



The Joint Commission Disease-Specific Certification

Thrombectomy-capable Stroke Center
vs.
Comprehensive Stroke Center



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DISCLOSURES

- Financial

- Principal, Lombardi Hill Consulting Group
- Member, GLG Group
- Independent Contractor
 - AHA/ASA
 - ICF International
 - Vanderbilt University

- Volunteer

- Member, 2014-2017, AHA/ASA National Advisory Committee
- Chair, 2015-2017, AHA/ASA National Subcommittee on Post-Acute Stroke



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THROMBECTOMY-CAPABLE STROKE CENTERS

NEW IN 2018

Blog

Thrombectomy Stroke Certification Offered Next Year

Read our blog on the new thrombectomy certification for stroke offered in January.

Related Items: [Stroke](#) , [Certification](#) , [Blog](#) , [Hospital](#) , [Accreditation](#)



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THROMBECTOMY-CAPABLE STROKE CENTERS

NEW IN 2018

- WHY TSCs?
- 1/3 of TJC-certified PSCs perform mechanical thrombectomies
- Studies now support mechanical thrombectomy for LVO
- Need dispersed network of certified hospitals; especially critical in some areas



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THROMBECTOMY-CAPABLE STROKE CENTERS

Advanced Disease-Specific Care Certification Requirements for Thrombectomy-Capable Stroke Center (TSC)

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Program Background

The Joint Commission's Thrombectomy-Capable Stroke Center certification program is based on recommendations published by the Brain Attack Coalition and the American Heart Association/American Stroke Association (AHA/ASA) for stroke centers, including the updated guidelines for endovascular treatment in the management of patients with acute ischemic stroke.

Program-Specific Eligibility

In addition to the general eligibility requirements outlined in "The Joint Commission Certification Process" (CERT) chapter of the *Comprehensive Certification Manual for Disease-Specific Care*, at the time of application, hospitals seeking TSC certification need to meet volume requirements for the number of mechanical thrombectomies performed.

EFFECTIVE JAN 2018

- Focus is more robust than PSC with thrombectomy
- Post-procedure care included
- Aligned with many CSC requirements

1st TSC certified in March 2018



Pontiac, Michigan

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ELIGIBILITY

CSC

- 24/7 Availability - **All** complex stroke interventions
- Volumes
 - ≥ 20 aSAH/yr or 40 over 2 yrs
 - ≥ 15 coilings and clippings/yr or 30 over 2 years
 - ≥ 25 eligible patients treated with rt-PA/yr or ≥ 50 over 2 yrs
 - Thrombectomy volumes will be updated to match TSC requirements (as early as June 2018)

TSC

- 24/7 Availability –
- Mechanical thrombectomy
- Minimum thrombectomy volumes
 - Hospital
 - 15 w/in last year at your hospital
 - 30 w/in last two years
 - Neuroendovascular physician on the call schedule:
 - Specialized training (*see details*)
 - 15 w/in last year
 - 30 w/in last two years
 - Can count procedures at other hospitals during 1st year on staff

- Stroke research

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ELIGIBILITY – POST PUBLICATION UPDATE

CSC

- Neuroendovascular physician specialized training
 - NOT SPECIFIED

TSC

- Neuroendovascular physician specialized training
- Neuro-interventionalists routinely on call schedule must:
- Be certified by the Committee for Advanced Subspecialty Training (CAST)
 - OR ALL OF THESE:
 - Completed an ACGME accredited residency
 - Completed a subspecialty fellowship
 - Completed neuroendovascular procedure training in a CAST-accredited program
 - Performed an average of 15 mechanical thrombectomies over the past 12 months or 30 over the past 24 months

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ELIGIBILITY – POST PUBLICATION UPDATE



Committee on Advanced Subspecialty Training (CAST)
 Society of Neurological Surgeons

