Apex Innovations®
Improving Outcomes Through Education

Hemispheres 3.0
STROKE COMPETENCY SERIES

Course Description and Outline

Contents

Level I – Brain Anatomy and Physiology

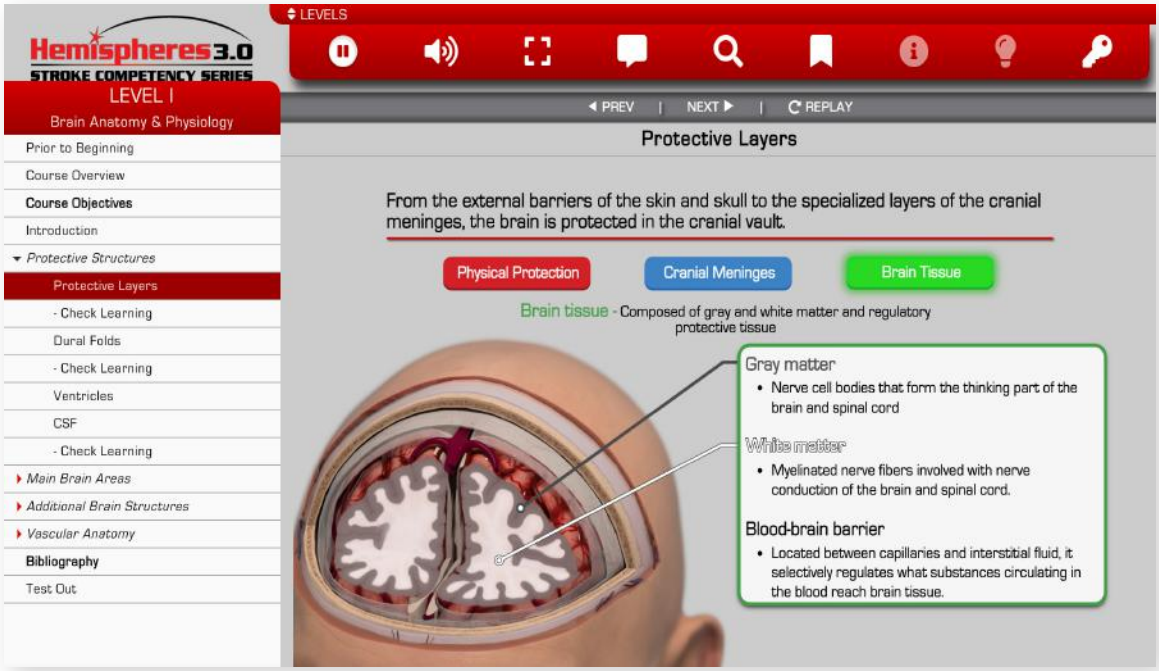
Course Description

Level I of Hemispheres 3.0 provides a review of basic brain anatomy including brain structures and functions, cranial nerves, and cerebral arteries. Knowledge of specific sensory-motor functions of brain areas along with the cerebral arteries that perfuse them are key elements required to pair with expected injury site deficits. This foundational look at brain anatomy supports competent, effective care of the stroke patient by the healthcare team.

Course Objectives

At the conclusion of this educational activity, the participant should be able to:

1. Identify basic brain areas and describe their main functions.
2. Recall cranial nerves and bodily functions each control.
3. Relate cerebral arteries to the areas perfused.



