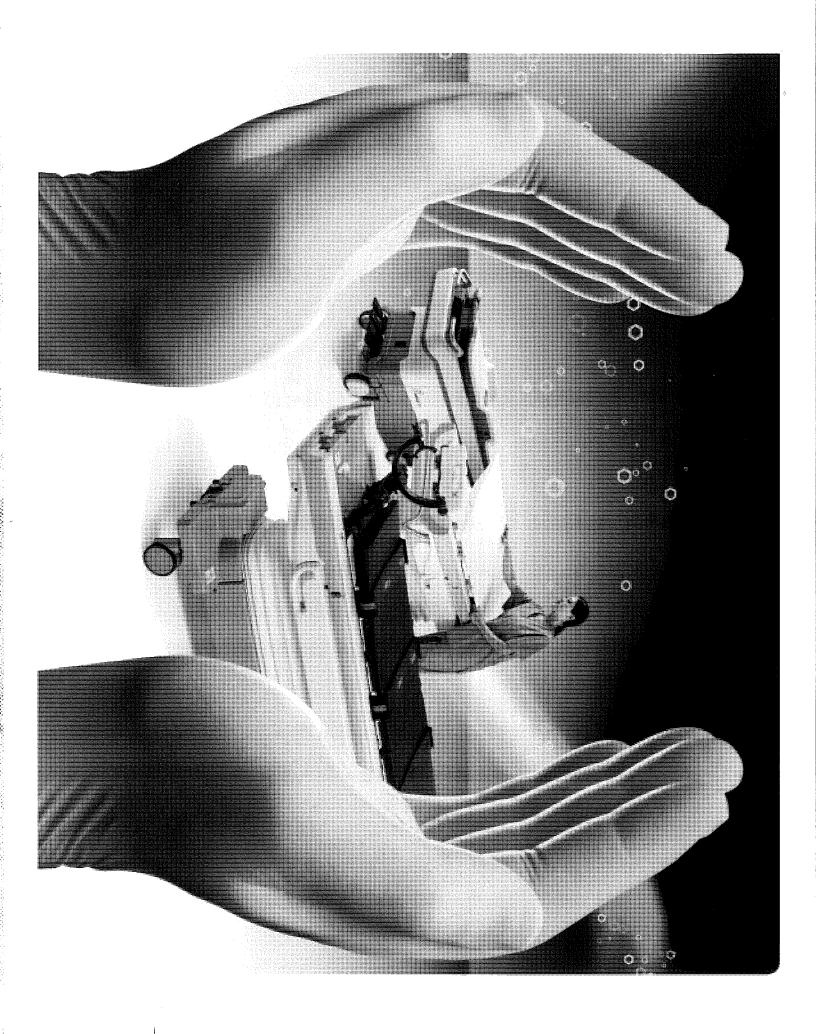
BEYOND RADIOLOGY.