Current Accredited Fellowships

NEUROENDOVASCULAR SURGERY

Institution	Fellowship Director	City, State
Bingham and Women's Hospital/Beacon Children's Hospital	M. Ali Abu-Sultan, MD	Boston, MA
Cedars Sinai Medical Center	Manuel Alexander, M.D.	Los Angeles, CA
Emory University	C. Michael Chewley, M.D.	Atlanta, GA
Ohio State University	Ciaran Powers, M.D.	Columbus, OH
Penn State	Kevin Cooker, M.D.	Hershey, PA
Rush University Medical Center	Demetrios Lopes, M.D.	Chicago, IL
Rutgers New Jersey Medical School	Chirag Gandhi, M.D.	Newark, NJ
State University of New York-Buffalo	Adnan Siddiqui, M.D.	Buffalo, NY
Thomas Jefferson University	Paulus Jabbour, M.D.	Philadelphia, PA
University of Florida	W. Christopher Frae, MD	Gainesville, FL
University of Miami	Edi Peterson, M.D.	Miami, FL
University of Tennessee	Adam Arthur, M.D.	Memphis, TN
University of Utah	Philip Tausky, MD	Salt Lake City, UT
University of Wisconsin-Madison	Beverly Kwan, M.D. and David Nieman, M.D.	Madison, WI
Washington University at St. Louis	DeWitt Cross, M.D.	St. Louis, MO
University of Pittsburgh	Brian Jawale, M.D.	Pittsburgh, PA
Medical University of South Carolina	M. Imran Chaudry, MD	Charleston, SC
Indiana University School of Medicine	Daniel Eakson, MD	Indianapolis, IN
Mount Sinai School of Medicine at Mount Sinai	J. Mocco, MD and Johanna Fifi, MD	New York, NY
University of California San Diego	Alexander A. Khalessi MD	San Diego, CA
University of Washington	Laura Kirsh MD	Seattle, WA
Columbia University Physicians & Surgeons, Neurological Surgery	Co-Directors Dr. Sean Levine and Dr. Philip Meyers	New York, NY
University of Iowa Hospitals and Clinics	Colin P. Derdyck, MD	Iowa City, IA
University of Cincinnati	Andrew Ringel, MD	Cincinnati, OH
Bernstein Neurological Institute	Felipe C. Albuquerque, MD	Phoenix, AZ
NYU School of Medicine	Maksim Shapiro, MD (Director) with Howard Rimek, MD as Associate Director	New York, NY
UCLA Dept of Neurosurgery	Gary Duckwiler, MD	Los Angeles, CA
Baylor College of Medicine	Peter Kan, MD	Houston, TX

From The Society of Neurological Surgeons website

TSC

- 28 CAST accredited fellowship programs in the US
- In FL, University of Florida and University of Miami



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ELIGIBILITY – POST PUBLICATION UPDATE

Eligibility

- In order to be eligible for TSC certification, an organization must have performed mechanical thrombectomy and post-procedure care for at least 15 patients with ischemic stroke in the past 12 months or at least 30 patients over the past 24 months.
- All primary neurointerventionists (i.e., those who routinely take call to perform emergency mechanical thrombectomy) at an organization applying for TSC certification or recertification must either be certified by the Committee for Advanced Subspecialty Training (CAST) or meet all of the following criteria:
 - Completed an ACGME-accredited or equivalent residency in neurosurgery, neurology, or radiology;
 - For neurologists: completed a stroke or neurocritical care fellowship supervised by the ACGME, CAST, or UCNS; or other equivalent oversight body
 - For radiologists: completed neuroradiology subspecialty fellowship supervised by the ACGME, CAST, or UCNS; or other equivalent oversight body
 - Completed neuroendovascular procedure training in a CAST-accredited program or a similarly rigorous training program; and
 - Performed an average of 15 mechanical thrombectomies over the past 12 months or 30 over the past 24 months
 - In evaluating the number of mechanical thrombectomies performed, procedures performed at hospitals other than the one applying for TSC certification can be included in the total

TSC

“.....or other equivalent oversight body”

“.....or other similar training program”

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ELIGIBILITY

CSC		TSC
<ul style="list-style-type: none"> • Dedicated Neuro ICU beds • Imaging Capability – 24/7 <ul style="list-style-type: none"> • Catheter angiography • CTA • MRI (incl. DW-MRI) • MRA • Other when needed <ul style="list-style-type: none"> • Carotid duplex ultrasound • Extracranial ultrasonography • TEE • TTE • TC Doppler 		<ul style="list-style-type: none"> • Dedicated Neuro ICU beds • Imaging Capability – 24/7 <ul style="list-style-type: none"> • Catheter angiography • CTA • MRI (incl. DW-MRI) • MRA • Other when needed <ul style="list-style-type: none"> • Carotid duplex ultrasound • Extracranial ultrasonography • TEE

