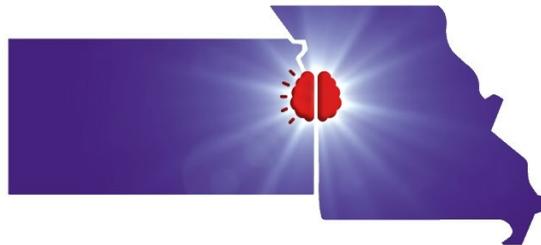


# STROKE COORDINATOR WELCOME BOOK

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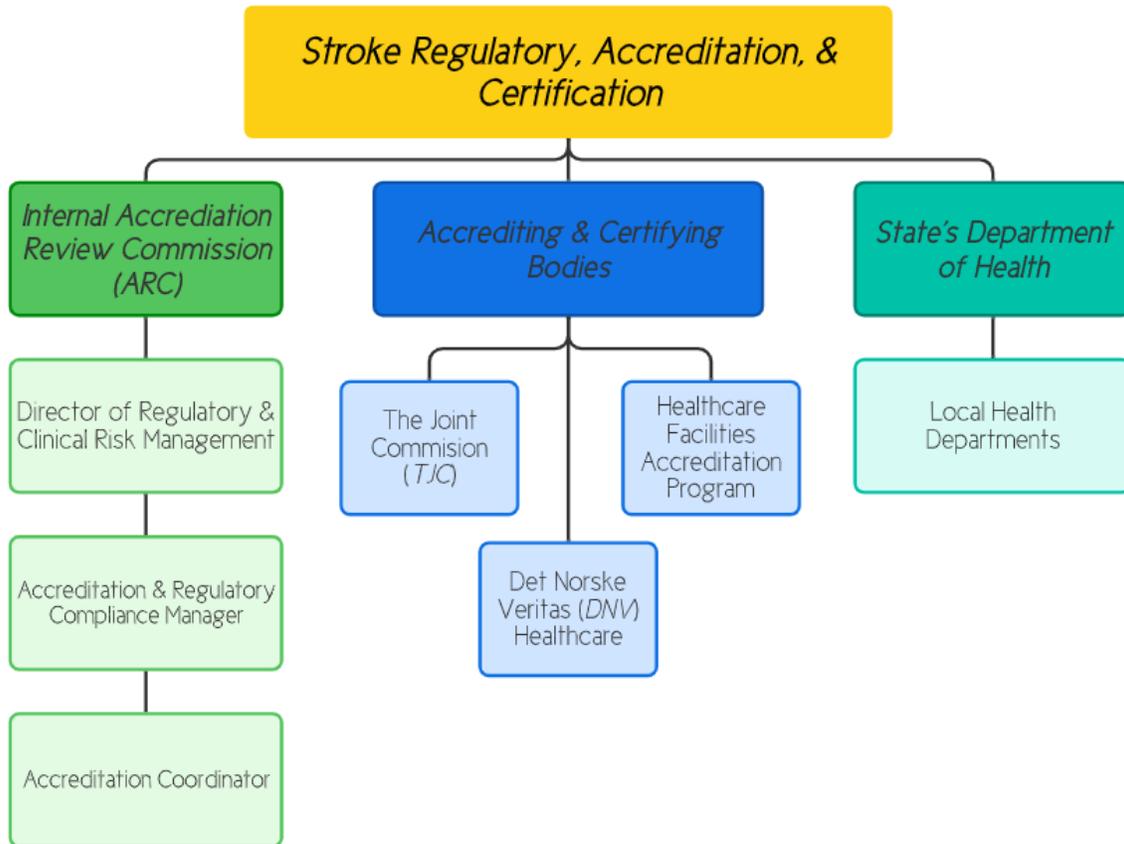


*This book was created by the Community Outreach Subcommittee of the Bistate Stroke Consortium as a resource to support the role transition of new stroke coordinators. Hospital-specific personalization may be necessary to make this resource all-inclusive and complete. All wording in **red** should be replaced with your hospital's information.*

# INTERNAL PROGRAM COMPONENTS

# PROGRAM STRUCTURE

*Insert Program and Hospital Structure / Hierarchy Chart here*



# PROGRAM STAFF

*Edit roles to reflect your hospital*

Program Staff			
Stroke Program Manager	<i>name</i>	<i>email</i>	<i>phone #</i>
Stroke Program Medical Director	<i>name</i>	<i>email</i>	<i>phone #</i>
Advanced Practice Provider	<i>name</i>	<i>email</i>	<i>phone #</i>
Stroke Program Coordinator	<i>name</i>	<i>email</i>	<i>phone #</i>
Stroke Outreach Coordinator	<i>name</i>	<i>email</i>	<i>phone #</i>
Stroke Abstractor / Registrar	<i>name</i>	<i>email</i>	<i>phone #</i>
Stroke Research Quality Outcomes Coordinator	<i>name</i>	<i>email</i>	<i>phone #</i>
Organizational Improvement			
Quality Outcomes Coordinator, Quality & Safety ( <i>Primary</i> )	<i>name</i>	<i>email</i>	<i>phone #</i>
Quality Outcomes Coordinator, Quality & Safety ( <i>Backup</i> )	<i>name</i>	<i>email</i>	<i>phone #</i>
Stroke Attendings			
Neurologist (Neurovascular)	<i>name</i>	<i>email</i>	<i>phone #</i>
Neurologist (Neurovascular)	<i>name</i>	<i>email</i>	<i>phone #</i>
Neurologist (Neurovascular)	<i>name</i>	<i>email</i>	<i>phone #</i>
Surgical & Procedural Attendings			
Neurosurgeon	<i>name</i>	<i>email</i>	<i>phone #</i>
Interventional Radiologist	<i>name</i>	<i>email</i>	<i>phone #</i>
Interventional Radiologist	<i>name</i>	<i>email</i>	<i>phone #</i>

# ANNUAL RESPONSIBILITIES

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*This section should be updated to reflect annual duties within your stroke program. Some examples include:*

<b>Responsibility</b>	<b>Timing</b>
<i>Update website</i>	<i>January</i>
<i>Check new ICD codes and update reports</i>	<i>October</i>
<i>Reassess Program Goals &amp; Visions</i>	<i>June</i>
<i>Review Clinical Practice Guidelines</i>	<i>June</i>
<i>Review Policies &amp; Procedures</i>	<i>June</i>

# THE TEAM

*This section should be updated according to your facility's team structure.*

Program Staff	
<b>Stroke Program Manager</b>	<p><b>Program Manager:</b> <i>Insert name here</i></p> <p><b>Role:</b> <i>Insert description of role here</i></p> <p><b>Responsibilities:</b> <i>Insert list of responsibilities here. For example:</i></p> <ol style="list-style-type: none"> <li>1. Achieve business and organization goals, visions and objectives.</li> <li>2. Administer corrective action to employees not meeting requirements of their jobs.</li> <li>3. Analyzing, reporting, giving recommendations and developing strategies on how to improve quality and satisfaction.</li> <li>4. Create a unit budget and manage this by monitoring staffing, supplies, travel, equipment, volume, revenue, charges, education, and food.</li> <li>6. Identifying problems, providing solutions and courses of actions.</li> <li>7. Interact in a positive, professional manner with evidence of conflict resolution skills.</li> <li>8. Maintain a presence on the unit.</li> <li>9. Primary involvement in employee selection, career development, succession planning and periodic training.</li> <li>10. Role Model professional nursing practice through collaboration with staff, leadership, patients, families and physicians.</li> <li>11. Serve as a mentor for staff developing into leadership roles</li> <li>12. Supervise and manage the overall performance and technical competencies of staff in his/her department.</li> <li>13. Must be able to perform the professional, clinical and or technical competencies of the assigned unit or department.</li> </ol>
<b>Stroke Program Medical Director</b>	<p><b>Medical Director:</b> <i>Insert name here</i></p> <p><b>Role:</b> <i>Insert description of role here</i></p> <p><b>Responsibilities:</b> <i>Insert list of responsibilities here. For example:</i></p> <ol style="list-style-type: none"> <li>1. Provide overall professional administrative direction to the ACSC program.</li> </ol>