Level II – Stroke Pathophysiology

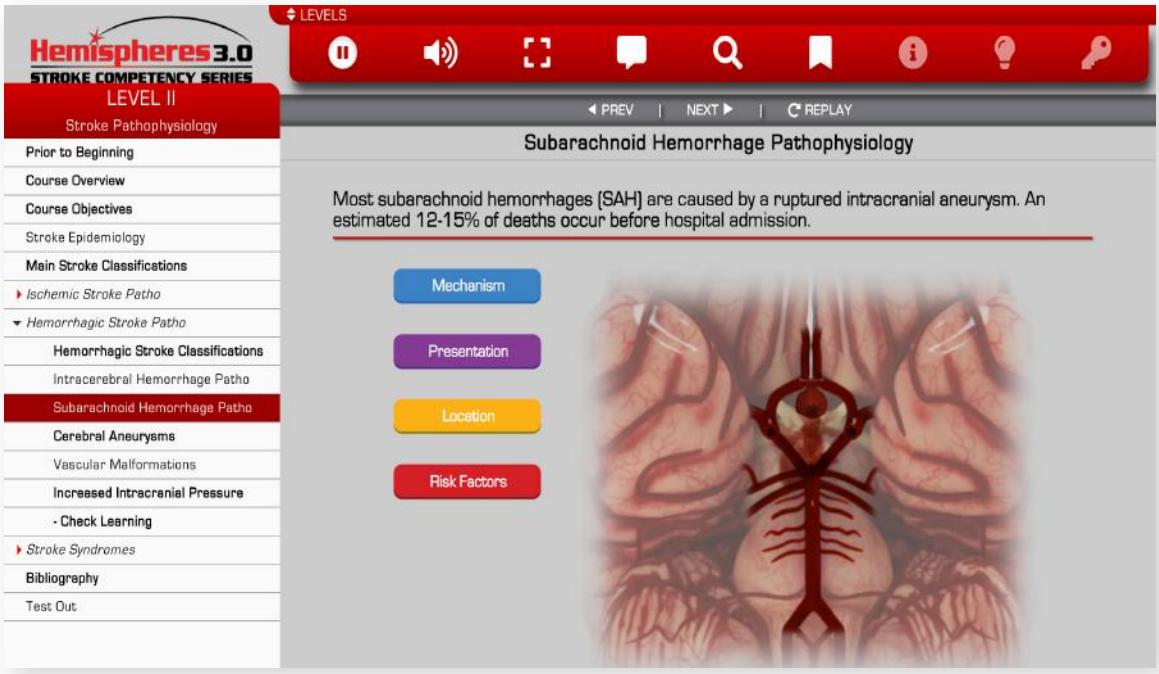
Course Description

Level II of Hemispheres 3.0 reviews the pathophysiology of ischemic and hemorrhagic stroke. Underlying causes and associated risk factors are explained, preparing the healthcare team to recognize the typical clinical presentation of stroke. An overview of stroke syndromes combines knowledge of brain anatomy with stroke pathophysiology to discuss expected deficits based on stroke location.

Course Objectives

At the conclusion of this educational activity, the participant should be able to:

1. Explain the pathophysiology of ischemic and hemorrhagic stroke.
2. Describe the main causes and risk factors for ischemic and hemorrhagic stroke.
3. Differentiate major stroke syndromes and associated deficits.



