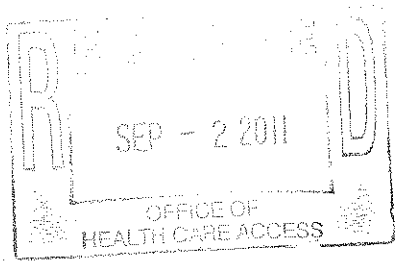
BRIDGEPORT HOSPITAL
YALE NEW HAVEN HEALTH

September 1, 2011



Ms. Kimberly Martone
Director of Operations
Office of Health Care Access
410 Capitol Avenue
MS #13HCA
Hartford, CT 06134-0308

RE: Acquisition of a Hospital-Based MRI

Dear Ms. Martone,

Bridgeport Hospital is pleased to submit the enclosed Certificate of Need application for Acquisition of a Hospital-Based MRI. Also enclosed, please find a cashier's check representing the filing fee of $500.00.

We look forward to working with you on this proposal. If you have any questions, please do not hesitate to contact me at (203) 384-3946.

Thank you.

Sincerely,

Carolyn Salsgiver
Sr Vice President, Planning & Marketing

Enclosure

267 Grant Street
P.O. Box 5000
Bridgeport, CT 06610-0120
203.384.3000

CONNECTICUT POST

003

410 State Street • Bridgeport, CT 06604

2011 MAR 31 AM 10 40

BRIDGEPORT HOSPITAL
P.O. BOX 55110
BRIDGEPORT CT 06610

CONNECTICUT POST
CERTIFICATE OF PUBLICATION

This is to certify that the attached advertisement was published in the Connecticut Post newspaper as stated below.

(Advertising Representative)

Legal Notice
Public Act reference: 10-179 §87 (a) (8)
Applicants: Bridgeport Hospital and Advanced Radiology Consultants.
Town: Bridgeport
Street Address: 267 Grant Street
Proposal: Acquisition of a Hospital-based MRI.
Estimated Total Project Cost Expenditure: $2,000,000.

Subscribed and sworn to before me, on this 24th day of March, A.D. 2011

Notary Public
State Commission Expires 1/31/2013

PO Number

Amount
$224.58

Publication	Ad Number	Ad Caption
Connecticut Post	0001618632-01	Legal Notice Public Act referenc

Publication Schedule
3/21/2011, 3/22/2011, 3/23/2011

004

APARTMENTS FOR RENT

ANSONIA NR Griffin, 2nd flr, 2BR, all appl, sec. Off st prkg. 203-378-1363

Wow!!! Apts & Houses for Rent Move-in in 24-48hrs. 1 - 5 BRs. Call EARLEY24/7. 203-372-4663 BRIDGEPORT & All Connecticut "Se habla Espanol"

BEACON FALLS Sml 1BR, ideal for single. Appli, no dogs, 1st fl. $650. 203-888-9093.

BLACK ROCK 1BRS & Studios, Ht/hw, w/w, prkg, Appls., Laundry, Sec. Sys. Call 203-258-3220

BLACK ROCK 168 Ocean Ave, 2nd floor 2br, HW flr, lrg bkyrd. W/D hkup. Sec8 ok. $1250. 646-872-7666.

BLACK ROCK Courtland Av. area, move-in cond. 1st fl. 6RM, 2BR, Garage, All Appls. wash/dryer, no pets/smkg. $1275 Call 203-279-0111

BLACK ROCK 2 BR, 2nd floor On st. prkg. No pets $950 +sec. Sec8 ok. 203-334-0215.

BPT/BLACK ROCK, Studios, 1BR & 2BR, on-site propty mgmt, lndry & prkg, secure. $650-$850/month Call 203-581-2355.

BPT Completly Renv 2BR, ht/ht wtr incld'd. Off st prk. Sec8 ok. $1300. 203-216-1974

BRIDGEPORT/ STRATFORD 2br, 3rd fl,fresh paint. 154 Kent Av. $875+sec. G&M R.E. 203-904-3732

BRIDGEPORT 1ST fl, 1BR, grt cond. New appli. $745/mo Call 203-395-4440.

BRIDGEPORT West End, Poplar St. Beautiful 6rm apt. WW carp., WD hkup, Sec 8 ok. $1100. 203-243-1277

BRIDGEPORT NE Whitney Av. 3br, 1st fl. $1100. Eff.-Br, bath+kit, $600 1st+1sec. 203/334-8028

BRIDGEPORT 101 Barnum Ave. 11 Armstrong Place. 2 & 3 Bedrooms $950. - $1100. Utilities not Included 1 mo. Rent/1 mo. Sec. Section 8 welcome 203-332-7977 X-301

BRIDGEPORT N.E. 1BR, In-law. KIT, ba. Incl utl. No smk. $850 +sec. 203-887-6990.

BRIDGEPORT N.E. Large 2BDRM, 2nd fl Sec 8 ok. $1100. Call 203-545-1753

BRIDGEPORT EAST side, Very nice 2BR, stv/fridg. Sec8 ok. $800. 203-727-3944

BRIDGEPORT Modern Brick Bldgs Heat, Ht wtr, W/W, appls prkg., laundry 1brs-St.V's+Blk.Rck. 1br-Waldbaum Area. Call 203-258-3220

BRIDGEPORT 3 BR, 1.5 bths, W/D av. 457 Harral Ave. $1275. Avail imm. 203-654-1830; 878-5845

BRIDGEPORT 2BR LR, updtd Kit, Ba, Pearl St. 1blk east of E. Main St $800. 646-413-3057

BRIDGEPORT 2BR 92 Denver Street. Recently renov. New paint, HW flrs, Sec 8 ok $950. 203-655-7096

BRIDGEPORT North Ave. 7 Rms, 3.5 BR, Heat incld, 2 pvt pkg. $1250. 203-579-4224

BRIDGEPORT N.E. Lg 2br, recnt renv, new closets. eik, LR w/ HW fl, ofc/strg, drvwy prk. $1350. 203-257-1295.

BRIDGEPORT 751 Norman St. 2nd flr, 5rm, 2-3BR, $950 inclds elect. 203-400-3191.

BRIDGEPORT (2) 2brs,2nd+3rd fl. $1000, incl. gas+elec.1st/2 sec.req. 203-331-8524

BRIDGEPORT 3BR 3rd flr. $1000/mo. 1st/2m. security req'd. 203-331-8524

BRIDGEPORT/BLACK ROCK Studios, 1 & 2BR apts, $770-1235. 203-520-6372. ★See photos★ HubRealty.com or local.ctpost.com/160713/

BRIDGEPORT 3BR 1ST flr, all HW flrs, newly renov., 203-382-1448, 449-5762

BRIDGEPORT 169 Lewis St. Updated 1BR, no pets. $650. Call 203-570-5649.

BRIDGEPORT 2 BR Apt., kit., DR, LR. $1000/m.+util + sec. 203-610-2820.

BRIDGEPORT 1 BR apt, Beardsley Park area. Lg apt, hard-wood flrs, new kit. & bath. Incld HT/HW. $850/mo. Sect 8 OK. 1485 East Main St. 203-223-1064

BRIDGEPORT Renovated 2BR, 1BA new carpet/cabinets 203-583-1953; 583-0142.

BRIDGEPORT 2BRs, new paint/carpet. 204 Holly Street. $750. 203-545-4699.

BRIDGEPORT 4BR 2kit, 2ba, new paint & crpt. 642 Atlantic St $1250. 203-545-4699

LOOK HERE

BRIDGEPORT remod lrg 3BR. Immed move in. Appli. Section 8 apprv. 203-435-6776

BRIDGEPORT Great ad, W/D, all appli incl. Garg prkg, 2BR, 2nd flr, 179 Monroe St. $1200. 203-395-1073

Need some work done around the house? Find people to help you in our Service Directory

BRIDGEPORT TOWER TWO Elderly 1 & 2BRs apts. Now accepting applications for seniors 62+. Apply in person at 1491 Central Ave. 203-579-1659

EQUAL HOUSING OPPORTUNITY

BRIDGEPORT 385 Brooks St. Nice 3br, 2nd flr. $1025. Sec. 8 ok. 203-223-7188.

BRIDGEPORT Clean 2 br 1st fl, quiet, OSP, nr schl/shop'g. Call 203-366-7468, 218-0794.

BRIDGEPORT 3BR Brdsly Prk area. 1st flr, $1275. 203-268-0485; 914-552-5370

BRIDGEPORT N.E. Spacious 4BR apt, new crptg, sect 8 ok. Call 203-372-9981

BRIDGEPORT LRG 2 & 3BR, updated kit & bath. $850-$1100. Call 203-400-5904

BRIDGEPORT N.E. 3BR newly remod. Sec 8 ok. OSP, W/D, $1500 +sec. 203-218-5527.

BRIDGEPORT 3BR, Beardsley Park, 2nd flr, no pets, $975/mo +sec. 203-378-1084, evenings only.

BRIDGEPORT 145 Cowles St. 1BR, $675/mo. Heat & Hot Water, Off Street Parking 203-384-1844

BRIDGEPORT 2BR, 1st flr, new paint & crpt. 272 Carroll Ave. $775. 203-545-4699.

BRIDGEPORT LRG 3BR w/carpet, 304 Benham Ave. $850. 203-545-4699.

BRIDGEPORT 1, 2 & 3BR's. Conv to hghwys Ht & Hot Water incld. Avl immd. $750 - $950 /mo. 203-773-9710.

BRIDGEPORT 3BR, LR, Kit & bth, 1st fl, appls. W/D. $1100+ sec. 201-927-5877

BRIDGEPORT RENOVATED APTS! 2br Blk. Rock $825 3br Stfd. Av. $950 2br William St - WD, DW in unit $1000 2br Hanover St. Near U of Bpt. $800 BCPM 203-612-4015

BRIDGEPORT 1BR $700, 2BR $800 w/hot water 335 Wells St. OSP, laundry on site. Gas heat & cooking. 1 mo. Sec. Credit & background check. Sec 8 ok. (860) 430-1966 Ask for Rich.

BRIDGEPORT 1BRS avl Located nr Hospitals. $725. Tenant pays utils. Credit check. No pets. Call 203-520-8875.

LOOK HERE

BRIDGEPORT 2-3BR Stove/refrig incl. $850-$900/mo. 203-449-3635.

BRIDGEPORT $1250 3BR, LR, DR, kit, W/W crpt, Sec8 ok, frdg/stv incl. 203-375-2138.

BRIDGEPORT 1BR. Off Park Av, prking, laundry rm, clean. $775-Inclds ht/ gas/ ... $1450. 203-856-1834

PUBLIC NOTICES

REPRESENTATIVE POLICY BOARD OF THE SOUTH CENTRAL CONNECTICUT REGIONAL WATER DISTRICT
NOTICE OF PUBLIC HEARING AND FILING OF RATES AND OTHER CHARGES FOR WATER AND RELATED SERVICES

The Representative Policy Board ("RPB") of the South Central Connecticut Regional Water District ("the District") will hold a public hearing at 7:00 p.m. on Thursday, April 28, 2011, at the offices of the South Central Connecticut Regional Water Authority ("the Authority"), 90 Sargent Drive, New Haven, Connecticut, to consider the application of the Authority to establish rates, other charges, and rate ...

Notice posted by:
David J. Borowy, Chairperson
Representative Policy Board of the South Central Connecticut Regional Water District

Notice is hereby given that the Authority has filed with the Representative Policy Board for its approval, the following rates and other charges for water and related services within the District (except for those former customers of Birmingham Utilities in Ansonia, Derby, and Seymour whose rates for their consumption of water and public and private fire service will not increase as a result of this application) to become effective on the delivery date of all of the proposed bonds, based on a revenue increase of 13.3%.

SERVICE AREA, EXCLUDING ANSONIA, DERBY AND SEYMOUR

QUARTERLY RATES

Service Charges

Meter Size	Existing Service Charges	Proposed Service Charges
5/8"	$ 36.96	$ 43.32
3/4"	36.96	48.05
1"	55.82	59.17
1 1/2"	93.09	93.09
2"	125.83	125.83
3"	169.38	220.19
4"	250.56	320.72
6"	431.81	535.44
8"	747.28	993.88
10"	1,067.71	1,420.05
Privately Owned	12.09	12.09

Consumption Charges

Cubic Feet	Existing Rates / per hundred cubic feet	Proposed Rates / per hundred cubic feet
First 1,000,000	$ 2.777	$ 3.183
Over 1,000,000	2.113	2.500

MONTHLY RATES ...

charge	130.00	150.00

*Proposed rates are rounded to the nearest dollar.
"Per ccf" means "per one hundred cubic feet."

Miscellaneous Non-Water Rates	Existing Rates	Proposed Rates *
Lien processing charge	$ 18.00	$ 19.00
Service call charge:		
During working hours	N/A	100.00
After hours call-in	N/A	210.00
Operate curb valve charge	158.00	195.00
Excavation for termination of service:		
(1) at curb valve	381.00	437.00
(2) in street at tap valve	(A)	(A)
Backflow device testing charges:		
Scheduled test	58.00	58.00
Unscheduled test	115.00	115.00
Confined space, pit/vault	115.00	115.00
Pit/vault requiring pumping	(A)	(A)
Meter replacement charges:		
5/8" & 3/4"	178.00	210.00
1"	223.00	262.00
1 1/2"	326.00	386.00
2"	446.00	464.00
over 2"	(A)	(A)

(A) The charge will be the Authority's cost of material, labor and equipment used, plus its cost of overhead at prevailing rates. In circumstances where this procedure for charging a customer would significantly delay the final billing, the Authority will use an appropriate substitute for its cost.

** Proposed rates are rounded to the nearest dollar.*

OTHER MISCELLANEOUS CHARGES AND CHARGES FOR PIPE INSTALLATION

Miscellaneous Charges

Charges for all services or materials are based on the actual, direct cost of the material, labor and equipment used, plus the cost of overhead at prevailing rates. In those circumstances where the procedure ...

full applicable water rates.

To qualify for this economic development rate, the customer must:

1. Be relocating to the Authority's service area from out-of-state or from another service area within Connecticut; and
2. Consume at least 416,667 gallons of water per month, or 5 million gallons per year.

CUSTOMERS OF THE FORMER BIRMINGHAM UTILITIES IN ANSONIA, DERBY, SEYMOUR

QUARTERLY RATES

Service Charges

Meter Size	Existing Service Charges	Proposed Service Charges
5/8" x 3/4"	$ 34.18	$ 34.18
3/4"	51.27	51.27
1"	85.45	85.45
1 1/2"	170.90	170.90
2"	273.44	273.44
3"	512.70	512.70
4"	854.50	854.50
6"	1,709.00	1,709.00
8"	2,734.40	2,734.40
10"	3,930.70	3,930.70
Privately Owned	12.09	12.09

Consumption Charges

Class of Customer	Existing Rates / per hundred cubic feet	Proposed Rates / per hundred cubic feet
Residential	$ 3.710	$ 3.710
Commercial	3.204	3.204
Industrial	2.934	2.934
Public Authority	3.055	3.055

MONTHLY RATES

Service Charges

Meter Size	Existing Service Charges	Proposed Service Charges
5/8" x 3/4"	$ 11.39	$11.39
3/4"	17.09	17.09

"ccf" means "per hundred cubic feet."

Miscellaneous Non-Water Rates	Existing Rates	Proposed Rates *
Lien processing charge	$ 18.00	$ 19.00
Service call charge		
During working hours	N/A	100.00
After hours call-in	N/A	210.00
Operate curb valve charge (turn on/off)	86.00	140.00
Excavation for termination of service:		
(1) at curb valve	381.00	437.00
(2) In street at tap valve	(A)	(A)
Backflow device testing charges:		
Scheduled test	58.00	58.00
Unscheduled test	115.00	115.00
Confined space, pit/vault	115.00	115.00
Pit/vault requiring pumping	(A)	(A)
Meter replacement charges:		
5/8" & 3/4"	178.00	210.00
1"	223.00	262.00
1 1/2"	326.00	386.00
2"	446.00	464.00
over 2"	(A)	(A)

** Proposed rates are rounded to the nearest dollar.*

(A) The charge will be the Authority's cost of material, labor and equipment used, plus overhead at prevailing rates. In circumstances where this procedure for charging a customer would significantly delay the final billing, the Authority will use an appropriate estimate of its cost.

OTHER MISCELLANEOUS CHARGES AND CHARGES FOR PIPE INSTALLATION

Miscellaneous Charges

Charges for all services or materials are based on the direct cost of the material, labor and equipment used, plus overhead at prevailing rates. In those circumstances where the procedure will cause a significant delay in the final billing, the Authority will ...

To qualify for this economic development rate, the customer must:

1. Be relocating to the Authority's service area from out-of-state or from another service area within Connecticut; and
2. Consume at least 416,667 gallons of water per month, or 5 million gallons per year.

Regional Water Authority
90 Sargent Drive, New Haven CT 06511-5966
Telephone: 203.562.4020 Fax: 203.624.6129
On the Internet: www.rwater.com

PUBLIC NOTICES

Legal Notice

Public Act reference: 10-179 §87 (a) (8)
Applicants: Bridgeport Hospital and Advanced Radiology Consultants.
Town: Bridgeport
Street Address: 267 Grant Street
Proposal: Acquisition of a Hospital-based MRI.
Estimated Total Project Cost Expenditure: $2,000,000.

LEGAL NOTICE

Storage Facility operators sale for the non-payment of Storage charges, pursuant to the power of sale contained in C.G.L. Chapter 743, Section 42-164, General charges for the satisfaction of the facility operators lien. The following property will be sold at Public Auction on March 29, 2011 at 10:00A.M. on the premises of Storage Deluxe, 829 Bridgeport Avenue, Shelton CT 06484. Storage Deluxe reserves the right to cancel a sale at any time, or any reason. Storage Deluxe auctioneer.

Unit Number	Name
2113	Bryan Hubbell
3176	Sarah Benjamin
2026	Joseph Southard

LEGAL NOTICE DEADLINE
ALL LEGALS MUST BE RECEIVED TWO BUSINESS DAYS PRIOR TO PUBLICATION.
Some notices may require pre-payment, please contact Diane at 203-330-6213 or email publicnotices@ctpost.com

AFFIDAVIT

Applicant: **Bridgeport Hospital**

Project Title: **Acquisition of Hospital-Based MRI**

I, **William M. Jennings**, **President and CEO**
(Individual's Name) (Position Title – CEO or CFO)

of **Bridgeport Hospital** being duly sworn, depose and state that
(Hospital or Facility Name)

Bridgeport Hospital's information submitted in this Certificate of
(Hospital or Facility Name)

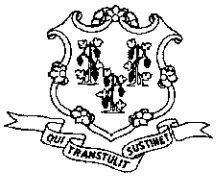
Need Application is accurate and correct to the best of my knowledge.

Signature 8/31/11
Date

Subscribed and sworn to before me on August 31, 2011

Susan Castagna, Susan Castagna
State of CT, Fairfield County.
Notary Public/Commissioner of Superior Court

My commission expires: 1/31/2015



State of Connecticut
Office of Health Care Access
Certificate of Need Application

Instructions: Please complete all sections of the Certificate of Need ("CON") application. If any section or question is not relevant to your project, a response of "Not Applicable" may be deemed an acceptable answer. If there is more than one applicant, identify the name and all contact information for each applicant. OHCA will assign a Docket Number to the CON application once the application is received by OHCA.

Docket Number: TBD

Applicant: Bridgeport Hospital

Contact Person: Carolyn Salsgiver

Contact Person's Title: Senior Vice President, Planning & Marketing

Contact Person's Address: 267 Grant St., Bridgeport, CT 06610

Contact Person's Phone Number: (203) 384-3946

Contact Person's Fax Number: (203) 384-3751

Contact Person's Email Address: kcsals@bpthosp.org

Project Town: Bridgeport

Project Name: Acquisition of Hospital-Based MRI

Statute Reference: Section 19a-638, C.G.S.

Estimated Total Capital Expenditure: $2,533,298

1. **Project Description: Acquisition of Equipment**

   a. Please provide a narrative detailing the proposal.

   Bridgeport Hospital (the Hospital) is a duly licensed, 425-bed hospital located in Bridgeport, Connecticut. The Hospital is a full-service teaching medical center, which provides a wide range of clinical services from primary to tertiary care, and is a training site for medical residents, nurses and other ancillary providers. Bridgeport Hospital does not have its own magnetic resonance imaging (MRI) unit. Rather, the Hospital relies upon a private radiology practice, Advanced Radiology Consultants, LLC (ARC), for the provision of MRI services to its patients. ARC is a local radiology practice that operates several outpatient imaging centers, including a center located on the Hospital campus in space leased from the Hospital, and provides professional services to Bridgeport Hospital and St. Vincent's Medical Center.

   MRI uses a magnetic field and radio waves to create pictures of organs and structures inside the body, particularly the soft tissues. MRI scans are especially appropriate for imaging the head and brain, bones and joints, spine, blood vessels, chest, abdomen and pelvis. MRI imaging is used to diagnose conditions such as tumors, bleeding, injury, blood vessel disease and infections. MRI scans are used by inpatients, outpatients and Emergency Department patients of all ages. An MRI machine is an essential tool for use by hospitals in diagnosing clinical conditions and monitoring treatment for patients.

   Given the location of the ARC outpatient office and its MRI on the Hospital campus, the Hospital has obtained MRI services for its patients pursuant to a Services Agreement between ARC and the Hospital. The Services Agreement and the space lease for the ARC office have expired. The Hospital has continued its relationship with ARC on a month-to-month basis while it considers its future needs for MRI services. After a detailed analysis, the Hospital has made a strategic decision to acquire its own hospital-based MRI unit in order to maintain its comprehensive diagnostic imaging service, to avoid any interruptions in service and to gain Hospital revenues from the technical portion of MRI services. The Hospital will form a joint venture with ARC to conduct the MRI service on the Hospital campus. Given ARC's expertise and history in operating the Hospital-based MRI, the Hospital has determined that a joint venture with Advanced Radiology Consultants is the best way to continue to serve its patients. ARC has agreed to participate in this joint venture.

   In connection with the acquisition of the Hospital-based MRI unit, the space lease and Service Agreement between the Hospital and ARC will be

terminated. ARC will relocate its existing MRI service, which was established in 1988, to a new location.

When the new MRI is installed at the Hospital, it will be leased by a newly formed joint venture between Bridgeport Hospital and ARC, which will create a separate entity limited liability company (Newco) for the purposes of this project. The Hospital and ARC will own equity portions in Newco of 60% and 40%. The Hospital will enter into an agreement pursuant to which it purchases from Newco the technical component of MRI services needed for its inpatients and outpatients. The Hospital will bill for the technical component, and ARC's radiologists will read and interpret the scans and bill for the professional component. The joint venture will be structured so that the Hospital can terminate it at any time and buy out ARC's shares of Newco, at which point Newco would be solely owned and operated by Bridgeport Hospital.

b. Provide letters that have been received in support of the proposal.

Please see Attachment I for letters in support of the proposal from Bruce McDonald, M.D.; Nabil Atweh, M.D.; Robert Folman, M.D. and Michael Werdmann, M.D.

c. Provide the Manufacturer, Model, Number of slices/tesla strength of the proposed scanner (as appropriate to each piece of equipment).

The proposed MRI is a GE Optima MR450w 1.5 Tesla 16-Channel model.

d. List each of the Applicant's sites and the imaging modalities and other services currently offered by location.