	<ol style="list-style-type: none"> <li>2. Assist Hospital Authority in developing any clinical program that involves the rendition of Directorship Services in the Health System or any clinical department, division or service of the hospital.</li> <li>3. Advise and consult with Hospital Authority regarding developing, reviewing and recommending policies and procedures concerning the rendition of Directorship Services in the Hospital or any clinical department, division or service of the Health System.</li> <li>4. In conjunction with the Hospital Authority, establish, maintain and monitor a quality improvement program that includes service-specific clinical indicators and quality reports and meets any applicable Federal, State, and/or local laws and/or regulations as well as regulations and guidelines established by any licensing or accreditation agency relative to the rendition of Directorship Services.</li> <li>5. Participate, as reasonably requested by the Hospital Authority, in special projects related to the rendition of Directorship Services in the Hospital or any clinical department, division or service of the Health System.</li> <li>6. Assist the Hospital Authority in meeting its fiscal goals for the hospital through appropriate cost containment measures.</li> <li>7. Submit quarterly updates on project progress and outcomes to Executive Sponsor(s) using a simple on-line survey.</li> <li>8. Periodically meet with Executive Sponsor(s), as requested, to provide updates.</li> <li>9. Attend the bi-weekly Health System Leadership meetings when possible</li> <li>10. Attend the directorship luncheons focused on leadership development and sharing of best practices.</li> <li>11. Maintain accurate and timely records of activity as Medical Director &amp; provide written reports as required by Master Administrative Services Agreement.</li> <li>12. Perform such other services that are reasonably related to the services listed above.</li> </ol>
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<p><b>Advanced Practice Provider</b></p>	<p><b>Program APRN:</b> <i>Insert name here</i></p> <p><b>Role:</b> <i>Insert description of role here</i></p> <p><b>Responsibilities:</b> <i>Insert list of responsibilities here. For example:</i></p> <ol style="list-style-type: none"> <li>1. Must be able to perform the professional, clinical and technical competencies of assigned practice setting within the Neurology Department.</li> <li>2. Maintains education requirements per CSC policy and TJC CSC guidelines</li> <li>3. Supports delivery of acute stroke assessment and management based on evidence-based guidelines <ul style="list-style-type: none"> <li>● Stroke service rotation coverage, per service agreement, on non-consecutive months</li> </ul> </li> <li>4. Provides Comprehensive Stroke Center specific education and maintains curriculum for resident physicians on stroke service</li> </ol>
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	<p>5. Provide outreach education on stroke to rural hospitals and communities in the state of Kansas</p> <p>6. Provide expert nursing consultation and practice oversight for stroke center RN's and APN's</p> <ul style="list-style-type: none"> <li>● Mentors stroke team nurses in best practices during acute stroke phase of care</li> <li>● Provides education and maintain curriculum for APN's involved in stroke care (specific to cerebrovascular disease)</li> </ul> <p>7. Collaborates with physicians and researchers in CSC research</p> <p>8. Provides communication to referring providers</p> <p>9. Able to evaluate medical problems of clients in the assigned specialty practice setting and appropriately requests consultation of other specialties when indicated.</p> <p>10. Provides education to patients and/or families about preventive care, medical issues and use of prescribed medical treatments and/or medications pertinent to the patient's condition.</p> <p>11. Creates diagnostically appropriate treatment plans</p> <p>12. Documents all medical evaluation, diagnoses, procedures, treatments, outcomes, education, referrals and consultations consistent with NCQA, The Joint Commission, state regulatory standards and evidenced-based standards of care. Maintains documentation compliance for appropriate coding and billing.</p> <p>13. Facilitates evaluation of records by physician(s), peers and quality standards according to protocols and receives and implements constructive directives.</p> <p>14. May refer complex and high priority cases to collaborating physician with regards to complicated diagnostic problems, serious illness, complicated therapeutic problems and re-evaluation of chronic conditions.</p> <p>15. Provides medical and emergency interventions appropriate to the client's needs; prescribes and monitors medications appropriate to the diagnosis; orders and monitors the appropriateness of emergency interventions.</p> <p>16. Maintains collegiality with all members of the interdisciplinary team.</p> <p>17. Utilizes appropriate chain-of-command and communicates with specialty practice Program Director, APP Director and Medical Director of any clinical issue and contributes to quality improvement or process improvement as necessary</p>
<p><b>Stroke Program Coordinator</b></p>	<p><b>Program Stroke Program Coordinator:</b> <i>Insert name here</i></p> <p><b>Role:</b> <i>Insert description of role here</i></p> <p><b>Responsibilities:</b> <i>Insert list of responsibilities here. For example:</i></p> <p>1. Participates as a team member, with at least 75% attendance, on the multidisciplinary teams that provide oversight to the program.</p>

	<ol style="list-style-type: none"> <li>2. Works with the stroke program Medical Director to ensure development, implementation, and compliance with clinical practice guidelines and protocols.</li> <li>3. Supports effective functioning of the performance improvement program.</li> <li>4. Advises CSC Medical and Nursing teams on stroke clinical performance variances.</li> <li>5. Assists in the development of peer review processes for the stroke program.</li> <li>6. Oversees and improves stroke center workflows and care processes associated with the program goals.</li> <li>7. Ensures that the standards of The Joint Commission or other regulatory or certification bodies are met and maintained.</li> <li>8. Facilitates cooperative and collaborative community and institutional relationships.</li> <li>9. Leads and coordinates the clinical activities of the stroke program and oversees the process.</li> <li>10. Markets and promotes new and existing programs and services to internal and external customers.</li> <li>11. Participates as a team member on the multidisciplinary teams that provide oversight to the program.</li> <li>12. Provides input to administration on the strategic plans and priorities for the program for resource allocation.</li> <li>13. Supports and assures the quality of care and effective functioning of the performance improvement program.</li> <li>14. Works collaboratively with integrated professional programs (medicine, nursing, EMS) to plan CEU educational programs based on program and community needs.</li> <li>15. Works to understand the workflows and care processes associated with the program goals.</li> <li>16. Maintains education requirements per CSC policy and TJC CSC guidelines</li> <li>17. Works collaboratively with integrated professional programs to analyze and improve stroke specific patient satisfaction</li> <li>18. Represents The University of Kansas Hospital at regional, state and national meetings specific to the Stroke Center.</li> </ol>
<p><b>Stroke Outreach Coordinator</b></p>	<p><b>Stroke Outreach Coordinator:</b> <i>Insert name here</i></p> <p><b>Role:</b> <i>Insert description of role here</i></p> <p><b>Responsibilities:</b> <i>Insert list of responsibilities here. For example:</i></p> <ol style="list-style-type: none"> <li>1. Maintains education requirements per CSC policy and TJC CSC guidelines</li> </ol>

	<ol style="list-style-type: none"> <li>2. Participates as a team member, with at least 75% attendance, on the multidisciplinary teams that provide oversight to the program.</li> <li>3. Leads and coordinates the clinical activities of the outreach program and oversees the process.</li> <li>4. Participates as a team member on the multidisciplinary teams that provide oversight to the program.</li> <li>5. Works with the associated program Medical Director to ensure development of outreach goals.</li> <li>6. Oversees and implements the workflows and care processes associated with outreach work.</li> <li>7. Collaborates with emergency department, EMS liaison, and regional EMS providers to implement process improvement models and evidence-based care protocols.</li> <li>8. Ensures that the standards of the TJC or other regulatory or certification bodies are met and maintained as they relate to outreach endeavors.</li> <li>9. Works collaboratively with integrated professional programs (medicine, nursing, EMS) to plan CEU educational programs based on program and community needs.</li> <li>10. Provides input to administration on the strategic plans and priorities for the program for resource allocation.</li> <li>11. Facilitates cooperative and collaborative community and institutional relationships.</li> <li>12. Provides follow-up feedback regarding transferred patients to EMS organizations and sending facilities</li> <li>13. Markets and promotes new and existing programs services to external customers and providers.</li> <li>14. Represents the Stroke Center regionally, nationally, and internationally supporting the mission, vision, and values of the organization and the Stroke Center.</li> <li>15. Represents The University of Kansas Hospital at regional, state and national meetings specific to the Stroke Center.</li> </ol>
<b>Stroke Quality Improvement Coordinator/ Registrar/ Abstractor</b>	<p><b>Stroke Quality Improvement Coordinator:</b> <i>Insert name here</i></p> <p><b>Role:</b> <i>Insert description of role here</i></p> <p><b>Responsibilities:</b> <i>Insert list of responsibilities here. For example:</i></p> <ol style="list-style-type: none"> <li>1. Participates as a team member on the multidisciplinary teams that provide oversight to the program.</li> <li>2. Facilitates timely dissemination of quality data and identification of incoming quality and performance improvement requests from the leadership team.</li> </ol>