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PROGRAM LEADERSHIP

CSC		TSC
<ul style="list-style-type: none"> • Medical Director <ul style="list-style-type: none"> • Extensive experience and expertise in neurology and cerebrovascular disease • Examples include: <ul style="list-style-type: none"> • Stroke or vascular neurologist • Critical care neurologist • Vascular neurosurgeon 		<ul style="list-style-type: none"> • Medical Director <ul style="list-style-type: none"> • Knowledge and experience and expertise in the care of patients with stroke (to provide administrative leadership and clinical guidance)
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24/7 AVAILABILITY OF PROVIDERS

CSC		TSC
<ul style="list-style-type: none"> • Written call schedules for physicians with critical care and cerebrovascular disease 24/7 • Available 24/7 (on-site, on-call or remote) <ul style="list-style-type: none"> • CSC director or designee • Emergency physicians • Neurointerventionalist • Neuroradiologist • Vascular Neurologist • Neurosurgeons • Available on-site 24/7 <ul style="list-style-type: none"> • Neuro critical care physicians <ul style="list-style-type: none"> • Others if NCC physician available for back-up 24/7 		<ul style="list-style-type: none"> • Written call schedules for physicians with critical care and cerebrovascular disease 24/7 • Available 24/7 (on-site, on-call or remote) <ul style="list-style-type: none"> • CSC director or designee • Emergency physicians • Neurointerventionalist • Neuroradiologist • Vascular Neurologist • Neurosurgeons • Available on-site 24/7 <ul style="list-style-type: none"> • Critical care physicians <ul style="list-style-type: none"> • Others if CCM physician available for back-up 24/7
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24/7 AVAILABILITY OF PROVIDERS

CSC	TSC
<ul style="list-style-type: none"> Surgeons, neurosurgeons, and other neurosurgical staff are <u>available on site within 30 minutes</u> to perform and support the performance of emergent neurosurgical procedures 24 hours a day, 7 days a week In addition to the neurointerventionalist, one or more physicians with cerebrovascular experience are to be available by phone within 30 minutes and <u>on site within 45 minutes</u> 	<ul style="list-style-type: none"> A physician privileged to perform mechanical thrombectomy is <u>available on site within 45 minutes</u>, 24 hours a day, 7 days a week

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24/7 AVAILABILITY OF RN AND TECHS

CSC	TSC
<ul style="list-style-type: none"> Written call schedules Available 24/7 (on-site, on-call or remote) <ul style="list-style-type: none"> Certified MRI tech 1 or more endovascular lab techs 1 or more endovascular RNs Available <ul style="list-style-type: none"> PT/OT on-site 6 days/week; available 7th day SLP available 7 days/week 	<ul style="list-style-type: none"> Written call schedules Available 24/7 (on-site, on-call or remote) <ul style="list-style-type: none"> Certified MRI tech 1 or more endovascular lab techs 1 or more endovascular RNs Available <ul style="list-style-type: none"> PT/OT on-site 6 days/week; available 7th day SLP available 7 days/week

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PRACTITIONERS AND QUALIFICATIONS

CSC	TSC
<ul style="list-style-type: none"> ED practitioners knowledgeable about <u>complex stroke care protocols</u> RNs in Neuro ICU and Stroke Unit are knowledgeable about stroke scales <ul style="list-style-type: none"> NIHSS ED RNs – 2 hours/yr stroke education ED Staff – 2 educational activities/yr RNs providing stroke care – 8 hrs/yr 	<ul style="list-style-type: none"> ED practitioners knowledgeable about <u>complex stroke care protocols</u> RNs in Neuro ICU and Stroke Unit are knowledgeable about stroke scales <ul style="list-style-type: none"> NIHSS ED RNs – 2 hours/yr stroke education ED Staff – 2 educational activities/yr RNs providing stroke care – 8 hrs/yr
<ul style="list-style-type: none"> Advanced Practice Nurse (APN) <ul style="list-style-type: none"> Some programmatic responsibilities 	

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ADDITIONAL REQUIREMENTS

CSC	TSC
<ul style="list-style-type: none"> EMS protocols are reviewed at least annually NIHSS is used for assessment of acute stroke Laboratory testing is available on-site 24/7 A process to notify medical staff of neurological deterioration exists MRI, MRA, CTA are interpreted within 2 hours if urgent 	<ul style="list-style-type: none"> EMS protocols are reviewed at least annually NIHSS is used for assessment of acute stroke Laboratory testing is available on-site 24/7 A process to notify medical staff of neurological deterioration exists MRI, MRA, CTA are interpreted within 2 hours if urgent
<ul style="list-style-type: none"> Process to review data regarding adverse outcomes for <u>all complex stroke procedures</u> 	<ul style="list-style-type: none"> Process to review data regarding adverse outcomes for <u>mechanical thrombectomy</u>