Bridgeport Hospital sites that offer imaging services are as follows:

Site	Location	Imaging Modalities	Other Services
Bridgeport Hospital	**267 Grant Street, Bridgeport**	• **General radiography** • **Ultrasound** • **CT Scanner** • **Nuclear Medicine** • **Mammography** • **MRI*** • **PET-CT*** ***Contracted service**	• **General, specialty and acute medical and surgical care for adults and children** • **Emergency Department**
Fairfield Urgent Care Center	**309 Stillson Road, Fairfield**	• **General radiography**	• **Urgent care**
Bridgeport Hospital Outpatient Cardiac Testing Sites	**1305 Post Road, Fairfield; 999 Silver Lane, Trumbull; 25 Germantown Road, Danbury**	• **Nuclear Cardiology**	

2. Clear Public Need

a. Explain why there is a clear public need for the proposed equipment. Provide evidence that demonstrates this need.

An MRI unit is an essential diagnostic tool that a full-service teaching medical center such as Bridgeport Hospital, which provides a wide range of clinical services from primary to tertiary care, and is a training site for medical residents, nurses and other ancillary providers, requires to function and to provide comprehensive, high quality patient care. Each day, hospital patients require MRI examinations to diagnose or rule-out certain clinical conditions. The MRI must be on-site and located in the hospital's main building, for use by inpatients and Emergency Department patients, whose conditions and clinical status prevent them from being transported to an outside imaging center for an MRI exam. This proposal allows for the acquisition of a new MRI for Bridgeport Hospital at a reduced capital expenditure.

Acquisition of the new MRI also provides a vehicle for the formation of a joint venture between the Hospital and ARC for the technical services component of the MRI. As previously stated, ARC will retain professional oversight of the MRI service, and its radiologists will continue to read and interpret the MRI scans performed at Bridgeport Hospital. The joint venture will provide Bridgeport Hospital with more oversight of, and input

into, the clinical operations of the MRI service at the Hospital, which is currently controlled by Advanced Radiology Consultants.

Because MRI is a vital imaging tool, it is imperative that Bridgeport Hospital maintain an MRI unit on campus. However, it is not financially viable for the Hospital to operate an MRI just for inpatients and emergency department patients, which represent a relatively low proportion of total MRI scans; rather, outpatient volume is also required to ensure the fiscal viability of the service. Inpatients and ED patients are referred for MRI examinations by Bridgeport Hospital attending physicians, and the Hospital does not receive separate reimbursement for these patients' MRI scans. Outpatient MRI cases at Bridgeport Hospital are generally referred directly to ARC by patients' physicians. ARC has a long relationship with the Hospital and area physicians and has been the operator of the MRI unit currently on the Hospital campus. As such, ARC has the trusted clinical and operational experience to provide optimized and seamless MRI service and has the trust of, and relationships with, the physicians who are the target referrers for proposed MRI service. Therefore, ARC is an essential component of the overall MRI program and is necessary to make the proposal financially viable. The joint venture is a collaborative approach by the Hospital and ARC to permit the Hospital to have an ownership interest in an MRI unit, which results in a successful business plan that includes a mix of inpatients, ED patients and outpatients.

Because Bridgeport Hospital will now receive a portion of the technical revenue from outpatient MRIs, the joint venture will provide the Hospital with access to revenue streams from the MRI technical fee reimbursement, which it presently does not receive. This additional revenue is very important to the Hospital in the context of reduced reimbursement from payers, ongoing cost controls and uncertainty related to the impact of national health care reform on Hospital revenues.

b. Provide the utilization of existing health care facilities and health care services in the Applicant's service area.

Utilization of MRI services at existing hospitals in the Hospital's service area is shown below. Detailed utilization data such as town of patient origin and payer are not available.

Organization	Town	FY 2010 MRI Scans, Inpatient	FY 2010 MRI Scans, Outpatient	FY 2010 MRI Scans, Total
St. Vincent's Medical Center	Bridgeport	1,758	2,059	3,817
Griffin Hospital	Derby	455	4,137	4,592
Milford Hospital	Milford	417	1,916	2,333

Source: CHA Patient Census Report, September 2010

Utilization of MRI services at freestanding outpatient imaging centers or physician offices is not available.

c. Complete **Table 1** for each piece of equipment of the type proposed currently operated by the Applicant at each of the Applicant's sites.

Not applicable. Bridgeport Hospital does not currently own an MRI machine.

Table 1: Existing Equipment Operated by the Applicant

Provider Name Street Address Town, Zip Code	Description of Service *	Hours/Days of Operation **	Utilization *** FY 2010

* Include equipment strength (e.g. slices, tesla strength), whether the unit is open or closed (for MRI)
** Days of the week unit is operational, and start and end time for each day; and
*** Number of scans/exams performed on each unit for the most recent 12-month period (identify period).

d. Provide the following regarding the proposal's location:

i. The rationale for locating the proposed equipment at the proposed site;

Bridgeport Hospital has had an MRI on site since 1988; this MRI will be relocated by its owner, ARC, as part of a strategic plan by the Hospital to acquire its own MRI unit. The Hospital desires to make its own MRI unit available on campus for use by outpatients, inpatients and Emergency Department patients of the Hospital, consistent with the utilization of the existing MRI.

ii. The population to be served, including specific evidence such as incidence, prevalence, or other demographic data that demonstrates need;

The population to be served includes residents of Bridgeport Hospital's primary and secondary service area, as shown below, as well as patients from other towns and states that seek care at the Hospital:

Primary Service Area	Secondary Service Area
Bridgeport	**Ansonia**
Easton	**Beacon Falls**
Fairfield	**Derby**
Milford	**Naugatuck**
Monroe	**Newtown**
Shelton	**Orange**
Stratford	**Oxford**
Trumbull	**Seymour**
	Weston
	Westport

The population by town for the 18-town service area for 2009 and projected to 2014 is shown in the table below.

	2009	2014	Change	Change, %
Bridgeport	135,971	134,234	(1,737)	-1.3%
Easton	7,311	7,368	57	0.8%
Fairfield	57,624	57,859	235	0.4%
Milford	55,966	57,929	1,963	3.5%
Monroe	19,374	19,442	68	0.4%
Shelton	40,322	41,489	1,167	2.9%
Stratford	48,680	48,036	(644)	-1.3%
Trumbull	34,807	35,095	288	0.8%
Total, PSA	**402,064**	**403,466**	**1,402**	**0.3%**
Ansonia	18,449	18,459	10	0.1%
Beacon Falls	5,858	6,168	310	5.3%
Derby	12,431	12,480	49	0.4%
Naugatuck	32,361	33,021	660	2.0%
Newtown	27,093	28,088	995	3.7%
Orange	13,982	14,331	349	2.5%
Oxford	13,107	14,633	1,526	11.6%
Seymour	16,274	16,755	481	3.0%
Weston	10,200	10,301	101	1.0%
Westport	26,873	27,369	496	1.8%
Total, SSA	**176,628**	**181,605**	**4,977**	**2.8%**
Total, PSA & SSA	**578,692**	**585,071**	**6,379**	**1.1%**

Source: Claritas

iii. How and where the proposed patient population is currently being served;

The proposed patient population is currently being served by the existing MRI machine at Bridgeport Hospital and will continue to be served in the same manner when a new Hospital-based MRI is acquired.

iv. All existing providers (name, address) of the proposed service in the towns listed above and in nearby towns;

Town	MRI Provider Name	MRI Provider Address
Primary Service Area		
Bridgeport	**St. Vincent's Medical Center**	**2800 Main Street**
	Advanced Radiology Consultants	**267 Grant Street (Bridgeport Hospital)**
Fairfield	**Advanced Radiology Consultants**	**1055 Post Road**
	Russo & Associates Radiology	**75 Kings Highway Cutoff**
Milford	**Milford Hospital**	**300 Seaside Avenue**
	Diagnostic Imaging of Milford	**30 Commerce Park Drive**
Shelton	**Advanced Radiology Consultants**	**4 Corporate Drive**
	Griffin Hospital	**2 Ivy Brook Road**
Stratford	**Advanced Radiology Consultants**	**2876 Main Street**
	Russo & Associates Radiology	**2595 Main Street**
Trumbull	**Advanced Radiology Consultants**	**15 Corporate Drive**
Secondary Service Area		
Derby	**Griffin Hospital**	**130 Division Street**
Naugatuck	**Valley Imaging Partners**	**799 New Haven Road**
Newtown	**Newtown Diagnostic Imaging**	**153 South Main Street**
Orange	**Advanced Radiology Consultants**	**320 Boston Post Road**

v. The effect of the proposal on existing providers; and

MRI has been available at Bridgeport Hospital for many years and is an essential diagnostic imaging modality. This proposal allows the Hospital to acquire a new MRI through a joint venture with Advanced Radiology Consultants. As such, this proposal is not expected to have an impact on existing providers.

vi. If the proposal involves a new site of service, identify the service area towns and the basis for their selection.

Not applicable. This proposal does not involve a new site of service.

e. Explain why the proposal will not result in an unnecessary duplication of existing or approved health care services.

This proposal ensures the ongoing availability of MRI services at Bridgeport Hospital, which have been in place for over 22 years.

3. Actual and Projected Volume

a. Complete the following tables for the past three fiscal years ("FY"), current fiscal year ("CFY"), and first three projected FYs of the proposal, for each of the

Applicant's existing and proposed pieces of equipment (of the type proposed, at the proposed location only). In Table 2a, report the units of service by piece of equipment, and in Table 2b, report the units of service by type of exam (e.g. if specializing in orthopedic, neurosurgery, or if there are scans that can be performed on the proposed scanner that the Applicant is unable to perform on its existing scanners).

Please see Table 2a for historic, current and projected volume for the Hospital-based MRI. Volume through ARC is shown separately from volume through the joint venture (JV). Please note that the Hospital's fiscal year runs from October 1 to September 30.

Table 2a: Historical, Current, and Projected Volume, by Equipment Unit

	Actual Volume (Last 3 Completed FYs)			CFY Volume*	Projected Volume (First 3 Full Operational FYs)**			
	FY 2008	FY 2009	FY 2010	FY 2011 (JAN-JUN YTD annualized)	FY 2012	FY 2013	FY 2014	FY 2015
Scanner - Technical Billing								
MRI - Inpatient								
ARC	1,100	914	869	963	442	0	0	0
JV	0	0	0	0	442	889	894	898
Subtotal:	1,100	914	869	963	884	889	894	898
MRI - Emergency Dept								
ARC	449	374	355	393	180	0	0	0
JV	0	0	0	0	180	363	365	367
Subtotal:	449	374	355	393	360	363	365	367
MRI - Outpatient								
ARC	4,023	3,640	3,457	3,054	1,600	0	0	0
JV	0	0	0	0	1,600	3,277	3,360	3,444
Subtotal:	4,023	3,640	3,457	3,054	3,200	3,277	3,360	3,444
MRI - TOTAL								
ARC	5,572	4,928	4,681	4,410	2,222	0	0	0
JV	0	0	0	0	2,222	4,529	4,619	4,709
TOTAL	5,572	4,928	4,681	4,410	4,444	4,529	4,619	4,709

* For periods greater than 6 months, report annualized volume, identifying the number of actual months covered and the method of annualizing. For periods less than six months, report actual volume and identify the period covered.

** If the first year of the proposal is only a partial year, provide the first partial year and then the first three full FYs. Add columns as necessary.

*** Identify each scanner separately and add lines as necessary. Also break out inpatient/outpatient/ED volumes if applicable.

**** Fill in years. In a footnote, identify the period covered by the Applicant's FY (e.g. July 1-June 30, calendar year, etc.).

Table 2b: Historical, Current, and Projected Volume, by Type of Scan/Exam

	Actual Volume (Last 3 Completed FYs)			CFY Volume*	Projected Volume (First 3 Full Operational FYs)**			
	FY 2008	FY 2009	FY 2010	FY 2011 (JAN-JUN YTD annualized)	FY 2012	FY 2013	FY 2014	FY 2015
Service type ***								
Body	419	334	271	255	257	262	267	273
Musculoskeletal	1,428	1,259	1,362	1,283	1,293	1,318	1,344	1,370
Neuro	3,633	3,276	3,022	2,848	2,870	2,923	2,982	3,040
Other	33	30	14	13	13	14	14	14
Vascular	59	29	12	11	11	12	12	12
TOTAL	5,572	4,928	4,681	4,410	4,444	4,529	4,619	4,709

* For periods greater than 6 months, report annualized volume, identifying the number of actual months covered and the method of annualizing. For periods less than six months, report actual volume and identify the period covered.
** If the first year of the proposal is only a partial year, provide the first partial year and then the first three full FYs. Add columns as necessary.
*** Identify each type of scan/exam (e.g. orthopedic, neurosurgery or if there are scans/exams that can be performed on the proposed piece of equipment that the Applicant is unable to perform on its existing equipment) and add lines as necessary.
**** Fill in years. In a footnote, identify the period covered by the Applicant's FY (e.g. July 1-June 30, calendar year, etc.).

b. Provide a breakdown, by town, of the volumes provided in Table 2a for the most recently completed full FY.

Total MRI volume by town for FY 2010 is shown in the table below.

Town	Cases
Bridgeport	**2,366**
Easton	**46**
Fairfield	**401**
Milford	**155**
Monroe	**126**
Shelton	**212**
Stratford	**533**
Trumbull	**278**
All Other Towns	**564**
Total	**4,681**

c. Describe existing referral patterns in the area to be served by the proposal.

Currently patients are referred to the Hospital-based MRI by their physicians in order to obtain the diagnostic information provided by an MRI exam. Inpatients and ED patients are referred for MRI examinations by Bridgeport Hospital attending physicians, and outpatient MRI cases at

Bridgeport Hospital are generally referred directly to ARC by patients' physicians. Most of the patients are from the Hospital's primary service area.

d. Explain how the existing referral patterns will be affected by the proposal.

The existing referral patterns are expected to continue and not be affected by this proposal.

e. Explain any increases and/or decreases in volume seen in the tables above.

The decline in MRI scans on Bridgeport Hospital inpatients from Fiscal Year 2008 to 2010 is a result of several factors. Most prominently, as a result of internal hospital analysis of efficient utilization and allocation of resources, there has been a concerted effort to ensure appropriate utilization of imaging. This is particularly important for inpatients, because hospitals are generally reimbursed on a case-rate, according to the patient's diagnosis, or on a per-diem rate, rather than for each procedure performed in the hospital.

To a lesser extent, the decline in MRI scans is concordant with the slight decline in Hospital inpatient discharges during that time period as a result of the troubled economy and the lack of, or reduction in, health insurance coverage in the population. In particular, there was a decline in the Hospital's surgical patients, who typically require more MRI scans than medicine and psychiatric patients, who comprise a substantial portion of the Hospital's case mix.

f. Provide a detailed explanation of all assumptions used in the derivation/ calculation of the projected volume by scanner and scan type.

Inpatient MRI volume is projected to increase in Fiscal Year 2012 due to projected increases in the Hospital's inpatient surgical caseload. Surgical patients, such as orthopedics and neurosurgery, utilize MRI scans at a greater rate than do other inpatients. Projected outpatient MRI volume includes pediatric patients (who will become Yale-New Haven Hospital patients if the pending CON in Docket No. 11-31714 is approved by OHCA), who must be sedated before the scan can occur. Bridgeport Hospital offers pediatric sedation services in its KidEase program that are not available at other local MRI facilities.

g. Provide a copy of any articles, studies, or reports that support the need to acquire the proposed scanner, along with a brief explanation regarding the relevance of the selected articles.

The following articles, found in Attachment II, provide support for the need to acquire the proposed MRI unit:

Article	Relevance
The Association Between Hospital Outcomes and Diagnostic Imaging: Early Findings	**"This study … indicates that inpatient diagnostic imaging may be associated with decreased in-hospital mortality … In short, our results suggest that performing imaging on more patients may improve outcomes"**
Physicians' View of the Relative Importance of Thirty Medical Innovations	**Physicians rated the relative importance to patients of 30 medical innovations. MRI and CT scanning were ranked first as the most important innovation by a considerable margin.**

4. Quality Measures

a. Submit a list of all key professional, administrative, clinical, and direct service personnel related to the proposal. Attach a copy of their Curriculum Vitae.

Please see Attachment III for a list of the Curriculum Vitae of staff associated with the proposal, including the following personnel:

- **William Jennings, President and Chief Executive Officer**
- **Alan Kaye, M.D., Chairman of Radiology**
- **Michael Tatta, Director of Radiology**

b. Explain how the proposal contributes to the quality of health care delivery in the region.

The proposal contributes to the quality of health care delivery in the region by ensuring that patients at Bridgeport Hospital maintain access to high quality MRI imaging services to diagnose and monitor certain clinical conditions. In addition, the proposed MRI will operate in accordance with the American College of Radiology Practice Guideline for Performing and Interpreting Magnetic Resonance Imaging (MRI), which is included as Attachment IV.

5. Organizational and Financial Information

a. Identify the Applicant's ownership type(s) (e.g. Corporation, PC, LLC, etc.).

Bridgeport Hospital's ownership type is a Corporation.

b. Does the Applicant have non-profit status?
☒ Yes (Provide documentation) ☐ No

Please see Attachment V for documentation of Bridgeport Hospital's non-profit status.

c. Provide a copy of the State of Connecticut, Department of Public Health license(s) currently held by the Applicant and indicate any additional licensure categories being sought in relation to the proposal.

A copy of Bridgeport Hospital's Department of Public Health license is included as Attachment VI. No additional licensure categories are being sought.

d. Financial Statements

i. If the Applicant is a Connecticut hospital: Pursuant to Section 19a-644, C.G.S., each hospital licensed by the Department of Public Health is required to file with OHCA copies of the hospital's audited financial statements. If the hospital has filed its most recently completed fiscal year audited financial statements, the hospital may reference that filing for this proposal.

A copy of Bridgeport Hospital's audited financial statements for Fiscal Year 2010 is currently on file with OHCA.

ii. If the Applicant is not a Connecticut hospital (other health care facilities): Audited financial statements for the most recently completed fiscal year. If audited financial statements do not exist, in lieu of audited financial statements, provide other financial documentation (e.g. unaudited balance sheet, statement of operations, tax return, or other set of books.)

e. Submit a final version of all capital expenditures/costs as follows:

Table 3: Proposed Capital Expenditures/Costs

Medical Equipment Purchase	**$189,454**
Imaging Equipment Purchase	
Non-Medical Equipment Purchase	
Land/Building Purchase *	
Construction/Renovation **	**$700,000**
Other Non-Construction (Specify)	
Total Capital Expenditure (TCE)	
Medical Equipment Lease (Fair Market Value) ***	**$**
Imaging Equipment Lease (Fair Market Value) ***	**$1,643,844**
Non-Medical Equipment Lease (Fair Market Value) ***	
Fair Market Value of Space ***	
Total Capital Cost (TCC)	**$**
Total Project Cost (TCE + TCC)	**$**
Capitalized Financing Costs (Informational Purpose Only)	
Total Capital Expenditure with Cap. Fin. Costs	**$2,533,298**

* If the proposal involves a land/building purchase, attach a real estate property appraisal including the amount; the useful life of the building; and a schedule of depreciation.
** If the proposal involves construction/renovations, attach a description of the proposed building work, including the gross square feet; existing and proposed floor plans; commencement date for the construction/ renovation; completion date of the construction/renovation; and commencement of operations date.
*** If the proposal involves a capital or operating equipment lease and/or purchase, attach a vendor quote or invoice; schedule of depreciation; useful life of the equipment; and anticipated residual value at the end of the lease or loan term.

The vendor quotes from GE for the MRI are included as Attachment VII. The depreciation schedule for the capital equipment is included as Attachment VIII.

The renovation work related to the proposal includes:

- **Renovating the existing modular MRI building to update the scanning room and electronics to new specifications**
- **Removing and replacing the current shielding**
- **Upgrading the existing electrical service and connections**
- **Cosmetic improvements such as paint, wallpaper and replacement of ceiling tiles**
- **Replacing carpet**
- **Replacing furniture**
- **Replacing lighting**

The MRI space occupies approximately 2,500 square feet, and the renovations will not change the square footage or floor plan. The existing floor plan is included as Attachment IX. All renovations are related to updating the existing space and do not include the construction of new or additional space. Based on CON approval, renovation work is scheduled to

begin January 1, 2012 and will be completed by March 31, 2012. Operation of the new MRI is projected to begin on April 1, 2012.

f. List all funding or financing sources for the proposal and the dollar amount of each. Provide applicable details such as interest rate; term; monthly payment; pledges and funds received to date; letter of interest or approval from a lending institution.

The proposed MRI unit will be financed through a capital lease with GE. The term of the proposed lease is five years (60 months) at 4.75% interest, for a monthly average payment of $30,843.99 per month. A copy of the capital lease from GE and equipment amortization are included as Attachment X.

g. Demonstrate how this proposal will affect the financial strength of the state's health care system.

This proposal will positively affect the financial strength of the state's health care system by providing Bridgeport Hospital with a financially viable approach, through a joint venture with Advanced Radiology Consultants, to fund and operate a new MRI. In addition, it will provide the Hospital with access to MRI technical fee reimbursement that it has not previously had access to, to help support its mission.

6. Patient Population Mix: Current and Projected

a. Provide the current and projected patient population mix (based on the number of patients, not based on revenue) with the CON proposal for the proposed program.

Current Fiscal Year 2011 MRI volume (October to June) reflects inpatient, outpatient and MRI volume cases.

Table 4: Patient Population Mix

	Current** FY 2011	Year 1 FY 2012	Year 2 FY 2013	Year 3 FY 2014
Medicare*	20.6%	20.6%	20.6%	20.6%
Medicaid*	6.1%	6.1%	6.1%	6.1%
CHAMPUS & TriCare	0.0%	0.0%	0.0%	0.0%
Total Government	**26.7%**	**26.7%**	**26.7%**	**26.7%**
Commercial Insurers*	66.7%	66.7%	66.7%	66.7%
Uninsured	6.6%	6.6%	6.6%	6.6%
Workers Compensation	0.0%	0.0%	0.0%	0.0%
Total Non-Government	**73.3%**	**73.3%**	**73.3%**	**73.3%**
Total Payer Mix	**100.0%**	**100.0%**	**100.0%**	**100.0%**

* Includes managed care activity.

** New programs may leave the "current" column blank.

*** Fill in years. Ensure the period covered by this table corresponds to the period covered in the projections provided.

b. Provide the basis for/assumptions used to project the patient population mix.

The projected payer mix reflects the same patient population as is currently obtaining MRI scans at the Hospital-based MRI unit.

7. Financial Attachments I & II

a. Provide a summary of revenue, expense, and volume statistics, without the CON project, incremental to the CON project, and with the CON project. **Complete Financial Attachment I.** (Note that the actual results for the fiscal year reported in the first column must agree with the Applicant's audited financial statements.) The projections must include the first three full fiscal years of the project.

See Attachment XI, Financial Attachment I.

b. Provide a three year projection of incremental revenue, expense, and volume statistics attributable to the proposal by payer. **Complete Financial Attachment II.** The projections must include the first three full fiscal years of the project.

See Attachment XII, Financial Attachment II.

c. Provide the assumptions utilized in developing **both Financial Attachments I and II** (e.g., full-time equivalents, volume statistics, other expenses, revenue and expense % increases, project commencement of operation date, etc.).

See Attachment XIII, Financial Attachment III.

d. Provide documentation or the basis to support the proposed rates for each of the FYs as reported in Financial Attachment II. Provide a copy of the rate schedule for the proposed service(s).

Please see Attachment XIV, Financial Attachment IV for a copy of the proposed MRI Chargemaster rate schedule.

e. Provide the minimum number of units required to show an incremental gain from operations for each fiscal year.

The minimum number of units required to show an incremental gain from operations for each fiscal year is as follows:

FY 2012: 1,699
FY 2013: 3,147
FY 2014: 3,149

FY 2015: 3,152

f. Explain any projected incremental losses from operations contained in the financial projections that result from the implementation and operation of the CON proposal.

