**HTAIS Reports on Imaging**

Jun 22, 2017 - Custom Product Briefs

**MI-EYE 2 (TRICE MEDICAL, INC.) FOR DIAGNOSING JOINT INJURIES**

The mi-eye 2 is a battery-operated, single-use handheld arthroscope used to visualize and diagnose joint injuries in a doctor's office. The device consists of a needle with an integrated camera and light. Images are displayed on a Trice Microsoft Tablet with high-definition screen display.

Jun 15, 2017 - Custom Product Briefs

**NMR LIPOPROFILE TEST (LABCORP) FOR PREDICTING CARDIOVASCULAR DISEASE RISK**

NMR (Nuclear Magnetic Resonance) LipoProfile Test is a biochemical assay that uses magnetic resonance spectroscopy to measure levels of blood plasma lipids (total cholesterol, high-/low-density lipoprotein-bound cholesterol (HDL-C/LDL-C), and total triglycerides [TG]) routinely used to evaluate risks of future cardiovascular disease onset and progression.

Jun 8, 2017 - Custom Product Briefs

**MRIDIAN COBALT-60 SYSTEM (VIEWRAY, INC.) FOR ADVANCED RADIOTHERAPY DELIVERY**

The MRIdian Cobalt-60 System is an integrated magnetic resonance imaging and cobalt-60 radiotherapy delivery system intended to provide advanced radiation therapy, such as image-guided radiation therapy and stereotactic body radiation therapy. Incorporating MRI into the treatment delivery process may improve pretreatment planning and provide better positioning and tracking of tumors during treatment.

Jun 1, 2017 - Technology Forecasts

**INTEGRATED POSITRON EMISSION TOMOGRAPHY/MAGNETIC RESONANCE IMAGING**

Integrated imaging systems that combine positron emission tomography (PET) with magnetic resonance imaging (MRI) purportedly offer enhanced soft-tissue imaging detail without the ionizing radiation of computed tomography. However, high costs and uncertain reimbursement have slowed diffusion of integrated PET/MRI systems.

May 2, 2017 - Custom Product Briefs

**BIBLIOGRAPHY: ENDOCUFF (OLYMPUS AMERICA, INC.) FOR DETECTING POLYPS DURING COLONOSCOPY**

This report provides results of a mediated search conducted by a master's-level medical librarian in ECRI Institute’s Information Center. We searched PubMed, EMBASE and selected web-based resources information relevant to this topic and published between January 1, 2000, and May 2, 2017.

Apr 27, 2017 - Custom Product Briefs

**SPY ELITE SYSTEM (NOVADAQ TECHNOLOGIES, INC.) FOR ASSESSING TISSUE PERFUSION DURING PLASTIC AND RECONSTRUCTIVE SURGERY**

The Spy Elite® Fluorescence Imaging System is a stand-alone fluorescence imaging system intended as an adjunctive method of assessing tissue perfusion intraoperatively using laser-assisted indocyanine green fluorescence angiography (LA-ICGA) to visualize blood flow. System components include a multidirectional imaging arm, maneuverable fluorescence imaging head, dual LCD monitors, high-definition color printer, mobile cart with wheel locks, and software package. This report focuses on the system's use for plastic and reconstructive surgery.

Apr 3, 2017 - Technology Forecasts

**HANDHELD ULTRASOUND DEVICES FOR EMERGENCY APPLICATIONS AND FIELD USE**
Handheld ultrasound devices used in the field outside traditional healthcare settings have potential to augment patient triage and improve care. However, high-quality data demonstrating a definitive clinical benefit are lacking, potentially slowing broader diffusion of the technology.

**Nov 4, 2016 - Custom Product Briefs**
**RADPAD SHIELDS (WORLDWIDE INNOVATIONS & TECHNOLOGIES, INC.) FOR PROTECTING PATIENTS AND CLINICIANS FROM SCATTER RADIATION**

RadPad® shields are lightweight, disposable x-ray shields that are not made of lead and are intended to protect healthcare personnel and patients from x-ray scatter radiation during medical procedures, such as angiography, interventional radiology, and fluoroscopy. They are available in nonabsorbent and absorbent fabric coverings.