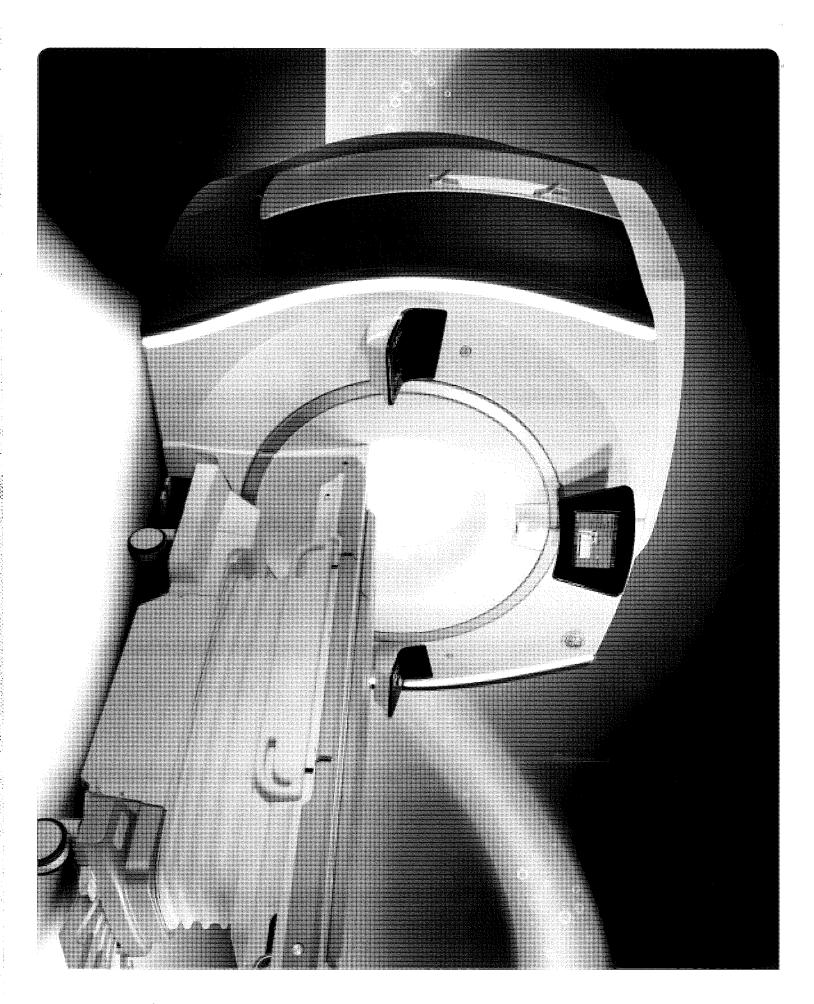
go further than the traditional boundaries of radiology. If you're looking for a system original design, but surpass it. The Optima MR450w was designed with the ability to Along with one of our many, customizable service plans, GE Healthcare has a 25-year options are just one example of the many features developed to keep you at the or adept in radiation therapy planning, look no further. Our exclusive, detachable table capable of imaging during surgical procedures, ready for MR-guided focused ultrasound Being ready for the future means having a system that can not only grow beyond its forefront of healthcare.

services to help fix issues fast and even stop problems before they happen Safeguard the future perfarmance af your Optima MR450w with our latest digital application capabilities up to date, ensuring you get the most aut af your investment. history of providing you with select, no-charge enhancements to keep your systems and

InSite OnWatch proactive technology can help avoid unplanned downtime by identifying to understand and care for your critical equipment.

our technical experts, all at the touch of an on-screen button. iLing allows you to request applications support and also receive a quick response from





This is what just one PIR expert felt when they saw the Optima MRASOw for the first time. It exemplifies our goal to design on MR with as much errodion as technical prowess. This approach has led us to develop one of the most putient and user-liferidy. MR systems we've even built.

WHAT WILL YOU FEEL WHEN
YOU SEE IT FOR THE FIRST TIME?

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About GE Healthcare

GE Healthcare provides transformational medical technologies and services that are shaping a new age of patient care. Our broad expertise in medical imaging and information technologies, medical diagnostics, patient monitoring systems, drug Optima, biopharmaceutical manufacturing technologies, performance improvement and performance solutions services help our customers to deliver better care to more people around the world at a lower cost. In addition, we partner with healthcare leaders, striving to leverage the global policy change necessary to implement a successful shift to sustainable healthcare systems.