Not applicable. The financial attachments in this CON application do not forecast any incremental loss from operations associatd with this new MRI service.

g. Describe how this proposal is cost effective.

This proposal is cost effective because the joint venture with Advanced Radiology Consultants allows Bridgeport Hospital to jointly capitalize the cost of the MRI lease. Without the joint venture, it would not have been financially viable for the Hospital to acquire an MRI to serve its inpatients and Emergency Department patients. The inclusion of outpatients in the business plan also is an essential component in the project's financial viability.

Bridgeport Hospital
Acquisition of Hospital-Based MRI

Listing of Certificate of Need Attachments

Attachment	Description
I	Letters of Support
II	Clinical Journal Articles in Support of Proposal
III	Curriculum Vitae for Key Personnel
IV	American College of Radiology Practice Guideline for Performing and Interpreting Magnetic Resonance Imaging (MRI)
V	Documentation of Bridgeport Hospital's Non-Profit Status
VI	Bridgeport Hospital's Department of Public Health License
VII	Vendor Quote from GE for MRI
VIII	Depreciation Schedule for Capital Equipment
IX	Floor Plan
X	Capital Lease with GE
XI	Financial Attachment I
XII	Financial Attachment II
XIII	Financial Attachment III
XIV	Financial Attachment IV: MRI Rates from Chargemaster

Attachment I

Letters of Support

- **Bruce McDonald, M.D., Senior Vice President, Medical Affairs and Chief Medical Officer**
- **Nabil Atweh, M.D., Surgeon-in-Chief and Chairman**
- **Robert Folman, M.D., Co-Medical Director, Norma F. Pfriem Cancer Institute**
- **Michael Werdmann, M.D., Chairman, Department of Emergency Medicine**

BRIDGEPORT HOSPITAL
YALE NEW HAVEN HEALTH

August 8, 2011

Kimberly Martone
Director of Operations
Office of Health Care Access
410 Capitol Ave.
MS #13HCA
Hartford, CT 06134-0308

Re: Bridgeport Hospital Certificate of Need – Acquisition of a Hospital-Based MRI

Dear Ms. Martone:

I am writing on behalf of the Hospital's medical staff in support of Bridgeport Hospital's Certificate of Need application to acquire a hospital-based MRI. MRI is an essential diagnostic modality that is required for a full-service teaching hospital and has been available at Bridgeport Hospital for over 20 years. It is very important that the Hospital continue to offer this service to patients and referring physicians, as the lack of on-site MRI would severely impact the Hospital's clinical operations. The acquisition of a new MRI will ensure that Bridgeport Hospital remains an advanced provider of comprehensive medical care to the community. As a result, I respectfully request that you approve this Certificate of Need.

Sincerely,

Bruce McDonald, M.D.
Senior Vice President, Medical Affairs and Chief Medical Officer

267 Grant Street
P.O. Box 5000
Bridgeport, CT 06610-0120
203.384.3000

BRIDGEPORT HOSPITAL
YALE NEW HAVEN HEALTH

August 11, 2011

Kimberly Martone
Director of Operations
Office of Health Care Access
410 Capitol Ave.
MS # 13HCA
Hartford, CT 06134-0308

Re: Bridgeport Hospital Certificate of Need – Acquisition of a Hospital-Based MRI

Dear Ms. Martone:

Please accept this letter of support for Bridgeport Hospital's Certificate of Need to acquire a Hospital-based MRI. MRI is an essential diagnostic imaging tool that is used every day to diagnose and monitor clinical conditions in patients. In particular, it is highly utilized by patients with musculoskeletal and neurological conditions, among others. The Hospital's medical staff relies on the clinical information provided by MRI scans; the same information cannot be obtained by other diagnostic imaging modalities. As a full-service teaching medical center, Bridgeport Hospital requires that current MRI technology be available on site in order to provide comprehensive care to patients.

I fully support and endorse this Certificate of Need and respectfully request that you approve the Hospital's Certificate of Need.

Sincerely,

Nabil Atweh, M.D.
Surgeon-in-Chief and Chairman

267 Grant Street
P.O. Box 5000
Bridgeport, CT 06610-0120
203.384.3000

BRIDGEPORT HOSPITAL
YALE NEW HAVEN HEALTH

August 5, 2011

Kimberly Martone
Director of Operations
Office of Health Care Access
410 Capitol Ave.
MS #13HCA
Hartford, CT 06134-0308

Re: Bridgeport Hospital Certificate of Need – Acquisition of a Hospital-Based MRI

Dear Ms. Martone:

I am writing to express my support for Bridgeport Hospital's Certificate of Need application for a Hospital-Based MRI. The clinical information obtained from a MRI scan is very important in helping to diagnose and monitor treatment in cancer patients (as well as other patients) and MRI must be available in order to provide leading edge, comprehensive care. It is important that the Hospital continue to offer this service to patients and referring physicians, as it has for many years. I request that you approve this Certificate of Need.

Sincerely,

Robert Folman, M.D.
Co-Medical Director, Norma F. Pfriem Cancer Institute

267 Grant Street
P.O. Box 5000
Bridgeport, CT 06610-0120
203.384.3000

BRIDGEPORT HOSPITAL
YALE NEW HAVEN HEALTH

August 5, 2011

Kimberly Martone
Director of Operations
Office of Health Care Access
410 Capitol Ave.
MS #13HCA
Hartford, CT 06134-0308

Re: Bridgeport Hospital Certificate of Need – Acquisition of a Hospital-Based MRI

Dear Ms. Martone:

I would like to express my full support for Bridgeport Hospital's Certificate of Need to acquire an MRI. Both for Emergency Department patients as well as the Hospital's many other patients, an MRI machine is critical for diagnosing clinical conditions as well as monitoring treatment in patients. It is imperative that the Hospital continue to offer this diagnostic imaging modality to its patients, and a new machine will help ensure that patients are receiving high quality, comprehensive care at Bridgeport Hospital. I respectfully request that you approve this Certificate of Need.

Sincerely,

Michael Werdmann, M.D.
Chairmen, Department of Emergency Medicine

267 Grant Street
P.O. Box 5000
Bridgeport, CT 06610-0120
203.384.3000

Attachment II

Clinical Journal Articles in Support of Proposal

- **The Association Between Hospital Outcomes and Diagnostic Imaging: Early Findings; Lee and Foster; *J Am Coll Radiol 2009;6:780-785.***
- **Physicians' View of the Relative Importance of Thirty Medical Innovations; Fuchs and Sox; *Health Affairs, 20, no.5(2001):30-42.***

The Association Between Hospital Outcomes and Diagnostic Imaging: Early Findings

David W. Lee, PhD[a], David A. Foster, PhD[b]

Purpose: Resource use variation across the United States prompts the important question of whether "more is better" when it comes to health care services. The aim of this study was to examine correlations between the use of 4 common imaging modalities (CT, MR, ultrasound, and radiography) and in-hospital mortality and costs.

Methods: Using clinical and utilization data for 1.1 million inpatient admissions at 102 US hospitals during 2007, two hospital-specific, risk-adjusted imaging utilization measures for each modality were constructed that controlled for patients' demographic and clinical characteristics and for hospital characteristics were constructed for each modality. First, logistic regression was used to estimate the odds that each type of imaging service would be provided during an admission. Second, the mean number of services per admission was estimated using output from a two-part ordinary least squares model. Hospital-specific, risk-adjusted inpatient mortality and total hospital costs were also computed, and correlations between the imaging utilization measures and the mortality and cost outcome measures were then assessed using Pearson's correlation coefficients ($P < .05$). The correlation analyses were weighted by hospital admission volume.

Results: Hospitals in which patients were more likely to receive imaging services during admissions had lower mortality, even after controlling for potential confounders. Correlation coefficients were −0.2 for all modalities ($P = .02$-$.05$). Weaker correlations existed between mean services per admission and mortality, while costs trended insignificantly higher with greater utilization.

Conclusions: This study lays the foundation for further exploration of the relationship between resource use and the clinical and economic outcomes associated with imaging utilization.

Key Words: Outcomes assessment, diagnostic imaging, inpatients

J Am Coll Radiol 2009;6:780-785.

BACKGROUND AND PURPOSE

If the conventional economic tenet of "more is better" held true in health care, we would expect greater resource use to automatically lead to better clinical and patient-reported outcomes, albeit with diminishing returns at the margins. The recent US experience—spiraling health care expenditures that now far exceed those of any other industrialized country and wide variations in resource use across geographic areas and between clinical institutions and health systems [1]—underscores the importance of putting this tenet to the test.

Policymakers and researchers have both begun questioning this tenet [1,2], and a number of empirical studies have demonstrated that geographic areas with high health care utilization have health outcomes and quality of care that are no better, and are sometimes even worse, than areas with less intensive service utilization [3-7]. For example, Cutler [8] and Cutler and McClellan [9] showed definitive net benefits of technological advances in care for heart attack victims, but a Dartmouth case study of myocardial infarction suggested that incremental spending in recent years has not been matched by gains in health outcomes [10].

The dramatic increases in the utilization of advanced imaging technologies (CT, MR imaging, PET, and single-photon emission CT) have caused payers and policymakers to similarly question whether more diagnostic imaging is associated with better health outcomes [11]. Between 2000 and 2006, imaging services grew at more

[a]GE Healthcare, Waukesha, Wisconsin.

[b]Thomson Reuters, Ann Arbor, Michigan.

Corresponding author and reprints: David W. Lee, PhD, GE Healthcare, 3000 N Grandview Blvd, Waukesha, WI 53005; e-mail: david.w.lee@ge.com.

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than twice the rate of physician services overall per Medicare beneficiary (67% vs 35%) [12], and Congress recently enacted the significant reductions in diagnostic imaging service payments recommended by the Medicare Payment Advisory Commission in 2005 [13]. A recent US Government Accountability Office report shows that these changes reduced Medicare Part B spending on imaging services by $1.6 billion [14].

In this paper, we explore the hypothesis that more is better for diagnostic imaging by providing preliminary data on the association between the utilization of diagnostic imaging services and two key hospital outcome measures: mortality and costs.

MATERIALS AND METHODS

Data Source

We used a sample of data from the Thomson Reuters Hospital Drug Database (HDD) for this analysis. The HDD houses information, primarily hospital billing system data, from >580 US hospitals and allows researchers to evaluate patient-level and admission-level utilization across >31 million hospital discharges [15-18]. Hospitals contribute data to the HDD on a voluntary basis, and those that do participate contribute data on all admissions that occur in their facilities. We examined data from inpatient admissions that occurred during 2007 in the 102 hospitals in the HDD that provided sufficiently detailed data to support assessment of the utilization of inpatient diagnostic imaging services. Data for the admissions included in this study are generally complete, as the information was originally collected as part of the billing process.

Overview of Study Methods

We constructed two hospital-specific, risk-adjusted imaging utilization measures for CT, MR, ultrasound, and radiography. Risk adjustment is needed to control for the characteristics of an admitted patient or a hospital that may affect the utilization of imaging services. In particular, risk adjustment allows one to "rule out" the possibility that any association between imaging utilization and outcomes is caused by systematic differences in patient or hospital characteristics between hospitals.

The first utilization measure was a binary indicator of whether a patient received a service during an admission, and the second was an estimate of the mean number of services received. We used two imaging utilization measures because a simple yes-or-no measure of imaging could be an insufficiently accurate proxy for the intensity of imaging services provided. In the claims data, imaging services were identified by the presence of procedure codes (ie, separate line items reported originally for billing purposes). Each procedure was considered a single imaging service, and any imaging procedures performed in the emergency department as precursors to admissions were included as part of the admissions. In addition to constructing metrics for imaging utilization, we constructed two hospital-specific, risk-adjusted outcome measures: inpatient mortality and the costs incurred by the hospitals in providing these inpatient services. We then assessed correlations between the two imaging utilization measures and the two hospital outcome measures.

Imaging Utilization Measures

Probability of Receiving an Imaging Service. We estimated separate logistic regression models for the odds that each imaging service of interest (CT, MR, ultrasound, or radiography) would be used during an inpatient stay. Patient demographic characteristics, patient case mix (defined through application of Thomson Reuters proprietary Clinical Risk Grouping (CRG) software), patient discharge status, and hospital characteristics were included as independent variables in the models (Table 1). The CRG software is based on diagnosis-related groups and is used to identify and group admissions that are clinically similar and which would be expected to have similar resource demands. Next, we used the resulting parameter estimates to predict the probability that each imaging modality would be provided during an inpatient stay, and averaged these predicted probabilities across admissions at the hospital level. Finally, we constructed hospital-level, modality-specific imaging probability indexes by dividing the actual percentage of admissions with an imaging service at the hospital by the mean predicted percentage. Hence, hospitals with index values >1 were "high" utilizers of imaging services because the actual percentage of admissions that included imaging services was greater than one would expect on the basis of

Table 1. Covariates for regression models

Covariate	Definition
Patient demographics	Age at admission
	Sex
Patient case mix	245 binary clinical risk group indicators, as defined by Thomson Reuters proprietary grouping software
Patient discharge status	Alive vs deceased
Hospital characteristics	Bed size categories (1–199, 200–299, 300–499, 500 or more)
	Teaching status
	Census region

the characteristics of the hospital and the patients treated there.

Imaging Service Volume. Because a large share of admissions did not involve imaging services, we used a "two-part" model to estimate the mean number of imaging services delivered to avoid biased estimates. Briefly, the two-part model involved multiplying the admission-level predicted probabilities of receiving an imaging service described above by the predicted mean number of imaging services received for the admissions for which at least one imaging service was used. For this second step, we estimated separate ordinary least squares regression models for the number of services received among admissions with nonzero utilization using the regressors in Table 1 and after log transforming the utilization data to account for nonnormality in their distribution. A smearing technique was used to retransform the geometric means back to the original units [19]. Finally, we predicted the number of imaging services received during each admission in the sample using the two-part model and then created an imaging volume index by dividing the actual mean per admission volume of imaging services at each hospital by the average of the predicted number of imaging services at that hospital. This approach allowed us to assess whether there was any type of "dose-response" relationship between the number of images obtained and the outcomes we examined.

Outcome Measures

Inpatient Mortality. We constructed a hospital-level, risk-adjusted inpatient mortality index using methods developed by Thomson Reuters for its 100 Top Hospitals analysis. Briefly, the index used patient-level data to predict diagnosis-specific inpatient mortality rates by age group (<65 and ≥ 65 years) and type of service (medical and surgical). These estimated mortality rates are based on patients' demographic characteristics and key clinical details from hospitalizations (age, gender, medical conditions, procedures received, condition and procedure interactions, admission source), as well as key characteristics of the hospitals (bed size, teaching status, census region, urban or rural setting). This mortality index has been used widely and has been compared with patient chart data in terms of its accuracy [20-24]. Predicted mortalities from the model are then used to create a hospital-specific mortality index by constructing a z score from the difference between observed and predicted mortality rates.

Total Admission-Related Costs. For this study, we used costs reported through each hospital's accounting system and therefore representing "real-world" experience; no attempt was made to adjust for the likely use of different accounting rules across institutions. We estimated an ordinary least squares regression model for log-transformed costs using the covariates from Table 1. We used these model results to predict admission-level inpatient costs and averaged these predicted probabilities across admissions at the hospital level. Finally, we constructed cost indexes by dividing the actual values for each hospital by the mean predicted values from our model.

Examining Associations Between Use of Imaging and Outcomes

We used Pearson's correlation coefficients to test for statistically significant ($P < .05$) associations between each imaging utilization measure (the likelihood of having any imaging service and the volume of imaging services per admission) and the two outcome measures (inpatient mortality and costs). The correlation analyses were weighted by hospital admission volume. This weighting, however, did not fundamentally change the findings.

RESULTS

The study selection criteria yielded a final sample of 1.1 million admissions at 102 hospitals. Table 2 provides descriptive statistics for the patients and hospitals in the study population (patients were included multiple times if they had multiple admissions). The majority of patients were female; 32.8% were aged 45 to 64 years, with another 29.9% aged 70 to 84 years. The hospitals in this sample ranged from <200 beds (26.5%) to >500 beds (12.8%), and 10.8% of these hospitals were teaching institutions; the majority (70.6%) were in the southern United States.

The logistic and ordinary least squares models fit the data well. The c-statistics for the logistic regressions estimating the likelihood of receiving any imaging service ranged from 0.74 for ultrasound to 0.83 for MR imaging. The R^2 values for the ordinary least squares regressions ranged from 0.23 for MR to 0.28 for radiography. Detailed model results are available on request.

Table 3 reports the results of assessing correlations between the two imaging utilization metrics and the primary outcomes. There was an inverse and statistically significant correlation between the risk-adjusted probability of that an imaging service would be used and risk-adjusted mortality for all 4 imaging modalities studied. The correlations were -0.22 ($P = .02$) for CT, -0.20 ($P = .05$) for MR, -0.24 ($P = .02$) for ultrasound, and -0.21 ($P = .03$) for radiography. In other words, hospitals at which patients were more likely to receive imaging services had lower mortality, and vice versa, after controlling for patient and hospital characteristics. There was also an inverse correlation between the risk-adjusted mean number of imaging services per admission at a given hospital

Table 2. Sample characteristics

Variable	Value
Patients	
n	1.1 million
Female	53.7%
Age (y)	
15–24	2.8%
25–34	5.3%
35–44	9.6%
45–54	15.1%
55–64	17.7%
65–69	9.8%
70–74	10.1%
75–84	19.8%
≥85	9.8%
Hospitals	
n	102
Hospital size (beds)	
<200	26.5%
200–299	27.5%
300–499	33.3%
≥500	12.8%
Teaching	10.8%
Patients by region	
Northeast	2.0%
Midwest	21.6%
South	70.6%
West	5.9%

and that hospital's risk-adjusted mortality score; however, statistical significance was achieved only for ultrasound (correlation, −0.20; $P = .05$). The utilization of imaging services, regardless of how it was measured, showed a positive but statistically insignificant association with costs.

DISCUSSION

This study, based on >1 million admissions to 102 US hospitals, indicates that inpatient diagnostic imaging may be associated with decreased in-hospital mortality, with a statistically insignificant impact on admission-related costs. It extends landmark investigations conducted by Fisher et al [3,4], Baicker and Chandra [5], and Fowler et al [6] by including all clinical conditions treated in hospitals; examining the experiences of patients with private, commercial, and government-sponsored insurance; and reporting the hospitals' incurred costs.

Interestingly, the use of any imaging service seems to be more tightly correlated with lower mortality than the number of imaging services received. This may be a statistical artifact of the increased variance of the number of services. Alternatively, this finding seems to suggest that there is no dose-response relationship between the number of imaging procedures performed and outcomes beyond the first procedure, and that this may even be a situation in which there are diminishing returns for additional services. Some imaging may be better than none, but additional utilization beyond the first service may create only limited value that is not detectable using our statistical methods.

In short, our results suggest that performing imaging on more patients may improve outcomes. There are also several possible noncausal explanations for the observed correlations, including the existence of unmeasured intervening variables. For instance, hospitals that are more likely to image patients could be more likely to attract better quality physicians and staff members, use better quality control systems, or have better facilities, any of which could improve patient outcomes or make care more efficient and less costly.

Table 3. Risk-adjusted imaging and outcome measure correlations*

	Risk-Adjusted Outcome Measures			
	Mortality		Cost	
Risk-Adjusted Imaging Measures	Correlation	*P*	Correlation	*P*
Receipt of ≥1 imaging service				
CT	−0.2245	.0233	0.0176	.8605
MR	−0.1964	.0490	0.1275	.2040
Ultrasound	−0.2397	.0152	0.0200	.8419
Radiography	−0.2096	.0345	−0.0224	.8234
Volume of imaging services				
CT	−0.1642	.0990	0.0397	.6923
MR	−0.0744	.4598	0.1207	.2291
Ultrasound	−0.1957	.0487	0.0808	.4195
Radiography	−0.0750	.4538	0.1554	.1189

*Adjusted for patient age, gender, severity, and hospital characteristics.

It is also reasonable to consider that the increased use of imaging services may in fact be causally associated with lower mortality, with little or no incremental cost. Because providers are only compensated for the professional components of inpatient diagnostic services, the use of these services likely reflects their perceived clinical or cost-saving benefit. This is not surprising, considering that primary care physicians identified diagnostic imaging as one of the most valuable medical innovations in the past 30 years [25], and some researchers have suggested that inpatient imaging lowers costs for selected conditions [26].

Our study illustrates an important yet largely unexplored area of inquiry given policy shifts toward "value-based" payment. One of the greatest obstacles to true value-based payment for imaging is the relative lack of critical evaluations of the relationship between imaging and outcomes. Furthermore, the literature that does exist is often limited to specific applications [27]. Economists' theory of revealed preference suggests that the dramatic growth in imaging is in itself evidence of inherent value. Alternatively, the growth in diagnostic imaging utilization may reflect the existence of financial incentives within the health care system, a desire to limit professional liability [28], and an inherent preference for the "latest and greatest" [29]. Population-based, empirical evaluations of the value of imaging have mixed results and provide only a limited context for policy recommendations for use of imaging services. The Dartmouth Atlas of Health Care showed no association between high utilization of imaging services and outcomes for hip fracture, colorectal cancer, and acute myocardial infarction in a general population sample [4]. By contrast, Beinfeld and Gazelle [26] reported that shorter hospital stays coexisted with higher spending on imaging services for stroke, appendectomy, lung cancer, upper gastrointestinal procedures, colorectal cancer, and back problems. This limited and contradictory literature highlights our incomplete understanding of the relationship between utilization and outcomes.

There are, of course, limitations to this study. Our risk adjustment methods may have been incomplete, possibly confounding our findings if omitted severity measures correlate with the use of imaging services or costs. We included potential confounders (hospital location, size, teaching status) in the models and used a sophisticated, validated case-mix adjuster (clinical risk groups), but obviously, a number of factors (eg, the use of electronic order systems, the availability of rapid response teams, the availability of imaging equipment, the quality of images, the training of medical staff members reading the images) were unavailable in our data and therefore were not included in our models. In addition, one might argue that a terminal patient would be less likely to receive an imaging service, and so mortality would be lower in imaged patients not because of the contribution of imaging to their care but simply because the patients most likely to die were selected out of the imaged population. Alternatively, we know that health care resource use is extensive in the last year of life, so it is equally reasonable to expect that very sick patients would be just as likely, or perhaps even more likely, to receive imaging services compared with patients who are less sick.

It is important also to consider how characteristics of the sample may have influenced the results. With a large sample such as this, results may be more likely to achieve statistical significance. The statistically significant findings in this study, however, may or may not translate into clinical significance, and additional research needs to be done to more fully understand the relationship between imaging and outcomes. Furthermore, although our sample included a large number of admissions, these results are unlikely to fully represent national inpatient experience. According to the American Hospital Association, there are currently nearly 6,000 hospitals registered in the United States that provided care for >37 million admissions last year [30]. Obviously, only a small percentage of American hospitals are represented in the study database, and hospitals in the southern United States are overrepresented. Finally, this study is subject to the limitations inherent to administrative claims data, including diagnosis and procedure coding conventions that provide more limited clinical detail than medical records.

Correlational analyses are widely used to examine health care variation, as illustrated by the Dartmouth Atlas of Health Care [31]. Our exploratory correlational analyses, based on a small (although relatively diverse) sample of US hospitals and using two simple measures of imaging utilization and intensity, does not definitively support causal inferences about the underlying relationship between the utilization of imaging services and hospital discharge status or costs. However, we do hope that these findings inspire researchers to use other data sources, more detailed imaging intensity measures, and alternative statistical methods to test the robustness of our results and to examine related hypotheses. Better utilization measures could reduce variance and provide a more accurate assessment of the true correlations. Different data sources might offer data from a more representative sample of hospitals and a broader set of covariates (eg, patient income, education, family status, physician supply) that could be controlled for in the analyses. Alternative statistical methods (eg, tobit models) may also provide more sophisticated ways to reduce variation and increase the accuracy of the statistical estimation in the analyses.