Level III – Stroke Assessments

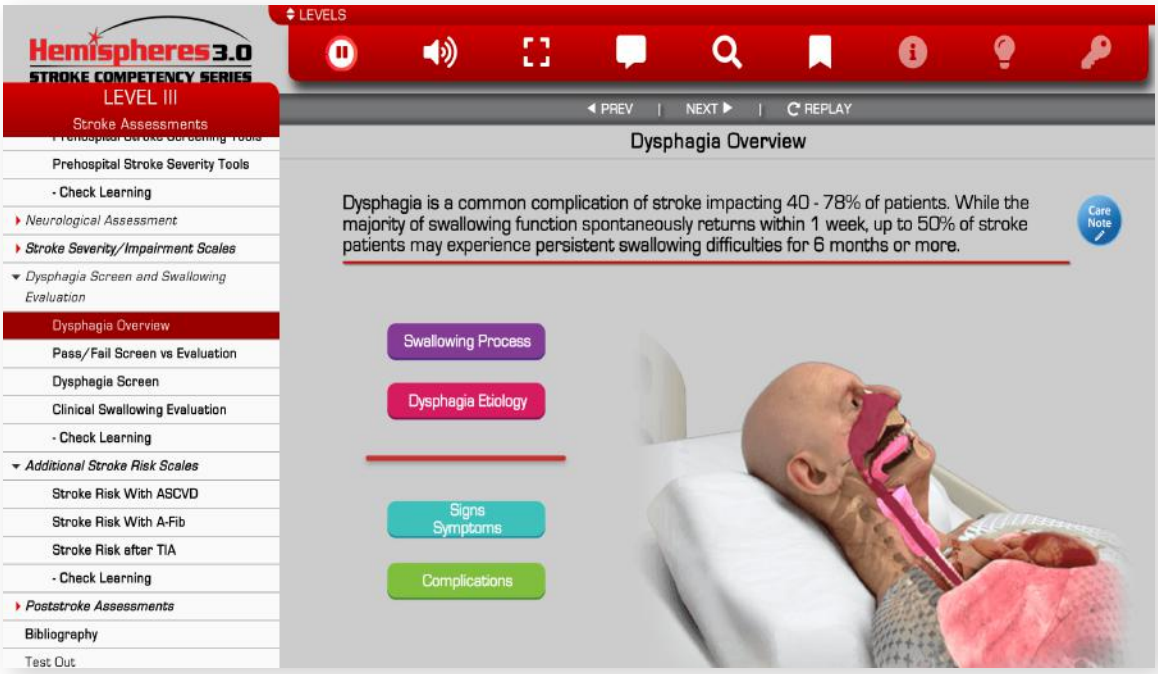
Course Description

Level III of Hemispheres 3.0 instructs on stroke screening tools, neurologic assessments, and severity and impairment scales used in stroke care. From urgent prehospital and emergency care through inpatient and rehabilitation, these tools aid in stroke triage, assessment, diagnosis, and treatment planning. Relevant clinical grading scales and dysphagia screening and evaluations facilitate timely best practice interventions across the continuum. Proper use of these assessment resources also allows for sharing of standardized information regarding the patient's status between members of the multidisciplinary stroke team.

Course Objectives

At the conclusion of this educational activity, the participant should be able to:

1. Discuss stroke recognition and assessment screening tools.
2. Explain how to perform neurologic and stroke severity assessments and interpret findings.
3. Compare specific stroke grading scales and additional assessment tools necessary to guide optimal stroke care.



Level IV – Rapid Stroke Response

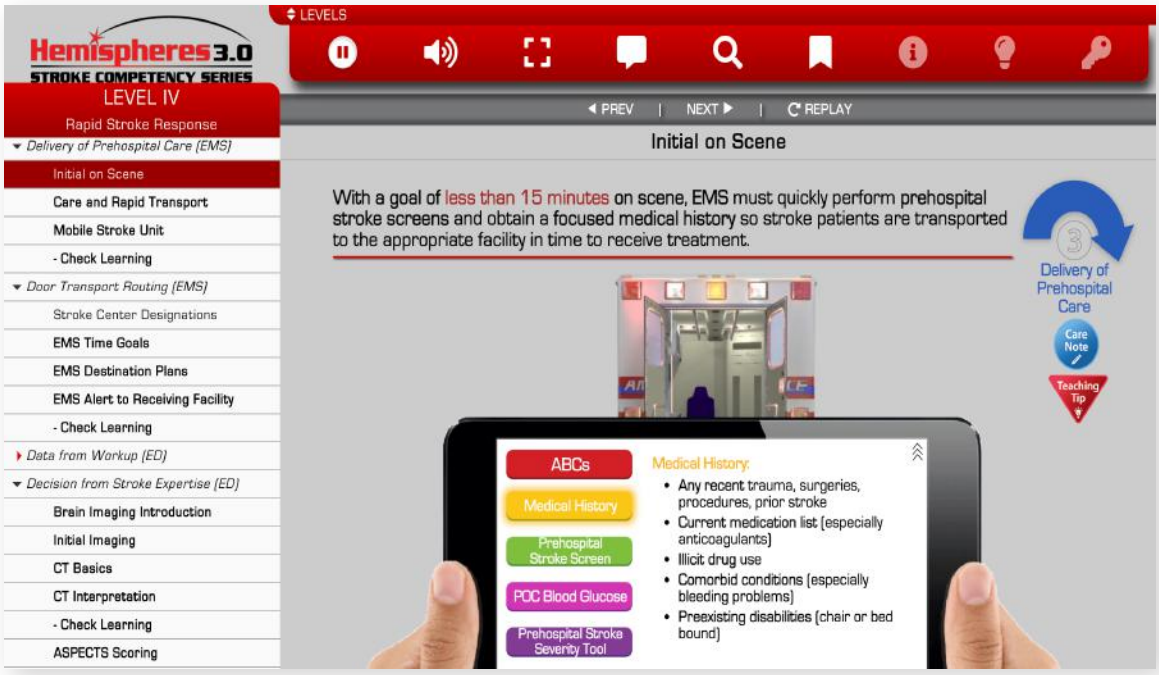
Course Description

Level IV of Hemispheres 3.0 examines the stroke chain of survival for patients with suspected ischemic or hemorrhagic stroke or transient ischemic attack (TIA) from detection in the community, through emergency care with appropriate disposition. Prehospital care and routing or transfer to an appropriate facility is critical to quickly accessing skilled, stroke-ready care. Emergency stroke assessment, imaging, diagnosis, and interventions, including reperfusion, are examined with considerations to optimize patient outcomes. This guideline-based course concludes with a case study to help you put your knowledge into practice.