**Nov 1, 2016 - Custom Rapid Responses**
**ACOUSTIC RADIATION FORCE IMPULSE FOR EVALUATING LIVER FIBROSIS**

Acoustic radiation force impulse (ARFI) elastography is a radiation force–based imaging method using conventional B-mode ultrasonography designed to noninvasively assess the stages of liver fibrosis.

**Oct 18, 2016 - Custom Product Briefs**
**GADAVIST (BAYER HEALTHCARE PHARMACEUTICALS, INC.) FOR CONTRAST-ENHANCED MAGNETIC RESONANCE IMAGING**

Gadavist® (gadobutrol) is an injectable contrast agent intended for intravenous use in diagnostic magnetic resonance imaging (MRI) of brain or breast lesions and diagnostic magnetic resonance angiography (MRA) of supra-aortic or renal artery disease. The recommended dose for term neonates, children, and adults is 0.1 mL/kg body weight (0.1 mmol/kg).

**Oct 18, 2016 - Custom Product Briefs**
**MAGNEVIST INJECTION (BAYER HEALTHCARE PHARMACEUTICALS, INC.) FOR CONTRAST-ENHANCED MAGNETIC RESONANCE IMAGING**

Magnevist® (gadopentetate dimeglumine) is an injectable gadolinium-based contrast agent (GBCA) intended for intravenous use in diagnostic magnetic resonance imaging (MRI) of abnormal vascularity in the brain, spine, head, neck, and body. The recommended dose of Magnevist injection for children (2 years of age or older) and adults is 0.2 mL/kg (0.1 mmol/kg) administered intravenously at a rate not to exceed 10 mL per 15 seconds.

**Oct 14, 2016 - Custom Product Briefs**
**MULTIHANCE INJECTION (BRACCO DIAGNOSTICS, INC.) FOR CONTRAST-ENHANCED MAGNETIC RESONANCE IMAGING**

MultiHance® (gadobenate dimeglumine) is an injectable gadolinium-based contrast agent (GBCA) intended for intravenous use for diagnostic magnetic resonance imaging (MRI) of the central nervous system in adults and children two years of age or older to visualize lesions in an abnormal blood-brain barrier or abnormal vascularity of the brain, spine, and associated tissues and for magnetic resonance angiography (MRA) to evaluate adults with known or suspected renal or aorto-iliac-femoral occlusive vascular disease.

**Oct 10, 2016 - Custom Product Briefs**
**OVERVIEW OF THREE INJECTABLE CONTRAST AGENTS FOR CONTRAST-ENHANCED MAGNETIC RESONANCE IMAGING**
This overview compares features of three injectable gadolinium-based contrast agents (GBCAs) intended for intravenous use in diagnostic magnetic resonance imaging (MRI) Gadavist® (Bayer HealthCare Pharmaceuticals), Magnevist® (Bayer HealthCare Pharmaceuticals), and MultiHance® (Bracco Diagnostics).

Sep 30, 2016 - Emerging Technology Reports

DIGITAL BREAST TOMOSYNTHESIS FOR BREAST CANCER SCREENING

Digital breast tomosynthesis is an imaging technique that uses x-rays to capture images that are digitally manipulated to create tomograms (i.e., slices). The ability to examine the breast in slices reduces tissue overlap, which could reveal a suspicious lesion or resolve normal tissue overlap that mimics a suspicious lesion.

Sep 19, 2016 - Custom Rapid Responses

USE OF GONAD SHIELDING FOR PEDIATRIC IMAGING

Overexposure of the gonads to ionizing radiation can cause gonadal dysfunction (infertility or sterility), greatly reducing reproductive potential. Strategies for improving reproductive potential in patients exposed to radiation include cryopreservation of sperm/ova, radiation dose optimization, ovarian transposition, and gonadal shielding.