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Physicians' Views Of The Relative Importance Of Thirty Medical Innovations

A survey of leading general internists provides a useful consensus on the relative importance of innovations to their patients.

by Victor R. Fuchs and Harold C. Sox Jr.

ABSTRACT: In response to a mail survey, 225 leading general internists provided their opinions of the relative importance to patients of thirty medical innovations. They also provided information about themselves and their practices. Their responses yielded a mean score and a variability score for each innovation. Mean scores were significantly higher for innovations in procedures than in medications and for innovations to treat cardiovascular disease than for those to treat other diseases. The rankings were similar across subgroups of respondents, but the evaluations of a few innovations were significantly related to physicians' age. The greatest variability in response was usually related to the physician's patient mix.

30 PHYSICIANS' VIEWS

DURING THE PAST THIRTY YEARS an unprecedented number of innovations have had great clinical and economic importance for U.S. medicine. New medications, new diagnostic techniques, and new surgical procedures have helped millions of patients to live longer, better-quality lives. At the same time, leading health economists believe that technological advance is the major cause of rising expenditures.[1] The need to compare the value to patients of new technologies with their effect on spending is a major source of tension among physicians, hospitals, patients, insurance companies, and government policymakers.

The efficacy and safety of most innovations have been studied through randomized clinical trials. In addition, there have been numerous attempts to calculate the cost-effectiveness of specific interventions for well-defined clinical conditions.[2] There does not, however, seem to be any systematic information about different

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innovations' relative importance to patients. Because no patient has direct experience with more than a subset of technologies, it is not possible for patients themselves to make comparisons across a larger set. Similarly, physicians who specialize are not able to compare different technologies that are applied to a wide variety of health problems. Primary care physicians, who see the effects of many different interventions on their patients, are probably in the best position to make such comparisons. This paper presents the results of an initial effort to provide an assessment of thirty innovations through a survey of leading general internists.

Design Of The Study

■ **The innovations.** Our study focuses on thirty major innovations, a number large enough to permit meaningful comparisons across innovations but small enough to be manageable by respondents. The innovations were chosen by an electronic search of the *Journal of the American Medical Association* and the *New England Journal of Medicine* for the past twenty-five years, based on the frequency with which the innovations were the principal focus of published articles. An adjustment was made to include more recent innovations that could have been the subject of articles for only a few years. We modified and supplemented the resulting list according to our judgment concerning the clinical and economic importance of particular innovations. We do not claim that the thirty innovations chosen for the survey are unambiguously the most important ones of the past thirty years; the survey invited respondents to suggest omitted innovations that they thought were particularly important. Only 2 percent did so, and no omitted innovation was mentioned by more than one physician.

■ **The survey population.** We chose the survey population from two sources. First, the governors of the sixty-five U.S. chapters of the American College of Physicians–American Society of Internal Medicine (ACP-ASIM) were asked to nominate two to four physicians whom they considered to be among the leading general internists in their chapters. Second, a list of best physicians compiled by Castle Connolly Medical Ltd. was used, choosing those in the category "primary care–internal medicine." Among other qualifications, physicians on the Castle Connolly list were those whom other physicians said they would choose for their own family care.[3] Physicians who graduated from medical school after 1980 were excluded because it was thought important to have physicians who had an extensive opportunity to observe the effects of innovations on patients and some familiarity with interventions that predated the innovations. Also excluded were physicians who spent less than

half of their work time in face-to-face patient care as a generalist.

■ **The questions.** Outside medicine, a variety of strategies have been used to determine the relative importance of different innovations: surveys of experts; counts of citations to patents; and economic value as measured by revenues, profits, or consumer surplus.[4] There is no consensus regarding the best approach. In this study the survey instrument (Exhibit 1) listed the thirty innovations in alphabetical order, and each respondent was asked to consider how adverse the effect on their patients would be if the innovation were not available. They were asked to select the five to seven innovations whose loss would probably have the most adverse effects and the five to seven whose loss would probably have the least adverse effects. Thus, the focus was not on the absolute efficacy or effectiveness of an innovation in the abstract, but on the benefit provided by

EXHIBIT 1
Dartmouth-Stanford Survey Of Medical Innovations

If **EACH** one of the 30 innovations listed below did **NOT** exist, how adverse would be the effect on **YOUR** patients? Please consider the likely effect on length and quality of life, taking into account the proportion of patients in your practice that would be affected if that innovation did not exist.

- Place a check (✓) next to those innovations whose **LOSS** would probably have the **MOST** adverse effects.
- Place a cross (✗) next to those innovations whose **LOSS** would probably have the **LEAST** adverse effects.
- Choose at least **FIVE** but no more than **SEVEN** in **EACH** of the **MOST** and **LEAST** categories.

1. ___ ACE inhibitors and angiotensin II antagonists
2. ___ Balloon angioplasty with stents
3. ___ Bone densitometry
4. ___ Bone marrow transplant
5. ___ CABG
6. ___ Calcium channel blockers
7. ___ Cataract extraction and lens implant
8. ___ Fluoroquinolones
9. ___ Gastrointestinal endoscopy
10. ___ H. Pylori testing and treatment
11. ___ Hip and knee replacement
12. ___ HIV testing and treatment
13. ___ Inhaled steroids for asthma
14. ___ IV-conscious sedation
15. ___ Laparoscopic surgery
16. ___ Long-acting and parenteral opioids
17. ___ Mammography
18. ___ MRI and CT scanning
19. ___ Nonsedating antihistamines
20. ___ NSAIDs and Cox-2 inhibitors
21. ___ Proton pump inhibitors and H2 blockers
22. ___ PSA testing
23. ___ SSRIs & recent non-SSRI antidepressants
24. ___ Recent hypoglycemic agents, e.g. metformin
25. ___ Cardiac enzymes, e.g. CPK, troponin
26. ___ Sildenafil
27. ___ Statins
28. ___ Tamoxifen
29. ___ Third-generation cephalosporins
30. ___ Ultrasonography incl. echocardiography

NOTE: If there are innovations since 1975 not listed above that you would have included in the most adverse effect group, please note them on the reverse of this survey.

Please provide the following information about yourself:

1. Age ___ 2. Sex ___

3. Number of physicians in your practice:	<5	5–19	20–99	≥100
4. Percent of practice time devoted to patients 65 or older:	<25	25–49	50–74	≥75
5. Percent of practice time devoted to male patients:	<25	25–49	50–74	≥75
6. Percent of practice time devoted to Medicaid patients:	0	1–5	6–14	≥15

SOURCE: Authors' survey.

NOTES: ACE is angiotensin converting enzyme. CABG is coronary artery bypass graft. HIV is human immunodeficiency virus. IV is intravenous. MRI is magnetic resonance imaging. CT is computed tomography. NSAIDS are nonsteroidal anti-inflammatory drugs. PSA is prostate-specific antigen. SSRIs are selective serotonin reuptake inhibitors. CPK is creatine phosphokinase.

an innovation relative to the best alternative intervention.[5] Respondents were asked to consider the innovation's likely effect on length and quality of life, taking into account the proportion of patients in their practice that would be affected.

Physicians also were asked to provide information about their age and sex; the number of physicians in their practice; and the percentage of practice time devoted to patients age sixty-five or older, to male patients, and to Medicaid patients. Geographical location was inferred from physicians' ZIP codes. A cover letter, sent on ACP-ASIM stationery, emphasized our intention to include only physicians who spent at least half of their time in face-to-face patient care as a generalist and promised anonymity to the respondents. The initial mailing was sent during the week of 20 January 2001. Physicians who did not respond to the initial survey were sent a follow-up letter five weeks later.

Results Of The Survey

■ **Response rate.** The involvement of the ACP-ASIM and the fact that the survey was only one page long helped to produce an excellent response rate: a mailing of 387 yielded 274 replies (73 percent). This compares very favorably with most surveys of physicians and far surpasses the 50 percent response to a 1996 survey of leading economists.[6] Of the 274 replies, thirty physicians ruled themselves as ineligible because they didn't spend the requisite time in face-to-face patient care as a generalist; twelve replies could not be used because they were not marked correctly; and seven replies arrived too late to be included. Thus, the statistical analyses are based on 225 replies.

■ **Characteristics of survey respondents.** Respondents were predominantly male and considerably older than the average American physician, and almost half practiced with fewer than five physician colleagues (Exhibit 2). Almost 60 percent said that they devoted more than half of their practice time to patients age sixty-five and older, but only one-fourth devoted more than 5 percent of their time to Medicaid patients. All four regions of the United States were well represented, with a heavy concentration in very large metropolitan areas. The respondents were not and were never intended to be a representative sample of all U.S. physicians. It is their experience, distinction among their peers, and active involvement in patient care that make their views credible and important.

■ **Mean score.** The mean score for an innovation was calculated by assigning a value of 1.0 if the innovation was selected as having a most adverse effect if it were unavailable, a value of 0.0 if it was placed in the least category, and 0.5 if it was neither most nor least

EXHIBIT 2
Characteristics Of Physicians Responding To Survey On Innovations, 2001

Age (years)	
Median	54
Interquartile range	10
Mean	55.7
Standard deviation	7.33
Sex	
Male	90.9%
Female	9.1
Region	
Northeast	30.2
North Central	19.6
South	28.4
West	21.8
Population of area	
Less than 1 million	27.6
1–5 million	25.3
More than 5 million	47.1
Number of physicians in practice	
Fewer than 5	45.2
5–19	32.1
20–99	14.0
100 or more	8.6
Percent of practice time spent with	
Patients age 65 and older	
Less than 25 percent	5.9
25–49 percent	35.5
50–74 percent	50.0
75 percent or more	8.6
Male patients	
Less than 25 percent	2.7
25–49 percent	77.7
50–74 percent	19.1
75 percent or more	0.5
Medicaid patients	
None	25.0
1–5 percent	49.1
6–14 percent	16.4
15 percent or more	9.5

SOURCE: Authors' analysis of their survey.
NOTE: N = 225.

(Exhibit 3). Inasmuch as respondents chose somewhat more innovations in the "most" category than in the "least" category, the mean for all thirty innovations is 0.520, with a standard deviation of 0.02. (Scores above 0.56 or below 0.48 are statistically significant at the ≥ 95 percent confidence level.) The most important innovation by a considerable margin is magnetic resonance imaging (MRI) and computed tomography (CT) scanning, and the innovation whose absence would have the least adverse effect on patients is bone

EXHIBIT 3
Mean Response And Ranking Of Physicians' Ratings Of Innovations, 2001

Rank	Innovation	Mean score[a]	Percent of respondents choosing: Most	Not most or least	Least
1	MRI and CT scanning	0.878	75.6%	24.4%	0.0%
2	ACE inhibitors	0.767	54.2	44.9	0.9
3	Balloon angioplasty	0.758	53.8	44.0	2.2
4	Statins	0.736	48.0	51.1	0.9
5	Mammography	0.733	47.6	51.6	0.9
6	CABG	0.693	40.4	57.8	1.8
7	Proton pump inhibitors and H2 blockers	0.687	40.0	57.3	2.7
8	SSRIs and recent non-SSRI antidepressants	0.678	39.6	56.4	4.0
9	Cataract extraction and lens implant	0.651	38.2	53.8	8.0
10	Hip and knee replacement	0.649	31.6	66.7	1.8
11	Ultrasonography	0.647	31.1	67.1	1.8
12	Gastrointestinal endoscopy	0.624	28.0	68.9	3.1
13	Inhaled steroids for asthma	0.591	23.6	71.1	5.3
14	Laparoscopic surgery	0.558	20.9	69.8	9.3
15	NSAIDs and Cox-2 inhibitors	0.531	14.2	77.8	8.0
16	Cardiac enzymes	0.498	7.1	85.3	7.6
17	Fluoroquinolones	0.487	6.7	84.0	9.3
18	Recent hypoglycemic agents	0.478	12.9	69.8	17.3
19	HIV testing and treatment	0.444	15.6	57.8	26.7
20	Tamoxifen	0.440	3.1	81.8	15.1
21	PSA testing	0.438	12.9	61.8	25.3
22	Long-acting and parenteral opioids	0.376	8.4	58.2	33.3
23	H. Pylori testing and treatment	0.351	1.8	66.7	31.6
24	Bone densitometry	0.344	4.0	60.9	35.1
25	Third-generation cephalosporins	0.329	1.8	62.2	36.0
26	Calcium channel blockers	0.291	1.8	54.7	43.6
27	IV-conscious sedation	0.289	1.8	54.2	44.0
28	Sildenafil (Viagra)	0.256	0.9	49.3	49.8
29	Nonsedating antihistamines	0.231	1.3	43.6	55.1
30	Bone marrow transplant	0.182	1.3	33.8	64.9
	All 30 innovations	0.520	22.3	59.6	18.2

SOURCE: Authors' analysis of their survey.
NOTES: N = 225. See Exhibit 1 for more details about the thirty innovations studied.
[a] Response values: "most"= 1.0; "not most or least"= 0.5; "least" = 0.0.

marrow transplant.

Innovations that take the form of medications have a statistically significantly lower mean score (0.473) than do the diagnostic innovations (0.570) or the surgical innovations (0.582). When the innovations are clustered by disease group, those that are used to treat cardiovascular disease have a significantly higher mean score (0.625) than do those used for the treatment of malignant neoplasms (0.497) or other disease groups (0.490).

To determine whether innovations that have their effect primarily on length rather than quality of life are evaluated more highly, seven internists who did not participate in the survey and were blind to the results rated each of the innovations on a ten-point scale where ten indicated "length of life only" and one indicated "quality

of life only." A mean rating for each innovation was calculated, and the innovations were divided into two categories of fifteen innovations each, according to mean rating. The survey respondents evaluated innovations that primarily affect length of life somewhat higher than they did those that primarily affect quality of life (mean scores are 0.558 versus 0.483, respectively).

The order in which the innovations were listed on the survey did not appear to affect the evaluations. The sum of ranks for the fifteen innovations listed first, on the left-hand side of the page, was 234; the sum of ranks for the second fifteen, on the right-hand side of the page, was 231. The allocation of "mosts" and "leasts" was also not related to the order of questions. The first fifteen innovations produced almost half of the former (48.4 percent) and slightly more than half of the latter (52.7 percent).

One reassuring result of the survey is the fact that various subgroups of respondents all had similar rankings. The coefficients of rank correlation measure the extent of similarity between any two groups of physicians. If the rankings are identical, the coefficient is 1.0. If the rankings are opposite, the coefficient is −1.0, and if the rankings are unrelated, the coefficient is 0.0. The correlation in our study was always above 0.90 and usually above 0.95 (Exhibit 4). None of the coefficients were significantly different from 1.0. In short, respondents in different locations and different kinds of practices all tended to provide similar assessments of the thirty innovations. The lowest correlation was between male and female physicians (0.907), but this is at least partly explained by the small number of female respondents (twenty). The standard deviation of the mean score of females is 0.07, which implies that there is probably considerable random variation in their rankings. The comparisons based on physician's age and on percentage of practice time spent with Medicaid patients also show below-average correlations. Worthy of note is the very high correlation (0.98) between the first half of responses and the second half. Some survey researchers believe that a significant difference in rankings between early and late respondents suggests that the nonrespondents might differ even more.

■ **Variability in evaluations.** Although the physicians' assessments were similar regardless of geographic location, personal characteristics, or type of practice, there was some variability for certain innovations (Exhibit 5). The variability score for each innovation was calculated by summing across respondents the square of the difference between the individual respondent's value (that is, 1.0, 0.5, or 0.0) and the mean score of the innovation, multiplying by 4 and dividing by N. This variability score has a potential range from

EXHIBIT 4
Coefficients Of Rank Correlation Of Mean Scores Between Subgroups Of Respondents To Physician Survey On Innovations, 2001

	Number of respondents	Coefficient
Age of physician		
Under 55 vs. 55 and older	115 vs. 104	0.964
Sex of physician		
Male vs. female	200 vs. 20	0.907
Number of physicians in practice		
Fewer than 5 vs. 5 or more	100 vs. 121	0.986
Percent of practice time spent with		
Patients age 65 and older		
Less than 50 vs. 50 or more	91 vs. 129	0.970
Male patients		
Less than 50 vs. 50 or more	177 vs. 43	0.966
Medicaid patients		
Less than 6 vs. 6 or more	163 vs. 57	0.947
Location		
NE and West vs. South and NC	117 vs. 108	0.985
Area population		
Under 5 million vs. 5 million or more	119 vs. 106	0.981
Physician nominated by		
ACP-ASIM vs. Castle Connolly	103 vs. 122	0.967
Time of response arrival		
First half vs. second half of respondents	112 vs. 113	0.978

SOURCE: Authors' analysis of their survey.
NOTES: Based on listing of thirty innovations. ACP-ASIM is American College of Physicians–American Society of Internal Medicine.

zero (all responses identical) to 1.0 (half of the respondents choosing "most" and half choosing "least"). The greatest variability is for human immunodeficiency virus (HIV) testing and treatment; three other innovations—cataract extraction, prostate-specific antigen (PSA) testing, and opioids—also show high variability.

Through correlation and regression analysis (detailed tables with tests of statistical significance are available upon request), we explored the possibility that high variability was related to differences among respondents in the characteristics of their patients (Exhibit 6). We see that the mean score for HIV testing and treatment rises sharply as the percentage of Medicaid patients increases. Physicians with no Medicaid patients gave it a mean score of only 0.37, while physicians who devoted at least 15 percent of their practice time to Medicaid patients gave it a mean score of 0.60. Also notable is the decrease in mean score for HIV testing and treatment as the percentage of patients age sixty-five and older increases. The score for cataract extraction and lens implant is positively related to both percentage of Medicaid and percentage of elderly patients, but the relationship is less clear-cut than between HIV and percentage of

EXHIBIT 5
Variability In Response To Survey Of Physicians' Views On Innovations, In Order Of Variability, 2001

Innovation	Variability score[a]
HIV testing and treatment	0.4099
Cataract extraction and lens implant	0.3709
PSA testing	0.3667
Long-acting and parenteral opioids	0.3558
SSRIs and recent non-SSRI antidepressants	0.3091
Recent hypoglycemic agents	0.3003
Bone densitometry	0.2943
Balloon angioplasty	0.2942
Laparoscopic surgery	0.2889
Proton pump inhibitors and H2 blockers	0.2873
IV-conscious sedation	0.2795
Calcium channel blockers	0.2788
Nonsedating antihistamines	0.2752
CABG	0.2727
Sildenafil (Viagra)	0.2677
Statins	0.2669
ACE inhibitors	0.2667
Mammography	0.2667
Third-generation cephalosporins	0.2607
Bone marrow transplant	0.2583
Inhaled steroids for asthma	0.2557
Gastrointestinal endoscopy	0.2492
H. Pylori testing and treatment	0.2447
Hip and knee replacement	0.2447
Ultrasonography	0.2428
NSAIDs and Cox-2 inhibitors	0.2184
MRI and CT scanning	0.1847
Tamoxifen	0.1678
Fluoroquinolones	0.1593
Cardiac enzymes	0.1467
All 30 innovations (mean)	0.2695

SOURCE: Authors' analysis of their survey.
NOTE: N = 225. See Exhibit 1 for more details about the thirty innovations studied.
[a] Variability score = (sum d^2)/N*4 where d = difference between the value of each individual's response and the mean score for the innovation.

Medicaid patients. The PSA score is much lower if the percentage of Medicaid patients is 6 or higher; the relationship to percentage of elderly patients is mixed. The evaluation of opioids does not show a strong relation to any of the patient characteristics.

Data analyses also revealed that the evaluation of several innovations varied significantly with the age of the physician (Exhibit 7). We see that the mean score of the new antidepressants declines very sharply with age. Physicians age fifty or under gave this innovation a score of 0.746, while physicians over age sixty evaluated it at 0.578. The newer gastrointestinal drugs (proton pump inhibitors and H2

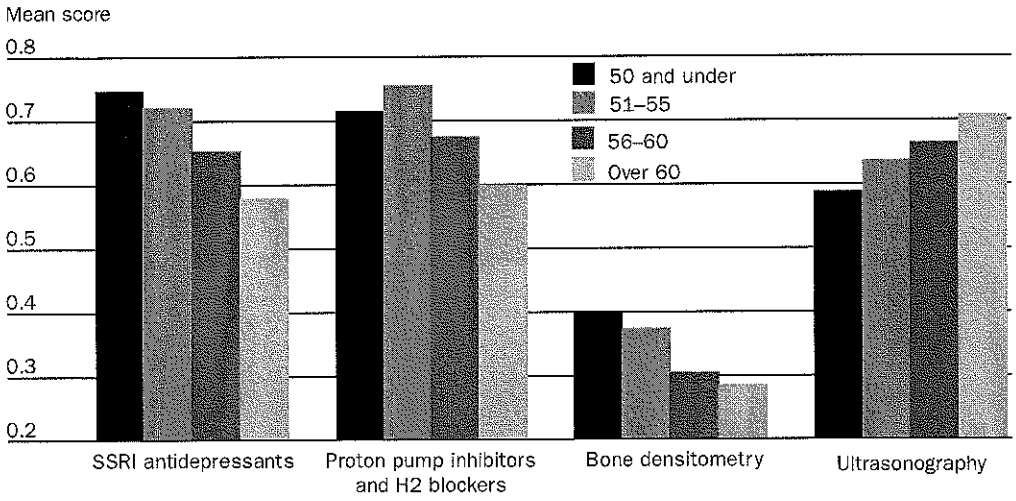
EXHIBIT 6
Mean Scores For Innovations With High Variability Of Responses, By Selected Physician Practice Characteristics, 2001

Percent of practice time spent with	HIV testing and treatment	Cataract extraction	PSA testing	Long-acting opioids
Medicaid patients				
0 percent	0.373	0.591	0.518	0.336
1–5 percent	0.431	0.676	0.468	0.384
6–14 percent	0.542	0.639	0.306	0.431
15 percent or more	0.595	0.714	0.310	0.357
Patients age 65 or older				
Less than 25 percent	0.577	0.500	0.385	0.346
25–49 percent	0.449	0.680	0.462	0.372
50–74 percent	0.441	0.641	0.432	0.359
75 percent or more	0.421	0.684	0.421	0.526
Male patients				
Less than 50 percent	0.446	0.658	0.441	0.370
50 percent or more	0.465	0.628	0.430	0.407

SOURCE: Authors' analysis of their survey.

blockers) and bone densitometry also show a significant decline in mean score between younger and older physicians. Ultrasonography (including echocardiography) shows the reverse pattern: The mean score rises with physician's age.

EXHIBIT 7
Mean Scores Of Selected Innovations, By Age Of Physician, 2001



SOURCE: Authors' analysis of their survey.
NOTE: SSRI is selective serotonin reuptake inhibitor.

Discussion

Most studies of medical innovations are conducted by specialists; they focus on only one innovation at a time; and an innovation's effects are usually judged in the light of goals set by researchers. In this survey, generalists were asked to compare many innovations simultaneously and, to the best of their ability, consider the effects of the innovations on their patients.

■ **Complexity of survey question.** We are well aware of the complexity of the question we posed to the survey population. It is often extremely difficult to rank alternative treatments for the same medical problem because possible differences in mortality, complications, side effects, relief of symptoms, and functional improvements must be considered simultaneously. Comparisons of interventions for different medical problems are even more difficult. Nevertheless, we believe that a start must be made because the information gathered by this survey raises interesting questions and could stimulate research on issues such as continuing physician education, the deployment of medical resources, and investment in research and development.