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ADDITIONAL REQUIREMENTS

CSC	TSC
<ul style="list-style-type: none"> Stroke Unit 	<ul style="list-style-type: none"> Stroke Unit
<ul style="list-style-type: none"> CSC's are not expected to transfer patients to another hospital except under extenuating circumstances 	<ul style="list-style-type: none"> The thrombectomy-capable stroke center has a written agreement for transfer with at least one comprehensive stroke center that includes the following: <ul style="list-style-type: none"> Contact names Contact phone numbers Allows for timely transfer 24 hours a day, 7 days a week

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ADDITIONAL REQUIREMENTS

CSC	TSC
<ul style="list-style-type: none"> Assessment of family member involvement in post-acute care <ul style="list-style-type: none"> Ability and resources 24/hr post-diagnostic CTA stroke and death rate <1% 	<ul style="list-style-type: none"> Assessment of family member involvement in post-acute care <ul style="list-style-type: none"> Ability and resources 24/hr post-diagnostic CTA stroke and death rate <1%
<ul style="list-style-type: none"> Symptomatic CEA and CAS 30-day stroke and death rate <6% Asymptomatic CEA and CAS 30-day stroke and death rate <3% Also monitored: <ul style="list-style-type: none"> CSF infection/ventriculitis rates Clipping and coiling mortality rates Complication rates – unanticipated deaths, hemorrhage Other severe complications identified by the organization 	<ul style="list-style-type: none"> Two relevant patient care data elements for mechanical thrombectomy

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ADDITIONAL REQUIREMENTS

CSC	TSC
<ul style="list-style-type: none"> • Monitor % of patients receiving 7-day follow-up phone call • Publically report outcomes related to neuro interventional procedures 	<ul style="list-style-type: none"> • Monitor % of patients receiving 7-day follow-up phone call • Publically report outcomes related to neuro interventional procedures

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MEASURES

CSC	TSC
<ul style="list-style-type: none"> • 8 STK Measures • 10 CSTK Measures 	<ul style="list-style-type: none"> • 8 STK Measures • 5 CSTK Measures
<p>Effective 2018</p> <ul style="list-style-type: none"> • CSTK-2 Replaced with CSTK-10 <ul style="list-style-type: none"> • ← mRS at 90-days • mRS at 90 days favorable outcome • CSTK-7 Replaced with CSTK-11, 12 <ul style="list-style-type: none"> • ← Median Time to Revascularization • Timeliness of Reperfusion • Arrival time to TICI 2B or higher • Skin puncture to TICI 2B or Higher 	<ul style="list-style-type: none"> • CSTK-1 – NIHSS performed • CSTK-2 – mRS at 90 days • CSTK-5 – Hemorrhagic Transformation <ul style="list-style-type: none"> • CSTK – 5a (IV rt-PA), 5b (MT) • CSTK-8 –TICI post-treatment reperfusion • CSTK-9 - Arrival time to skin puncture <p style="color: green; font-weight: bold; margin-top: 10px;">PSC → TSC - 4 months of CSTK measures</p>

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TSC

- Certification Review
 - **2 days, 1 reviewer**
 - **DAY 1**
 - Opening Presentation
 - Patient Tracers
 - **DAY 2**
 - Patient Tracers
 - System Tracer (Data Review)
 - Competency, Credentialing Review
- Standards – on TJC website
- E-application opens January 2018

PSC

- Due for PSC recertification?
- TJC will:
 - Extend recertification window to schedule TSC review **ONLY IF:** ready to commit

Number of Neurointerventionalists	Minimum number of thrombectomies in the previous 12 months	Minimum number of thrombectomies in the previous 24 months
1	12	24
2	24	48
3	36	72

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COST - 2018

CSC
TSC
PSC







Advanced Programs


	Annual Fee	Estimated On-Site Fee	Cycle Estimate
For Disease at 1 Location			
Comprehensive Stroke Center	\$19,700	\$6,000	\$45,400
Thrombectomy Capable Stroke Center	\$7,500	\$3,000	\$18,000
Primary Stroke Center	\$4,950	\$2,100	\$12,000
ASRH	\$2,325	\$2,100	\$6,750

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OTHER CERTIFICATION AGENCIES

CSC	TSC	PSC
		
	Under Development	
	Under Development	


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For Questions Email:
Debbie Hill
debbie@lombardihill.com

Presentation will be available at
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