Sep 12, 2016 - Custom Rapid Responses

RADIATION EXPOSURE FROM BIPLANE RADIOGRAPHY/FLUOROSCOPY IN CHILDREN WITH CONGENITAL HEART DEFECTS

Radiographic/fluoroscopic (R/F) biplane imaging systems are designed to perform vascular imaging (angiography) during diagnostic and interventional procedures.

Aug 15, 2016 - Custom Product Briefs

DEFINITY INJECTABLE SUSPENSION (LANTHEUS MEDICAL IMAGING, INC.) FOR CONTRAST-ENHANCED ECHOCARDIOGRAPHY

Definity® Injectable Suspension is an ultrasound contrast agent intended to opacify the left ventricular chamber of the heart in patients with suboptimal echocardiograms to enhance images of the ventricular endocardial border. Definity may be used as an intravenous bolus or by infusion and requires activation with the Vialmix® device before administration.

Aug 15, 2016 - Custom Product Briefs

OPTISON INJECTABLE SUSPENSION (GE HEALTHCARE) FOR CONTRAST-ENHANCED ECHOCARDIOGRAPHY

Optison™ Injectable Suspension (perflutren protein-type A microspheres USP) is an ultrasound contrast agent intended to opacify the left ventricular chamber of the heart in patients with suboptimal echocardiograms, to enhance images of the ventricular endocardial border. The clinician injects Optison suspension into a patient's peripheral vein during echocardiography.

Aug 15, 2016 - Custom Product Briefs

LUMASON INJECTABLE SUSPENSION (BRACCO DIAGNOSTICS, INC.) FOR CONTRAST-ENHANCED ECHOCARDIOGRAPHY

Lumason® injectable suspension (sulfur hexafluoride lipid-type A microspheres) is an ultrasound contrast agent intended to opacify the left ventricular chamber of the heart in patients with suboptimal echocardiograms to
enhance images of the ventricular endocardial border. Sulfur hexafluoride lipid-type A microspheres supplied by the manufacturer have been marketed in the European Union as SonoVue® since 2001.

Jun 3, 2016 - Custom Product Briefs

GI-BRONCH MENTOR PLATFORM (SIMBIONIX USA, CORP.) FOR SURGEON TRAINING TO PERFORM BRONCHOSCOPY AND GASTROINTESTINAL ENDOS...

The GI-Bronch Mentor™ platform is a surgery simulation system intended to provide hands-on and didactic training to surgeons in gastrointestinal endoscopy and upper respiratory endoscopy (e.g., flexible bronchoscopy, bronchoscopy ultrasound) procedures. The GI and Bronch systems also come as smaller portable options.

May 25, 2016 - Custom Rapid Responses

MAGNETIC RESONANCE/ ULTRASOUND FUSION BIOPSIES FOR DIAGNOSING PROSTATE CANCER

Early diagnosis of prostate cancer is critical in reducing morbidity and mortality. Definitive pathologic diagnosis is established through a biopsy performed under transrectal ultrasound (TRUS) guidance. However, this procedure has been associated with high intraoperative variability, low predictive values, sepsis, and bleeding.

May 11, 2016 - Custom Rapid Responses

AUTOMATED DUAL-HEAD CONTRAST MEDIA INJECTORS FOR IMPROVING CLINICAL OUTCOMES AND SAFETY IN COMPUTED TOMOGRAPHY

Computed tomography (CT) is a noninvasive radiographic technique used to produce thin cross-sectional images or slices of the human body. Automatic contrast media injectors use electromechanically driven syringes to inject contrast media into catheters inserted in arteries or veins, which potentially decrease the amount of potentially harmful contrast media needed during CT exams. In dual-head injectors, one syringe is used for administering contrast medium and the other is used for administering saline solution before and after the contrast injection.