■ **Strong consensus.** The high response rate to our survey of leading general internists indicates that physicians are willing to give their views regarding the relative importance to their patients of different medical innovations. Their responses form a systematic pattern, with most innovations receiving scores significantly higher or lower than would be expected by chance. Moreover, subgroups of the population all show similar patterns of response. This strong consensus could be the result of similar observations of the effects of these innovations on patients or similar exposure to the medical literature, or both. It would be of interest to know whether rankings by other generalists or by specialists would be similar to those reported here and whether the level of consensus would be as great.

■ **Applications of the rankings.** *Practice style.* One possible application of the rankings would be in the evaluation of physicians' uses of innovations. If some physicians make consistently above-average use of innovations with low ranking (unexplained by patient mix) or below-average use of high-ranking innovations, a closer examination of their practice patterns might be warranted.

Quality assessment. The rankings might also contribute to an expanded approach to quality assessment. The National Committee for Quality Assurance (NCQA) seems to use strong evidence of efficacy as a prime criterion for choosing its quality measures. This policy encourages health plans to promote the use of innovations that improve health outcomes in clinical trials. The rankings in

"Health policy specialists need to pay more attention to the distributive consequences of innovations."

Exhibit 3 could provide another form of evidence, that of perceived value to patients, which is, or ought to be, an important aspect of quality.

Research and development. The rankings also could help to inform policies concerning research and development. Innovations in diagnostic and surgical procedures tended to receive significantly higher rankings than innovations in medications, although there were some exceptions. The importance that the internists ascribed to innovations in diagnostic and surgical procedures highlights the need to understand the scientific and technological foundations of advances in medicine. It may be that such advances are more dependent on research in physics, engineering, and related fields than on "medical" research narrowly defined.

■ **Cardiovascular treatments.** Innovations designed for the treatment of cardiovascular disease received significantly higher ratings than did other innovations. This probably reflects both the high incidence of cardiovascular disease (the leading cause of death in the United States) and the greater efficacy of new cardiovascular procedures and medications relative to innovations that address other major diseases such as malignant neoplasms.

■ **Outliers.** Although the rankings are similar across subgroups of respondents, evaluations of a few innovations show considerable variability. In most cases, high variability is related to differences among physicians in patient mix. For instance, the evaluation of HIV testing and treatment is strongly positively related to the percentage of practice time devoted to Medicaid patients. Two other innovations with high variability scores, cataract extraction with lens implant and PSA testing, got relatively low evaluations from physicians who spend less than 25 percent of their practice time with patients age sixty-five and older.

■ **Areas for future research.** There are a few innovations whose mean scores vary considerably with the age of the physician. Reasons for these variations should be explored. For example, older physicians may not think that the new antidepressants are as valuable as their younger colleagues do because they do not diagnose depression as frequently. Alternatively, they may make this diagnosis as frequently but think that the older antidepressants are as good or almost as good as the newer ones. A more highly focused study than this broad survey could test these hypotheses.

Another promising area for research is the diffusion of innovations. Did the innovations with high mean scores diffuse more rapidly than those with low scores? What are the factors that help or hinder the diffusion process? Also of interest are innovations' economic consequences. For example, is the ranking based on respondents' evaluations similar to a ranking based on expenditures? Are there some innovations that generate a higher level of spending than would be predicted by their ranking in the survey? If there are, what accounts for the difference?

Finally, health policy specialists need to pay more attention to the distributive consequences of innovations. How do the benefits vary among different groups defined by age, sex, ethnicity, education, income, and other characteristics? Are the distributive consequences the same for innovations with high and low rankings? This initial effort to obtain information about the relative importance to patients of thirty innovations should provide a stimulus for addressing many questions about innovations relevant to health policy.

The authors thank Sarah Rosen for outstanding research assistance, Byron Wm. Brown Jr. and Persi Diaconis for statistical advice, Claire Gilchrist and Rossannah Reeves for administering the survey, and numerous colleagues at Dartmouth and Stanford for helpful comments on many issues. Victor Fuchs is also pleased to acknowledge financial support from the Robert Wood Johnson and Henry J. Kaiser Family Foundations.

NOTES

1. See, for example, V.R. Fuchs, "Economics, Values, and Health Care Reform," *American Economic Review* (March 1996): 1–24.
2. T.O. Tengs et al., "Five Hundred Life-Saving Interventions and Their Cost-Effectiveness," *Risk Analysis* 15, no. 3 (1995): 369–390.
3. Castle Connolly Medical Ltd. is an Internet-based source of information about health care providers. For its selection procedures, see <www.castleconnolly.com>.
4. See, for example, Z.J. Acs and D.B. Audretsch, *Innovation and Small Firms* (Cambridge, Mass.: MIT Press, 1990); F.M. Scherer, "The Size Distribution of Profits from Innovation," in *Economics and Econometrics of Innovation*, ed. D. Encaoua et al. (Amsterdam: Kluwer Publishing, 2000); and D. Harhoff et al., "Citation Frequency and the Value of Patented Inventions," *Review of Economics and Statistics* 81, no. 3 (1999): 511–515.
5. This corresponds to the economists' concept of "marginal" or "incremental" benefit, a concept deemed most relevant for analytical purposes.
6. V.R. Fuchs, A.B. Krueger, and J.M. Poterba, "Economists' Views about Parameters, Values, and Policies: Survey Results in Labor and Public Economics," *Journal of Economic Literature* (September 1998): 1387–1425. To be sure, the survey sent to the economists was much longer and more complicated.

Attachment III **Curriculum Vitae for Key Personnel**

- **William Jennings, President and Chief Executive Officer**
- **Alan Kaye, M.D., Chairman of Radiology**
- **Michael Tatta, Director of Radiology**

William M. Jennings

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337 Hill Brook Lane
Fairfield, CT 06824
Home: (203) 292-3362 Mobile: (203) 362-9956

HEALTHCARE EXPERIENCE:

Yale New Haven Health System - $2.1 billion net revenue integrated health system with 4 hospitals in 2 states.

President
September, 2010 – Present
Bridgeport Hospital – 425 beds, $415M net revenue, suburban teaching hospital in Bridgeport, CT, serving a diverse community.

SSM Health Care System - $2.6 billion net revenue integrated health system with twenty hospitals in 4 States. 7 hospitals in St. Louis: 2nd in St. Louis regional market share.

President
September, 2007 – Present
SSM St. Mary's Health Center – 582 bed, $280M net revenue, urban teaching hospital in St. Louis, MO, serving a diverse community and a regional market.

President
January 2008 – Present
SSM St. Louis Heart Institute – 6 hospital, $180M net revenue, cardiovascular services organization.

- 147 residents covering OB/GYN, IM, Peds., Surgery, Path., Radiology
- 875 physicians on staff
- Consolidated CV surgery programs, cardiac anesthesia, and established regional CV market share growth strategy from 21% to 25%.
- Awarded Premier **National Quality Leader** in 2008 and 2010.
- Awarded St. Louis Business Journal **Best Places to Work** 2010.
- Increased hospital market share from 12.9% to 14.6% since 2005.
- Reduced Paid Hours per Adj. Pt. Day from 27 to 23.6 YTD in 2009.
- Increased physician productivity from 1.6 to 2.0 patients per hour worked.
- Decreased monthly hours on ER diversion from >100 to < 10.
- Decreased LWOTs in ED from 12% to 3%.
- Improved St. Mary's Operating Margin from -0.4% to 11% YTD 2010.
- Increased Physician Satisfaction (DMR) from the 21st percentile to the 41st percentile 2006 to 2007.
- Instituted Crew Resource Training in High Risk OB, reducing sentinel events 100% to zero in 2008.
- 2009 Core Measures Composite Scores all greater than 96%. 100% DTB in 2009.

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Executive Vice President and Chief Operating Officer
March, 2006 to August, 2007
SSM St. Mary's Health Center

Responsible for day-to-day operations of the health center.

- Awarded Solucient Top 100 Overall Award in Teaching Hospital Category in 2006.
- Awarded Premier/Care Science National Quality Leader in 2006 and 2007.
- Improved Physician Satisfaction 10% over 2005.
- Named U.S. News and World Report top neuroscience program in 2007.
- Improved core measure (composites) compliance 20% in first year.
- Improved Overall Pt. Sat. from 5th percentile to 55th percentile.
- Started Room Service, increasing patient satisfaction with food 14%.
- Started a concurrent coding management program increasing Medicare CMI 40% to 1.59 since pre-launch baseline.
- Started a Patient Safety Mentor Program in 2006 reducing sentinel events housewide by > 50%.

BayCare Health System - $1.5 billion regional health system with 9 hospitals serving the Tampa, Clearwater, St. Petersburg, FL markets. 2nd in regional market share.

Morton Plant North Bay Hospital, New Port Richey, Florida (122 beds)

Administrator and Chief Operating Officer
1999 – 2006

- Managed Oversight of the transition from a for-profit/not-for-profit joint venture to Morton Plant-owned community hospital.
- Formed community-owned Board of Trustees
- Managed all Board relations, from quality planning to quality measurement
- Physician satisfaction improvement > 30 percent from 1999 to 2006. Instituted annual physician as customer measurement tool.
- Replaced/recruited all hospital-based physician specialists.
- Reduced LOS from 5.5 to 4.8 days through planning and implementation of the, then, first and only hospitalist program in the county.
- Achieved Magnet designation from the ANCC.
- Full profit/loss responsibility for Morton Plant North Bay Hospital. $55 million in net revenue.
- Improved patient satisfaction > 13 percent from 1999 to 2006.
- Improved overall team member satisfaction composite score of 74.5 in 2004. Highest in BayCare Health System.

Corporate Vice President
2000 - 2006

- Vice President of Facilities and Construction Services for all 4 Morton Plant Mease hospitals and all outpatient sites/centers, managing < $200 million in construction.
- Morton Plant Mease Corporate Compliance Officer effective May, 2002 to 2006.

- Service Line Executive for Cancer Services and Joint Venture with H. Lee Moffitt Cancer and Research Center, Tampa.

Cookeville Regional Medical Center, Cookeville, Tennessee (227 beds)

Chief Executive Officer (Interim)
Chief Operating Officer and Administrator
1997 – 1999

- Implemented Cardiothoracic Surgery program, including expanded operating room suites, expanded critical care suite, and anesthesia support. Recruited surgeon, anesthesiologist and perfusionists.
- Oversight and executive management of a $25MM hospital expansion program, including Women's Center, nursery and new radiation center in collaboration with Vanderbilt University Medical Center.
- Recruited physicians in the areas of primary care, pulmonary, cardiology, plastic surgery.
- Awarded Tennessee Governor's Quality Award by the State Commission on Quality Management and Improvement.
- Implemented Neurosurgery program.
- Served as direct report to the public Board for one year in my role as interim CEO.

Cleverley and Associates (formerly The Center for Healthcare Industry Performance Studies), Columbus, Ohio

Vice President
1996 – 1997

Responsible for CHIPS national business development, client cost management education, and report production. Accountable for sales and operating functions of ongoing financial studies for over 200 hospitals and revenues in excess of $3MM.

Norton Health System, Louisville, Kentucky.

Executive Manager
1992 - 1996

- Planned and implemented merger of two emergency departments, including medical and hospital staffs. Combined efficiencies resulted in an annual net operating benefit of over $200,000.
- Initiated a comprehensive Occupational Medicine Program with seven sites. Program growth exceeded 400% with operating revenue in excess of $1MM annually with market share growth from 8% to 35%.
- Planned and administered a cost reduction plan for Rehabilitative Services with annual net operating benefit of $432,000.
- Designed, developed and implemented a comprehensive outpatient women's center, including breast health, menopausal services, a fertility program and a comprehensive skin care program.
- Returned a $5MM multi-site Immediate Care operation to profitability in five months by combining cost reduction and revenue enhancement activities.

- Planned, designed and implemented a 17-bed hospital-based skilled nursing facility. Reduced acute orthopedic lengths of stay while maintaining skilled unit independent profitability.
- Managed the recertification of the Kentucky Regional Poison Control Center for Kosair Children's Hospital and the Commonwealth of Kentucky. Accomplished national certification by the American Association of Poison Control Centers in one year.

Norton Health System, Louisville, Kentucky.

Administrative Fellow - 1991
Preceptors: Sal A. Barbera, Sr. Vice President
Stephen A Williams, CEO

The Ohio State University Hospitals, Columbus, Ohio
Graduate Research Assistant, Patient Satisfaction Survey Team
1990 – 1991
Director: Stephen Strasser, Ph.D.

Memorial Hospital of South Bend, South Bend, Indiana
Administrative Resident
Summer – 1990
Preceptors: Phillip A. Newbold, President and CEO
James H. Skogsbergh, Executive Vice President and COO

Cabell Huntington Hospital, Huntington, West Virginia
Administrative Resident
Summer - 1988
Preceptor: W. Don Smith, II, President and Chief Executive Officer

Cabell Huntington Hospital, Huntington, West Virginia
Administrative Intern
Summer - 1987
Preceptor: Donald H. Hutton, President and Chief Executive Officer

Alexandria Hospital, Alexandria, Virginia
Healthcare Co-op
Fall - 1985

EDUCATION:

1989–1991 **Master of Health Administration.** Graduate Program in Hospital and Health Services Administration. The Ohio State University, Columbus, Ohio

1985–1989 **Bachelor of Science in Business Administration**
Miami University, Oxford, Ohio

1992 **Licensed Nursing Home Administrator.** Granted long term care licensure in the Commonwealth of Kentucky 1/27/92. Examination 11/91.

1981-1985 **Episcopal High School,** Alexandria, Virginia

HONORS AND ACTIVITIES:

2009-present Elected City of Clayton **Chamber of Commerce Board of Directors**.

2009-present President, **St. Louis Metropolitan Hospital Council**, Missouri Hospital Association.

2006-2009 Appointed Board Member - West County YMCA Board of Directors

2006-present Appointed to the St. Louis **Regional Health Commission**, Provider Affairs and Integrated Health Network.

2004–2005 Elected **Chairman of the Tampa Bay Chapter of the American Red Cross**

2004-2006 Appointed District Chairman for Eagle Review Board, Boy Scouts of America

2002 Awarded Tampa Bay Business Journal **40 Under 40 Award**

2002-2006 Appointed member of the Pasco Hernando Community College Foundation Board of Directors

2004 Elected Chairman, **American Red Cross Board of Directors**, Tampa Bay Chapter. 2003, appointed Chairman of Financial Development Committee.

2001 Member of the graduating class of 2001, **Leadership Tampa Bay**

2000-2006 Elected Vice Chairman of the Pasco **County Health Facilities Board**, appointed by the Board of County Commissioners.

2000-2002 Appointed member of the Pasco-Hernando Division of the American Heart Association

1999-2006 Member of Rotary International, Seven Springs, Florida

1999 Awarded the William Oxley Thompson Award from the Ohio State University Alumni Association for **Distinctive Career Achievement before age of 36**.

1998 Honored with the ***Modern Healthcare*** **"Up and Comers" Award.**

1990-present American College of Health Care Executives, Fellow (FACHE)

PERSONAL / INTERESTS:

Date of Birth: June 16, 1967
Married – wife, Kristin
Two children – Sarah (14) , Mason (13)
Interests -- Distance running, golf, tennis

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May, 2010

CURRICULUM VITAE

NAME: Alan David Kaye, M.D., FACR

HOME ADDRESS:
10 Punch Bowl Drive
Westport, CT 06880

HOME TELEPHONE: (203) 454-0178

WORK ADDRESS:
Department of Radiology
Bridgeport Hospital
267 Grant Street
Bridgeport, Connecticut 06610

WORK TELEPHONE: (203) 384-3559

DATE OF BIRTH: March 22, 1952

PLACE OF BIRTH: New York, New York

MARITAL STATUS: Married

CHILDREN: Two

EDUCATION:

1974 - 1979
University of Connecticut
Farmington, Connecticut
M.D.
Recipient Upjohn Award for Excellence in Research
Recipient Award for Clinical Excellence

1969 - 1974
Harvard College
Cambridge, Massachusetts
A.B.
Magna cum laude History and Science
Recipient of the J. Horton Ijams Scholarship in History of Science

1965 - 1969
Far Rockaway High School
Far Rockaway, New York

HONORS:

2001
Fellowship - American College of Radiology

1985
Resident Teacher of the Year - Bridgeport Hospital

POST-GRADUATE TRAINING:

1982 - 1983
Albert Einstein Medical Center (Northern Division)
Philadelphia, Pennsylvania
Fellowship, Body Imaging

1979 - 1982
Hospital of the University of Pennsylvania
Philadelphia, Pennsylvania
Residency, Diagnostic Radiology

STAFF APPOINTMENTS:

January, 1994 - present
Chairman, Department of Radiology
Bridgeport Hospital

January, 1995 - present
Assistant Clinical Professor, Radiology
Yale New Haven Hospital

April, 1991 - 1994
Senior Attending
Chief, Section of Body Imaging
Radiology Department
Bridgeport Hospital

1986 - 1990
Associate Attending
Acting Chief, Section of Body Imaging
Radiology Department
Bridgeport Hospital

1985 - 1986
Associate Attending
Radiology Department
Bridgeport Hospital

June, 1983 - 1985
Assistant Attending
Radiology Department
Bridgeport Hospital

1982 - 1983
Albert Einstein Medical Center (Northern Division)
Philadelphia, Pennsylvania
Assistant Attending

LICENSURE:

Pennsylvania #MD-025101-E 1980
Connecticut #24624 1983
Florida #0054333 1986

BOARD CERTIFICATION:

Diplomat
American Board of Radiology, 1983

SOCIETY MEMBERSHIPS:

American College of Radiology
Radiological Society of Connecticut
Radiological Society of North America
Fairfield County Medical Association
Connecticut Medical Society

COMMITTEES AND BOARDS:

ACR Council Steering Committee, 2002 – present

ACR council Steering Committee
Workgroup Chairman, 2003

Chairman,
ACR State Govt. Relations Committee,
2003 – present

ACR Government Relations Commission
2003 - present

Chairman, Legislative Committee
Connecticut Radiological Society, 1995 - present

Executive Committee
Connecticut Radiological Society, 1995 - present

Councillor
American College of Radiology, 1996 - present

President
Imaging Network of Connecticut, 1994 - 2000

Board Member, Ranking Specialist, and V.P.
Southern Connecticut Physicians, 1995 - present

Operations Committee
Southern Connecticut Physicians, 1995 - present

Board Member and V.P.
Southern Connecticut Health Network, 1995 – present

COMMITTEES AND BOARDS: (cont'd)

Consultant to Hayes, Inc., an independent health technology assessment organization, 2005-present
http://www.hayesinc.com/

Negotiating Committee
Bridgeport Health Network 1994 - present

Board Member
Central Contracting Organization
Yale New Haven Health System 1997 - present

Board Member
Risk Management Committee
Yale New Haven Health System 1997 - 2001

Advisory Panel
Management Options Available for Radiology Practices
Sponsored by Hewlett Packard and "Imaging Economics" Magazine 1997 - 1999

Advisory Panel
Allied Health
CIGNA Health Care, 1996 - 2000

Radiology Advisory Panel
Anthem Blue Cross of CT, 1997 - present

NATIONAL MEETING COORDINATION:

Co-Chairman, Radiology Summit
9th Annual National Managers Healthcare Congress
Washington, DC, April 1997

Chairman, Radiology Summit
10th Annual National Managers Healthcare Congress
Atlanta, GA, April 1998

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Educational Presentation
10th Annual National Manager Health Care Congress
Washington, DC, April 1997

Models for Delivery of Radiological Services in the New Health Care Environment
Educational Presentation
10th Annual National Manager Health Care Congress
Washington, DC, April 1997

Megatrends Affecting Radiology
Educational Presentation
10th Annual National Manager Health Care Congress
Washington, DC, April 1997

ORAL PRESENTATIONS: (cont'd)

Self-Referral in Imaging
Educational Presentation
Annual Meeting, Radiological Society of North America
Chicago, November, 2004

Enhancing the Value of Radiology Services
Educational Presentation and Participant in Panel Discussion
Annual Meeting, Radiological Society of North America
Chicago, November, 2004

Regulatory Issues in Radiology
Educational Presentation
Annual Meeting, Arizona Radiology Society
Scottsdale, AZ, December, 2004

Curbing Excessive Utilization of Medical Imaging
Educational Presentation and Participant in Roundtable Discussion with Payer Representatives
Sponsored by Idaho Radiology Society
October, 2005

Managing Staff and Resources in Radiology
Educational Presentation
10th Annual National Manager Health Care Congress
Atlanta, GA, April 1998

Megatrends Affecting Radiology
Educational Presentation
10th Annual National Manager Health Care Congress
Atlanta, GA, April, 1998

Spontaneous Renal Artery Dissection: Limitation of Abdominal Helical Non-Contrast CT for Flank Pain and Review of Literature: A Case Report
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Jain, Manoj; Singh, Rajwinder; Patel, Ketan; **Kaye AD**; Butler, Donald; Karol Ian

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Lenchik L, Dovgan D, **Kaye AD**
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40th Annual Meeting of Association of University Radiologists
April 22 - 26, 1992, Chicago, IL

Malignant Lymphoma: Improving the Sensitivity of Cytologic Diagnosis
Silverman CS, Lenchik L, Pinto MM, **Kaye AD**
41st Annual Meeting of Association of University Radiologists
May 20 - 23, 1993, University of Cincinnati, Cincinnati, Ohio

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Jain, Manoj; **Kaye AD**
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November 25 - 30, 2001

Acute Right Lower Quadrant Pain: Spectrum of Diseases on Computed Tomography
Jain, Manoj; **Kaye, AD**
102nd Annual Meeting of the American Roentgen Ray Society
April 28 - May 3, 2002, Atlanta, GA

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6/76 – 8/98	Yale-New Haven Hospital, New Haven, CT Assistant Chief Technologist, Interventional Radiology and Cardiac Catheterization Laboratories
1972 – 6/76	Yale-New Haven Hospital, New Haven, CT Supervisor Adult and Pediatric Cardiac Catherization Laboratories
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Military Status:

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Specialist Fourth Class
Honorable Discharge

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Bachelor of Science, Quinnipiac College, Hamden, CT – 1980
Health Services Administration

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American Registry of Radiologic Technologists

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Chairman, Connecticut Hospital Association, Administrative Directors of Radiology Conference

Member of Gateway Community College Advisory Board for Allied Health

Attachment IV **American College of Radiology Practice Guideline for Performing and Interpreting Magnetic Resonance Imaging (MRI)**

Revised 2006 (Res. 15 16g,34,35,36)*

ACR PRACTICE GUIDELINE FOR PERFORMING AND INTERPRETING MAGNETIC RESONANCE IMAGING (MRI)

PREAMBLE

These guidelines are an educational tool designed to assist practitioners in providing appropriate radiologic care for patients. They are not inflexible rules or requirements of practice and are not intended, nor should they be used, to establish a legal standard of care. For these reasons and those set forth below, the American College of Radiology cautions against the use of these guidelines in litigation in which the clinical decisions of a practitioner are called into question.

The ultimate judgment regarding the propriety of any specific procedure or course of action must be made by the physician or medical physicist in light of all the circumstances presented. Thus, an approach that differs from the guidelines, standing alone, does not necessarily imply that the approach was below the standard of care. To the contrary, a conscientious practitioner may responsibly adopt a course of action different from that set forth in the guidelines when, in the reasonable judgment of the practitioner, such course of action is indicated by the condition of the patient, limitations of available resources, or advances in knowledge or technology subsequent to publication of the guidelines. However, a practitioner who employs an approach substantially different from these guidelines is advised to document in the patient record information sufficient to explain the approach taken.