Course Objectives

At the conclusion of this educational activity, the participant should be able to:

1. Describe prehospital care of the acute stroke patient and appropriate destination routing.
2. Relate urgent assessments and diagnostics required in the emergency setting for the acute stroke patient.
3. Examine guideline-based interventions and reperfusion options used to treat acute ischemic stroke.



Level V – Ischemic Stroke - Inpatient

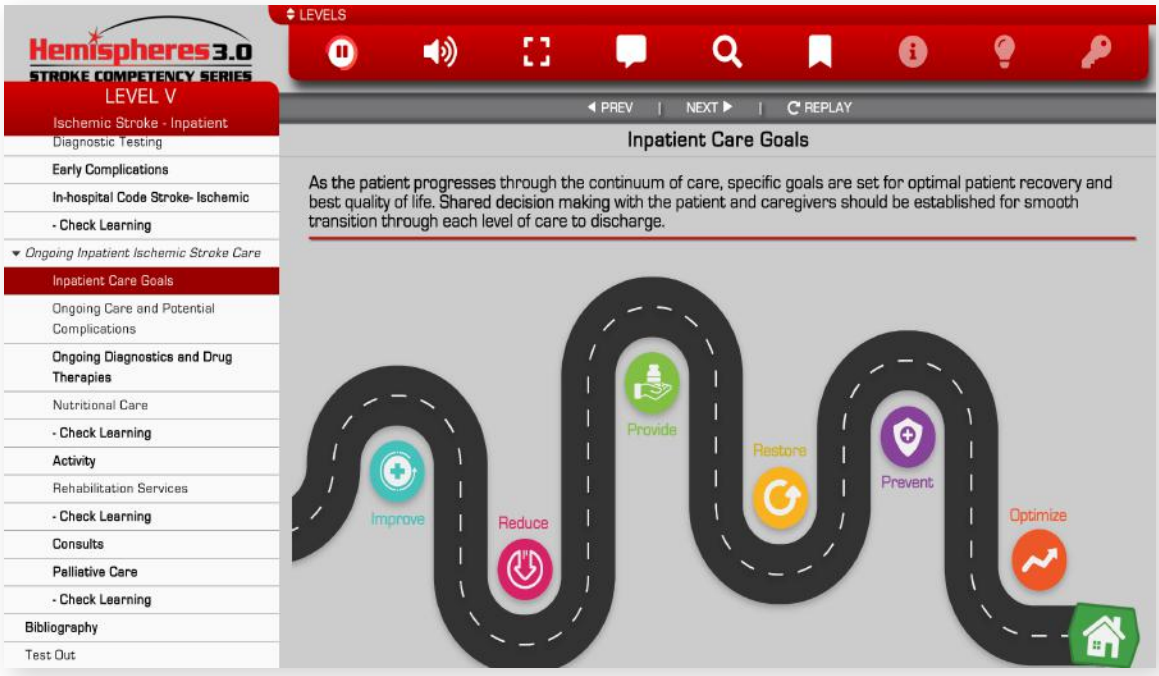
Course Description

Level V of Hemispheres 3.0 begins with admission of the ischemic stroke patient and the multidisciplinary team approach required to achieve specific care goals. Initial assessments, monitoring, and diagnostics are examined, and key rehabilitation and palliative care needs are identified. With the addition of expanded treatment options, clinical practice updates are presented so healthcare teams can continue to improve outcomes, reduce complications, restore function, prevent secondary stroke, and optimize quality of life after stroke.

Course Objectives

At the conclusion of this educational activity, the participant should be able to:

1. Discuss key inpatient admission assessments and required post-reperfusion monitoring and care.
2. Identify potential complications and best practice interventions in the care of inpatient ischemic stroke patients.
3. Examine the roles of team members and how each contributes to the care of the ischemic stroke inpatient.