May 2, 2016 - Custom Product Briefs

SILHOUETTE WOUND SURVEILLANCE SYSTEM (ARANZ MEDICAL) FOR WOUND MEASUREMENT AND DOCUMENTATION

The Silhouette® Wound Surveillance System is a noninvasive three-dimensional measurement, imaging, and documentation system intended to provide accurate wound measurement, healing trends, and wound surveillance support. Clinicians use this noncontact system to measure and document the progression of external wounds over time.

May 2, 2016 - Technology Forecasts

MOBILE UNITS FOR TREATING STROKE

A mobile stroke unit (MSU) is an ambulance specially equipped and staffed to diagnose and start stroke treatment in the field. The MSU team collaborates via telemedicine with a vascular neurologist, emergency dispatch, and stroke centers to reduce time to thrombolytic treatment, potentially improving health outcomes from ischemic stroke.
TRINITY SYSTEM (KOELIS) FOR TRANSRECTAL ULTRASONOGRAPHY FUSING MAGNETIC RESONANCE IMAGES TO GUIDE PROSTATE BIOPSY

The Trinity® system combines use of real-time, three-dimensional (3-D) transrectal ultrasound (TRUS) guidance with previously acquired magnetic resonance imaging (MRI) scans to target areas of the prostate for biopsy that are suspected to be cancerous.

VIRTUAL ENDOSCOPY FOR IMAGING THE UPPER GASTROINTESTINAL TRACT

The upper gastrointestinal (GI) tract from the esophagus to the duodenum can be examined using an endoscope to locate various problems such as ulcers, precancerous growths, or obstructions. Virtual endoscopy is a noninvasive alternative to endoscopy that uses three-dimensional imaging and computed tomography (CT) to capture detailed pictures of the inside surfaces of organs.

OMNIPAQUE (IOHEXOL) INJECTION (GE HEALTHCARE) FOR CONTRAST-ENHANCED IMAGING

Omnipaque™ (iohexol) injection is a nonionic contrast agent used in patients during certain imaging exams (e.g., myelography, cisternography, head and body computed tomography, coronary or cerebral angiography, cystography) in an effort to improve test accuracy. Omnipaque is available as a "sterile, pyrogen-free, colorless to pale-yellow solution, in the following iodine concentrations 140, 180, 240, 300, and 350 mgI/mL." The 140 and 350 mgI/mL solutions are not labeled for intrathecal administration for safety reasons; the other dosages are labeled for intrathecal administration.

VISIPAQUE (IODIXANOL) INJECTION (GE HEALTHCARE) FOR CONTRAST-ENHANCED IMAGING

Visipaque is a dimeric, isosmolar, nonionic, water-soluble, radiographic contrast medium made with iodixanol. It is a solution available in concentrations of 270 and 320 mg of organically bound iodine per mL (550 and 652 mg of Iodixanol per mL, respectively). It can be used in numerous clinical radiology and imaging settings and is approved for use in children one year or older.

ISOVUE (IOPAMIDOL) INJECTION (BRACCO DIAGNOSTICS, INC.) FOR CONTRAST-ENHANCED RADIOLOGY

Isovue® (iopamidol) is a nonionic low-osmolar monomer iodinated contrast agent (ICA) intended for use with computed tomography (CT) or angiography to help diagnose or assess various medical conditions. It is intended for use only with an automated contrast injection system or contrast management system approved or cleared for use with this contrast agent. Injection for angiography is intra-arterial; injection for CT is intravenous.
RENALGUARD THERAPY (RENALGUARD SOLUTIONS, INC.) FOR PREVENTING CONTRAST-INDUCED NEPHROPATHY AFTER IMAGING EXAMS

RenalGuard Therapy™ is intended to help prevent contrast-induced nephropathy (CIN) and reduce the toxic effects of contrast media on kidney function. The RenalGuard uses a prescribed loop diuretic to induce the required level of high urine output. The system synchronizes intravenous (IV) infusion of sterile saline with urine output.

