CME ACTIVITY TITLE: 17th Annual Emergency Radiology Symposium: What You Need to Know to Get You Through the Night

DATE: Sunday-Wednesday, November 5-8, 2017      LOCATION: Ritz-Carlton Hotel, Miami Beach, Florida

TIME: Sunday, 4-7:30 p.m.; Monday-Wednesday, 7:30 a.m.-1 p.m.

SYMPOSIUM DIRECTOR: Myer H. Roszler, M.D.      CREDIT HOUR(S) APPLIED FOR: 18.5 Cat.1

AMA/PRA LEARNING FORMAT:
☒ Live activity
☐ Test-item writing activity
☐ Internet point-of-care activity
☐ Enduring material
☐ Manuscript review activity
☐ PI CME activity
☐ Journal-based CME activity
☐ PI CME activity

TARGET AUDIENCE: Radiologists, emergency radiologists

REGISTRATION CHARGE: ☐ $795 Physicians*  ☐ $395 Fellows in training, technologists and other healthcare professionals

Per-day rates Physicians Other
Sunday: ☒ $199 ☒ $99
Monday: ☒ $199 ☒ $99
Tuesday: ☒ $199 ☒ $99
Wednesday: ☒ $199 ☒ $99

*Groups of three or more physicians who register together are eligible for a discount. International 20% discount ($636).

EXPECTED NUMBER OF ATTENDEES: 110-150

LEARNING FORMAT: Must be appropriate to achieve objectives and desired results (C5). Check all that apply.
☒ ARS
☒ Case studies
☒ Didactic lecture
☒ Enduring material (DVD/booklet)
☒ Internet activity enduring material
☒ Internet live course (live webcast)
☒ Internet point-of-care activity
☒ Journal-based CME activity
☒ Learning from teaching

COURSE DESCRIPTION: This short summary will be used on course shell. Please note keyword searches will pull from this description.

Acutely ill adults and pediatric patients are arriving at the emergency room in greater numbers than ever before. This symposium is designed to help radiologists and emergency radiologists maintain optimal competence in the utilization of the most reliable imaging modalities and best-practice strategies, even for unusual conditions. One-third of the lectures will be dedicated to plain films and the remainder will stress state-of-the-art emergency imaging of the central nervous system, chest abdomen and coronary and musculoskeletal systems. This course will be of special interest to physicians in the fields of radiology and emergency radiology.

FACTORS OUTSIDE OUR CONTROL – List factors outside our control and beyond learner performance that impact patient outcomes and contribute to the healthcare “quality gap” being addressed. (C18)

Patient: ☒ Noncompliance ☒ Lifestyle ☐ Resistance to change ☐ Cost of care/Lack of insurance
Physician: ☒ Noncompliance ☐ Resistance to change ☐ Communication skills ☐ Reimbursement issues
Resources: ☐ Institutional capabilities ☐ Physician practice limitations ☐ Community service limitations
State of Science: ☐ Limited or no treatment modalities ☐ Limited or no diagnostic modalities
Other: Please describe.

BARRIERS TO PHYSICIAN CHANGE: (C19) Briefly explain how this activity addresses the barriers/factors identified.

►Emergency radiologist need a better understanding of how clinical care at emergency departments, especially the
utilization of advanced imaging, influence patient outcomes.

**DESIDERABLE PHYSICIAN ATTRIBUTES/COMPETENCIES (C6)**

**ABMS/ACGME**: ☑ Patient care and procedural skills ☑ Medical knowledge ☑ Practice-based learning and improvement ☑ Interpersonal and communication skills ☑ Professionalism ☑ Systems-based practice

**INSTITUTE OF MEDICINE**: ☑ Provide patient-centered care ☑ Work in interdisciplinary teams ☑ Employ evidence-based practice ☑ Apply quality improvement ☑ Utilize informatics

**INTERPROFESSIONAL EDUCATION COLLABORATIVE**: ☑ Values/ethics for interprofessional practice ☑ Roles/responsibilities ☑ Interprofessional communication ☑ Teams and teamwork

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**PROFESSIONAL PRACTICE GAP (C2)**

The difference between what is (ACTUAL) and what should be (IDEAL).