The practice of medicine involves not only the science, but also the art of dealing with the prevention, diagnosis, alleviation, and treatment of disease. The variety and complexity of human conditions make it impossible to always reach the most appropriate diagnosis or to predict with certainty a particular response to treatment.

Therefore, it should be recognized that adherence to these guidelines will not assure an accurate diagnosis or a successful outcome. All that should be expected is that the practitioner will follow a reasonable course of action based on current knowledge, available resources, and the needs of the patient to deliver effective and safe medical care. The sole purpose of these guidelines is to assist practitioners in achieving this objective.

I. INTRODUCTION

Magnetic resonance imaging (MRI) is a multiplanar imaging method based on an interaction between radiofrequency (RF) electromagnetic fields and certain nuclei in the body (usually hydrogen nuclei) after the body has been placed in a strong magnetic field.[1] MRI differentiates between normal and abnormal tissues, providing a sensitive examination to detect disease. This sensitivity is based on the high degree of inherent contrast due to variations in the magnetic relaxation properties of different tissues, both normal and diseased, and the dependence of the MRI signal on these tissue properties.

II. QUALIFICATIONS AND RESPONSIBILITIES OF PERSONNEL

A. Physician

The physician shall have the responsibility for all aspects of the study including, but not limited to, reviewing indications for the examination, specifying the pulse sequences to be performed, specifying the use and dosage of contrast agents, interpreting images, generating official

[1] See ACR Glossary of MR Terms, 5th edition, 2005.

interpretations (final reports), and assuring the quality of the images and the interpretations.

Physicians assuming these responsibilities for MR imaging of all anatomical areas (exclusive of cardiac MRI) should meet one of the following criteria:

> Certification in Radiology or Diagnostic Radiology by the American Board of Radiology, the American Osteopathic Board of Radiology, the Royal College of Physicians and Surgeons of Canada, or Le College des Medecins du Quebec, and involvement with the supervision, interpretation, and reporting of 300 MRI examinations within the last 36 months.[2]
>
> or
>
> Completion of an Accreditation Council for Graduate Medical Education (ACGME) approved diagnostic radiology residency program or an American Osteopathic Association (AOA) approved diagnostic radiology residency program and involvement with the supervision, interpretation, and reporting of 500 MRI examinations in the past 36 months.
>
> or
>
> Physicians not board certified in radiology or not trained in a diagnostic radiology residency program, who assumes these responsibilities for MR imaging exclusively in a specific anatomical area, excluding cardiac MRI, should meet the following criteria:
>
> Completion of an ACGME approved residency program in the specialty practiced, plus 200 hours of Category I CME in MRI to include, but not limited to: MRI physics, recognition of MRI artifacts, safety, instrumentation, and clinical applications of MRI in the subspecialty area where MRI reading occurs; and supervision, interpretation, and reporting of 500 MRI cases in that specialty area in the past 36 months in a supervised situation. For neurologic MRI, at least 50 of the 500 cases shall have been MR angiography (MRA) of the central nervous system.

Specific qualifications for physicians performing cardiac MRI are described in the proposed ACR Practice Guideline for the Performance and Interpretation of Cardiac MRI.

Maintenance of Competence

All physicians performing MRI examinations should demonstrate evidence of continuing competence in the interpretation and reporting of those examinations. If competence is assured primarily on the basis of continuing experience, a minimum of 100 examinations per year is recommended in order to maintain the physician's skills. Because a physician's practice or location may preclude this method, continued competency can also be assured through monitoring and evaluation that indicates acceptable technical success, accuracy of interpretation, and appropriateness of evaluation.

Continuing Medical Education

The physician's continuing education should be in accordance with the ACR Practice Guideline for Continuing Medical Education (CME) and should include CME in MRI as is appropriate to the physician's practice needs.

B. Medical Physicist / MR Scientist

The personnel qualified to carry out acceptance testing and monitoring of MRI equipment for the purposes of this guideline include a medical physicist or an MR scientist.

A Qualified Medical Physicist is an individual who is competent to practice independently one or more subfields in medical physics. The American College of Radiology (ACR) considers certification and continuing education and experience in the appropriate subfield(s) to demonstrate that an individual is competent to practice in one or more subfields in medical physics, and to be a Qualified Medical Physicist. The ACR recommends that the individual be certified in the appropriate subfield(s) by the American Board of Radiology (ABR), the Canadian College of Physics in Medicine, or for MRI, by the American Board of Medical Physics (ABMP), in magnetic resonance imaging physics.

The appropriate subfields of medical physics for this guideline are Diagnostic Radiological Physics and Radiological Physics.

A Qualified MR Scientist is an individual who has a graduate degree in a physical science involving nuclear magnetic resonance (NMR) or MRI. These individuals should have 3 years of documented experience in a clinical MR environment.

The Qualified Medical Physicist/MR scientist should meet the ACR Practice Guideline for Continuing Medical Education (CME). (ACR Resolution 17, 1996 – revised in 2008, Resolution 7)

The medical physicist/MR scientist must be familiar with the principles of MRI safety for patients, personnel, and the public; the Food and Drug Administration's guidance for MR diagnostic devices; and other regulations pertaining to the performance of the equipment being monitored. The medical physicist/MR scientist shall be knowledgeable in the field of nuclear MR physics and familiar with MRI technology, including function, clinical

[2]Board certification and completion of an accredited radiology residency in the past 24 months will be presumed to be satisfactory experience for the reporting and interpreting requirement.

uses, and performance specifications of MRI equipment, as well as calibration processes and limitations of the performance testing hardware, procedures, and algorithms. The medical physicist/MR scientist shall have a working understanding of clinical imaging protocols and methods of their optimization. This proficiency shall be maintained by participation in continuing education programs of sufficient frequency to ensure familiarity with current concepts, equipment, and procedures.

The medical physicist/MR scientist may be assisted in obtaining test data for performance monitoring by other properly trained individuals. These individuals must be properly trained and approved by the medical physicist/MR scientist in the techniques of performing the tests, the function and limitations of the imaging equipment and test instruments, the reason for the tests, and the importance of the test results. The medical physicist/MR scientist must review and approve all measurements.

C. Registered Radiologist Assistant

A registered radiologist assistant is an advanced level radiographer who is certified and registered as a radiologist assistant by the American Registry of Radiologic Technologists (ARRT) after having successfully completed an advanced academic program encompassing an ACR/ASRT (American Society of Radiologic Technologists) radiologist assistant curriculum and a radiologist-directed clinical preceptorship. Under radiologist supervision, the radiologist assistant may perform patient assessment, patient management, and selected examinations as delineated in the Joint Policy Statement of the ACR and the ASRT titled "Radiologist Assistant: Roles and Responsibilities" and as allowed by state law. The radiologist assistant transmits to the supervising radiologists those observations that have a bearing on diagnosis. Performance of diagnostic interpretations remains outside the scope of practice of the radiologist assistant. (ACR Resolution 34, adopted in 2006)

D. Radiologic Technologist

The technologist should participate in assuring patient comfort and safety, preparing and positioning the patient for the MRI examination, and obtaining the MRI data in a manner suitable for interpretation by the physician. The technologist should also perform daily quality control testing of the MRI system.

The technologist performing MRI should:

1. Be certified by the American Registry of Radiologic Technologists (ARRT), the American Registry of MRI Technologists (ARMRIT), or the Canadian Association of Medical Radiation Technologists (CAMRT) as an MRI technologist (RTMR).

   or

2. Be certified by the ARRT and/or have appropriate state licensure and have 6 months supervised clinical experience in MRI scanning.

   or

3. Have an associate's degree in an allied health field or a bachelor's degree and certification in another clinical imaging field and have 6 months of supervised clinical MRI scanning.

To assure competence, the responsible physician should evaluate any technologist who began performing MRI prior to October 1996 and who does not meet the above criteria.

Any technologist practicing MRI scanning should be licensed in the jurisdiction in which he/she practices, if state licensure exists. To assure competence, all technologists must be evaluated by the supervising physician.

III. TECHNIQUES AND INDICATIONS

The currently accepted techniques and indications for MRI are discussed in various ACR Practice Guidelines that are based on anatomic sites of examination. It is very important that each site offering MRI have documented procedures and technical expertise and appropriate equipment to examine each anatomic site. Because the clinical applications of MRI continue to expand, the enumerated techniques and indications in the reference documents may not be all-inclusive.

Each site's procedures should be reviewed and updated at appropriate intervals. The final judgment regarding appropriateness of a given examination for a particular patient is the responsibility of the appropriate physicians. The decision to use MRI to scan a particular part of the human body depends on the MRI software and hardware available and the relative cost, efficacy, and availability of competing imaging methods. The examination should provide images with suitable contrast characteristics, spatial resolution, signal-to-noise ratio, and section geometry appropriate to the specific clinical indications.

IV. POSSIBLE CONTRAINDICATIONS

Possible contraindications include, but are not limited to, the presence of cardiac pacemakers, ferromagnetic intracranial aneurysm clips, certain neurostimulators, certain cochlear implants, and certain other ferromagnetic foreign bodies or electronic devices. Possible contraindications should be listed on a screening questionnaire. All patients should be screened for possible

contraindications prior to MRI scanning. Published test results and/or on-site testing of an identical device or foreign body may be helpful to determine whether a patient with a particular medical device or foreign body may be safely scanned [15]. There is no known adverse effect of MRI on the fetus. The decision to scan during pregnancy should be made on an individual basis [6].

V. SPECIFICATIONS OF THE EXAMINATION

The examination should be performed within parameters currently approved by the FDA. Examinations that employ techniques not approved by the FDA may be considered when they are judged to be medically appropriate.

The written or electronic request for an MRI examination should provide sufficient information to demonstrate the medical necessity of the examination and allow for its proper performance and interpretation of the examination.

Documentation that satisfies medical necessity includes 1) signs and symptoms and/or 2) relevant history (including known diagnoses). Additional information regarding the specific reason for the examination or a provisional diagnosis would be helpful and may at times be needed to allow for the proper performance and interpretation of the examination.

The request for the examination must be originated by a physician or other appropriately licensed health care provider. The accompanying clinical information should be provided by a physician or other appropriately licensed health care provider familiar with the patient's clinical problem or question and consistent with the state's scope of practice requirements. (ACR Resolution 35, adopted in 2006)

Images should be labeled with the following: a) patient identification, b) facility identification, c) examination date, and d) image orientation indicated by unambiguous polarity symbols (e.g., R, L, A, P, H, F).

VI. DOCUMENTATION

High-quality patient care requires adequate documentation. There should be a permanent record of the MRI examination and its interpretation. Imaging of all appropriate areas, both normal and abnormal, should be recorded in a suitable archival format. An official interpretation (final report) of the MRI findings should be included in the patient's medical record regardless of where the study is performed. Retention of the MRI examination should be consistent both with clinical need and with relevant legal and local health care facility requirements.

Reporting should be in accordance with the ACR Practice Guideline for Communication of Diagnostic Imaging Findings.

VII. SAFETY GUIDELINES

Safety guidelines, practices, and policies shall be written, enforced, reviewed, and documented at least annually by the supervising physician. These guidelines should take into consideration potential magnetic field interactions for ferromagnetic objects in the MRI environment [6,22-23]. They should also consider potential hazards (e.g., from magnetic field interactions, heating, and induced electrical currents) posed by implanted objects and materials within the patient as well as other individuals in the MR environment [22-23].

For information regarding MR safety, see the ACR Guidance Document for Safe MR Practices.

Peer-reviewed literature pertaining to MR safety should be reviewed on a regular basis.

When necessary, contrast and sedation shall be administered in accordance with institutional policy and state and federal law by a physician, a nurse, or a technologist[3] with training in cardiopulmonary resuscitation. (See the ACR–SIR Practice Guideline for Sedation)

Appropriate emergency equipment and medications must be immediately available to treat adverse reactions associated with administered medications. The equipment and medications should be monitored for inventory and drug expiration dates on a regular basis. The equipment, medications, and other emergency support must also be appropriate for the range of ages and sizes in the patient population.

VIII. EQUIPMENT SPECIFICATIONS

The MRI equipment specifications and performance shall meet all state and federal requirements. The requirements include, but are not limited to, specifications of maximum static magnetic field strength, maximum rate of change of magnetic field strength (dB/dt), maximum radiofrequency power deposition (specific absorption rate), and maximum acoustic noise levels.

IX. QUALITY CONTROL PROGRAM

A documented quality control program shall be maintained at the MR site. Quality control testing should be conducted by the technologist and/or service engineer

[4] See the ACR Practice Guideline for the Use of Intravascular Contrast Media. ACR Resolution 51, 2001 – revised in 2007, Resolution 38)

with review at least annually by the supervising physician and/or a medical physicist/MR scientist.

X. QUALITY CONTROL AND IMPROVEMENT, SAFETY, INFECTION CONTROL, AND PATIENT EDUCATION

Policies and procedures related to quality, patient education, infection control, and safety should be developed and implemented in accordance with the ACR Policy on Quality Control and Improvement, Safety, Infection Control, and Patient Education appearing under the heading *Position Statement on QC & Improvement, Safety, Infection Control, and Patient Education* on the ACR web page (http://www.acr.org/guidelines).

Equipment performance monitoring should be in accordance with the ACR Technical Standard for Diagnostic Medical Physics Performance Monitoring of Magnetic Resonance Imaging (MRI) Equipment.

ACKNOWLEDGEMENTS

This guideline was revised according to the process described under the heading *The Process for Developing ACR Practice Guidelines and Technical Standards* on the ACR web page (http://www.acr.org/guidelines) by the Commission on Body Imaging.

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*Guidelines and standards are published annually with an effective date of October 1 in the year in which amended, revised or approved by the ACR Council. For guidelines and standards published before 1999, the effective date was January 1 following the year in which the guideline or standard was amended, revised, or approved by the ACR Council.

Development Chronology for this Guideline
1992 (Resolution 14)
Amended 1995 (Resolution 53)
Revised 1996 (Resolution 1)
Revised 2000 (Resolution 16)
Revised 2001 (Resolution 12)
Amended 2002 (Resolution 2)
Revised 2006 (Resolution 15,16g,34,35,36)

Attachment V **Documentation of Bridgeport Hospital's Non-Profit Status**

075

STATE OF CONNECTICUT

Exemption Certificate

Charitable And Religious Organizations

I Hereby Certify: that this organization is the holder of valid exemption permit No. E00822 issued pursuant to the Sales and Use Tax Act, that the service(s) which I shall purchase or tangible personal property described herein which I shall purchase or lease from: .....

.....

will be used exclusively by this organization for the purposes for which it is organized and will not be resold.

Description of property or service(s) to be purchased:

.....

.....

Name of Purchaser (organization) .....

BRIDGEPORT HOSPITAL

Address 267 Grant Street

By ..... Title

Dated: ..... at Bridgeport

APF 621 Adkins, New Britain, Conn. 2-81

STATE OF CONNECTICUT

TAX EXEMPTION PERMIT ISSUED UNDER

SALES AND USE TAX ACT

State Tax Department — Collections and Accounting Division

92 Farmington Ave., Hartford, Conn. 06115

In accordance with the provisions of the Sales and Use Tax Act, effective July 1, 1953 and the Regulations thereunder, it is hereby certified that the charitable or religious organization named below is exempt from all sales and use taxes on purchases of tangible personal property made by it for the sole and exclusive purposes of the organization.

Permit No. E-00822 Date Issued 7-24-47

BRIDGEPORT HOSPITAL
267 Grant Street
Bridgeport, Conn. 06610

J. George Bronson
Tax Commissioner

This permit is NOT assignable or transferable.

C&A-S185E (5/74) DUPLICATE

Attachment VI **Bridgeport Hospital's Department of Public Health License**

STATE OF CONNECTICUT

077

Department of Public Health

LICENSE

License No. 0040

General Hospital

In accordance with the provisions of the General Statutes of Connecticut Section 19a-493:

Bridgeport Hospital of Bridgeport, CT, d/b/a Bridgeport Hospital is hereby licensed to maintain and operate a General Hospital.

Bridgeport Hospital is located at 267 Grant Street, Bridgeport, CT 06610

The maximum number of beds shall not exceed at any time:

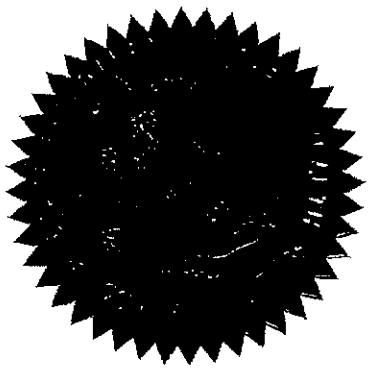
30 Bassinets
395 General Hospital beds

This license expires **March 31, 2012** and may be revoked for cause at any time.

Dated at Hartford, Connecticut, April 1, 2010. RENEWAL.

Satellites

Geriatric Partial Hospital, 305 Boston Avenue, Stratford, CT
Child Partial Hospital, 305 Boston Avenue, Stratford, CT
Bridgeport Hospital Primary Care Center, 226 Mill Hill Avenue, Bridgeport, CT
Psychiatric Adult Partial Hospital Program, 305 Boston Avenue, Stratford, CT
Fairfield Urgent Care Center, 309 Stillson Road, Fairfield, CT



J Robert Galvin MD, MPH, MBA

J. Robert Galvin, MD, MPH, MBA,
Commissioner

Attachment VII **Vendor Quote from GE for MRI**

GE Healthcare

QUOTATION 079

Quotation Number: PS-C118177 V 2

Bridgeport Hospital
267 Grant St
Bridgeport CT 06610

Attn: MR. Michael Tatta
Administrative Director of Radiology
267 Grant St
Bridgeport CT 06610

Date: 08-05-2011

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(ies); (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 withdrawal by GE Healthcare at any time before acceptance. Customer accepts by signing and returning this Quotation or by otherwise providing 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 Quotation. 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, oral or written, in any way purporting 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 any terms inconsistent with this Agreement proposed by either party unless agreed to in writing and signed by authorized representatives of both parties, and neither the subsequent lack of objection to any such terms, nor the delivery of the Products, shall constitute an agreement by either party to any such terms.

By signing below, each party certifies that it has not made any handwritten modifications. Manual 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: 09-04-2011
- Billing Terms: 10% down / 70% delivery / 20% installation or first patient use
- Payment Terms: UPON RECEIPT
- Governing Agreement: None

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

GE HEALTHCARE _____
Drew Brinkoetter Date
Product Sales Specialist

CUSTOMER

_____
Authorized Customer Date

_____
Print Name and Title

_____
PO #

_____
Desired Equipment First Use Date

_____
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.

INDICATE FORM OF PAYMENT:

(If there is potential to finance with a lease transaction, GE HFS or otherwise, select lease.)

____ Cash * ____ Lease ____ HFS Loan

If financing please provide name of finance company below*:

_____

*Selecting Cash or not identifying GE HFS as the finance company declines option for GE HFS financing.

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Quotation Number: P5-C118177 V 2

GE Healthcare

QUOTATION

Quotation Number: P5-C118177 V 2

Item No.	Qty	Catalog No.	Description
	1		**Optima MR450w 1.5T 16-Channel**
1	1	S4500WA	Optima MR450w 16-Channel 1.5T MR System with In-Room Display 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. GE has advanced the capabilities of wide-bore MR by delivering both uncompromised image quality and high productivity, all with an expansive clinical field of view. With the Optima MR450w 1.5T GE offers a range of new functionality, provides a more patient friendly environment and 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 receivers using a dynamic switching RF hub. • Sampling Bandwidth 80MHz. • Receive channels 16. Volume Reconstruction Engine 2.0 (VRE): The backbone of any high-channel count 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 16 GB of memory, acquisition-to-disk technology, the VRE 2.0 delivers the processing power to quickly reconstruct high-resolution 3D volumetric data. Included is a single channel transmit receive head coil. Optima MR450w Site Collector: Optimally designed for patient safety, patient comfort, and efficient workflow, the external features of the MR450w also provide an aesthetically pleasing look and feel that can reduce patient anxiety. The wide-open

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flare of the covers increase the effective bore size and can 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.

Wide-Screen LCD Monitor: This flat-panel Liquid Crystal Display (LCD) monitor delivers 1920 x 1200 dot resolution at a refresh rate of 60Hz and an excellent 500:1 contrast ratio using a digital DVI interface, all significant improvements over conventional designs.

Optima MR450w ScanTools 22.0: The Express Exam and Scantools of the Optima MR450 include 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 patient and technologist workflow of Optima MR450 automates many of the routine tasks that

previously required user interaction, thus dramatically reducing the workload for the user and ensuring that consistent and repeatable images are presented for review. Prescription, acquisition, processing and networking steps can be automatically completed throughout the exam. These automated steps can be saved in the Protocol Library to ensure consistent exam workflow for each type of patient.

The automated workflow features of the Express Exam interface includes the Modality Worklist, Protocol Library, Autostart, AutoScan, AutoVoice, Linking, and Inline Processing.

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 Optima MR450 MLW provides complete control of the exam protocol prescription.

Protocol libraries and properties: The Optima MR450 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 on every Optima MR450 system, the ProtoCopy feature 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.

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

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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. All series that have been linked may automatically be prescribed (Rx) and no further interaction will be needed by the technologist to initiate the scan. The user has control over which specific parameters can be linked together. Series can have common fields of view, obliquity, slice thickness, anatomical coverage, saturation bands, or shim volumes. Multiple series can be linked together and saved in the Protocol Library or edited in real time.

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: To further automate an exam, the Inline processing feature can complete all tasks for a particular series. For certain tasks, the user must accept the results, or complete additional steps prior to saving the image to the database.

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. High resolution 2D and 3D data sets can be fused with reformats, parametric maps, 2D and 3D Spectroscopy maps, plus functional datasets and more.

Following is a list of the acquisition pulse sequences and parallel imaging capabilities for the Optima MR450 ScanTools 22.0.

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The following sequences are Included for Fast Spin Echo based acquisitions:

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 of the Optima MR450 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.

Single Shot Fast Spin Echo (SSFSE): An ultra fast scanning technique that permits dataset acquisition within a single RF excitation period. That means it can acquire slices in less than one second, making it an excellent complement to T2-weighted brain and abdominal imaging, as well as MR cholangiopancreatography (MRCP) studies.

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 fluid (CSF). In addition to this capability,T1 and T2 FLAIR add extraordinary contrast between white and gray matter to T1- and T2-weighted brain and spine imaging.

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.

The following sequences are included in Gradient Echo based acquisitions:

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

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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.

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 property 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.

The 3D MERGE (Multi-Echo Recombined Gradient Echo) sequence has been optimized to generate clear tissue contrast in the cervical spine. By acquiring and summing multiple gradient-echoes at various echo-times, MERGE improves gray-white matter contrast within the cord and provides excellent visualization of the neuroforaminal canals.

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.

2D 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. 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. This property enables high contrast between the myocardium and blood pool.

3D FIESTA (Fast Imaging Employing STeady-state Acquisition) is a technique that uses an extremely short repetition time (TR) between RF pulses such that high-resolution 3D volume images can be acquired rapidly. 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.

2D FatSat FIESTA: FIESTA (Fast Imaging Employing STeady-state Acquisition) is

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designed to produce high SNR images extremely rapidly and with unique contrast between tissues. FIESTA accentuates the signal from tissues that have a relatively high T2 / T1 ratio, such as cerebrospinal fluid, blood, and fat. This accounts for high contrast between the myocardium and blood pool. With the added capability to suppress the signal from fat, this sequence generates excellent contrast between the vasculature and surrounding tissues.