	<ol style="list-style-type: none"> <li>3. Accurately identifies, logs, and creates registry entries for stroke patients meeting criteria for the databases used.</li> <li>4. Completes follow-up to ensure EMS Run sheets are included in Stroke medical records</li> <li>5. As applicable, participates in quality improvement and reporting including data submissions audits.</li> <li>6. Provides accurate data and generation of reports for quality and statistical analysis of the program performance.</li> <li>7. Coordinates the collection of data for reporting to state and national registries as needed.</li> <li>8. Maintains registry competencies and continuing education specific to the Stroke registries.</li> <li>9. Creates and refines program databases as needed.</li> <li>10. Performs precise chart analysis and abstraction with appropriate ICD 10 codes for Stroke.</li> <li>11. Provides data and reports to support clinical research</li> <li>12. Assists with coordination and data preparation of onsite surveys</li> <li>13. Assists and supports quality and performance improvement initiatives, including, but not limited to, support functions related to operational and clinical analysis utilizing computer based programs such as database creation and data entry.</li> <li>14. Assist in identification quality and process improvement opportunities based on data needing additional focus</li> <li>15. Facilitates maintenance of recurrent quality improvement reports, including but not limited to dashboards, scorecards, and trended graphs/charts.</li> <li>16. Collaborates with the quality team to facilitate accuracy, timeliness, reproducibility, and confidentiality of data collection and reporting.</li> <li>17. Collaborates with the quality team on special operational and clinical related projects to facilitate data collection, entry, and preparation, in cooperation with other leaders, departments, and locations.</li> <li>18. Collaborates with the quality team to identify drivers that positively/negatively impact data integrity and makes recommendations to correct data.</li> <li>19. Maintains competency &amp; enhances professional growth and development through continuing education, conference attendance, workshops, and/or seminars</li> </ol>
<b>Stroke Research Coordinator</b>	<p><b>Stroke Research &amp; Quality Outcomes Coordinator:</b> <i>Insert name here</i></p> <p><b>Role:</b> <i>Insert description of role here</i></p> <p><b>Responsibilities:</b> <i>Insert list of responsibilities here. For example:</i></p> <ol style="list-style-type: none"> <li>1. Maintains education requirements per CSC policy and TJC CSC guidelines</li> <li>2. Participates as a team member on multidisciplinary teams that involve stroke research</li> </ol>

3. Reviews and assists with editing of new research protocols, assesses feasibility of research in the clinical settings, and evaluates for patient population, budget, and other specific study needs.
4. Performs all details necessary for initiation and/or completion of assigned research protocols, including patient recruitment, screening, scheduling, enrollment, examination, laboratory and diagnostic studies, medication dispensing, charting and recording of data (*in EMR and case report forms*), organization of the study visits and reporting of abnormal results, adverse events or other study required reporting.
5. Completes and corrects case report forms, ensuring accuracy of all records connected with each study, with attention to medical events and concomitant medications as well as documentation for each study related event.
6. Acts as a liaison between study sponsors and investigators.
7. Maintains accurate recording of all study test articles.
8. Maintains knowledge of and adheres to FCA laws regarding human research. Maintains records of in-services and research educational classes attended.
9. Adheres to GCP guidelines
10. Promotes marketing, in accordance with HSC rules, of research protocols.
11. Monitors awarded grants and contracts for compliance with performance, reporting and accounting requirements.
12. Work with RI and other departments to construct the study package to include budget, approved protocol, procedures, discounts, billing, study contracts and other related documents and workflows.
13. Maintains complete and accurate documented studies in binders.
14. Assists in ensuring all research related information is also maintained and prepared for presentation for continuous readiness for regulatory bodies.
15. Represents The University of Kansas Hospital at regional, state and national meetings specific to the Stroke Center.

# UNITS THAT CARE FOR STROKE PATIENTS

*This section should be updated according to your program's structure.*

Unit / Team	Title	# of Beds	Phone Number(s)
	<i>Insert Unit Name (see examples below)</i>	#	#
	ICU Unit	#	#
<b>Unit Location</b>	Progressive Care Unit	#	#
	Neurointerventional Radiology	#	#
	Observation	#	#
<b>Emergency Department</b>	Emergency Department Physicians, Residents, and STAT RNs	#	#
<b>Anesthesiology</b>	Neuro-Anesthesiology Team	N/A	#
<b>Laboratory</b>		N/A	#
<b>Radiology</b>	Neuro-Radiology Team	N/A	#

# PATIENT EDUCATION COMPONENTS

*This section should be updated according to your program's structure.*

Education			
Title	Type	Update Frequency	Distribution
<i>Insert Title Here (See examples below)</i>	...	...	...
<b>Personal Risk Factor Reduction Plan</b>	AVS	Annually	Automatic
<b>Stroke Care &amp; Prevention Book</b>	Booklet	Every 2 years	Neuro RN
<b>Personal Stroke Risk Factors</b>	Worksheet	Annually	Neuro RN
<b>Stroke Education Series</b>	Handout	Continuous	SW/CM
<b>Common Medications</b>	Printout	Annually	Neuro RN

# CLINICAL PRACTICE GUIDELINES

*This section should be updated according to your program's structure.*

## Acute Ischemic Stroke (AIS)

Powers, W., Rabinstein, A., Ackerson, T., Adeoye, O., et al. **Guidelines for the Early Management of Patients with Acute Ischemic Stroke: 2019 Update to the 2018 Guidelines for the Early Management of Acute Ischemic Stroke.** *Stroke*. 2019;50: e344-e418. doi: 10.1161/STR.0000000000000211

## Hemorrhagic Stroke (ICH & SAH)

Frontera, J., Lewin, J., Rabinstein, A., Aisiku, I., et al. **Guideline for Reversal of Antithrombotics in Intracranial Hemorrhage.** *Neurocrit Care* (2016) 24:6-46 DOI 10.1007/s12028-015-0222-x.

Greenberg, S. M., Ziai, W. C., Cordonnier, C., Dowlatshahi, D., Francis, B., Goldstein, J. N., Hemphill, J. C., Johnson, R., Keigher, K. M., Mack, W. J., Mocco, J., Newton, E. J., Ruff, I. M., Sansing, L. H., Schulman, S., Selim, M. H., Sheth, K. N., Sprigg, N., Sunnerhagen, K. S., & null, null. (2022). **2022 Guideline for the Management of Patients With Spontaneous Intracerebral Hemorrhage: A Guideline From the American Heart Association/American Stroke Association.** *Stroke*, 53(7), e282–e361.  
<https://doi.org/10.1161/STR.0000000000000407>

Connolly, E. S., Rabinstein, A. A., Carhuapoma, J. R., Derdeyn, C. P., Dion, J., et al. **Guidelines for the Management of Aneurysmal Subarachnoid Hemorrhage.** *Stroke*. 2012;43:1711-1737.

## Nursing

Ashcraft S, Wilson SE, Nyström KV, Dusenbury W, Wira CR, Burrus TM; on behalf of the American Heart Association Council on Cardiovascular and Stroke Nursing and the Stroke Council. **Care of the patient with acute ischemic stroke (prehospital and acute phase of care): update to the 2009 comprehensive nursing care scientific statement: a scientific statement from the American Heart Association.** *Stroke*. 2021;52:e164–e178. doi: 10.1161/STR.0000000000000356.