What is the current professional practice gap? What are physicians doing (or not doing) that needs to change? Describe the current state of knowledge, skill, competence, practice and/or clinical/patient outcomes. (C2)

► Radiologists need to optimize imaging utilization by describing which clinical variables are more predictive of acute disease and conversely, what combination of variables can avoid the need for imaging.

Indicate if the gap is related to need for change in either/or:

- Knowledge and/or (Doctors do not know that they need to be doing something.)
- Competence and/or (Doctors do not know how to do it.)
- Performance and/or (Doctors know how to do it but are noncompliant – or are not doing it properly.)

**DESIRABLE OUTCOMES (GOAL)**: Answer one or more of the following questions: What are the desired or expected outcomes of this conference? What is expected to change or improve as a result of this CME activity? In a “perfect world,” what would doctors be doing if this change were already implemented? What does optimal practice “look like”? (C3)

► The goals of this symposium is to determine how to maximize the positive effects of evidence-based interventions on decreasing unnecessary ED visits and imaging, while delivering safe, high-quality patient care.

Indicate what this activity is designed to change.

- Designed to change competence.
- Designed to change performance.
- Designed to change patient outcomes.

NEEDS ASSESSMENT RESOURCES – HOW ARE EDUCATIONAL NEEDS IDENTIFIED? (Check all that apply.)

- Best-practice parameters
- Disease prevention (C12)
- Mortality/morbidity statistics
- National/regional data
- New or updated policy/protocol
- Peer review data
- Regulatory requirement
- Research/literature review

- Consensus of experts
- Joint Commission initiatives (C12)
- National Patient Safety Goals
- New diagnostic/therapeutic modality (C12)
- Patient care data
- Process improvement initiatives (C16 & 21)
- Other need identified (Explain): _____________________________

REFERENCES supporting the current practice and/or the optimal practice and/or practice gap:

There are currently numerous evidence-based interventions focused on improving resource utilization for emergency department diagnostic imaging, including clinical practice guidelines, clinical decision instruments, and clinical pathways. Multiple clinical decision instruments have been shown to have high sensitivity and sufficient specificity to safely decrease imaging rates without compromising patient outcomes. Various evidence-based clinical practice guidelines have also been developed to aid emergency department clinicians in certain diagnostic situations to improve resource utilization with regard to emergency department imaging.

References:

http://www.uptodate.com

Diagnostic Imaging – Plain radiographs are useful for general evaluation and for ruling out fractures, dislocation, tumors,
Educational Objectives: Based on the gaps identified above, what are the learning objectives for this activity? Describe the performance (or competence or patient outcome) that should change if participants apply what they learn.

Upon completion of this symposium, participants should be better able to:

- Implement the most appropriate imaging technologies and techniques such as CT, ultrasound and MRI to allow prompt assessment of the acutely ill or injured patient presenting to the emergency department.
- Detect important cardiac findings and recognize cardiac pathology and anatomy relevant to emergency department imaging.
- Utilize optimal imaging techniques for various examinations when evaluating acute pelvic pain in the non-pregnant patient and pregnant patient.
- Detect subtle bony fractures in children and infants and differentiate these from adult traumatic lesions.
- Apply continuous high-quality care when evaluating acute ischemic stroke and non-traumatic spine emergencies.
- Identify common etiologies of hip pain in the emergency department, such as femoral acetabular impingement and subtle fractures.
- Recognize subtle radiographic signs of stress and insufficiency fractures and normal variants that present often to the emergency department.

Evaluation Methods: Analyze the overall changes in competence, performance or patient outcomes as a result of this CME activity. (C11)

☒ Changes in competence. Evaluation method: Baptist Health CME evaluation form
☒ Changes in performance. Evaluation method: Follow-up survey

Provide 3-4 statements based on expected performance outcomes to be evaluated. Example: I have implemented the new Baptist Health policy explained in this CME activity.