3D FatSat FIESTA is advanced software designed for imaging of the coronary arteries. The software acquires 3D images using FIESTA (Fast Imaging Employing STeady state Acquisition). Fat suppression is applied to accentuate 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 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.

Brain Volume imaging is a high-resolution 3D gradient echo imaging technique designed to produce heavily T1-weighted isotropic images of the brain in just two to three minutes. BRAVO uses an inversion pulse prior to a train of low flip angle gradient echo acquisitions to reduce scan time and optimize tissue visualization. Bravo is compatible with ARC parallel imaging to minimize scan time and provide whole brain coverage with 1mmx1mmx1mm isotropic resolution.

SPECIAL: Spectral Inversion at Lipids (SPECIAL) 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. LAVA is compatible with IDEAL imaging, sold separately.

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. This includes 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

Item No.	Qty	Catalog No.	Description

the fly, during scanning, to evaluate 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 & to trigger the acquisition one the contrast agent has arrived in the target tissue. Use of SmartPrep provides optimum timing of contrast enhancement.

The following sequences are Included in Echo Planar based acquisitions:

An essential tools for any high throughput site employing advanced techniques. EchoPlanar imaging is what enables the rapid imaging required for such studies as functional brain mapping. And 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. Diffusion EchoPlanar imaging is the basis for diffusion tensor imaging, sold separately.

Parallel Imaging Acceleration Approaches: 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.

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 (MIP) projections in multiple scan planes. The resulting dataset can be automatically saved as separate series within a patients exam number, for quick recall in the future.

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

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using a wide 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.
- Difference Function.
- Diffusion Tensor Post-Processing.
- 3DCSI Post Processing.

Results can be displayed in a variety of user-defined formats, including time intensity curves, parametric color overlays and metabolite ratio maps.

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 the 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. The maps may be saved in DICOM format and fused with high-resolution anatomic datasets for improved visualization of tissue and anatomy.

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. The user can have complete control of analysis and may use either the default values to initiate the calculation, or specify specific starting parameter to generate the parametric maps. Input variables for edit include, but are not limited to: number of initial images/echoes to be skipped, lower and upper threshold levels, use of a two-parameter or three-parameter fitting model, confidence level.

The parametric maps may be saved in DICOM format and may overlay high resolution 3D images with Functool Fusion for better tissue visualization. No separate option is

Item No.	Qty	Catalog No.	Description
			necessary to acquire the data; it is included in Express Exam Scantools. Performed Procedure Step (PPS) is an important automated connectivity capability - and a key component in film-less and paperless environments. Used in conjunction with the GE PACS broker, it automatically notifies the HIS/RIS and PACS systems of procedure status - in effect, closing the loop on the information gathered from patient arrival through billing. The results: Improved patient care and enhanced productivity. Optima MR450w Express Patient Table Unique to GE, the fully detachable Express patient table incorporates the Liberty 2.0 Docking System to improve safety, exam efficiency, and patient comfort compared to 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 will automatically disconnect the coils for you. 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. • 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 mm. • Maximum patient weight for scanning: 227 kg (500 lbs). • Maximum weight for patient guardrails: 227 kg (500 lbs).
2	1	S4500WE	Optima MR450w 1.5T Magnet, Gradient, RF Body Coil and Dock Collector for 16-Channel System 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

Item No.	Qty	Catalog No.	Description

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.
- Magnet length 145cm.
- Patient Aperture 76 cm.
- Patient Bore Diameter 70cm.
- Patient Bore Length 105cm.
- Maximum Field of View 50 cm.
- Magnet Homogeneity at 47 cm x 42 cm (R x Z) volume <= 1.25.
- Fringe field (axial x radial).
- 5 Gauss = 4.0 m x 2.5 m.
- 1 Gauss = 6.2 m x 3.7 m.

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 Drive (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 and advanced applications.

- Peak Gradient Amplitude of 34 mT/m per axis.
- Peak Gradient Slew Rate of 150 T/m/s per axis.

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.

The Optima MR450w Dock and Switch Collector is critical for the detachable table. The MR450w Liberty Dock provides the interface between the magnet and Express Patient table.

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Item No.	Qty	Catalog No.	Description
3	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.
4	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.
5	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.
6	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.
7	1	M7000WT	IRD - In Room Display Controls - English English version of the control panel for use with the seven segment digital display on the front of the MR450w magnet. The digital display shows patient landmark and scan location, scan time, and connection of patient respiratory, cardiac, and peripheral triggering devices. The control panel includes backlit buttons for easy visualization in darkened rooms. In addition, the buttons include rim-enhancing LEDs to signal which button to press for simplified workflow and ease of use.

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			This hardware interface includes the ergonomically designed keyboard, two-way communication and voice command module between the technologist and patient, activation buttons for patient table control, acquisition interface to initiate the scanner, and emergency stop switch.
8	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.
9	1	M1000MW	Operator's Console Table Wide table designed specifically for the color LCD monitor and keyboard.
10	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.
11	1	M3335CA	Calibration Kit Phantom Holder Cart
12	1	M7000YR	Optima MR450w Curtain Kit The MR450w ceiling curtain 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.
13	1	M7000JA	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.
14	1	M7000EG	VIBRANT

GE Healthcare

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Quotation Number: P5-C118177 V 2

Item No.	Qty	Catalog No.	Description
			VIBRANT (Volume Imaged BReast AssessmeNT) is a fast, high resolution T1 weighted imaging sequence and application optimized for evaluation of breast tissue. VIBRANT uses GE exclusive technology and parallel imaging acceleration to quickly acquire multi-phase data without compromising spatial resolution. This 3D gradient echo technique, optimized for sagittal or axial acquisitions, uses an optimized inversion pulse and dual-shimming technology that yields enhanced image contrast and robust, uniform, bilateral fat suppression. Auto subtraction of the first dataset is also available to further background suppression. For enhanced speed, VIBRANT is compatible with both ASSET and ARC parallel imaging with acceleration factors up to four. As a result, VIBRANT enables reliable, high quality breast imaging. For improved tissue contrast, VIBRANT is compatible with Flex imaging. The VIBRANT 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. This is critical for evaluation of the axilla and chest wall.
15	1	M7000CB	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.
16	1	S4500WW	MR450w 1.5T Surface Coil Pak The MR450w 1.5T Surface Coil Pak contains the following: • 16-channel Head Neck Spine Array Coil • 12-channel Body Array Coil • 8-channel Knee Array Coil • Quad Extremity Coil • 3-channel Shoulder Array Coil 1.5T 16-Channel Head/Neck/Spine Array: The 1.5T Head/Neck/Spine (HNS) Array delivers convenience with quality. Compatible with new 16-Channel MR450 systems,

GE Healthcare

QUOTATION

Quotation Number: P5-C118177 V 2

Item No.	Qty	Catalog No.	Description
			this 29-element coil serves as a high-resolution brain coil, high-density neuro-vascular array, and a multi-element spine coil in one convenient package. Designed to accommodate multi-dimensional parallel imaging in any scan plane, this coil yields unprecedented imaging speed and superior image quality, thanks in large part to a unique element arrangement that focuses the signal over the anatomy of interest. 1.5T High Density Body Array: The 12-Channel quadrature Body Array with a single connector is designed for high-definition MR imaging of the chest, abdomen and pelvis on the new 16-channel 1.5T MR system. This 12-element phased-array coil provides extensive coverage, enabling multi-station anatomical and vascular imaging of the chest-abdomen or abdomen-pelvis without repositioning the coil. The array is optimized for use with ASSET acceleration in enhanced breath-hold imaging procedures. The 12-ch Body Array is not compatible with E8801RG-Interface Device, E8801R-Endorectal Prostate Probe, E8801RC-Endorectal Cervix Probe, or E8801RD-Endorectal Colon Probe. 1.5T High Density Knee Array: This Knee Array is designed for high definition MR imaging The array uses unique hybrid technology and incorporates a dedicated birdcage coil for transmission, and an anatomically tapered 8 channel receive array for receive functions. The dedicated transmit coil eliminates phase wrap from the opposite knee. Designed uniquely for GE, the 8-element receive coil delivers 30% to 100% more SNR than the standard extremity coil. The array is compatible with PURE for uniform Signal intensity, and ASSET and ARC parallel imaging. 1.5T Quad Extremity Coil: The transmit/receive design of the Quad Extremity Coil helps ensure optimal results in studies of the knee, ankle and foot. Its unique anterior extension increases the imaging volume for thorough evaluations in dorsi-flexed foot and ankle studies, covering FOVs up to 30 cm for the foot and ankle, and up to 20 cm for the knee. 1.5T High Density Shoulder Array: The 1.5T 3-channel Shoulder Array offers the increased signal-to-noise characteristic of phased-array technology, along with a unique sleeve design that delivers exceptional joint-imaging capabilities. The coil provides clear definition of the shoulder joint, specifically the head of the humerus, clavicle, acromion, supraspinatus muscle and ligaments. Patient comfort pads and restraining straps are included.
17	1	M1085GF	1.5T General Purpose Flex Coil This coil can be used to optimize imaging of irregular anatomy such as the neck, shoulder, elbow, brachial plexus, hip, thigh, knee, ankle, and foot, and to facilitate dynamic joint imaging. Its generous sensitive volume helps ensure uniform signal

GE Healthcare

QUOTATION

Quotation Number: P5-C118177 V 2

Item No.	Qty	Catalog No.	Description
			intensity, and therefore superior soft-tissue imaging throughout the area of interest.
18	1	M7000EP	1.5T GP Flex Coil Adaptor for MR450/MR450w This adaptor provides the necessary interface between the general-purpose flex coil and the MR450 and MR450w system.
19	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.
20	1	E8804SB	Medrad Spectris Solaris EP MR Injection System 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.
21	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

Quotation Number: P5-C118177 V 2

Item No.	Qty	Catalog No.	Description
			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
22	1	W0105MR	TiP Discovery and Optima Family Succeed Advance This program is designed for CURRENT GE customers WITH HD/HDx experience who purchase the Discovery or Optima system. Program content focuses on features and differences between HD/HDx and Discovery or Optima. Blended content delivery and design promotes learner retention and more efficient and effective advanced skill development. Extended TVA support ensures learners maintain performance over the long term. • 1 Discovery or Optima HQ Class/session (One class is equivalent to one session.) • 17 onsite days • 4 hours TVA This training program must be scheduled and completed within 24 months after the date of product delivery.

Quote Summary:

Total Quote Net Selling Price **$1,643,843.99**

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

Attachment VIII **Depreciation Schedule for Capital Equipment**

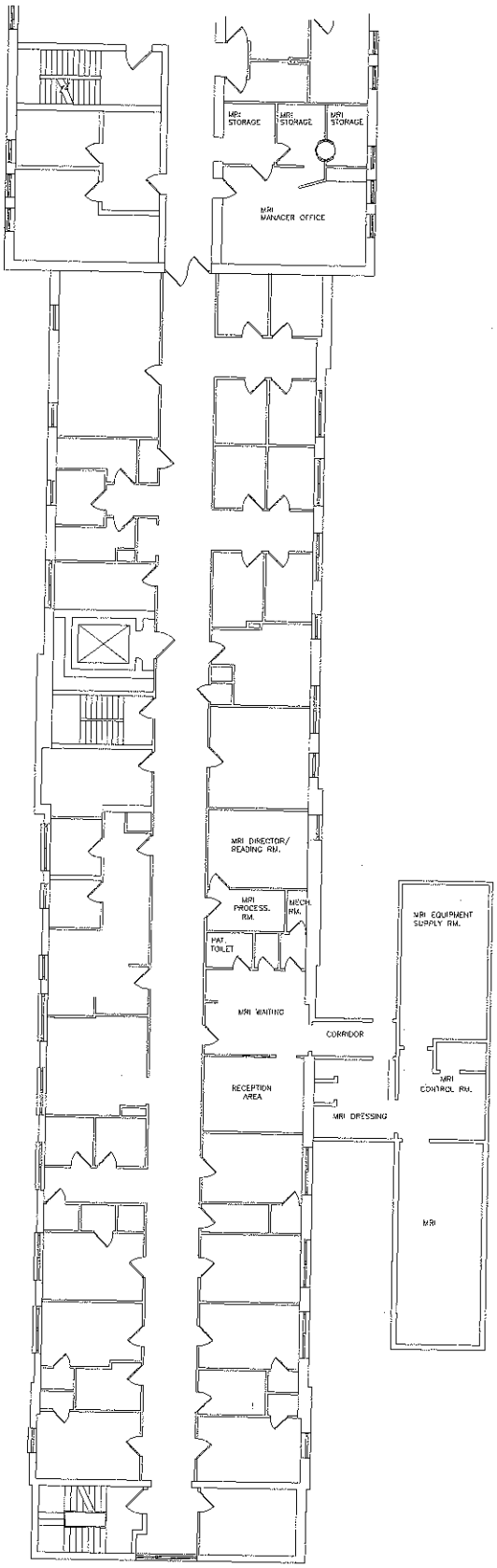
BRIDGEPORT HOSPITAL

Schedule for MRI Capital Expenses

	Capital Exp.	Useful Life	Fiscal Year 2011	1 2012	2 2013	3 2014	4 2015	5 2016	6 2017	7 2018	8 2019	9 2020	10 2021	11 2022	12 2023	13 2024	14 2025	15 2026	16 2027	17 2028	18 2029	19 2030	20 2031	21 2032	Total
1.5T MRI Scanner	$ 1,643,844	5		164,384	328,769	328,769	328,769	328,769	164,384																1,643,844
Renovations	$ 700,000	20		17,500	35,000	35,000	35,000	35,000	35,000	35,000	35,000	35,000	35,000	35,000	35,000	35,000	35,000	35,000	35,000	35,000	35,000	35,000	35,000	17,500	700,000
Computers	$ 98,135	7		7,010	14,019	14,019	14,019	14,019	14,019	14,019	7,010														98,135
Furniture & Fixtures	$ 53,000	10		2,650	5,300	5,300	5,300	5,300	5,300	5,300	5,300	5,300	5,300	2,650											53,000
CD / DVD Burner - Image Storage	$ 38,319	7	-	2,737	5,474	5,474	5,474	5,474	5,474	5,474	2,737														38,319
Capital Investment Total:	**$ 2,533,298**		**$ -**	**$ 194,281**	**$ 388,562**	**$ 388,562**	**$ 388,562**	**$ 388,562**	**$ 224,178**	**$ 59,793**	**$ 50,047**	**$ 40,300**	**$ 40,300**	**$ 37,650**	**$ 35,000**	**$ 35,000**	**$ 35,000**	**$ 35,000**	**$ 35,000**	**$ 35,000**	**$ 35,000**	**$ 35,000**	**$ 35,000**	**$ 17,500**	**$ 2,533,298**

Half Year Depreciation Convention

Attachment IX **Floor Plan**



BRIDGEPORT HOSPITAL
Yale New Haven Health

Drawing Title:
MRI SPACE FLOOR PLAN

Date: 06-22-11
Scale: 1/8" = 1'-0"
Drawn By: J.C.T.
Checked By: P.R.
Drawing No: ASK-1

Attachment X **Capital Lease with GE**

GE
Healthcare Financial Services

August 5, 2011

Bridgeport Hospital
267 Grant Street
Bridgeport, CT 06610

GE Healthcare Financial Services, a component of General Electric Capital Corporation ("GEHFS"), is pleased to submit the following proposal:

Contract Description:	Capital lease of equipment.
Lessor:	General Electric Capital Corporation, or one or more of its affiliates and/or assigns.
Lessee:	Bridgeport Hospital
Equipment Description:	GE Optima 450w 1.5T MR System
Lessor's Capitalized Cost:	$1,643,843.99
Term and Rental Payment Amount:	60 months at $30,833.44 per month in Arrears, plus applicable taxes.
Lease Rate on Net Equipment Cost:	4.75% Note: The lease rate and rental payment amounts have been calculated based on the Swap Rate (as defined below) and an assumption that, at the time of funding, the Swap Rate will be 1.51%. GEHFS reserves the right to adjust the lease rate and rental payment amounts if this is not the case, and/or if the lease commences after December 31, 2011, and/or for other changes in market conditions as determined by GEHFS in its sole discretion. As used herein, "Swap Rate" means the interest rate for swaps that most closely approximates the initial term of the lease as published by the Federal Reserve Board in the Federal Reserve Statistical Release H.15 entitled "Selected Interest Rates" currently available online at http://www.federalreserve.gov/releases/h15/update/ or such other nationally recognized reporting source or publication as GEHFS may specify.
End of Lease Options:	Lessee shall, at its option, either purchase all (but not less than all) of the Equipment for $1.00, plus applicable taxes, renew the lease or return the Equipment to GEHFS.
Advance Rent:	$0.00 due with signed contract. In no event shall any advance rent or advance charge or any other rent payments be refunded to Lessee. The Advance Rental will be applied as described in the lease.
Documentation Fee:	A documentation fee of $750.00 will be charged to Lessee to cover documentation preparation, document transmittal, credit write-ups, lien searches and lien filing fees. The documentation fee is due upon Lessee's acceptance of this proposal and is non-refundable. This fee is based on execution of our standard documents substantially in the form submitted by us. In the event significant revisions are made to our documents at your request or at the request of your legal counsel or your landlord or mortgagee or their counsel, the documentation fee will be adjusted accordingly to cover our additional costs and expenses.
Interim Rent:	If the lease commencement date is not the 1st or 15th of any calendar month (a "Payment Date"), interim rent may be assessed for the period between the lease commencement date and the Payment Date.
Required Credit Information:	1. Two years fiscal year end audited/unaudited financial statements and comparative interim statements. 2. Such additional information as may be required.

Proposal Expiration: This proposal and all of its terms shall expire on August 31, 2011 if GEHFS has not received Lessee's signed acceptance hereof by such date. Subject to the preceding sentence, this proposal and all of its terms shall expire on December 1, 2011 if the lease has not commenced by such date.

The summary of proposed terms and conditions set forth in this proposal is not intended to be all-inclusive. Any terms and conditions that are not specifically addressed herein would be subject to future negotiations. Moreover, by signing the proposal, the parties acknowledge that: (i) this proposal is not a binding commitment on the part of any person to provide or arrange for financing on the terms and conditions set forth herein or otherwise; (ii) any such commitment on the part of GEHFS would be in a separate written instrument signed by GEHFS following satisfactory completion of GEHFS' due diligence, internal review and approval process (which approvals have not yet been sought or obtained); (iii) this proposal supersedes any and all discussions and understandings, written or oral between or among GEHFS and any other person as to the subject matter hereof; and (iv) GEHFS may, at any level of its approval process, decline any further consideration of the proposed financing and terminate its credit review process. Lessee hereby acknowledges and agrees that GEHFS reserves the right to syndicate (via a referral, an assignment or a participation) all or a portion of the proposed transaction to one or more banks, leasing or finance companies or financial institutions (a "Financing Party"). In the event GEHFS elects to so syndicate all or a portion of the proposed transaction (whether before or after any credit approval of the proposed transaction by GEHFS) and is unable to effect such syndication on terms satisfactory to Lessee and/or GEHFS, GEHFS may, in its discretion, decline to enter into, and/or decline any further consideration of, the proposed financing. Lessee hereby further acknowledges and agrees that, in connection with any such syndication, GEHFS may make available to one or more Financing Parties any and all information provided by or on behalf of Lessee to GEHFS (including, without limitation, any third party credit report(s) provided to or obtained by GEHFS).

Except as required by law, neither this proposal nor its contents will be disclosed publicly or privately except to those individuals who are your officers, employees or advisors who have a need to know as a result of being involved in the proposed transaction and then only on the condition that such matters may not be further disclosed. Nothing herein is to be construed as constituting tax, accounting or legal advice by GEHFS to any person.

You hereby authorize GEHFS to file in any jurisdiction as GEHFS deems necessary any initial Uniform Commercial Code financing statements that identify the Equipment or any other assets subject to the proposed financing described herein. If for any reason the proposed transaction is not approved, upon your satisfaction in full of all obligations to GEHFS, GEHFS will cause the termination of such financing statements. You acknowledge and agree that the execution of this proposal and the filing by GEHFS of such financing statements in no way obligates GEHFS to provide the financing described herein. By signing below, you hereby consent to and authorize GEHFS to perform all background, credit, judgment, lien and other checks and searches as GEHFS deems appropriate in its sole credit judgment.

We look forward to your early review and response. If there are any questions, we would appreciate the opportunity to discuss this proposal in more detail at your earliest convenience. Please do not hesitate to contact me directly at (203) 247-1568.