Rodgers ML, Fox E, Abdelhak T, Franker LM, Johnson BJ, Kirchner- Sullivan C, Livesay SL, Marden FA; on behalf of the American Heart Association Council on Cardiovascular and Stroke Nursing and the Stroke Council. **Care of the patient with acute ischemic stroke (endovascular/intensive care unit-post interventional therapy): update to 2009 comprehensive nursing care scientific statement: a scientific statement from the American Heart Association.** *Stroke*. 2021;52:e198–e210. doi: 10.1161/STR.0000000000000358

Green TL, McNair ND, Hinkle JL, Middleton S, Miller ET, Perrin S, Power M, Southerland AM, Summers DV; on behalf of the American Heart Association Stroke Nursing Committee of the Council on Cardiovascular and Stroke Nursing and the Stroke Council. **Care of the patient with acute ischemic stroke (post hyperacute and prehospital discharge): update to 2009 comprehensive nursing care scientific statement: a scientific statement from the American Heart Association.** *Stroke*. 2021;52:e179–e197. doi: 10.1161/STR.0000000000000357

## Prevention

Kleindorfer DO, Towfighi A, Chaturvedi S, Cockcroft KM, Gutierrez J, Lombardi-Hill D, Kamel H, Kernan WN, Kittner SJ, Leira EC, Lennon O, Meschia JF, Nguyen TN, Pollak PM, Santangeli P, Sharrief AZ, Smith SC Jr, Turan TN, Williams LS. **2021 Guideline for the prevention of stroke in patients with stroke and transient ischemic attack: a guideline from the American Heart Association/American Stroke Association.** *Stroke.* 2021;52:e364–e467. doi: 10.1161/STR.0000000000000375

# OTHER USEFUL STUDIES & GUIDELINES

*This section should be updated according to your program's structure.*

## Interventional Radiology & NSGY

Sacks, D., Baxter, B., Campbell, B., Carpenter, J., et al. **Multisociety Consensus Quality Improvement Revised Consensus Statement For Endovascular Therapy Of Acute Ischemic Stroke.** *Journal Of Vascular And Interventional Radiology*, vol 29, no. 4, 2018, pp. 441-453. Elsevier BV, doi:10.1016/j.jvir.2017.11.026.

**ACT-ASNR-SIR-SNIS Practice Parameter For the Performance of Endovascular Embolectomy and Revascularization in Acute Stroke.** Adopted 2018

**Management of Brain Arteriovenous Malformations.** JUNE 2017. GUIDELINE FROM THE AMERICAN HEART ASSOCIATION/AMERICAN STROKE ASSOCIATION. AFFIRMED BY THE AAN INSTITUTE BOARD OF DIRECTORS ON SEPTEMBER 19, 2016.

## Hemorrhagic Transformation

Yaghi, S., Willey, J., Cucchiara, B., Goldstein, J., et al. Treatment and Outcome of Hemorrhagic Transformation After Intravenous Alteplase in Acute Ischemic Stroke: A Scientific Statement for Healthcare Professionals From the American Heart Association/ American Stroke Association. *Stroke*. 2017;48; e343-e361. DOI 10.1161/STR.000000000000152

## Subarachnoid Hemorrhage

[Critical care management of patients following aneurysmal subarachnoid hemorrhage: Recommendations from the Neurocritical Care Society's multidisciplinary consensus conference.](#) Diringier, MN, Bleck, TP, Hemphill, JC et. al. *Neurocritical Care*. 2011

## Rehabilitation

**Guidelines for Adult Stroke Rehabilitation and Recovery** MAY 2016 GUIDELINE FROM THE AMERICAN HEART ASSOCIATION/AMERICAN STROKE ASSOCIATION. AFFIRMED BY THE AAN INSTITUTE BOARD OF DIRECTORS ON MARCH 31, 2016.

## Post-Stroke Depression

[Poststroke Depression: A Scientific Statement for Healthcare Professionals From the American Heart Association/American Stroke Association.](#) Towfight, A., Ovbiagele, B., El Husseini, N. et. al. *Stroke*. 2017; 48: e30-e43.

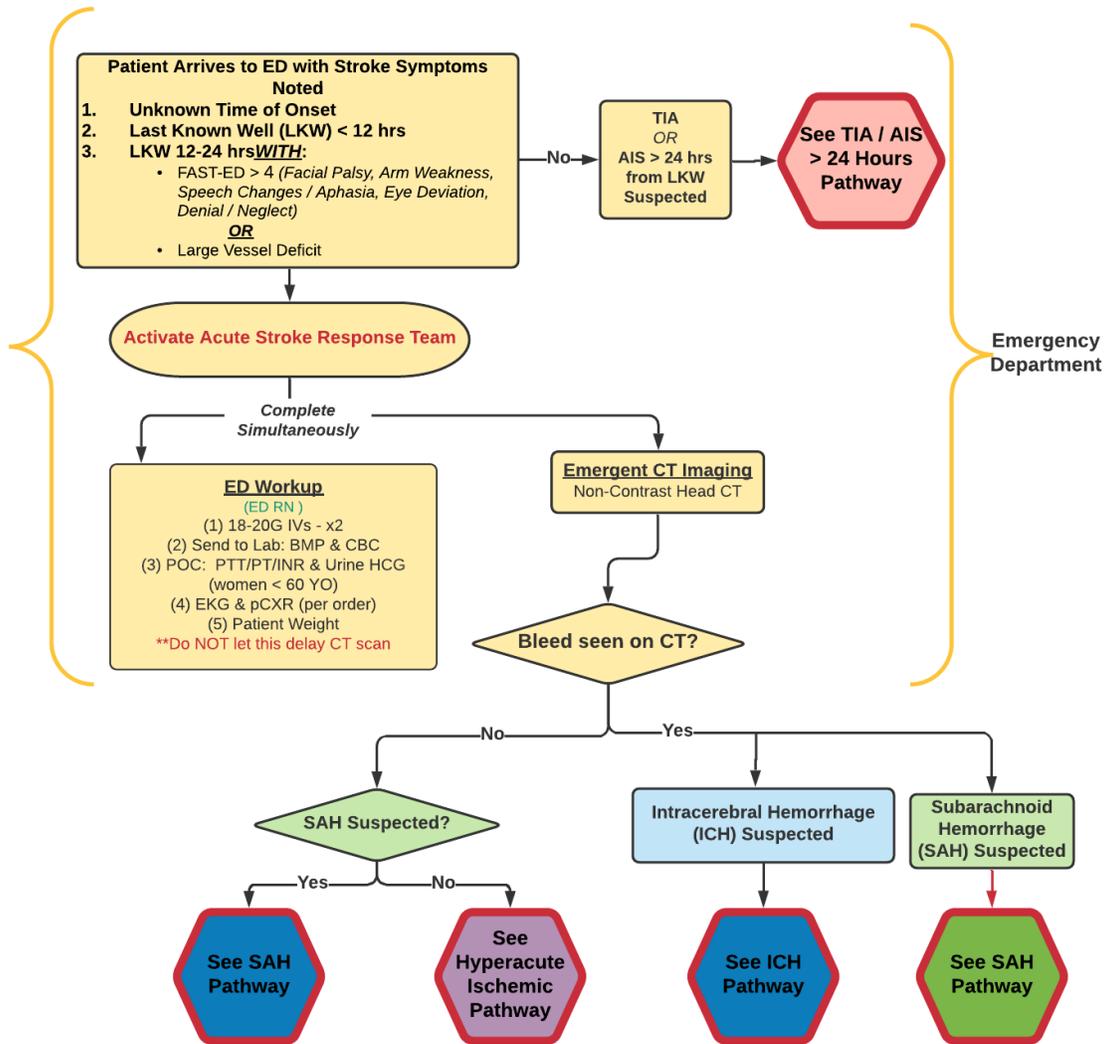
# CLINICAL PATHWAYS & WORKFLOWS

*This section should be updated according to your program's structure. See examples below:*