Our "healthymagination" vision for the future invites the world to join us on our journey as we continuously develop innovations focused on reducing costs, increasing access and improving quality around the world. Headquartered in the United Kingdom, GE Healthcare is a unit of General Electric Company (NYSE: GE). Worldwide, GE Healthcare employees are committed to serving healthcare professionals and their patients in more than 100 countries. For more information about GE Healthcare, visit our website at www.gehealthcare.com

GE Healthcare 3200 North Grandview Blvd Waukesha, WI 53188 U.S.A

www.gehealthcare.com



As of:17:14 Thursday, January 17, 2013

ATTACHMENT 8

List of Exams:

Between 01/11/13 and 01/17/13

Department: NDH Imaging SVC

ng SVC Section: NDH MRI S

Subsection: All subsections

Exam Room: NDH MRI Rm 1

Patient Type: Outpatient Status DT/TM: 01/16/13 18:48 FIN: 2097177 Ordering Physician: Fike, IV MD, Reason for Exam: closed fx	Reason for Exam: dizziness, fatique a MRI Sh Patrient Type: Outpatrient Status DT/TM: 01/16/13 08:49 FIN: 2094855 Ordering Physician: Nelson MD, J Greg Reason for Exam: rt shoulder pain	Patient Type: Outpatient Status DT/TM: 01/16/13 18:26 FIN: 2097267 Ordering Physician: Carpenter PA-C,	Patient Type: Outpatient Status DT/TM: 01/16/13 19:48 FIN: 2097312 Ordering Physician: Baule, R. Reason for Exam: back pain	Patient Type: Inpatient Status DT/TM: 01/16/13 15:01 FIN: 7631470 Ordering Physician: Odunusi MD, Reason for Exam: Stroke	Patient Type: Outpatient Status DT/TM: 01/17/13 15:55 FIN: 2097450 Ordering Physician: Crawford Reason for Exam: dizziness	Patient Name
MRI Spine Lumbar w/o Contrast Priority: Routine Nurse Unit: ND MRI PACS ID: 522883	nd visual changes oulder w/o Contrast Right Priority: Routine Nurse Unit: ND Gen D PACS ID: 513322	MRI Brain w/ + w/o Contrast Priority: Routine Nurse Unit: ND MRI PACS ID: 523048 PA-C, Iliana	MRI Spine Lumbar w/o Contrast Priority: Routine Nurse Unit: ND MRI PACS ID: 523111 Raymond M, MD	MRI Brain w/o Contrast Priority: Routine Nurse Unit: 5E PACS ID: 523237 D, Oluwole	MRI IAC w/ + w/o contrast Priority: Routine Nurse Unit: ND MRI PACS ID: 523510 MD, Michael D	Procedure Name
MR-13-0000281	MR-13-0000270	MR-13-0000283	MR-13-0000289	MR-13-0000275	MR-13-0000306	Accession Number
Requested DT/TM: 01/16/13 09:45 MRN: 929504 Room/Bed:	Requested DT/TM: MRN: 660773 Room/Bed:	Final Requested DT/TM: 01/16/13 MRN: 156868 Room/Bed:	Requested DT/TM: MRN: 278553 Room/Bed:	Final Requested DT/TM: 01/16/13 02:18 MRN: 101151 Room/Bed: 552/A	Final Requested DT/TM: 01/17/13 09:30 MRN: 165174 Room/Bed:	
Final 01/16/13 09:45	Einal Requested DT/TM: 01/15/13 10:45 MRN: 660773 Room/Bed:	Final 01/16/13 11:45	Final 01/16/13 14:45	Final 01/16/13 02:18	Final 01/17/13 09:30	Status

As of:17:14 Thursday, January 17, 2013

List of Exams:

Between 01/11/13 and 01/17/13

Department: NDH Imaging SVC	Section: NDH MRI Subsection: All	on: All subsections	ns Exam Room: NDH MRI Rm 1
Patient Name	Procedure Name	Accession Number	Status
Patient Type: Outpatient Status DT/TM: 01/16/13 08:47 FIN: 2097109 Ordering Physician: Roberts MD, Joseph Reason for Exam: lumbar stenosis	MRI Spine Lumbar w/o Contrast Priority: Routine Nurse Unit: ND MRI PACS ID: 522627	MR-13-0000272	Final Requested DT/TM: 01/15/13 13:45 MRN: 094268 Room/Bed:
Patient Type: Inpatient Status DT/TM: 01/15/13 17:30 FIN: 7631040 Ordering Physician: Parkar MD, Reason for Exam: Seizures	MRI Brain w/ + w/o Contrast Priority: Routine Nurse Unit: 5W PACS ID: 522613 Irfan U	MR-13-0000248	Final Requested DT/TM: 01/15/13 08:30 MRN: 442617 Room/Bed: 507/A
Patient Type: Outpatient Status DT/TM: 01/16/13 19:22 FIN: 2097022 Ordering Physician: Sharts , Michael C Reason for Exam: android cysts	MRI Spine Cervical w/o Contrast Priority: Routine Nurse Unit: ND MRI PACS ID: 522477	MR-13-0000287	Requested DT/TM: 01/16/13 13:45 MRN: 268013 Room/Bed:
Patient Type: Inpatient Status DT/TM: 01/15/13 17:18 FIN: 7630831 Ordering Physician: Walker MD, William Reason for Exam: Other (please specify	MRI Brain w/ + w/o Contrast Priority: Routine Nurse Unit: 5W PACS ID: 522066 William Specify in Special Instructions)	MR-13-0000221	Final Requested DT/TM: 01/14/13 11:16 MRN: 471061 Room/Bed: 506/A
Patient Type: Inpatient Status DT/TM: 01/11/13 22:02 FIN: 7630531 Ordering Physician: Jarrell MD, Renaldo Reason for Exam: Syncope	Patient Type: Inpatient Priority: Routine Priority: Routine Priority: Routine Priority: Routine Priority: Routine Priority: 7630531 PACS ID: 521625 Ordering Physician: Jarrell MD, Renaldo PACS ID: 521625	MR-13-0000210	Requested DT/TM: 01/11/13 16:29 MRN: 199197 Room/Bed: 413/A
Patient Type: Outpatient Status DT/TM: 01/16/13 08:29 FIN: 2096886 Ordering Physician: Martin DO,	MRI Knee w/o Contrast Right Prioxity: Routine Nurse Unit: ND MRI PACS ID: 521620 Robert C	MR-13-0000247	Final Requested DT/TM: 01/14/13 13:45 MRN: 586197 Room/Bed:

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Reason for Exam: internal derangement

As of:17:14 Thursday, January 17, 2013

List of Exams:

Between 01/11/13 and 01/17/13

Department: NDH Imaging SVC

Section: NDH MRI

Subsection: All subsections

Exam Room: NDH MRI Rm 1

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Patient Name	Procedure Name	Accession Number	Status
Patient Type: Inpatient Status DT/TM: 01/11/13 21:50 FIN: 7630449 Ordering Physician: Jarrell MD, Reason for Exam: Syncope	MRI Brain w/ + w/o Contrast Priority: Routine Nurse Unit: 3N PACS ID: 521568	MR-13-0000206	Final Requested DT/TM: 01/11/13 14:07 MRN: 111026 Room/Bed: 338/A
Patient Type: Outpatient Status DT/TM: 01/11/13 21:37 FIN: 2095380 Ordering Physician: Pajeau MD, A Reason for Exam: cerebral infart	MRI Brain w/ + w/o Contrast Priority: Routine Nurse Unit: ND MRI PACS ID: 515673 Aurora K	MR-13-0000204	Final Requested DT/TM: 01/11/13 12:45 MRN: 487194 Room/Bed:
Patient Type: Outpatient Status DT/TM: 01/17/13 15:55 FIN: 2096813 Ordering Physician: Shiver MD, Reason for Exam: disc disease	MRI Spine Lumbar w/o Contrast Priority: Routine Nurse Unit: ND MRI PACS ID: 521469 G. Michelle	MR-13-0000317	Final Requested DT/TM: 01/17/13 13:30 MRN: 279813 Room/Bed:
Patient Type: Outpatient Status DT/TM: 01/17/13 15:55 FIN: 2096813	MRI Spine Cervical w/o Contrast Priority: Routine Nurse Unit: ND MRI PACS ID: 521468	MR-13-0000316	Final Requested DT/TM: 01/17/13 13:30 MRN: 279813 Room/Bed:
Ordering Physician: Shiver MD, Reason for Exam: disc disease Patient Type: Outpatient Status DT/TM: 01/16/13 19:28	Ordering Physician: Shiver MD, G. Michelle Reason for Exam: disc disease Reason for Exam: disc disease MRI Shoulder w/o Contrast Right MR-13-0000280 Patient Type: Outpatient Patient Type: Outpatient Status DT/TM: 01/16/13 19:28 Nurse Unit: ND MRI Status DT/TM: 01/16/13 19:28		Requested DT/TM: Final 10:45 MRN: 301506
Ordering Physician: Speer, Kevin Reason for Exam: rotator cuff tear	vin Tear	No. 13 COOSTO	でいる。 「日本のでは、 「日本の
Patient Type: Outpatient Status DT/TM: 01/16/13 08:47 FIN: 2096649 Ordering Physician: Glenn MD, Susan Reason for Exam: multiple cranial n	MRI Brain w/o Contrast Priority: Routine Nurse Unit: ND MRI PACS ID: 521132 MD, Susan A cranial nerve palsies	MR-13-0000268	Final Requested DT/TM: 01/15/13 11:45 MRN: 527512 Room/Bed:

As of:17:14 Thursday, January 17, 2013

List Of f Exams:

Between 01/11/13 and 01/17/13

Department: NDH Imaging SVC

Section: NDH MRI Subsection: All subsections

Exam Room: NDH MRI Rm

Patient Name Procedure Name Accession Number Status

FIN: 2096385 Patient Type: Outpatient Status DT/TM: 01/17/13 15:55 FIN: 2095378 Ordering Physician: Hardy , John G Patient Type: Pre Clinic Ordering Physician: Antony MD, Alvin K Patient Type: Outpatient Status DT/TM: 01/15/13 17:30 Reason for Exam: radiculitis Ordering Physician: Baule, Raymond M, MD FIN: 2095378 Patient Type: Outpatient Status DT/TM: 01/17/13 15:55 Reason for Exam: radiculitis Ordering Physician: Baule, Reason for Exam: neck pain Ordering Physician: Newell , FIN: 2096507 Status DT/TM: 01/15/13 09:35 Patient Type: Outpatient Reason for Exam: hand pain FIN: 2096605 Status DT/TM: 01/15/13 09:33 Patient Type: Outpatient Reason for Exam: cervical radiculitis Status DT/TM: 01/11/13 21:37 Raymond M, Mark A MRI Spine Cervical w/o Contrast MRI Spine Lumbar w/o Contrast MRI Spine Cervical w/o Contrast MRI Spine MRI Spine Lumbar w/o Contrast MRI Spine Cervical w/o Contrast S Cervical w/o Contrast Priority: Routine Nurse Unit: ND MRI Nurse Unit: ND MRI PACS ID: 518656 Nurse Unit: ND MRI PACS ID: 521053 Nurse Unit: ND MRI PACS ID: 518769 Nurse Unit: ND MRI Priority: Routine PACS ID: 518770 Priority: Routine Priority: Routine Priority: Routine Nurse Unit: NG OR Priority: Routine PACS ID: 518877 MR-13-0000258 MR-13-0000314 MR-13-0000315 MR-13-0000249 MR-13-0000230 MR-13-0000202 Requested DT/TM: 01/17/13 12:30 MRN: 663771 Requested DT/TM: 01/15/13 07:45 MRN: 569549 MRN: 249735 MRN: 663771 MRN: 132404 Requested DT/TM: 01/11/13 13:45 MRN: 663838 Room/Bed: Room/Bed: Requested DT/TM: 01/17/13 12:30 Room/Bed: Requested DT/TM: 01/14/13 14:45 Room/Bed: Requested DT/TM: 01/14/13 07:15 Room/Bed: Final