Sincerely yours,

Brian DePierre
Vice President
GE Healthcare Financial Services,
a component of General Electric Capital Corporation

Acknowledged and Accepted:

_____
(Legal Name)

By:_____

Title:_____

Date:_____

Fed. ID #:_____

BRIDGEPORT HOSPITAL: MRI

Equipment Amortization (MRI)

	Year 1
Equipment Cost	1,643,844
Residual Value	
·isted Cost	1,643,844
e	3.24000%
Term mos. 5 Years	60
Monthly Payment	$30,833.44

Month	Beginning Balance	Payment	Principal	Interest	Ending Balance	Additional Investment	Total Interest	Total Principal	Total Payments	Fiscal Year End
1	1,643,844				1,643,844					
2	1,643,844				1,643,844					
3	1,643,844				1,643,844					
4	1,643,844				1,643,844					
5	1,643,844				1,643,844					
6	1,643,844				1,643,844					
7	1,643,844	$30,833.44	24,327	6,507	1,619,517	April 2012				
8	1,619,517	$30,833.44	24,423	6,411	1,595,095					
9	1,595,095	$30,833.44	24,520	6,314	1,570,575					
10	1,570,575	$30,833.44	24,617	6,217	1,545,958					
11	1,545,958	$30,833.44	24,714	6,119	1,521,244					
12	1,521,244	$30,833.44	24,812	6,022	1,496,433		37,589	147,411	185,001	2012
13	1,496,433	$30,833.44	24,910	5,923	1,471,523					
14	1,471,523	$30,833.44	25,009	5,825	1,446,514					
15	1,446,514	$30,833.44	25,108	5,726	1,421,406					
16	1,421,406	$30,833.44	25,207	5,626	1,396,199					
17	1,396,199	$30,833.44	25,307	5,527	1,370,892					
18	1,370,892	$30,833.44	25,407	5,426	1,345,485					
19	1,345,485	$30,833.44	25,508	5,326	1,319,978					
20	1,319,978	$30,833.44	25,609	5,225	1,294,369					
21	1,294,369	$30,833.44	25,710	5,124	1,268,659					
22	1,268,659	$30,833.44	25,812	5,022	1,242,848					
23	1,242,848	$30,833.44	25,914	4,920	1,216,934					
24	1,216,934	$30,833.44	26,016	4,817	1,190,918		64,486	305,515	370,001	2013
25	1,190,918	$30,833.44	26,119	4,714	1,164,798					
26	1,164,798	$30,833.44	26,223	4,611	1,138,575					
27	1,138,575	$30,833.44	26,327	4,507	1,112,249					
28	1,112,249	$30,833.44	26,431	4,403	1,085,818					
29	1,085,818	$30,833.44	26,535	4,298	1,059,283					
30	1,059,283	$30,833.44	26,640	4,193	1,032,642					
31	1,032,642	$30,833.44	26,746	4,088	1,005,896					
32	1,005,896	$30,833.44	26,852	3,982	979,045					
33	979,045	$30,833.44	26,958	3,875	952,086					
34	952,086	$30,833.44	27,065	3,769	925,022					
35	925,022	$30,833.44	27,172	3,662	897,850					
36	897,850	$30,833.44	27,279	3,554	870,570		49,654	320,347	370,001	2014
37	870,570	$30,833.44	27,387	3,446	843,183					
38	843,183	$30,833.44	27,496	3,338	815,687					
39	815,687	$30,833.44	27,605	3,229	788,082					
40	788,082	$30,833.44	27,714	3,119	760,368					
41	760,368	$30,833.44	27,824	3,010	732,545					
42	732,545	$30,833.44	27,934	2,900	704,611					
43	704,611	$30,833.44	28,044	2,789	676,567					
44	676,567	$30,833.44	28,155	2,678	648,411					
45	648,411	$30,833.44	28,267	2,567	620,145					
46	620,145	$30,833.44	28,379	2,455	591,766					
47	591,766	$30,833.44	28,491	2,342	563,275					
48	563,275	$30,833.44	28,604	2,230	534,671		34,102	335,899	370,001	2015
49	534,671	$30,833.44	28,717	2,116	505,954					
50	505,954	$30,833.44	28,831	2,003	477,123					
51	477,123	$30,833.44	28,945	1,889	448,178					
52	448,178	$30,833.44	29,059	1,774	419,119					
53	419,119	$30,833.44	29,174	1,659	389,945					
54	389,945	$30,833.44	29,290	1,544	360,655					
55	360,655	$30,833.44	29,406	1,428	331,249					
56	331,249	$30,833.44	29,522	1,311	301,727					
57	301,727	$30,833.44	29,639	1,194	272,088					
58	272,088	$30,833.44	29,756	1,077	242,331					
59	242,331	$30,833.44	29,874	959	212,457					
60	212,457	$30,833.44	29,992	841	182,464		17,795	352,207	370,001	2016
61	182,464	$30,833.44	30,111	722	152,353					
62	152,353	$30,833.44	30,230	603	122,123					
63	122,123	$30,833.44	30,350	483	91,773					
64	91,773	$30,833.44	30,470	363	61,303					
65	61,303	$30,833.44	30,591	243	30,712					
66	30,712	$30,833.44	30,712	122	-					
67										
68										

BRIDGEPORT HOSPITAL: MRI

Equipment Amortization (MRI)

	Year 1
Equipment Cost	1,643,844
Residual Value	
Financed Cost	1,643,844
Rate	3.24000%
Term mos. 5 Years	60
Monthly Payment	$30,833.44

Month	Beginning Balance	Payment	Principal	Interest	Ending Balance	Additional Investment	Total Interest	Total Principal	Total Payments	Fiscal Year End
69										
70										
71										
72							2,536	182,464	185,001	2017
TOTAL							**$206,162**	**$1,643,844**	**$1,850,006**	
Monthly Average							**$2,454**	**$19,570**	**$22,024**	

Attachment XI **Financial Attachment I**

Office of Health Care Access
Financial attachment I

Bridgeport Hospital

(All dollars are in thousands)

Total Facility:	FY 2010	FY 2011 Projected			FY 2012 Projected			FY 2013 Projected			FY 2014 Projected			FY 2015 Projected		
Description	Actual Results	W/O CON	Incremental	With CON	W/O CON	Incremental (Apr - Sept)	With CON	W/O CON	Incremental	With CON	W/O CON	Incremental	With CON	W/O CON	Incremental	With CON
NET PATIENT REVENUE																
Non-Government	$149,928	$168,248		$168,248	$202,201	$1,231	$203,432	$214,787	$2,582	$217,369	$ 228,673	$2,711	$231,383	$ 228,673	$2,845	$231,518
Medicare	$138,166	$141,388		$141,388	$143,609	$157	$143,766	$145,988	$329	$146,317	$147,229	$346	$147,575	$147,229	$363	$147,592
Medicaid and Other Medical Assistance	$70,642	$71,847		$71,847	$66,054	$19	$66,073	$66,262	$40	$66,302	$ 65,958	$40	$65,998	$ 65,958	$41	$65,999
Other Government	$326	$330		$330	$333	$0	$333	$336	$0	$336	$ 339	$0	$339	$ 339	$0	$339
Total Net Patient Revenue	$359,062	$381,813	$0	$381,813	$412,197	$1,407	$413,604	$427,373	$2,951	$430,324	$442,199	$3,097	$445,296	$442,199	$3,249	$445,448
Other Operating Revenue	$6,954	$8,754		$8,754	$8,611	$ -	$8,611	$8,137	$ -	$8,137	$7,468	$ -	$7,468	$7,468	$ -	$7,468
Revenue from Operations	$366,016	$390,567	$0	$390,567	$420,808	$1,407	$422,215	$435,510	$2,951	$438,461	$449,667	$3,097	$452,764	$449,667	$3,249	$452,916
OPERATING EXPENSES																
Salaries and Fringe Benefits	$170,691	$192,010		$192,010	$203,955	$ -	$203,955	$213,820	$ -	$213,820	$224,164	$ -	$224,164	$224,164	$ -	$224,164
Professional / Contracted Services	$57,788	$69,377		$69,377	$74,509	$ 545	$75,054	$75,572	$ 1,144	$76,716	$77,999	$ 1,201	$79,200	$77,999	$ 1,261	$79,260
Supplies and Drugs	$52,512	$53,298		$53,298	$64,098	$ 117	$64,215	$66,365	$ 243	$66,608	$68,714	$ 254	$68,968	$68,714	$ 266	$68,980
Bad Debts	$13,505	$14,520		$14,520	$15,586	$ -	$15,586	$16,725	$ -	$16,725	$17,947	$ -	$17,947	$17,947	$ -	$17,947
Other Operating Expense	$31,756	$25,741		$25,741	$22,933	$ 188	$23,121	$19,383	$ 220	$19,603	$16,093	$ 228	$16,321	$16,093	$ 236	$16,329
Subtotal	$326,252	$354,946	$0	$354,946	$381,081	$ 849	$381,930	$391,865	$ 1,607	$393,472	$404,917	$ 1,683	$406,600	$404,917	$ 1,763	$406,680
Depreciation/Amortization	$17,768	$18,934		$18,934	$19,679	$ 194	$19,873	$23,464	$ 389	$23,853	$24,393	$ 389	$24,782	$24,393	$ 389	$24,782
Interest Expense	$3,059	$3,102		$3,102	$3,147	$ 38	$3,185	$2,922	$ 64	$2,986	$2,681	$ 50	$2,731	$2,681	$ 34	$2,715
Lease Expense	$3,136	$3,820		$3,820	$4,144	$ -	$4,144	$4,261	$ -	$4,261	$4,383	$ -	$4,383	$4,383	$ -	$4,383
Total Operating Expense	$350,215	$380,802	$0	$380,802	$408,051	$ 1,081	$409,132	$422,512	$ 2,060	$424,572	$436,374	$ 2,121	$436,374	$436,374	$ 2,185	$436,374
Gain/(Loss) from Operations	$15,801	$9,765	$0	$9,765	$12,757	$326	$13,083	$12,998	$891	$13,889	$13,293	$976	$16,390	$13,293	$1,064	$16,542
Plus: Non-Operating Revenue	$1,766	$1,000		$1,000	$1,000	$ -	$1,000	$1,000	$ -	$1,000	$1,000	$ -	$1,000	$1,000	$ -	$1,000
Revenue Over/(Under) Expense	$17,567	$10,765	$0	$10,765	$13,757	$326	$14,083	$13,998	$891	$14,889	$14,293	$976	$17,390	$14,293	$1,064	$17,542
FTEs	2,013.30	2,073.30		2,073.30	2,074.90		2,074.90	2,076.50		2,076.50	2,078.10		2,078.10	2,078.10		2,078.10
Volumes																
Inpatient Discharges	18,910	19,068		19,068	19,253	-	19,253	19,454		19,454	19,655		19,655	19,655		19,655
Patient Days	104,263	103,699		103,699	103,945	-	103,945	104,260		104,260	104,561		104,561	104,561		104,561
Outpatient Volumes	196,227	196,312		196,312	225,604	1,600	227,204	224,230	3,277	227,507	223,964	3,360	227,324	223,964	3,444	227,408
MRI Inpt & ED Volumes						622			1,252			1,259			1,265	
Subtotal: MRI Volumes:						**2,222**			**4,529**			**4,619**			**4,709**	
Break-even Volume:						**1,707**			**3,162**			**3,164**			**3,167**	

*Volume Statistics:
Provide projected inpatient and/or outpatient statistics for any new services and provide actual and projected inpatient and/or outpatient statistics for any existing services which will change due to the proposal.

Attachment XII **Financial Attachment II**

Bridgeport Hospital

Type of Service Description: Magnetic Resonance Imaging
Type of Unit Description: MRI Image
# of Months in Operation: 6

FY 2012 FY Projected Incremental Total Incremental Expenses: $ 1,081,362	(1)	(2) Rate Prof & Tech	(3) Total Units	Payor Mix	(4) Gross Revenue Col. 2 * Col. 3	(5) Allowances/ Deductions	(6) Charity Care	(7) Bad Debt	(8) Net Revenue Col.4 - Col.5 -Col.6 - Col.7	Net Rev Per Case Prof & Tech	Growth Rate Prof & Tech	(9) Operating Expenses Col. 1 Total * Col. 4 / Col. 4 Total	(10) Gain/(Loss) from Operations Col. 8 - Col. 9
Total Facility by Payer Category:													
Medicare		$3,284	458	20.6%	$1,504,072	$1,346,882			$157,190	$343.21	n/a	$222,721	($65,531)
Medicaid		$3,284	136	6.1%	$446,624	$427,198			$19,426	$142.84	n/a	$65,973	($46,547)
CHAMPUS/TriCare		$3,284	0	0.0%	$0	$0			$0	$0.00	n/a	$0	$0
Total Governmental			594	26.7%	$1,950,696	$1,774,080	$0	$0	$176,616	$297.33	n/a	$288,694	($112,078)
Commercial Insurers		$3,284	1,482	66.7%	$4,866,888	$3,655,590			$1,211,298	$817.34	n/a	$721,239	$490,059
Uninsured		$3,284	146	6.6%	$479,464		$460,071		$19,393	$132.83	n/a	$71,429	($52,036)
Total NonGovernment		$3,284	1,628	73.3%	$5,346,352	$3,655,590	$460,071	$0	$1,230,691	$755.95	n/a	$792,668	$438,023
Total All Payers		**$3,284**	**2,222**	**100.0%**	**$7,297,048**	**$5,429,670**	**$460,071**	**$0**	**$1,407,307**	**$633.35**	**n/a**	**$1,081,362**	**$325,945**
			4,440 annually in year 1							**Break-even Volume:**		**1,707**	

Type of Service Description: Magnetic Resonance Imaging
Type of Unit Description: MRI Image
# of Months in Operation: 12

FY 2013 FY Projected Incremental Total Incremental Expenses: $2,060,421	(1)	(2) Rate Prof & Tech	(3) Total Units	Payor Mix	(4) Gross Revenue Col. 2 * Col. 3	(5) Allowances/ Deductions	(6) Charity Care	(7) Bad Debt	(8) Net Revenue Col.4 - Col.5 -Col.6 - Col.7	Net Rev Per Case Prof & Tech	Growth Rate Prof & Tech	(9) Operating Expenses Col. 1 Total * Col. 4 / Col. 4 Total	(10) Gain/(Loss) from Operations Col. 8 - Col. 9
Total Facility by Payer Category:													
Medicare		$3,514	932	20.6%	$3,274,936	$2,945,468			$329,468	$353.51	3.0%	$424,004	($94,536)
Medicaid		$3,514	277	6.1%	$973,345	$933,778			$39,567	$142.84	0.0%	$126,018	($86,452)
CHAMPUS/TriCare		$3,514	0	0.0%	$0	$0			$0	$0.00	3.0%	$0	$0
Total Governmental			1,209	26.7%	$4,248,281	$3,879,246	$0	$0	$369,035	$305.24	2.6%	$550,022	($180,987)
Commercial Insurers		$3,514	3,020	66.7%	$10,611,918	$8,069,500			$2,542,418	$841.86	3.0%	$1,373,917	$1,168,500
Uninsured		$3,514	300	6.6%	$1,054,164		$1,014,315		$39,849	$132.83	0.0%	$136,482	($96,633)
Total NonGovernment		$3,514	3,320	73.3%	$11,666,082	$8,069,500	$1,014,315	$0	$2,582,267	$777.79	2.8%	$1,510,399	$1,071,867
Total All Payers		**$3,514**	**4,529**	**100.0%**	**$15,914,363**	**$11,948,746**	**$1,014,315**	**$0**	**$2,951,301**	**$651.65**		**$2,060,421**	**$890,880**
			2% growth							**Break-even Volume:**		**3,162**	

Type of Service Description: Magnetic Resonance Imaging
Type of Unit Description: MRI Image
# of Months in Operation: 12

FY 2014 FY Projected Incremental Total Incremental Expenses: $2,121,435	(1)	(2) Rate Prof & Tech	(3) Total Units	Payor Mix	(4) Gross Revenue Col. 2 * Col. 3	(5) Allowances/ Deductions	(6) Charity Care	(7) Bad Debt	(8) Net Revenue Col.4 - Col.5 -Col.6 - Col.7	Net Rev Per Case Prof & Tech	Growth Rate Prof & Tech	(9) Operating Expenses Col. 1 Total * Col. 4 / Col. 4 Total	(10) Gain/(Loss) from Operations Col. 8 - Col. 9
Total Facility by Payer Category:													
Medicare		$3,760	950	20.6%	$3,571,859	$3,225,953			$345,906	$364.11	3.0%	$436,320	($90,414)
Medicaid		$3,760	283	6.1%	$1,064,038	$1,023,614			$40,424	$142.84	0.0%	$129,978	($89,554)
CHAMPUS/TriCare		$3,760	0	0.0%	$0	$0			$0	$0.00	3.0%	$0	$0
Total Governmental		$3,760	1,233	26.7%	$4,635,897	$4,249,567	$0	$0	$386,330	$313	2.6%	$566,298	($179,968)
Commercial Insurers		$3,760	3,079	66.7%	$11,576,583	$8,906,733			$2,669,850	$867.12	3.0%	$1,414,137	$1,255,713
Uninsured		$3,760	307	6.6%	$1,154,274		$1,113,496		$40,779	$132.83	0.0%	$141,000	($100,222)
Total NonGovernment		$3,760	3,386	73.3%	$12,730,858	$8,906,733	$1,113,496	$0	$2,710,629	$800.54	2.8%	$1,555,138	$1,155,491
Total All Payers		**$3,760**	**4,619**	**100.0%**	**$17,366,755**	**$13,156,300**	**$1,113,496**	**$0**	**$3,096,959**	**$670.48**		**$2,121,435**	**$975,523**
			2% growth							**Break-even Volume:**		**3,164**	

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Bridgeport Hospital

Type of Service Description: Magnetic Resonance Imaging
Type of Unit Description: MRI Image
# of Months in Operation: 12

FY 2015 FY Projected Incremental Total Incremental Expenses: $ 2,185,351 Total Facility by Payer Category:	(1)	(2) Rate Prof & Tech	(3) Total Units	Payor Mix	(4) Gross Revenue Col. 2 * Col. 3	(5) Allowances/ Deductions	(6) Charity Care	(7) Bad Debt	(8) Net Revenue Col.4 - Col.5 -Col.6 - Col.7	Net Rev Per Case Prof & Tech	Growth Rate Prof & Tech	(9) Operating Expenses Col. 1 Total * Col. 4 / Col. 4 Total	(10) Gain/(Loss) from Operations Col. 8 - Col. 9
Medicare		$4,023	988	20.6%	$3,894,304	$3,531,270			$363,034	$375.03	3.0%	$449,229	($86,195)
Medicaid		$4,023	289	6.1%	$1,162,659	$1,121,378			$41,281	$142.84	0.0%	$134,119	($92,838)
CHAMPUS/TriCare		$4,023	0	0.0%	$0	$0			$0	$0.00	3.0%	$0	$0
Total Governmental		$4,023	1,257	26.7%	$5,056,963	$4,652,648	$0	$0	$404,314	$322	2.6%	$583,348	($179,034)
Commercial Insurers		$4,023	3,139	66.7%	$12,628,326	$9,624,793			$2,803,533	$893.13	3.0%	$1,456,746	$1,346,787
Uninsured		$4,023	313	6.6%	$1,259,212		$1,217,636		$41,576	$132.83	0.0%	$145,257	($103,681)
Total NonGovernment		$4,023	3,452	73.3%	$13,887,538	$9,624,793	$1,217,636	$0	$2,845,109	$824.19	2.9%	$1,602,003	$1,243,106
Total All Payers		**$4,023**	**4,709** **2% growth**	**100.0%**	**$18,944,501**	**$14,477,441**	**$1,217,636**	**$0**	**$3,249,424**	**$690.05** **Break-even Volume:**		**$2,185,351** **3,167**	**$1,064,072**

Attachment XIII **Financial Attachment III**

BRIDGEPORT HOSPITAL
MRI

Assumptions

	FY 2012	FY 2013	FY 2014	FY 2015
NET REVENUE RATE INCREASES				
1) Government	0.0 - 3.0%	0.0 - 3.0%	0.0 - 3.0%	0.0 - 3.0%
2) Non-Government	0.0 - 3.0%	0.0 - 3.0%	0.0 - 3.0%	0.0 - 3.0%

	FY 2012	FY 2013	FY 2014	FY 2015
EXPENSES				
A. Salaries and Fringe Benefits	5.0%	5.0%	5.0%	5.0%
B. Non-Salary				
1) Medical & Surgical Supplies / Drugs	4.5%	4.5%	4.5%	4.5%
Pharmacy and Solutions	3.5%	3.5%	3.5%	3.5%
3) Malpractice Insurance	7.0%	7.0%	7.0%	7.0%
4) Professional and Contracted Services	5.0%	5.0%	5.0%	5.0%
5) Depreciation	schedule	schedule	schedule	schedule
7) Interest	amort schedule	amort schedule	amort schedule	amort schedule
6) All Other Expenses	3.5%	3.5%	3.5%	3.5%

	FY 2012	FY 2013	FY 2014	FY 2015
VOLUMES				
Inpatient	1/2 Year Base	2.0%	2.0%	2.0%
Emergency Department	1/2 Year Base	2.0%	2.0%	2.0%
Outpatient	1/2 Year Base	2.0%	2.0%	2.0%

Attachment XIV **Financial Attachment IV: MRI Rates from Chargemaster**

Service Code	Description	Price	Rev Code	CPT Code	Status
15100100	MRI TEMPO-MANDIBULAR JOIN	$2,099.00	610	70336	ACTIVE
15100101	MRI ORBIT, FACE&NECK WO	$1,894.00	610	70540	ACTIVE
15100103	MRI BRAIN WITHOUT CONTRST	$2,272.00	611	70551	ACTIVE
15100104	MRI BRAIN WITH CONTRAST	$3,515.00	611	70552	ACTIVE
15100105	MRI BRAIN W&W/O CONTRAST	$4,697.00	611	70553	ACTIVE
15100106	MRI CHEST	$1,894.00	610	71550	ACTIVE
15100107	MRA CHEST W&W/O CONTRAST	$2,935.00	610	71555	ACTIVE
15100108	MRI CERV.SPINE W/O CONTRA	$3,133.00	610	72141	ACTIVE
15100110	MRI CERV.SPINE W/CONTRAST	$3,423.00	610	72142	ACTIVE
15100111	MRI THOR.SPINE W/O CONTRS	$3,068.00	610	72146	ACTIVE
15100112	MRI THOR.SPINE W/CONTRAST	$3,358.00	610	72147	ACTIVE
15100113	MRI LUMB.SPINE W/O CONTRS	$3,133.00	610	72148	ACTIVE
15100114	MRI LUMB.SPINE W/CONTRAST	$3,423.00	610	72149	ACTIVE
15100115	MRI CERV.SPINE W&W/O CONT	$4,665.00	610	72156	ACTIVE
15100116	MRI THOR.SPINE W&W/O CONT	$4,665.00	610	72157	ACTIVE
15100117	MRI LUMB.SPINE W&W/O CONT	$4,665.00	610	72158	ACTIVE
15100118	MRA SPIN.CAN.W OR W/O CON	$3,365.00	610	72159	ACTIVE
15100119	MRI PELVIS W CONTRAST	$1,896.00	610	72196	ACTIVE
15100120	MRA PEL.W.OR W/O CONTRAST	$2,934.00	610	72198	ACTIVE
15100121	MRI UPPER EXT.NON JOINT	$1,894.00	610	73220	ACTIVE
15100123	MRI UPPER EXTRE.ANY JOINT	$2,289.00	610	73221	ACTIVE
15100124	MRA UPPER EXT.W/WO CONTRA	$3,045.00	610	73225	ACTIVE
15100125	MRI LOW EXT NJ W/WO CONT	$2,850.00	610	73720	ACTIVE
15100126	MRI LOWER EXTR.ANY JOINT	$1,859.00	610	73721	ACTIVE
15100127	MRA LOWER EXTRE.W/WO CONT	$2,921.00	610	73725	ACTIVE
15100128	MRI ABDOMEN	$1,876.00	610	74181	ACTIVE
15100129	MRA ABDOMEN W/WO CONTRAST	$1,956.00	610	74185	ACTIVE
15100131	MRI BREAST UNILATERAL	$3,207.00	610	77058	ACTIVE
15100132	MRI BREAT BILATERAL	$4,232.00	610	77059	ACTIVE
15100133	MR 3D RECONSTRUCTION	$882.00	610	76376	ACTIVE
15100134	MR SPECTROSCOPY	$2,099.00	610	76390	ACTIVE
15101018	MRI UPER EXT NJ WO CONT	$1,609.00	610	73218	ACTIVE
15101019	MRI LOW EXT NJ WO CONT	$1,609.00	610	73718	ACTIVE
15101020	MRI ORBIT,FACE,NECK WWO	$1,288.00	610	70542	ACTIVE
15101021	MRI ORBIT,FACE,NECK WWO C	$3,518.00	610	70543	ACTIVE
15101022	MRA HEAD	$3,417.00	610	70544	ACTIVE
15101023	MRA HEAD W/CONTRAST	$3,725.00	610	70545	ACTIVE
15101024	MRA HEAD W/WO CONTRAST	$4,033.00	610	70546	ACTIVE
15101025	MRA NECK/CAROTID WO	$2,960.00	610	70547	ACTIVE
15101026	MRA NECK/CAROTID W CONT	$3,367.00	610	70548	ACTIVE
15101027	MRA NECK/CAROTID W/WO CON	$3,776.00	610	70549	ACTIVE
15101028	MRI CHEST W/CONTRAST	$1,960.00	610	71551	ACTIVE
15101029	MRI CHEST W/WO CONTRAST	$2,022.00	610	71552	ACTIVE
15101030	MRI PELVIS W/O CONTRAST	$1,288.00	610	72195	ACTIVE
15101031	MRI PELVIS W/WO CONTRAST	$2,505.00	610	72197	ACTIVE
15101032	MRI UPPR EXT NON JNT W/CT	$1,752.00	610	73219	ACTIVE
15101033	MRI UPPR EXT ANY JNT W/CT	$2,431.00	610	73222	ACTIVE
15101034	MRI UPPR EXT ANY JNT W/WO	$2,572.00	610	73223	ACTIVE
15101035	MRI LWR EXT NON JNT W/CNT	$2,229.00	610	73719	ACTIVE
15101036	MRI LWR EXT ANY JNT W/CNT	$2,262.00	610	73722	ACTIVE
15101037	MRI LWR EXT ANY JNT W/WOC	$2,665.00	610	73723	ACTIVE
15101038	MRI ABDOME W/CONTRAST	$2,190.00	610	74182	ACTIVE
15101039	MRI ABDOME W/WO CONTRST	$2,665.00	610	74183	ACTIVE