Follow-up Outcomes Questions:

- I now implement the most appropriate imaging technologies and techniques such as CT, ultrasound and MRI.
- I now detect important cardiac findings and recognize cardiac pathology and anatomy relevant to emergency department imaging.
- I now utilize optimal imaging techniques for various examinations when evaluating acute pelvic pain in the non-pregnant patient and pregnant patient.
- I now detect subtle bony fractures in children and infants and I am able to differentiate these from adult traumatic lesions.
- I now apply continuous high-quality care when evaluating acute ischemic stroke and non-traumatic spine emergencies.
- I now identify common etiologies of hip pain in the emergency department, such as femoral acetabular impingement and subtle fractures.
- I now recognize subtle radiographic signs of stress and insufficiency fractures and normal variants that present often to the emergency department.

☐ Changes in patient outcomes. Evaluation method: Review of hospital, health system, public health data, etc.
☐ Other _____________________________

Faculty: (Name, specialty and/or title(s), institution(s), city, state. For more than two, include list at end of application.)

---See Attached---

Relevant Financial Relationships: List individuals in control of the content of this CME activity (other than faculty). Note: When using electronic evaluations, disclosure statements for faculty must be included on course landing pages.

Have all relevant financial interests been identified and resolved? (C7; SCS 2.1, 2.2, 2.3) ☒ Yes ☐ No
☒ CME Dept. leadership and staff ☒ CME Committee ☒ Conference director
Others (i.e., conference coordinator, planning group, etc.) ________________________________

NON-EDUCATIONAL STRATEGIES: Explain what we (CME or BHSF) are doing – or what we could do – to enhance change as an adjunct to this CME activity. (C17) These would be tactics and tools to facilitate change that go beyond this CME activity. NOTE: Insert this information under course shell>>custom fields>>resources.

☐ Process redesign or new protocol ☐ Reminders (posters, mailings, email blasts) ☐ New order sheets
☐ Other tools or tactics Explain: Patient information

► http://www.acr.org/Quality-Safety/Radiology-Safety/Patient-Resources

COLLABORATION: Are we engaged in collaborative and cooperative projects with other stakeholders (internal or external) who are related to this CME activity? (C20)

☐ Yes ☐ No Are we partnering with other organizations in a purposeful manner to achieve common interests?
☐ Yes ☐ No Are we collaborating with internal departments in a purposeful manner to achieve common interests?
If yes, describe the collaborative efforts. ____________________________________________

COMMERCIAL SUPPORT: ☐ Indicate here if support will come from Baptist Health Foundation’s General Continuing Medical Education Fund.

DATE REVIEWED: April 28, 2017 REVIEWED BY: ☒ Accelerated Approval ☐ Executive Committee

☐ Live Committee

APPROVED: ☒ YES ☐ NO Credits: AMA/PRA Category 18.5 Credits: 1
Continuing Psychology Education Credits: # ___ ☒ N/A ☐ Continuing Dental Education Credits: # ___ ☐ N/A

Faculty

Myer H. Roszler, M.D.
Symposium Director
Director, Emergency Radiology
Baptist, Homestead and South Miami Hospitals and Baptist Outpatient Services
Miami, Florida
Biography Prior to joining Baptist Health South Florida, Dr. Roszler served as Clinical Associate Professor of Radiology/Neurosurgery at Wayne State University, Detroit Receiving Hospital, where he wrote many of the definitive articles on radiology of IV drug abuse, cocaine abuse, trauma and resident education. He was also co-author of the American College of Radiology Educational Syllabus on emergency radiology.