Level VI – Hemorrhagic Stroke - Inpatient

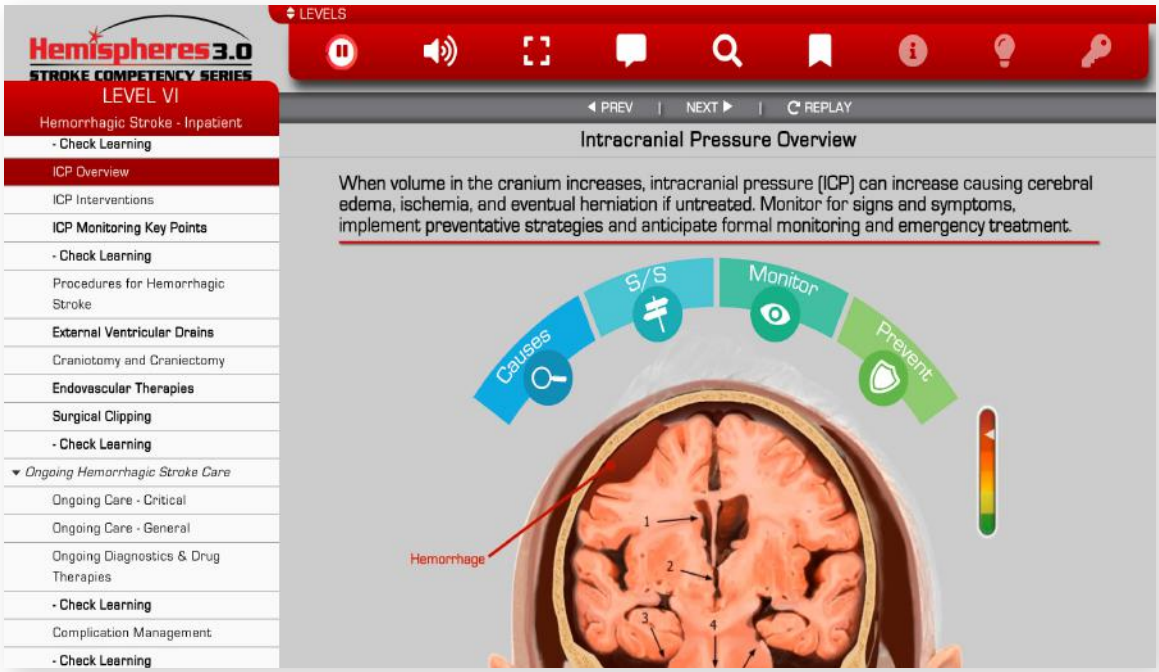
Course Description

Level VI of Hemispheres 3.0 begins with lifesaving care of the intracerebal and subarachnoid hemorrhagic stroke patient. Endovascular, surgical, and medical interventional options are examined. Best practices for ongoing assessments and management of potential complications, such as rebleeding, vasospasms, increased intracranial pressure, delayed ischemia, and blood pressure abnormalities are outlined for the interdisciplinary team.

Course Objectives

At the conclusion of this educational activity, the participant should be able to:

1. Discuss assessments and interventions pertinent to stabilization of the patient with hemorrhagic stroke.
2. Summarize endovascular and surgical interventions and medical management options for hemorrhagic stroke patients.
3. Outline complications associated with hemorrhagic stroke and apply management strategies.



Level VII – Discharge Considerations & Stroke Prevention

Course Description

Level VII of Hemispheres 3.0 describes discharge strategies related to the stroke patient along with stroke prevention education. Expected needs and how to adequately prepare patients and caregivers for discharge are presented to help the healthcare team formulate a successful, individualized discharge plan. Guideline-based stroke prevention recommendations, based on causes of stroke, are presented to promote primary and secondary prevention awareness.

Course Objectives

At the conclusion of this educational activity, the participant should be able to:

1. Identify discharge considerations to support successful patient transitioning to post-acute care.
2. Relate strategies to address challenges and barriers to patient and caregiver education.
3. Distinguish guideline-based stroke prevention recommendations based on atherosclerotic cardiovascular disease risk and other specific causes.

