# A CME Teaching Activity 2021 Neuroradiology in Clinical Practice

# Release Date: February 15, 2021 | 16.75 AMA PRA Category 1 Credit(s)™

#### **About This CME Teaching Activity**

This accredited continuing education activity is designed to address current topics in neuroimaging and the clinical management of neurological disease. Emphasis is placed on the role of imaging in pathology and trauma affecting the central nervous system. Imaging manifestation of disease, optimizing imaging techniques and the recent advanced applications of artificial intelligence (AI) and PET/MRI, traumatic brain injury and stroke imaging updates are also addressed.

#### **Target Audience**

This program is designed for practicing radiologists, neurologists and neurosurgeons that interpret or rely on imaging studies for the evaluation of neurological disorders.

#### **Scientific Sponsor**

Educational Symposia

#### Accreditation

**Physicians:** Educational Symposia is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to provide continuing medical education for physicians.

Educational Symposia designates this enduring material for a maximum of 16.75 *AMA PRA Category 1 Credit(s)*<sup>TM</sup>. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

**SA-CME:** Credits awarded for this enduring activity are designated "SA-CME" by the American Board of Radiology (ABR) and qualify toward fulfilling requirements for Maintenance of Certification (MOC) Part II: Lifelong Learning and Self-assessment.

All activity participants are required to take a written or online test in order to be awarded credit. (Exam materials, if ordered, will be sent with your order.) All course participants will also have the opportunity to critically evaluate the program as it relates to practice relevance and educational objectives.

> AMA PRA Category 1 Credit(s)<sup>™</sup> for this activity may be claimed until February 14, 2024.

This program is planned and organized by Educational Symposia, a leader in accredited continuing education since 1975.

This activity was planned and produced in accordance with the ACCME Essential Areas and Elements.

#### **Educational Objectives**

At the completion of this CME teaching activity, you should be able to:

- Discuss the advances in neuroimaging applications and interpretation.
- Evaluate intracranial tumors, vascular abnormalities and traumatic brain injury.
- Discuss the clinical and imaging manifestations of neurodegenerative disease.
- Recognize image characteristics of common neurovascular disease processes.
- Utilize CTA and MRA in neuroradiology applications.
- Describe the changing role of imaging in the management of spine disease.
- Explain the clinical impact of artificial intelligence in neuroradiology.
- No special educational preparation is required for this CME activity.

## Faculty

#### Wende N. Gibbs, M.D., M.A.

Division of Neuroradiology Department of Radiology Senior Associate Consultant, Mayo Clinic Assistant Professor of Radiology Mayo Clinic College of Medicine Phoenix, AZ

#### Blake A. Johnson, M.D., FACR

National Medical Director Director of Regenerative Medicine Center for Diagnostic Imaging Minneapolis, MN

#### C. Douglas Phillips, M.D., FACR

Professor of Radiology Director of Head and Neck Imaging Weill Cornell Medical College New York-Presbyterian Hospital New York, NY

#### Jeffrey S. Ross, M.D.

Consultant, Mayo Clinic Arizona Neuroradiology Division Department of Radiology Professor of Radiology, Mayo Clinic College of Medicine Editor-in-Chief, American Journal of Neuroradiology Phoenix, AZ

#### Lawrence N. Tanenbaum, M.D., FACR

Vice President and Chief Technology Officer Director of CT, MR and Advanced Imaging Medical Director East Region RadNet, Inc. New York, NY

#### J. Pablo Villablanca, M.D., FACR

Professor of Diagnostic Neuroradiology Medical Director of MRI Director, Interventional Spine Service David Geffen School of Medicine at UCLA Los Angeles, CA

#### Max Wintermark, M.D.

Professor of Radiology Chief of Neuroradiology Department of Radiology, Neuroradiology Division Stanford University Stanford, CA

### Program

CT: 7.0 Hours • MR: 14.5 Hours • PET: 0.75 Hours • Stroke (ST): 0.5 Hours • AI: 1.75 Hours • Safety (SF): 0.75 Hours

**SESSION 4** 

#### **SESSION 1**

CT, MR, AI	Al in Neuroimaging Lawrence N. Tanenbaum, M.D., FACR	СТ	Imaging the Paranasal Sinuses C. Douglas Phillips, M.D., FACR
MR	Imaging Cranial Nerves I-VI Blake A. Johnson, M.D., FACR	MR	Imaging of Traumatic Brain Injury Max Wintermark, M.D.
CT, MR	Suprahyoid Neck: Anatomy and Pathology C. Douglas Phillips, M.D., FACR	SESSION 5	
SESSION 2		MR/SF	Contrast Safety: Brain Deposition and Other Issues Lawrence N. Tanenbaum, M.D., FACR
MR	Imaging Cranial Nerves VII-XII Blake A. Johnson, M.D., FACR	MR	White Matter Disease: Imaging Update Blake A. Johnson, M.D., FACR
CT, MR	Infrahyoid Neck: Approach to Imaging C. Douglas Phillips, M.D., FACR	CT	Eponymic ENT Diseases C. Douglas Phillips, M.D., FACR
MR	MR Imaging of Hydrocephalus Wende N. Gibbs, M.D., M.A.	SESSION 6	
SESSION 3		CT, MR	Spine Emergencies Wende N. Gibbs, M.D., M.A.
MR	Recent Advances in Epilepsy Imaging J. Pablo Villablanca, M.D., FACR	CT	CT Imaging in Acute Hemorrhagic Stroke J. Pablo Villablanca, M.D., FACR
MR, PET	PET/MR for Evaluation Neurologic Disease Lawrence N. Tanenbaum, M.D., FACR	CT, MR	Imaging of Carotid Artery Disease Max Wintermark, M.D.
CT, MR	Common Neuroradiology Procedures: Indications and Techniques <i>Wende N. Gibbs, M.D., M.A.</i>		

### Program

#### **SESSION 7**

СТ	Γ, MR, Al	Al in Spine and Image Reconstruction Lawrence N. Tanenbaum, M.D., FACR	MR
M	R	Perfusion Imaging Max Wintermark, M.D.	MR, Al
M	R	Spine Tumors: What the Surgeon Wants to Know <i>Wende N. Gibbs, M.D., M.A.</i>	CT, MR,
SE	ESSION 8		MR
СТ	Г, MR	Multimodal CT and MR in the Evaluation of Non-Aneurysmal, Non-Traumatic Intracranial Hemorrhage J. Pablo Villablanca, M.D., FACR	
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- MR Spine Infection and Inflammation *Jeffrey S. Ross, M.D.*
- MR Spontaneous Intracranial Hypotension: Diagnosis and Treatment of Spinal Leaks *Jeffrey S. Ross, M.D.*

#### **SESSION 9**

MR	Post Operative Spine Imaging <i>Jeffrey S. Ross, M.D.</i>
MR, Al	Al and Spine Imaging: Clinical Applications J. Pablo Villablanca, M.D., FACR
CT, MR, ST	Updates in Stroke Imaging Max Wintermark, M.D.
MR	Case Based Spine Review Jeffrey S. Ross, M.D.

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