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A CME Teaching Activity

# 2020 Neuroradiology in Clinical Practice

Including Stroke Imaging And Intervention

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## Designated for SA-CME

19.25 AMA PRA Category 1 Credit(s)<sup>TM</sup>

Release Date: January 15, 2020

**ESI** Educational  
Symposia

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## About This CME Teaching Activity

This CME Activity is designed to address current topics in neuroimaging and 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 will be discussed. Additionally, the latest in stroke imaging including triage, management and treatment is 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.

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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 January 14, 2023.**

This CME activity was planned and produced by Educational Symposia,  
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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.
- Apply state of the art stroke imaging protocols to clinical practice.
- Discuss the role of radiology in the treatment of acute stroke.

*No special educational preparation is required for this CME activity.*

Faculty

**Jalal B. Andre, M.D.**  
*Director of Neurological MRI, Harborview Medical Center*  
*Associate Member, Head Injury Prevention and Research Center*  
*Associate Medical Staff of Seattle Cancer Care Alliance*  
*Associate Professor of Radiology*  
*University of Washington*  
*Seattle, WA*

**Allan L. Brook, M.D., FSIR**  
*Professor of Radiology & Neurosurgery*  
*Albert Einstein College of Medicine*  
*Director, Interventional Neuroradiology*  
*Montefiore Medical Center*  
*Bronx, NY*

**Boris Chulpayev, M.D.**  
*Assistant Medical Director: Neurology*  
*Section Chief: Neurology*  
*White Plains Hospital*  
*White Plains, NY*

**Kathleen R. Fink, M.D.**  
*Assistant Professor, Neuroradiology*  
*University of Washington*  
*Seattle, WA*

**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., FACP**  
*Medical Director*  
*Center for Diagnostic Imaging*  
*Minneapolis, MN*

**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*

**Howard A. Rowley, M.D.**  
*Professor of Radiology, Neurology and Neurosurgery*  
*Joseph Sackett Professor of Radiology*  
*Chief of Neuro MRI*  
*University of Wisconsin*  
*Madison, WI*

**James G. Smirniotopoulos, M.D.**  
*Professorial Lecturer (Radiology)*  
*George Washington University*  
*Washington DC*  
*Chief Editor, MedPix®*  
*National Library of Medicine*  
*Bethesda, MD*

**Lawrence N. Tanenbaum, M.D., FACP**  
*Vice President and Chief Technology Officer*  
*Director of CT, MR and Advanced Imaging*  
*Medical Director East Region*  
*RadNet, Inc.*  
*New York, NY*

Program

**CT:** 14.75 Hours • **MR:** 15.5 Hours •

SESSION 1

CT/MR	AI in Medical Imaging <i>Lawrence N. Tanenbaum, M.D., FACP</i>
CT/MR	Differential Diagnosis of Basal Ganglia Abnormalities <i>Blake A. Johnson, M.D., FACP</i>
MR	Imaging White Matter Disease <i>Jeffrey S. Ross, M.D.</i>

SESSION 2

CT/MR/PET	Imaging Neurodegenerative Disorders <i>Wende N. Gibbs, M.D., M.A.</i>
MR/PET	PET/MR in Neurologic Disease <i>Lawrence N. Tanenbaum, M.D., FACP</i>
CT/MR	Imaging the Phakomatoses <i>James G. Smirniotopoulos, M.D.</i>

SESSION 3

CT/MR	Gliomas and Tumor Markers <i>James G. Smirniotopoulos, M.D.</i>
CT/MR/PET	MR Imaging of Skull Base Pathology <i>Wende N. Gibbs, M.D., M.A.</i>
MR	CNS Trauma: Lessons from MRI <i>James G. Smirniotopoulos, M.D.</i>

SESSION 4

CT/MR	Imaging in Headache <i>Jeffrey S. Ross, M.D.</i>
CT/MR	Imaging the "Found Down" Patient <i>James G. Smirniotopoulos, M.D.</i>

**SESSION 5**

MR	Degenerative Disc Disease: Pathophysiology and Nomenclature <i>Jeffrey S. Ross, M.D.</i>
IR/CT/MR	The Radiologist's Role in Neck and Back Pain Management <i>Blake A. Johnson, M.D., FACR</i>
MR/PET	Advanced Imaging of the Spine <i>Lawrence N. Tanenbaum, M.D., FACR</i>

**SESSION 6**

CT/MR	Spine Infection and Mimics <i>Wende N. Gibbs, M.D., M.A.</i>
	Regenerative Medicine: A Primer for Radiologists <i>Blake A. Johnson, M.D., FACR</i>
CT/MR	Spine Oncology: Imaging and Interpretation <i>Wende N. Gibbs, M.D., M.A.</i>
MR	MRI of Spine Trauma <i>Jeffrey S. Ross, M.D.</i>

**STROKE IMAGING AND INTERVENTION**

**SESSION 7**

CT/MR/ST	Acute Stroke Imaging and Therapy: Neuroradiology in the Leadership Role <i>Allan L. Brook, M.D., FSIR</i>
CT/ST	CT of Acute Stroke <i>Lawrence N. Tanenbaum, M.D., FACR</i>
CT/MR/ST	Stroke Neurology: Differentials and Clinical Diagnosis <i>Boris Chulpayev, M.D.</i>
CT/MR/ST	Brain Aneurysms: Basics and Treatment Options <i>Allan L. Brook, M.D., FSIR</i>

**SESSION 8**

CT/ST	Stroke Imaging Update <i>Howard A. Rowley</i>
CT/MR/ST	Imaging of Acute Hemorrhage and Ischemic Stroke <i>Kathleen R. Fink, M.D.</i>

**SESSION 9**

CT/MR/ST/IR	Stroke Thrombectomy: Data, Literature, and Guidelines Review <i>Allan L. Brook, M.D., FSIR</i>
CT/MR/ST	Rapid Protocols in Acute Ischemic Stroke <i>Jalal B. Andre, M.D.</i>
CT/ST/IR	Practical Tips for Opening the Occlusion: How I Do It <i>Allan L. Brook, M.D., FSIR</i>

**SESSION 10**

MR/ST	MR Angiography Techniques: Imaging Options and Physics <i>Jalal B. Andre, M.D.</i>
CT/ST	Emergency Stroke Triage <i>Jalal B. Andre, M.D.</i>
ST	Stroke Epidemiology and Risk Factor Management <i>Boris Chulpayev, M.D.</i>

**SESSION 11**

CT/MR/ST	Evaluation of Vasospasm and Delayed Ischemia <i>Jalal B. Andre, M.D.</i>
CT/MR/ST/IR	Acute Management of Stroke <i>Boris Chulpayev, M.D.</i>

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