Level VIII – Excellence in Stroke Care

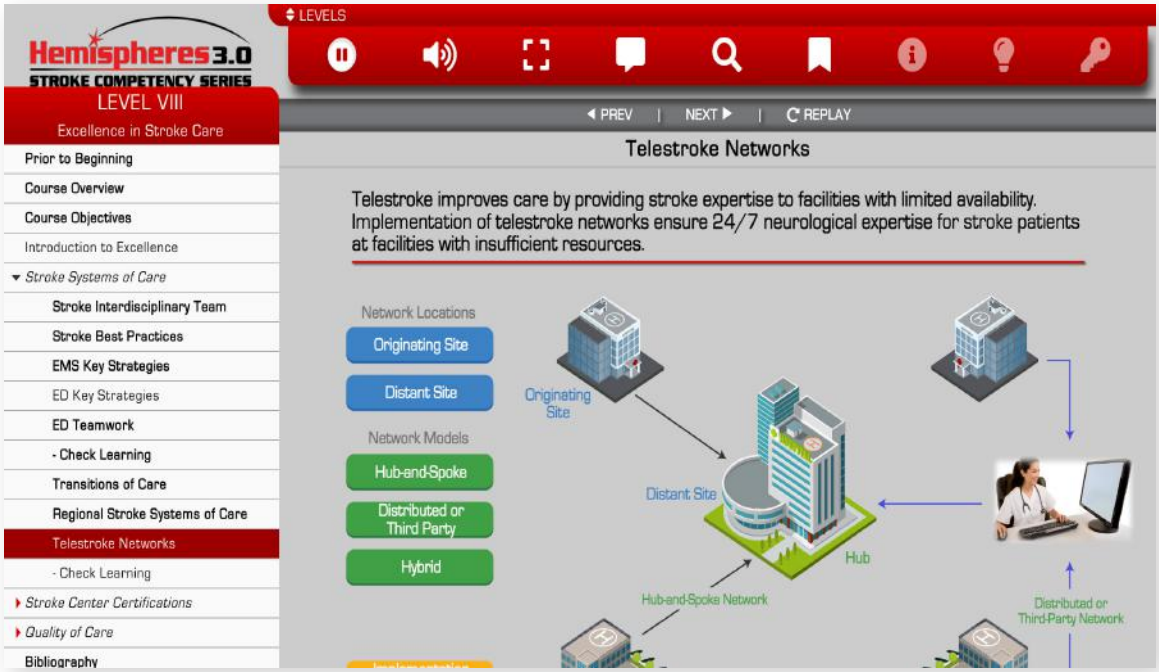
Course Description

Level VIII of Hemispheres 3.0 focuses on those wishing to provide excellence in stroke care and achieve or maintain designation as a stroke center. An overview of the multidisciplinary team approach, its members, and their roles are key to excellence. Knowledge of the specific capabilities of each stroke center designation is required to coordinate care within a regional stroke system of care. Data-driven quality improvement techniques are presented to meet objectives for reducing care delays, improving organizational performance, and successfully meeting certification requirements.

Course Objectives

At the conclusion of this educational activity, the participant should be able to:

1. Identify stroke program best practices, stroke program team members, and their specific roles.
2. Illustrate the capabilities of various stroke center designations and the advantages of alignment with regional stroke systems of care.
3. Outline useful strategies for reducing care delays and improving performance related to quality measures.