Jan 7, 2016 - Custom Product Briefs
SYMPHION TISSUE REMOVAL SYSTEM (BOSTON SCIENTIFIC CORP.) FOR DIAGNOSTIC AND OPERATIVE Hysteroscopy

The Symphion™ Tissue Removal System is a hysteroscopic visualization and resection system intended to remove submucosal uterine fibroids and polyps, assisted by a recirculating and filtering fluid management system that distends the uterus. Components include a controller with integrated fluid management (infusion and aspiration pumps), fluid management accessories, hysteroscope, bladeless resecting device, saline pole, and footswitch.

Dec 28, 2015 - Custom Rapid Responses
INTRAOPERATIVE IMAGING USING FLUOROSCOPY WITH COMPUTED TOMOGRAPHY

Computed tomography (CT) fluoroscopy or "real-time CT" combines the advantages of CT's quality cross-sectional images with the speed of fluoroscopic guidance; these are CT systems that are capable of fluoroscopy. Advantages of CT fluoroscopy include reconstruction and display of CT images in real time; ability to image air, soft tissue, and bone; it does not superimpose anatomical structures as does conventional fluoroscopy; and patient breathing and motion do not affect image quality greatly.

Dec 28, 2015 - Custom Rapid Responses
REAL-TIME RADIATION EXPOSURE MONITORING IN HEALTHCARE WORKERS

Real-time electronic badges do not replace traditional badges because they do not record a permanent radiation exposure record; however, they can be used to help clinicians immediately adjust their behavior (e.g., repositioning themselves) to comply with occupational radiation safety procedures and reduce their exposure.

Nov 18, 2015 - Custom Rapid Responses
AXILLARY ULTRASOUND FOR STAGING AND MANAGING THE AXILLA IN WOMEN WITH BREAST CANCER

One of the first sites of breast cancer spread is to the lymph nodes located in the armpit (axilla). The presence or absence of axillary lymph node involvement is one of the most important factors in determining the long-term outcome of the cancer (prognosis), and it often guides treatment decisions.

Nov 11, 2015 - Custom Product Briefs
DISCOVERY NM 530C (GE HEALTHCARE) FOR CARDIAC IMAGING

The Discovery™ NM 530c is a nuclear imaging system using single-photon emission computed tomography to perform myocardial perfusion imaging for diagnosing coronary artery disease.

Nov 10, 2015 - Custom Product Briefs
DISCOVERY NM 750B (GE HEALTHCARE) FOR MOLECULAR BREAST IMAGING
The Discovery NM 750b system is a molecular imaging machine intended for diagnostic imaging of the breast and other small body parts. The device images and measures the distribution of selected single-photon emission radiotracers injected into the patient's body through a vein.

Nov 9, 2015 - Custom Product Briefs

D-SPECT CARDIAC SCANNER (SPECTRUM DYNAMICS MEDICAL) FOR CARDIAC IMAGING

The D-SPECT™ Cardiac Scanner is a single-photon emission computed tomography (SPECT) system intended to perform myocardial perfusion imaging. The system is intended to streamline imaging by personalizing data acquisition through use of a proprietary wristband worn by patients that uses advanced radiofrequency identification technology and is encrypted with patient and radiopharmaceutical agent information.

Nov 1, 2015 - Custom Product Briefs

OVERVIEW OF TWO SELECTED SPECT CARDIAC IMAGING SYSTEMS

This overview compares the various features of the following nuclear imaging systems used primarily to perform myocardial perfusion imaging (MPI) for diagnosing coronary artery disease (CAD) Discovery™ NM 530c (GE Healthcare) and D-SPECT™ Cardiac Scanner (Spectrum Dynamics Medical, acquired in May 2013 by Biosensors International Group).