Title	Type	Updated	Distribution
<b>Suspected Acute Stroke</b>	Pathway	2020	Website
<b>Subarachnoid Hemorrhage (SAH)</b>	Pathway	2020	Website
<b>Non-Traumatic Intracerebral Hemorrhage (ICH)</b>	Pathway	2021	Website
<b>Transfer Hemorrhagic Stroke</b>	Pathway	2020	Website
<b>TIA's and Acute Ischemic Stroke (AIS)</b>	Pathway	2020	Website
<b>Hyperacute Ischemic Stroke</b>	Pathway	2022	Website
<b>Alteplase in the CT Scanner</b>	Pathway	2021	Website
<b>Stroke Patient Throughput</b>	Pathway	2021	Website
<b>Stroke Transfers</b>	Pathway	2021	Externally

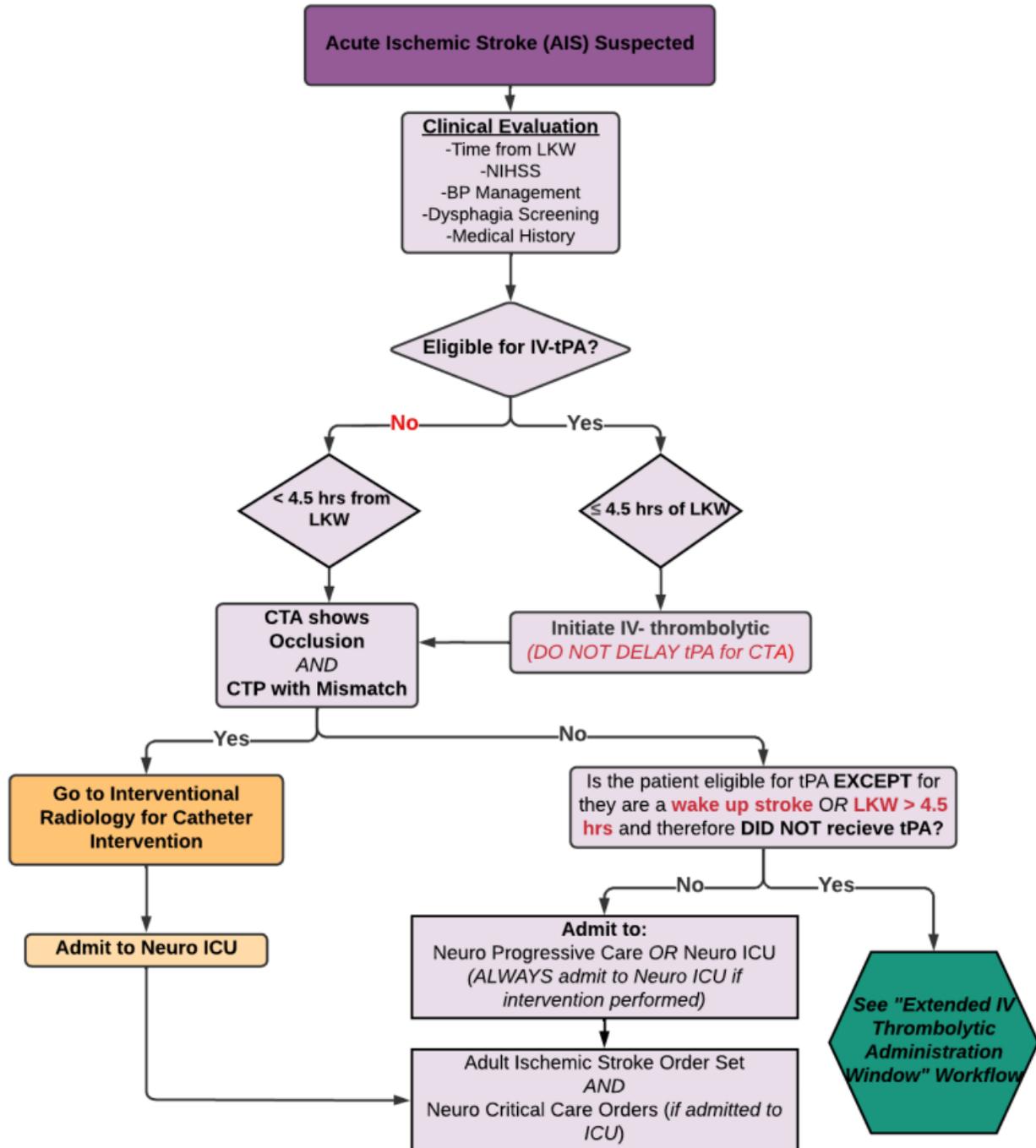
# SUSPECTED ACUTE STROKE

This section should be updated according to your program's structure. See examples below:



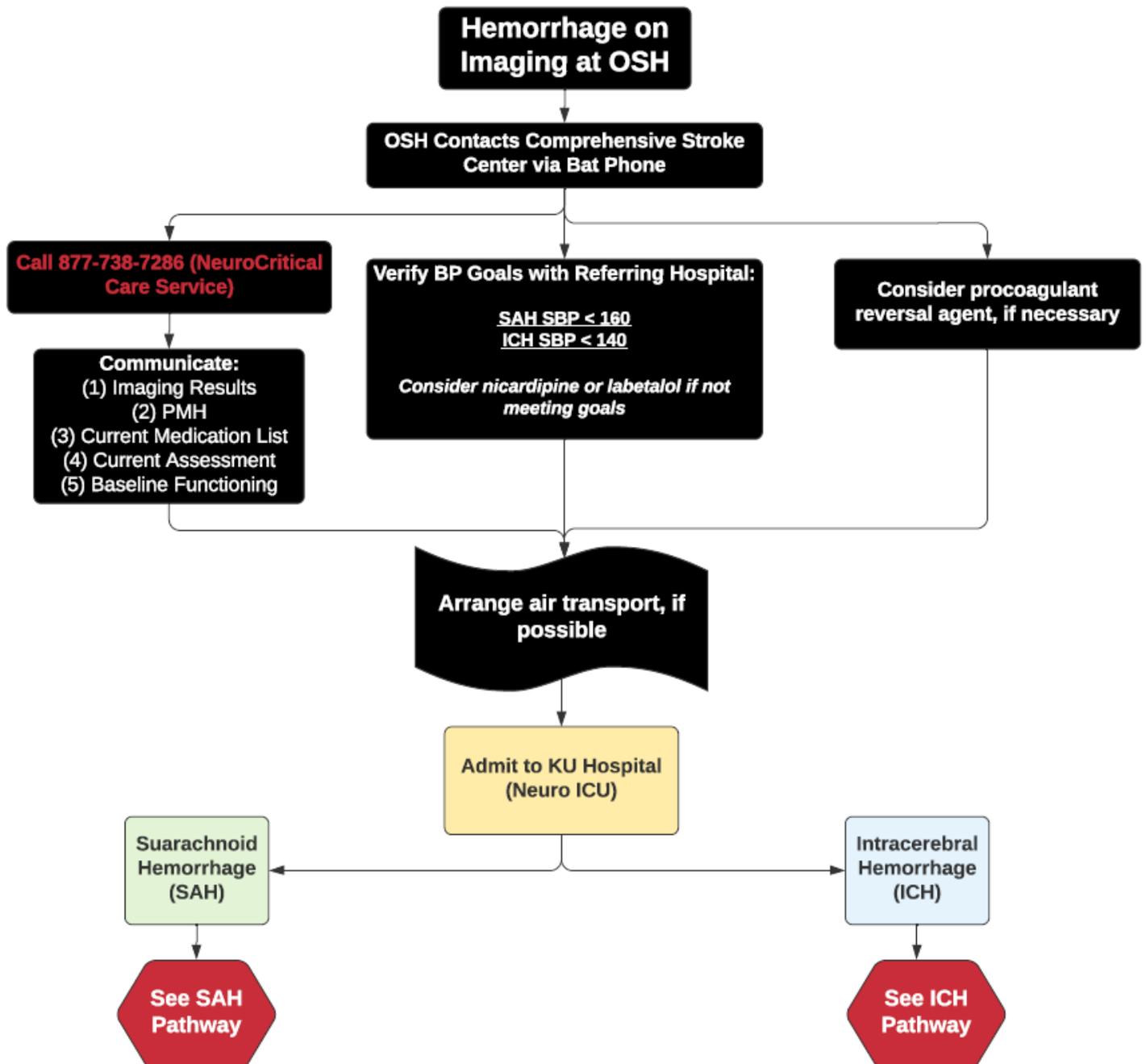
# HYPERACUTE ISCHEMIC STROKE (AIS) PATHWAY