Level IX – Recognize & Respond to Stroke - Support Staff

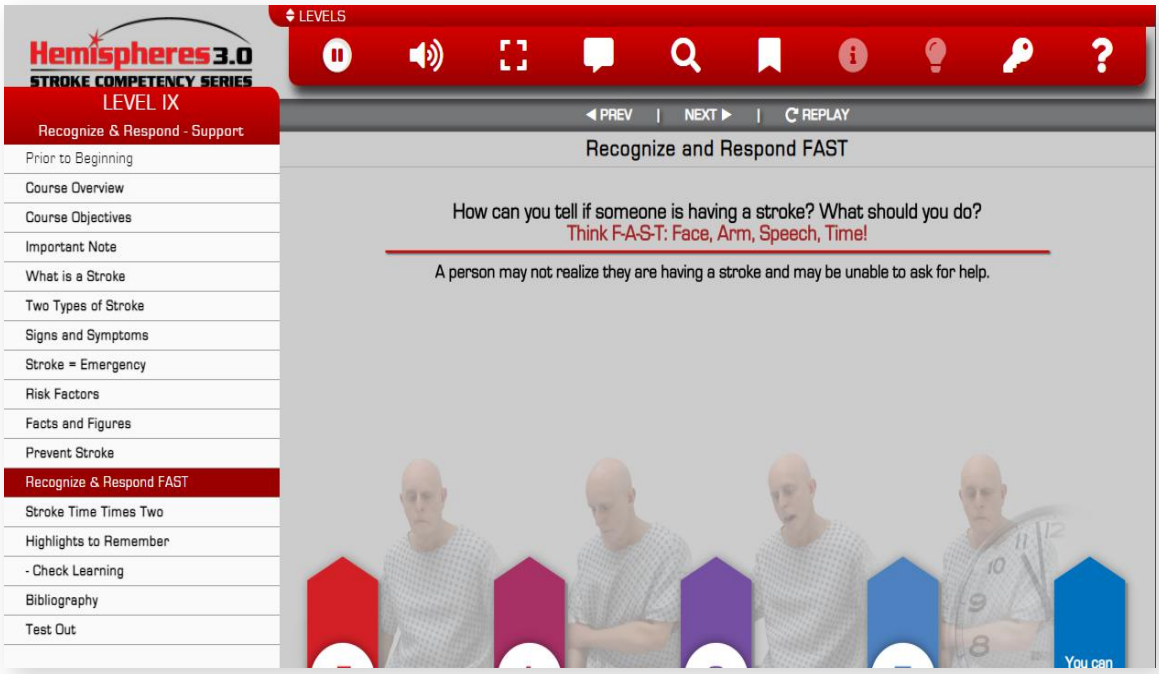
Course Description

Level IX of Hemispheres 3.0 provides basic stroke education for the support staff (clinical and nonclinical) to recognize stroke and rapidly respond. This level explains what a stroke is, warning signs of stroke, and the importance of urgently seeking help. Content is presented in understandable terms and includes key information on stroke risk factors and how to prevent stroke.

Course Objectives

At the conclusion of this educational activity, the participant should be able to:

1. Describe stroke including the two basic types.
2. Recognize stroke signs and symptoms and the importance of quickly seeking medical care.
3. Identify risk factors and describe ways to prevent stroke.



Hemispheres 3.0

Continuing Education Information

	Levels	Testing Min.	CNE	CME	CPE	CEH	FL CEH	CCH	CE
I	Brain A&P	60	3.75	3.75	3.75	3.50	4.00	3.75	3.75
II	Stroke Patho.	60	3.75	3.75	3.75	3.50	4.00	3.75	3.75
III	Stroke Assessments	60	4.50	4.50	4.50	4.50	4.00	4.50	4.50
IV	Rapid Stroke Response	60	5.00	5.00	5.00	4.50	5.00	5.00	5.00
V	Ischemic Stroke - Inpatient	60	2.75	2.75	2.75	2.00	3.00	2.75	2.75
VI	Hemorrhagic Stroke - Inpatient	60	3.50	3.50	3.50	3.25	3.50	3.50	3.50
VII	Discharge Considerations & Stroke Prevention	60	3.50	3.50	3.50	2.50	3.50	3.50	3.50
VIII	Excellence in Stroke Care	60	3.25	3.25	3.25	2.25	3.00	3.25	3.25
IX	Recognize & Respond to Stroke	60	-	-	-	-	-	-	-
	TOTAL	**375**	**30.00**	**30.00**	**30.00**	**26.00**	**30.00**	**30.00**	**30.00**

JA. In support of improving patient care, Apex Innovations is jointly accredited by the Accreditation Council for Continuing Medical Education (ACCME), the Accreditation Council for Pharmacy Education (ACPE), and the American Nurses Credentialing Center (ANCC) to provide continuing education for the healthcare team.

30 CNE. Apex Innovations designates this enduring material for 30 ANCC contact hours for nurses.

30 CME. Apex Innovations designates this enduring material activity for a maximum of 30 *AMA PRA Category 1 Credits*™. Physicians should claim only credit commensurate with the extent of their participation in the activity.

30 CPE. Apex Innovations designates this knowledge-based enduring material for 30 ACPE contact hours for pharmacists.

26 CEH. This CE activity is accredited for 26 CEH by Apex Innovations, an organization accredited by Commission on Accreditation for Prehospital Continuing Education (CAPCE).

30 FLCEH. Apex Innovations has been approved by the Florida Emergency Medical Services as an educational provider for EMS and Paramedics continuing education hours and have course completion roster and tracking number available on the CE Broker website.

30 CCH. Apex Innovations is recognized by the Physical Therapy Board of California as an approved reviewer and provider of continuing competency courses for The State of California.

30 CE. Apex Innovations is recognized by the Ohio Physical Therapy Association as an approved CE sponsor for this activity.

30 CE. Apex Innovations has received CE course approval by the Pennsylvania State Board of Physical Therapy for this educational activity.