Oct 1, 2015 - Custom Rapid Responses

WHOLE BREAST ULTRASOUND FOR BREAST CANCER SCREENING IN WOMEN WITH DENSE BREAST TISSUE

Breast density is associated with an increased risk of developing breast cancer. Women with dense breasts may elect to have additional screening with ultrasound and magnetic resonance imaging in addition to mammography. Automated breast ultrasound systems, in which a scanner examines the whole breast, are now available. These systems use a completely automated linear transducer to scan the breasts and collect three-dimensional images.

Sep 8, 2015 - Custom Product Briefs

KONING BREAST CT (KONING CORP.) FOR THREE-DIMENSIONAL DIAGNOSTIC IMAGING

The Koning Breast Computed Tomography (KBCT) is a breast-imaging system intended to provide three-dimensional (3-D) images of the breast to aid diagnosis of breast cancer or abnormal imaging findings. The role of a 3-D x-ray breast imaging technique, such as breast CT, is to improve visibility of breast regions in which a cancer could be obscured by overlapping tissue.

Aug 26, 2015 - Custom Rapid Responses

WHOLE-BODY COMPUTERIZED TOMOGRAPHY VERSUS X-RAY FOR DIAGNOSING, STAGING, AND MONITORING MULTIPLE MYELOMA

Multiple myeloma is a systemic cancer of plasma cells, a type of white blood cell present in bone marrow. Clinicians use whole-body computerized tomography or x-ray to diagnose, stage, and monitor the condition. Each has purported advantages and disadvantages.

Aug 5, 2015 - Custom Product Briefs
RADLINK GALILEO POSITIONING SYSTEM (RADLINK, INC.) FOR INTRAOPERATIVE GUIDANCE DURING ORTHOPEDIC SURGERY

The Galileo™ Positioning System, when used with Surgeon’s Checklist software, is a digital radiography system intended to provide surgeons with both preoperative and intraoperative imaging, particularly during orthopedic procedures, to assist in proper implant placement. The intraoperative images are obtained using x-rays.

Jun 30, 2015 - Custom Product Briefs

MAMMOMAT INSPIRATION WITH TOMOSYNTHESIS OPTION (SIEMENS CORP.) FOR SCREENING AND DIAGNOSIS OF BREAST CANCER

The Mammomat® Inspiration with tomosynthesis option is the third imaging system to become available in the United States for performing digital breast tomosynthesis, a three-dimensional imaging technique for screening and diagnosis of breast cancer. The technology has been promoted, in particular, for screening women with dense breasts.

Apr 17, 2015 - Custom Product Briefs

SELENA DIMENSIONS (HOLOGIC, INC.) AND SENOCLAIRE (GE HEALTHCARE) FOR 3-D BREAST TOMOSYNTHESIS

Two digital breast tomosynthesis imaging systems are commercially available in the United States Selenia Dimensions System and the SenoClaire. Both systems provide digital two- and three-dimensional images for breast cancer screening and diagnosis.

Apr 14, 2015 - Custom Product Briefs

LESSRAY (SAFERAY SPINE, LLC) FOR LOW-RADIATION FLUOROSCOPIC IMAGING

Lessray® is intended to increase the safety of fluoroscopy for the treatment planning and procedural guidance of medical conditions. Lessray involves the use of computer software to improve the quality of images from low-dose fluoroscopy.

Mar 10, 2015 - Custom Product Briefs

DATSCAN IOFLUPANE I-123 INJECTION (GE HEALTHCARE) FOR DIAGNOSING PARKINSONS DISEASE

We examine the evidence on DaTscan™ (GE Healthcare), which uses ioflupane I-123 injection during single photon emission computed tomography to diagnose Parkinsonian syndrome and reportedly can inform or alter the initial clinical diagnosis.

Feb 9, 2015 - Technology Forecasts

COMPUTED TOMOGRAPHY WITH COMPUTER-AIDED DETECTION FOR LUNG CANCER SCREENING

Several medical societies recommend annual lung cancer screening with low-dose computed tomography (LDCT) for certain individuals at high risk. However, the value of adding computer-aided detection to improve LDCT screening accuracy remains unclear.