Ordering Physician: Baule,

Raymond M,

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PACS

ID: 518414

FIN: 2095791

Reason for Exam: pre-op

As of:17:14 Thursday, January 17, 2013

List of Exams:

Between 01/11/13 and 01/17/13

Department: NDH Imaging SVC

Section: NDH MRI Subsection: All subsections

Exam Room: NDH MRI Rm 1

Department: NDH Imaging SVC	Section: NDH MRI Subsect:	Subsection: All subsections	ONS EXAM KOOM: NUM MKI KU I
Patient Name	Procedure Name	Accession Number	Status
Patient Type: Outpatient Status DT/TM: 01/17/13 15:55 FIN: 2096267 Ordering Physician: Baule, Ra Reason for Exam: cervicalgia	MRI Spine Cervical w/o Contrast Priority: Routine Nurse Unit: ND MRI PACS ID: 518301 Raymond M, MD	MR-13-0000309	Final Requested DT/TM: 01/17/13 09:45 MRN: 476463 Room/Bed:
Patient Type: Outpatient Status DT/TM: 01/11/13 12:51 FIN: 2095881 Ordering Physician: Richardson MD, Claudia Reason for Exam: lumbago	MRI Spine Lumbar w/o Contrast Priority: Routine Nurse Unit: ND MRI PACS ID: 516757	MR-13-0000187	Final Requested DT/TM: 01/11/13 07:45 MRN: 643236 Room/Bed:
Patient Type: Pre Clinic Status DT/TM: 01/11/13 21:46 FIN: 2095849 Ordering Physician: Baule, Ra Reason for Exam: Pre-op	MRI Spine Lumbar w/o Contrast Priority: Routine Nurse Unit: NG OR PACS ID: 516720	MR-13-0000207	Final Requested DT/TM: 01/11/13 14:45 MRN: 663859 Room/Bed:
Patient Type: Outpatient Status DT/TM: 01/17/13 11:13 FIN: 2095776	Priority: Routine Nurse Unit: ND MRI PACS ID: 516439	мя-13-0000298	Final Requested DT/TM: 01/17/13 07:45 MRN: 092063 Room/Bed:
Ordering Physician: Gwinn MD, Michael D Reason for Exam: disc degeneration Patient Type: Outpatient Status DT/TM: 01/15/13 09:34 FIN: 2095607 Ordering Physician: Miller MD, David C Reason for Exam: lumbago, LBP	Lumbar w/o Contrast Priority: Routine Nurse Unit: ND MRI PACS ID: 516194	MR-13-0000243	MR-13-0000243 Requested DT/TM: 01/14/13 11:45 MRN: 124344 Room/Bed:
Patient Type: Outpatient Status DT/TM: 01/14/13 17:10 FIN: 2095085 Ordering Physician: Jacimore M Reason for Exam: prostate CA	MRI Pelvis w/o Contrast Priority: Routine Nurse Unit: ND MRI PACS ID: 514015	MR-13-0000235	Final Requested DT/TM: 01/14/13 08:45 MRN: 254583 Room/Bed:

As of:17:14 Thursday, January 17, 2013

List O Hi Exams:

Between 01/11/13 and 01/17/13

Department: NDH Imaging SVC

Section: NDH MRI

Exam Room: NDH MRI Rm

Patient Name Ordering Physician: Baule, Raymond M, MD Ordering Physician: Marsigli MD, Eduardo O Ordering Physician: Baule, Raymond M, MD Reason for Exam: neck pain and back pain Ordering Physician: Baule, Raymond M, MI Reason for Exam: neck pain and back pain Ordering Physician: Baule, Raymond Reason for Exam: Lumbar raduculitis Patient Type: Status DT/TM: 01/17/13 14:30 Patient Type: Status DT/TM: 01/17/13 14:30 Reason for Exam: lumbar rad. Patient Type: Outpatient Status DT/TM: 01/11/13 19:34 Patient Type: Outpatient Status DT/TM: 01/17/13 15:55 Patient Type: Outpatient Status DT/TM: 01/17/13 15:55 Patient Type: Outpatient Status DT/TM: 01/11/13 20:10 Reason for Exam: left foot ankle pain Ordering Physician: Marsigli MD, Eduardo O Reason for Exam: left foot ankle pain FIN: 2094818 FIN: 2094843 FIN: 2094843 FIN: 2094861 Raymond M, MD Raymond M, MD MRI Foot w/o Contrast Left MRI Ankle w/o Contrast Left MRI Spine Cervical w/o Contrast MRI Spine Lumbar w/o Contrast MRI Spine Lumbar w/o Contrast Procedure Name MRI Spine Lumbar w/o Contrast PACS ID: 521532 Priority. Routine Nurse Unit: ND MRI PACS ID: 513286 Priority: Routine Nurse Unit: ND MRI PACS ID: 521531 Nurse Unit: Priority: Routine Nurse Unit: PACS ID: 513207 Nurse Unit: ND MRI Priority: Routine PACS ID: 513287 Priority: Routine PACS ID: 513341 Nurse Unit: ND MRI Priority: Routine Subsection: All subsections MR-13-0000191 MR-13-0000311 MR-13-0000312 MR-13-0000193 Accession Number Requested DT/TM: 01/11/13 08:45 MRN: 381203 Requested DT/TM: 01/17/13 11:30 MRN: 663582 On Hold Promested Dr/TM: 01/17/13 14:30 MRN: 663582 MRN: 055208 On Hold Requested DT/TM: 01/17/13 14:30 Final Requested DT/TM: 01/17/13 11:30 Room/Bed: Final Requested DT/TM: 01/11/13 09:45 Room/Bed: Room/Bed: Room/Bed: Room/Bed: Status

As of:17:14 Thursday, January 17, 2013

List of Exams:

Between 01/11/13 and 01/17/13

Department: NDH Imaging SVC

Section: NDH MRI

Subsection: All subsections

Exam Room: NDH MRI Rm 1

Patient Name	Procedure Name	Accession Number	Status
Patient Type: Status DT/TM: 01/14/13 09:45 FIN: Ordering Physician: Beckham MD, Michelle Reason for Exam: back pain	MRI Spine Lumbar w/o Contrast Priority: Routine Nurse Unit: PACS ID: 521198		On Hold Requested DT/TM: 01/14/13 09:45 MRN: Room/Bed:
Patient Type: Status DT/TM: 01/16/13 08:45 FIN: Ordering Physician: Miller MD, David Reason for Exam: spinal stenosis and	MRI Spine Lumbar w/o Contrast Priority: Routine Nurse Unit: PACS ID: 516417 David C sis and degeneration of lumbar		On Hold Requested DT/TM: 01/16/13 08:45 MRN: Room/Bed:
Patient Type: Outpatient Status DT/TM: 01/16/13 14:03 FIN: 2095560 Ordering Physician: Moyer DPM, Reason for Exam: 1t foot pain,	MRI Foot w/ Contrast Left Priority: Routine Nurse Unit: ND MRI PACS ID: 521348 Peter M lesion	MR-13-0000286	Replaced Requested DT/TM: 01/16/13 12:45 MRN: 663797 Room/Bed:
Patient Type: Observation Status DT/TM: 01/12/13 09:18 FIN: 7630524 Ordering Physician: Jarrell MD, Renaldo	MRI Breast Biopsy Left Priority: Routine Nurse Unit: 5S PACS ID: 521641 D, Renaldo	MR-13-0000212	Replaced Requested DT/TM: 01/12/13 09:00 MRN: 070975 Room/Bed: 579/A
Reason for Exam: Syncope	MRI Brain w/ + w/o Contrast	MR-13-0000211	Reason for Exam: Syncope MRI Brain w/ + w/o Contrast MR-13-0000211 Required DT/TM: 01/12/13 09:00
Patrent Type: Observation Status DT/TM: 01/12/13-09:17 FIN: 7630524 Ordering Physician: Jarrell MD, Renaldo Reason for Exam: Syncope	Priority: Routine Nurse Unit: 5S PACS ID: 521641 D, Renaldo		MRN: 070975 Room/Bed: 579/A
Patient Type: Inpatient Status DT/TM: 01/11/13 16:29 FIN: 7630531 Ordering Physician: Jarrell MD, Reason for Exam: Syncope	MRI Brain w/ + w/o Contrast Priority: Routine Nurse Unit: 4W PACS ID: 521625 D, Renaldo	MR-13-0000209	Replaced Requested DT/TM: 01/11/13 16:17 MRN: 199197 Room/Bed: 413/A