This section should be updated according to your program's structure. See examples below:



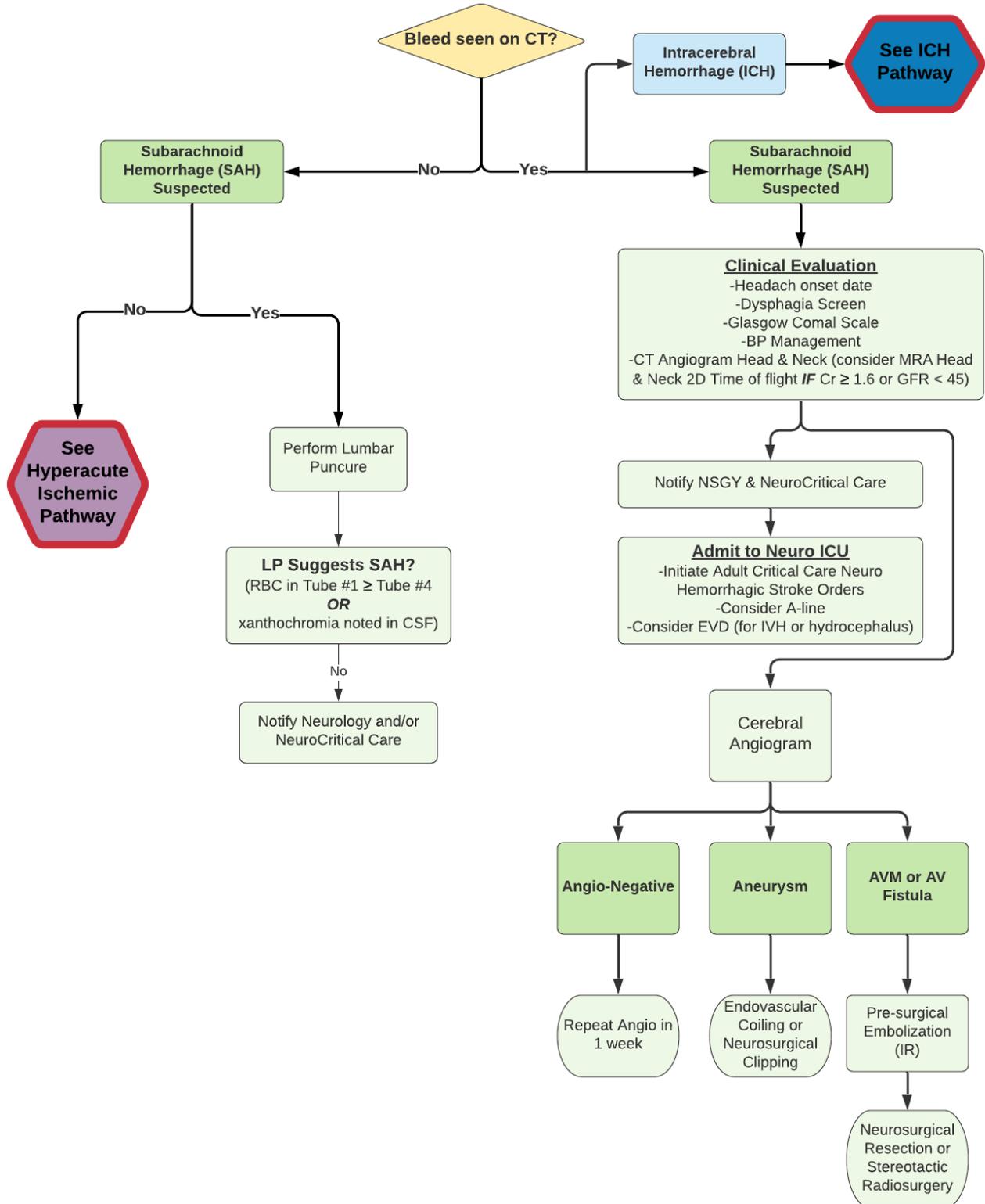
# HEMORRHAGIC STROKE TRANSFERS

This section should be updated according to your program's structure. See examples below:



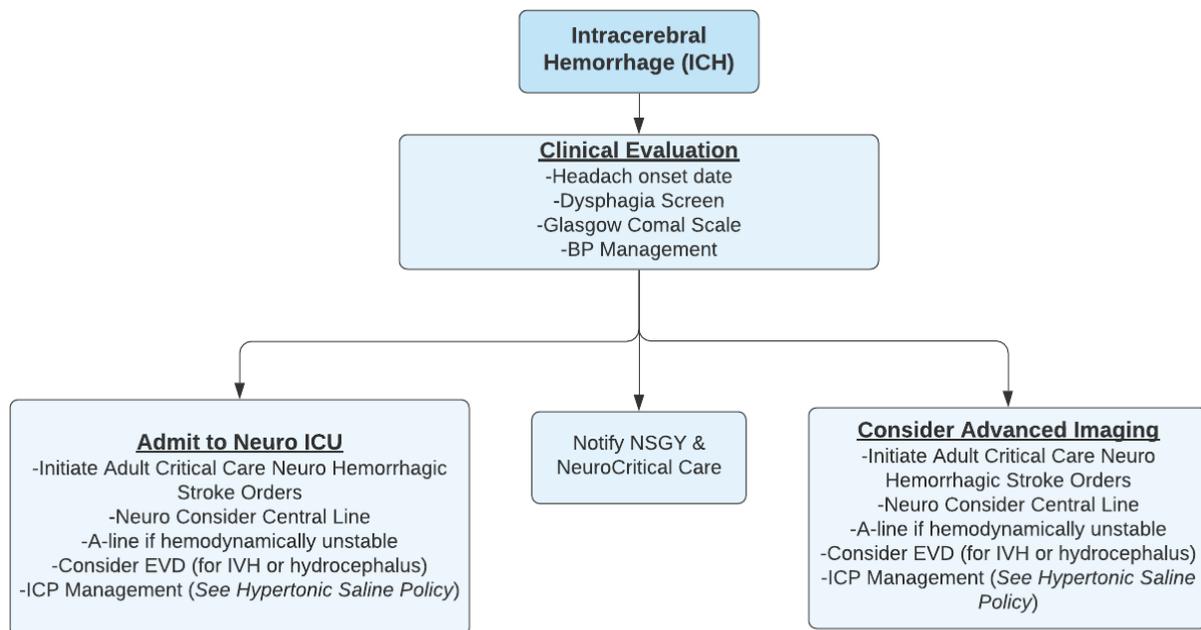
# SUBARACHNOID HEMORRHAGE (SAH) PATHWAY

*This section should be updated according to your program's structure. See examples below:*