Kevin Abrams, M.D.
Medical Director, Neuroradiology and Magnetic Resonance Imaging
Baptist, Homestead and South Miami Hospitals and Baptist Outpatient Services
Medical Director, Imaging Neuroscience Division
Baptist Hospital of Miami
Clinical Associate Professor of Radiology, Florida International University Herbert Wertheim School of Medicine
Miami, Florida
Biography Dr. Abrams graduated cum laude from the State University of New York at Stony Brook with a Bachelor of Science degree. He received his M.D. from the State University of New York Health Science Center at Syracuse. He completed an internship in internal medicine at the University of Connecticut and a diagnostic radiology residency at the Hospital of St. Raphael in Connecticut, a Yale affiliate, where he also served as chief resident. Dr. Abrams went on to complete a fellowship in neuroradiology at the University of Miami/Jackson Memorial Hospital. Dr. Abrams has conducted research on a range of topics such as spinal imaging, stroke and Alzheimer's disease. He has been published in

Juan Carlos Batlle, M.D.
Diagnostic Radiologist
Baptist, South Miami, Doctors, Homestead and West Kendall Baptist Hospitals
Miami, Florida

Biography
Dr. Batlle came to his role as a diagnostic radiologist at Radiology Associates of South Florida from Massachusetts General Hospital (MGH), where he served as a resident physician in the radiology department and a clinical fellow at Harvard Medical School. During his time at the hospital, he spent a year focusing on cardiothoracic imaging, including hands-on supervision of cardiac CT and MRI acquisition and post-processing. He also completed a musculoskeletal fellowship at MGH, specializing in sports medicine, soft tissue and bone tumors, and general musculoskeletal radiology, including musculoskeletal interventional procedures. Dr. Batlle graduated Duke University summa cum laude before earning a master's degree in bioethics at the University of Pennsylvania School of Medicine. Concurrently, he took part in a MD/ M.B.A. degree program at the university's Wharton School, graduating with honors. He received numerous awards upon graduation, including the Theodore Friedmann Prize, given to the graduating student who has made the most significant advance in biomedical ethics. Dr. Batlle has published numerous abstracts and journal articles, covering several fields of interest, including clinical radiology, informatics, bioethics, and health services research.

Mark Bernstein, M.D.
Assistant Professor of Radiology
Trauma/Emergency Radiology
New York University Medical Center/Bellevue Hospital
New York, New York

Biography
Fascinated by the pivotal role diagnostic imaging can make in the care of acutely ill and injured patients, Dr. Bernstein pursued a fellowship in trauma and critical care imaging at the University of Maryland's Shock Trauma Center in Baltimore. Emphasis was placed on a multi-modality approach (XR, CT, MR) to the diagnosis of critically ill traumatized patients. Dr. Bernstein has developed a particular interest in the ever-growing role of CT, and now multi-detector CT, in assessing stable blunt and penetrating trauma victims. He has compiled a series of trauma protocols for the Bellevue Emergency CT scanner and patients can now get a complete diagnostic workup in just a single visit to the CT scanner. Most of his interest lies in cervical and thoracolumbar spine injury evaluation, and the CT diagnosis of vascular injury including aortic injury.

Guilherme Dabus, M.D.
Medical Director, Fellowship Program
Interventional Neuroradiology and Endovascular Neurosurgery
Baptist Health Neuroscience Center and Miami Cardiac & Vascular Institute
Clinical Associate Professor, Department of Radiology, Neurology and Neurosurgery
Florida International University Herbert Wertheim College of Medicine
Miami, Florida

Biography
Dr. Dabus has extensive expertise in the minimally invasive treatment of cerebrovascular diseases including cerebral aneurysms and stroke as well as in the interventional treatment of craniofacial vascular malformations.
He has several national and international publications including peer-reviewed manuscripts, invited review articles and book chapters. Dr. Dabus is an active lecturer and serves as a reviewer for several scientific journals including Stroke, European Journal of Neurology, Neurosurgery, Clinical Neurology and Neurosurgery, Journal of Neuroimaging, Journal of Endovascular Therapy, Journal of Stroke & Cerebrovascular Diseases and Journal of NeuroInterventional Surgery.