As of:17:14 Thursday, January 17, 2013

List of Exams:

Between 01/11/13 and 01/17/13

Department: NDH Imaging SVC

Section: NDH MRI

Subsection: All subsections

Exam Room: NDH MRI Rm 1

Patient Name Patient Type: Outpatient Status DT/TM: 01/15/13 13:18 Patient Type: Outpatient Status DT/TM: 01/16/13 13:58 Ordering Physician: Moyer DPM, Peter M Reason for Exam: 1t foot pain, lesion Patient Type: Outpatient Status DT/TM: 01/17/13 08:43 Ordering Physician: Nelson MD, J Greg Reason for Exam: rt shoulder pain Ordering Physician: Pajeau MD, Aurora K FIN: 2095380 Status DT/TM: 01/11/13 13:32 Ordering Physician: Moyer DPM, Peter M Reason for Exam: 1t foot pain, lesion FIN: 2095560 FIN: 2094855 Reason for Exam: cerebral infart Patient Type: Outpatient FIN: 2095560 MRI Foot w/o Contrast Left MRI Shoulder w/ Contrast Right MRI Brain w/ Contrast MRI Foot w/ + w/o Contrast Left Procedure Name Nurse Unit: ND MRI PACS ID: 515673 PACS ID: 521348 Nurse Unit: ND MRI Priority: Routine PACS ID: 513322 Nurse Unit: ND Gen Diag Priority: Routine Priority: Routine PACS ID: 521348 Nurse Unit: ND MRI Priority: Routine MR-13-0000288 MR-13-0000265 MR-13-0000201 MR-13-0000285 Accession Number Requested DT/TM: 01/11/13 12:45 MRN: 487194 Transcribed Requested DT/TM: 01/16/13 12:45 MRN: 663797 Requested DT/TM: 01/15/13 10:45 MRN: 660773 Reguested DT/TM: 01/16/13 12:45 Room/Bed: MRN: 663797 Room/Bed: Room/Bed: Room/Bed: Status

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UNITED MEDICAL TECHNOLOGIES CORPORATION

5196 ANDREA LANE; FORT MYERS, FLORIDA 33912 USA DIACUOSTIC IMAGING SYSTEMS



4 TTACHMENT 9

October 30, 2012

United Medical Technologies Corp. 2196 Andrea Lane Fort Myers, FL. 33912

To Whom It May Concern,

United Medical Technologies, A Florida Corporation are purchasing and removing a GE MRI from Mash General Hospital more or less the end of 2012 or beginning of 2013. We are hereby confirming that this MRI will not be for sale again in the state of North Carolina, The MRI will come to Florida, the magnet will be scrapped for metal and we will use the electronics. Please don't hesitate to contact us at the above address if you have any questions. Thank you.

DUNING

Sincerely, John Pereira