Feb 5, 2015 - Custom Product Briefs
YESS SPINE ENDOSCOPE (RICHARD WOLF MEDICAL INSTRUMENTS CORP.) FOR PERFORMING DISCECTOMY OR RHIZOTOMY

This Product Brief explores the literature on the Yeung Endoscopic Spine System (YESS®) (Richard Wolf Medical Instruments), which is intended to aid the endoscopic removal of herniated discs from the lumbar spine.

Feb 4, 2015 - Custom Product Briefs

PDE-NEO (MITAKA USA/HAMAMATSU PHOTOICS) VERSUS SPY ELITE SYSTEM (NOVADAQ TECHNOLOGIES) FOR VISUALIZING INTRAOPERATIVE B ...

This Product Brief explores the available evidence comparing the PDE-Neo (Mitaka USA/Hamamatsu Photonics) versus the Spy Elite System (Novadaq Technologies) for visualizing intraoperative blood flow during breast reconstructive surgery.

Jan 12, 2015 - Custom Product Briefs

SOMATOM DEFINITION FLASH (SIEMENS AG) FOR PERFORMING PREMIUM COMPUTED TOMOGRAPHY

The Somatom® Definition Flash CT system (Siemens) is intended to produce detailed cross-sectional anatomic views of the body. We examine the literature and present results from a previous ECRI evaluation of this system.

Jan 2, 2015 - Custom Product Briefs

SPY ELITE SYSTEM (NOVADAQ TECHNOLOGIES, INC.) FOR ASSESSING TISSUE PERFUSION DURING PLASTIC AND RECONSTRUCTIVE SURGERY

The Spy Elite™ System (Novadaq Technologies) is intended to assess tissue perfusion during plastic and reconstructive surgery. This Product Brief focuses on the plastic and reconstructive surgery uses of the system primarily for breast reconstruction and muscle flaps.

Dec 24, 2014 - Custom Rapid Responses

CONE BEAM CT VERSUS CONVENTIONAL MULTISLICE CT IMAGING OF SINUSES AND TEMPORAL BONES

Cone-beam computed tomography (CBCT) is being used for imaging head and neck disorders beyond the dental application that has been its traditional use. We recap what investigators have found in using CBCT and conventional multislice CT for imaging sinuses and temporal bones.

Oct 23, 2014 - Custom Rapid Responses

TISSUE DOPPLER IMAGING FOR EVALUATING CORONARY ARTERY DISEASE

We search the literature for information on tissue Doppler imaging, an ultrasound-based imaging technique that measures the velocity of myocardial motion, for evaluating coronary artery disease.

Oct 9, 2014 - Custom Product Briefs

FIBROSCAN (ECHOSENS) TRANSIENT ELASTOGRAPHY FOR DETERMINING OPTIMAL CANDIDATES FOR HEPATITIS C PHARMACOTHERAPY

We examine the literature on FibroScan® (Echosens) and transient elastography to determine which patients with hepatitis C virus infection are most likely to benefit from antiviral treatment.
**NMR LIPOPROFILE TEST (LIPOSCIENCE, INC.) FOR PREDICTING CARDIOVASCULAR DISEASE RISK**

We search the literature for evidence on the NMR LipoProfile® test (LipoScience), which measures lipoprotein particles and is used to predict a patient's risk of developing cardiovascular disease.

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**TOTAL KNEE REPLACEMENT USING PATIENT-SPECIFIC TEMPLATES**

Clinicians use patient-specific templates, available from several manufacturers, to aid in cutting bone and aligning the knee implants during total knee replacement procedures. Does the added expensive of preoperative imaging and template manufacturing produce improved outcomes for patients?