Elliot K. Fishman, M.D., FACR
Professor of Radiology, Surgery and Oncology
Director of Diagnostic Imaging and Body CT
Johns Hopkins Hospital
Baltimore, Maryland

**Biography**  
Dr. Fishman’s interest focus on medical imaging with specific emphasis on three-dimensional (3D) imaging and computed tomography (CT). He is a leader in the development of 3D imaging and rendering, including its impacts on and uses in patient care and management. He was involved from the beginning in the development of 3D imaging through his work with Pixar, which was a spin-off from LucasFilms in San Rafael, California. Over the last 25 years, Dr. Fishman continued to help develop 3D imaging and has been a leader in the development of interactive 3D rendering. His team is consistently at the forefront of research and development of new visualization and post-processing techniques and technologies. Dr. Fishman's extensive body of work in CT has resulted in over 1,000 peer-reviewed publications, and he is the author or co-author of 10 textbooks. He is the recipient of three prestigious Aunt Minnie Awards, honoring his outstanding contributions as both an educator and researcher. In 2007, he was named by Medical Imaging Magazine as the Top Radiologist in the Nation. He is a member of editorial boards for more than 35 journals, an active member of several professional radiology associations and is a past-president of the Society of Body CT/MR.

Susan D. John, M.D.
Chair, Diagnostic and Interventional Imaging
Professor of Diagnostic Imaging and Pediatrics
The University of Texas Health Science Center at Houston Medical School
Houston, Texas

**Biography**  
Dr. John's expertise lies in diagnostic imaging of pediatric patients, including radiography, fluoroscopy, ultrasound, CT, MRI, and nuclear imaging. She has a special interest in emergency and acute care imaging of children and in pediatric ultrasound, especially the gastrointestinal tract. The Pediatric Radiology section plays a central role in the diagnosis and management of children at Children's Memorial Hospital. Dr. John's primary research interests have involved the use of imaging for diagnosis of children in the emergency and acute care setting. Ultrasound is a special area of interest. She is an advocate for the use of ultrasound in evaluation of the causes for acute abdominal pain in children, such as appendicitis, mesenteric adenitis, intussusceptions, Henoch-Schoenlein purpura and various inflammatory conditions of the gastrointestinal tract. She has also investigated the use of ultrasound for cystic renal diseases and soft tissue masses in children. Pediatric musculoskeletal ultrasound and radiographic evaluation of acute musculoskeletal injuries and diseases are also areas of strong interest. She frequently lectures on pediatric elbow injuries. A third area of interest is acute abnormalities of the pediatric airway and lung, with particular attention to bronchial inflammatory conditions.

Constantino S. Peña, M.D.
Medical Director, Vascular Imaging, Miami Cardiac & Vascular Institute
Diagnostic Radiologist
Baptist, Doctors, Homestead and South Miami Hospital and Baptist Outpatient Services
Miami, Florida

**Biography**
Dr. Peña received an undergraduate degree and an M.S. from Stanford University before receiving an M.D. from Yale University School of Medicine. He completed an internship in internal medicine at Yale-New Haven Hospital and a residency in diagnostic radiology at Massachusetts General Hospital. Dr. Peña continued on with a fellowship in vascular intervention, also at Massachusetts General Hospital. Dr. Peña has been published a number of times, including pieces on adrenal masses, post-transplantation lymphoproliferative disorder of the liver, cervical spine osteoblastoma, liver lesion detection, and surgical conversions from endoluminal aortic aneurysm stent graft repair.

Robert M. Quencer, M.D.
Professor and Chairman
The Robert Shapiro, M.D. Professor of Radiology
University of Miami Miller School of Medicine
Miami, Florida

**Biography**
Dr. Quencer completed his undergraduate studies at Cornell University, his medical degree from Upstate Medical Center, Syracuse (AOA membership in 1966) and his residency at Columbia-Presbyterian Medical Center in New York City. Following his residency, he completed an NIH sponsored fellowship in Neuroradiology at the Neurological Institute of New York. In addition to his clinical, academic and leadership roles, he has published over 150 articles and book chapters in many areas of neuroimaging and has authored two books in neuroradiology. His research interest has centered mainly on spine imaging, intraoperative neurosonography, MR studies of CFS flow and spinal cord injury.