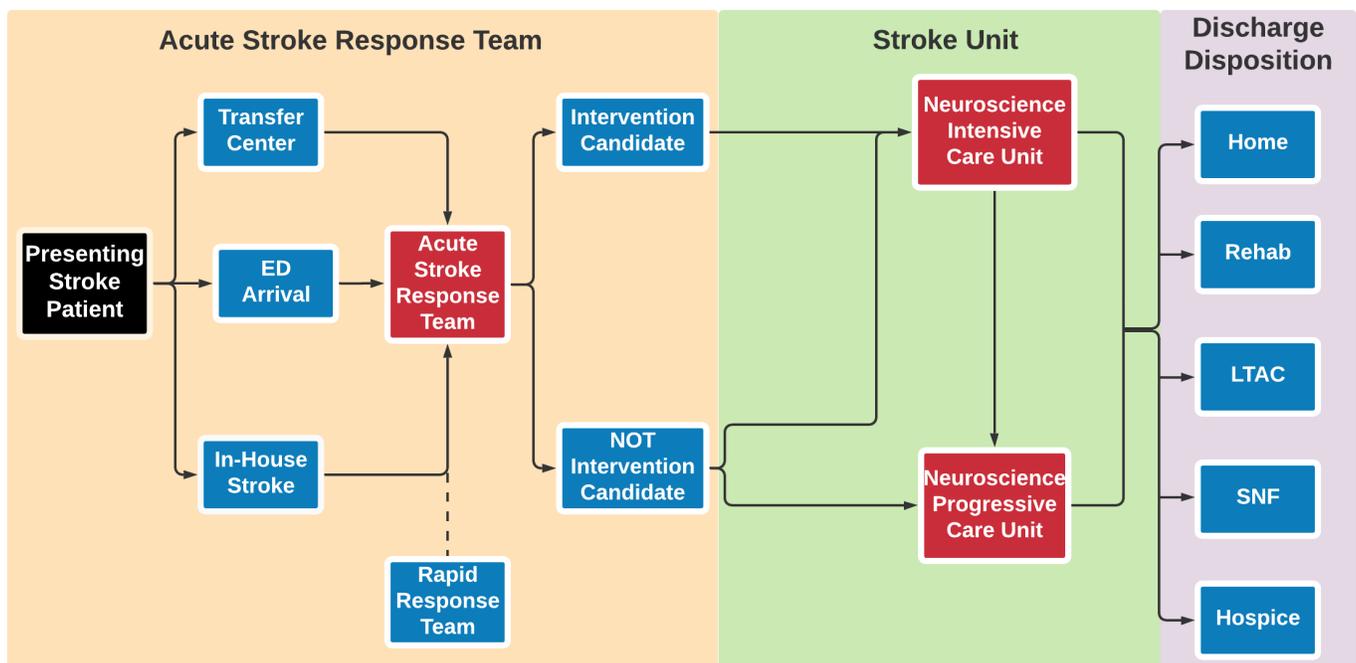
# NON-TRAUMATIC INTRACEREBRAL HEMORRHAGE (ICH) PATHWAY

*This section should be updated according to your program's structure. See examples below:*



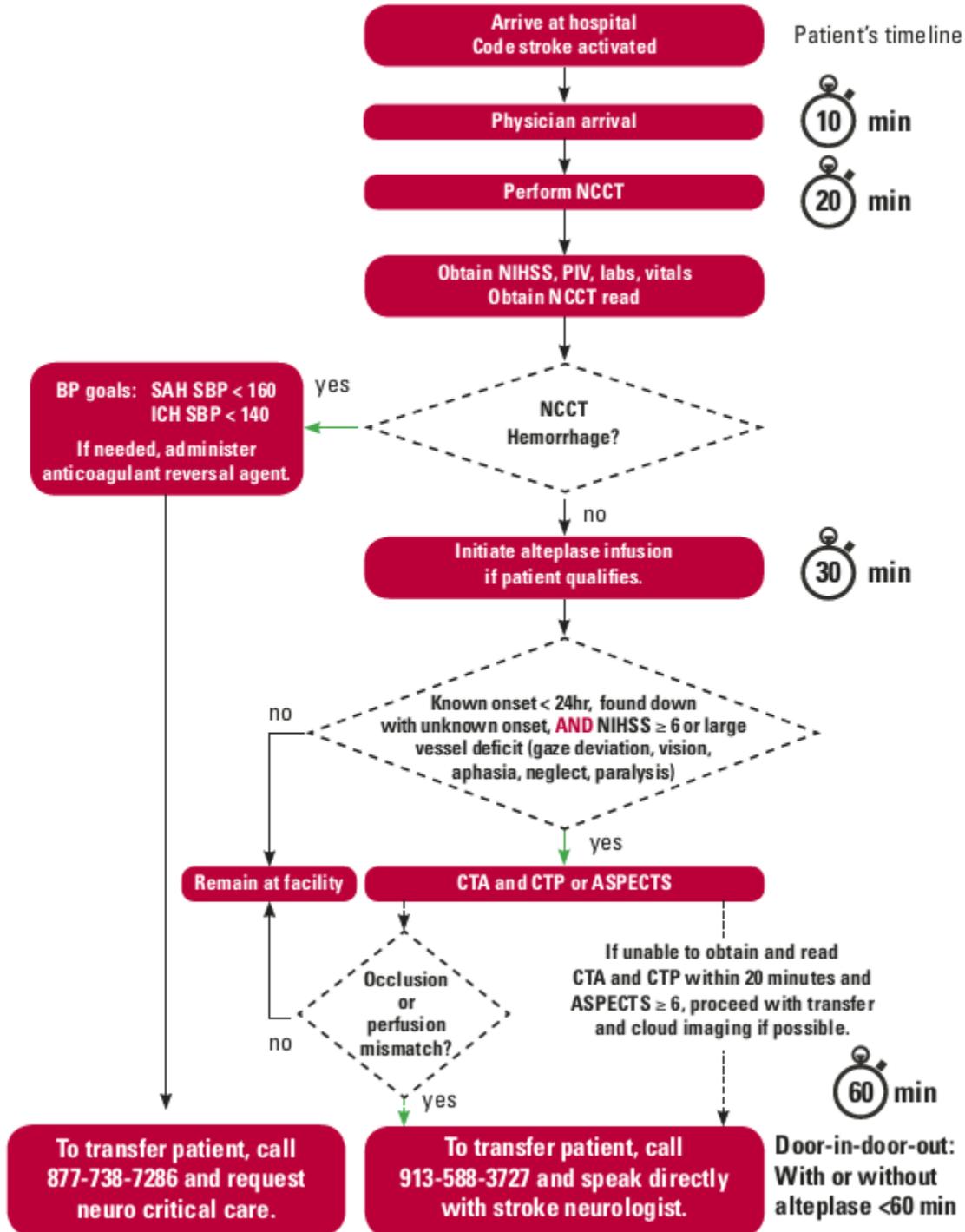
# STROKE PATIENT THROUGHPUT PATHWAY

*This section should be updated according to your program's structure. See examples below:*