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**MAGNETIC RESONANCE IMAGING WITH FIELD STRENGTHS 3.0 TESLA (ULTRA-HIGH-FIELD) AND HIGHER**

Investigators at selected centers are using magnetic resonance imaging (MRI) systems with magnetic fields of 7.0 tesla or greater for research. Although 7.0 T MRI is unlikely to become available for general clinical use because of its steep price, technological advancements may filter down to lower-strength MRI systems.

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**CORPATH VASCULAR ROBOTIC SYSTEM (CORINDUS, INC.) FOR PERCUTANEOUS CORONARY INTERVENTION**

We examine the CorPath® Vascular Robotic System (Corindus, Inc.), which is intended to enable interventional cardiologists to precisely place coronary guide wires, balloons, and stents during percutaneous coronary interventions. The system also purportedly enhances protection of physicians from radiation exposure.

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**RADIOSTEREOMETRIC ANALYSIS (HALIFAX BIOMEDICAL, INC.) FOR ASSESSING ORTHOPEDIC IMPLANT POSITION**

Radiostereometric analysis (RSA) is intended to detect changes in the position of an orthopedic implant after surgery. One manufacturer states that RSA can help anticipate complications with implants well in advance, among other claims. We search the literature for available evidence on these systems.

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**INTEGRATED POSITRON EMISSION TOMOGRAPHY (PET)/MAGNETIC RESONANCE IMAGING (MRI)**

Integrated PET/MRI has been used primarily at large academic and research hospitals, where in addition to clinical use, investigators evaluate which applications provide the most additional benefit compared to other diagnostic imaging modalities.

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**REAL-TIME MRI ADAPTIVE RADIATION THERAPY FOR ONCOLOGY APPLICATIONS**

Use of image-guided radiation therapy and treatment planning technology is gaining interest among clinicians who wish to increase the accuracy and precision of radiation therapy. Real-time MRI adaptive radiation therapy purportedly allows for greater accuracy in targeting tumors that may move or that are located in close proximity.
to organs likely to move. We look at one such system, the ViewRay, which received FDA approval in 2012. Will the current lack of reimbursement, hefty price tag, and other barriers stall adoption?

Jun 11, 2014 - Custom Product Briefs
TROPHON EPR (NANOSONICS, LTD./GE HEALTHCARE) FOR DISINFECTING ULTRASOUND TRANSDUCERS

Probes for ultrasound devices make contact with skin or body cavities of many patients, making them prime locations for the growth and spread of microorganisms. The Trophon EPR™ (Nanosonics, Ltd) is a device intended to provide high-level disinfection for ultrasound transducer probes.

Jun 10, 2014 - Custom Product Briefs
AMBU ASCOPE3 (AMBU A/S) FOR VISUALIZING PATIENT AIRWAYS

The Ambu® aScope 3™ (Ambu A/S) is intended for visualizing patient airways. The manufacturer states the device provides easier accessibility to patient airways and that their single-use capacity decreases cross-contamination risk. We examine the evidence on its safety and effectiveness.

May 20, 2014 - Technology Forecasts
INTRAOPERATIVE MAGNETIC RESONANCE IMAGING FOR NEUROLOGIC APPLICATIONS

The substantial costs and changes to surgical workflow and infrastructure associated with use of intraoperative magnetic resonance imaging suggests adoption of this technology will remain slow, with use limited primarily to large neurosurgical programs.

Apr 21, 2014 - Custom Product Briefs
I-LOGIC ELECTROMAGNETIC NAVIGATION BRONCHOSCOPY (COVIDIEN, INC.) FOR AIDING DIAGNOSIS OF PERIPHERAL LUNG LESIONS

The i-Logic™ Electromagnetic Navigation Bronchoscopy® System (Covidien, Inc.) is intended to enable bronchoscopic tools to reach peripheral lung lesions to collect tissue samples for histologic evaluation. Clinicians use the method to facilitate and enable diagnosis, but it is not a diagnostic test in and of itself. We search the evidence on its effectiveness and safety.

Updated: 6/26/2017