O. Clark West, M.D., FACR
Chief, Emergency, and Trauma Imaging at Memorial Hermann Hospital – Texas Medical Center
Professor, Department of Diagnostic and Interventional Imaging
The University of Texas Health Science Center at Houston Medical School
Houston, Texas

**Biography**
Dr. West received his medical degree from Washington University in St. Louis. His Diagnostic Radiology residency was at the Mallinckrodt Institute of Radiology at the same institution. He did a combined fellowship in Trauma Radiology at the University of Maryland Medical System in Baltimore and Musculoskeletal Radiology at Mallinckrodt Institute of Radiology.

Dr. West devotes much of his nonclinical time teaching radiologists about trauma imaging at meetings within the United States and internationally. He has been actively involved in the Emergency Radiology curriculum at the ASER, RSNA, and ARRS. He is one of the co-directors of the ACR Education Center course, “Emergency Imaging for the General Radiologist.”

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**Schedule**

**Sunday, November 5 (3.5)**

**Body Imaging**

3:00 p.m.  
*Registration and Refreshments*

**Moderator:** Myer Roszler, M.D.

4:00 p.m.  
*Imaging and Treatment of Pulmonary Embolism*

Constantino Peña, M.D.

4:45 p.m.  
*Cardiac Imaging for the ED Radiologist*

Juan Carlos Batlle, M.D.

5:30 p.m.  
*CT of Abdominal Aorta: Aneurysms, Dissections and Repair*

Elliot K. Fishman, M.D.
Monday, November 6 (5.0)

Body Imaging
7:00 a.m.  Registration and Continental Breakfast

Moderator: Myer Roszler, M.D.
7:30 a.m.  CT of the Acute Abdomen: GI Applications
Elliot K. Fishman, M.D.
8:15 a.m.  Proximal Upper Extremity Injury: Shoulder and Elbow
O. Clark West, M.D.
9:00 a.m.  CT of the Acute Abdomen: GU Applications
Elliot K. Fishman, M.D.
9:45 a.m.  Break

Body Imaging
10:15 a.m.  Distal Upper Extremity Injury: Forearm to Fingers
O. Clark West, M.D.
11:00 a.m.  CT Evaluation of Cystic Pancreatic Masses: A Systemic Approach
Elliot K. Fishman, M.D.
11:45 a.m.  Ankle and Hind Foot Injuries
O. Clark West, M.D.
12:30 p.m.  Questions and Answers Session
1:00 p.m.  Adjourn

Tuesday, November 7 (5.0)

Musculoskeletal
7:00 a.m.  Registration and Continental Breakfast

Moderator: Myer Roszler, M.D.
7:30 a.m.  Spine Injuries in Children
Susan John, M.D.
8:15 a.m.  Imaging Thoracic Trauma
Mark Bernstein, M.D.
9:00 a.m.  Pediatric Bone Lesions in the ED: What to do Next
Susan John, M.D.
9:45 a.m.  Break

Musculoskeletal
10:15 a.m.  Imaging Abdominal Trauma
Mark Bernstein, M.D.
11:00 a.m.  Subtle Fractures of the Immature Skeleton
Susan John, M.D.
11:45 a.m.  Imaging of Pelvic Trauma
Mark Bernstein, M.D.
12:30 p.m.  Questions and Answers Session
1:00 p.m.  Adjourn

Wednesday, November 8 (5.0)

Neurological Imaging
7:00 a.m.  Registration and Continental Breakfast

Moderator: Myer Roszler, M.D.
7:30 a.m.  Stroke Imaging and Intervention
Guilherme Dabus, M.D.
8:15 a.m.  Head Trauma Pearls and Pitfalls
Robert Quencer, M.D.
9:00 a.m.  Imaging of Head and Neck Emergencies
Kevin Abrams, M.D.
9:45 a.m.  Break

Miscellaneous
10:15 a.m.  Imaging of the Child with Abdominal Pain and Vomiting
Susan John, M.D.
11:00 a.m.  Diseases of the Space of Retzius  
Myer Roszler, M.D.

11:45 a.m.  Imaging Trauma in Pregnancy  
Mark Bernstein, M.D.

12:30 p.m.  Questions and Answers Session