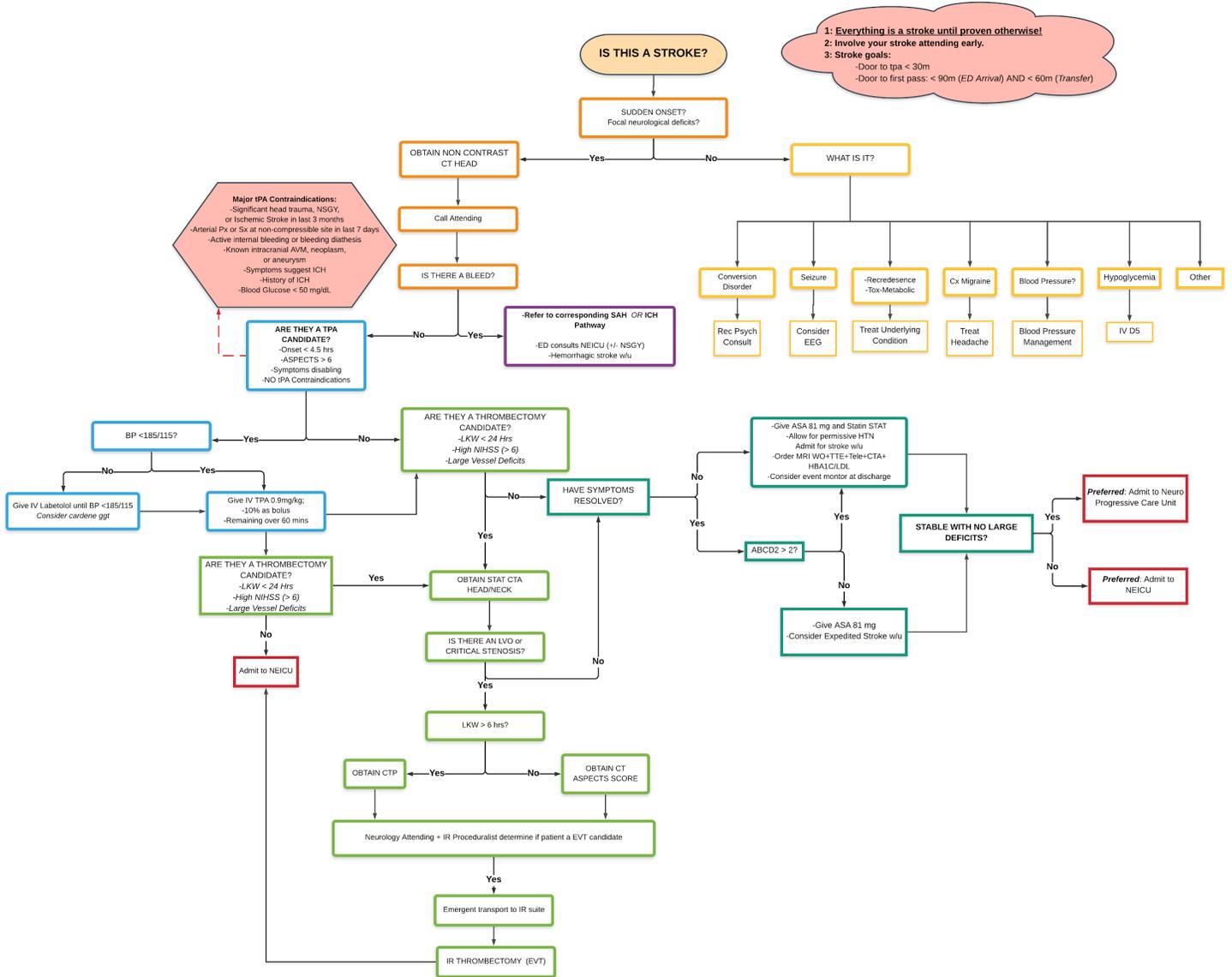
# STROKE TRANSFER WORKFLOW

This section should be updated according to your program's structure. See examples below:



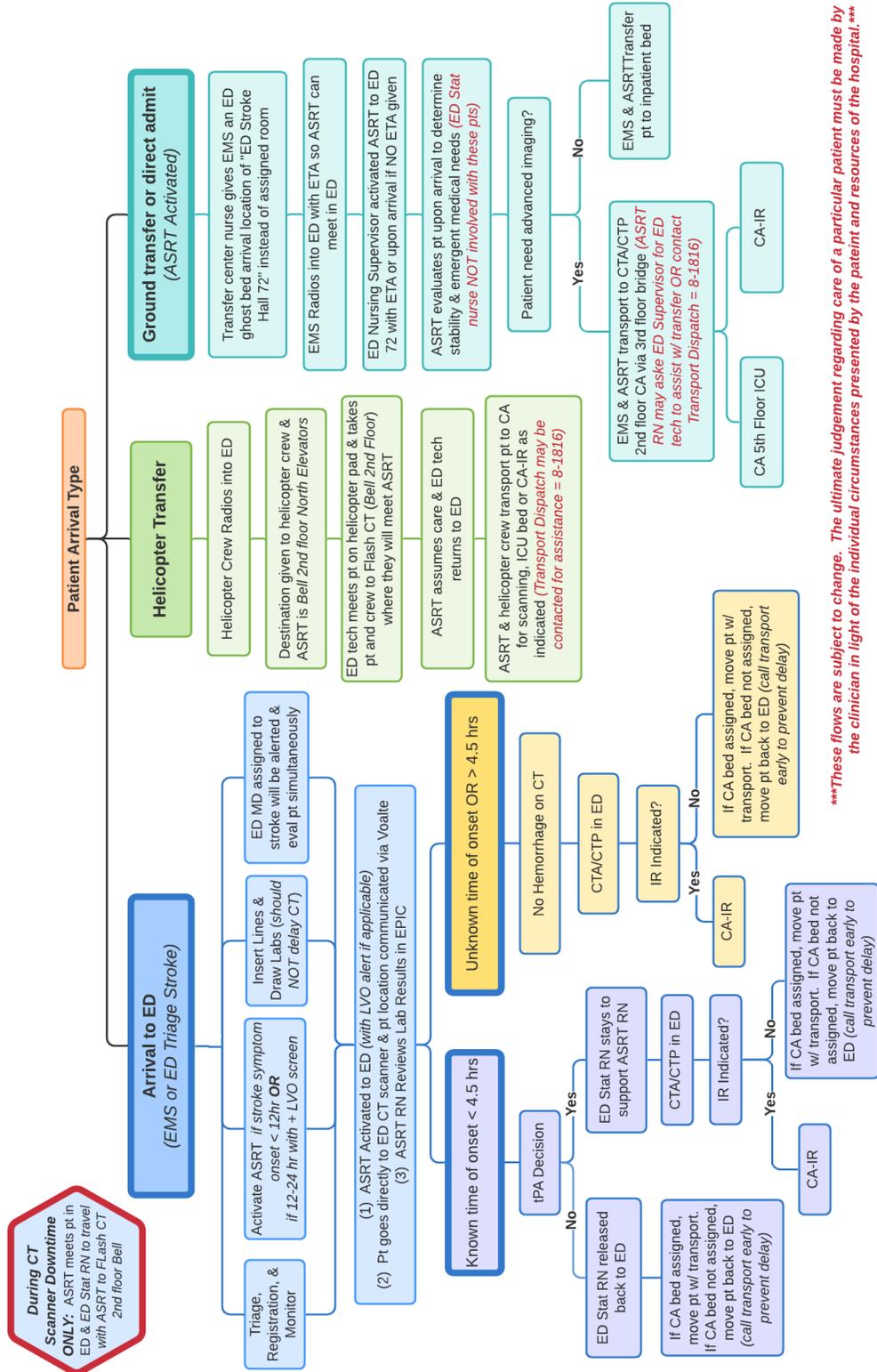
# STROKE ASRT PROVIDER WORKFLOW

This section should be updated according to your program's structure. See examples below:



# ACUTE STROKE WORKFLOW BY ARRIVAL TYPE

This section should be updated according to your program's structure. See examples below:



# POLICIES & PROCEDURES

This section should be updated according to your program's processes.

Title	Type	Last Updated	Owner	Reviewed Internally
<b>INSERT ANY POLICIES RELEVANT TO STROKE</b> <i>(e.g., Program Policy, Rapid MRI for Stroke Patients, Stroke Center Education, Stroke Team Activation, Emergency Department: Suspected Acute Stroke, Stroke Call Activation in IR, Hemorrhagic Stroke Patients on Oral Anticoagulation or Antiplatelets)</i>	POLICY	Last Date Updated	Who owns this?	Reviewer initials
	POLICY	Last Date Updated	Who owns this?	Reviewer initials
	POLICY	Last Date Updated	Who owns this?	Reviewer initials
	POLICY	Last Date Updated	Who owns this?	Reviewer initials
	POLICY	Last Date Updated	Who owns this?	Reviewer initials
	POLICY	Last Date Updated	Who owns this?	Reviewer initials
<b>INSERT ANY NURSING PROTOCOLS RELEVANT TO STROKE</b> <i>(e.g., Assessment of the Stroke Patient, Swallowing Assessment, Administration of IV Thrombolytic)</i>	Protocol / Lippincott	Last Date Updated	Who owns this?	Reviewer initials
	Protocol / Lippincott	Last Date Updated	Who owns this?	Reviewer initials
	Protocol / Lippincott	Last Date Updated	Who owns this?	Reviewer initials
	Protocol / Lippincott	Last Date Updated	Who owns this?	Reviewer initials
	Protocol / Lippincott	Last Date Updated	Who owns this?	Reviewer initials

# INPATIENT STROKE DOCUMENTATION

This section should be updated according to your facility's processes.

## ORDER SETS (PROTOCOLS)

Title	Primary User	Last Updated
<i>Insert Names of all Relevant Order sets</i>		
.....		

## NURSING ORDERS

Title	Primary User	Last Updated
<i>Insert Names of all Relevant Nursing Orders</i>	Stroke RN	
.....		

## DOC FLOWSHEETS

Title	Primary User	Last Updated
<i>Insert Title of any Stroke DocFlowsheet</i>	Stroke RN / ICU / Step-Down	
.....		

## EMR NOTE TEMPLATES

Title	Primary User	Last Updated
<i>Insert Title of any stroke-specific note</i>		

For hospital protocol resources & examples, visit: <http://www.kissnetwork.us/hospital-resources/>

# EXAMPLE STROKE TEAM PROVIDER NOTE TEMPLATE:

Date/Time of Stroke Team Page: \_\_\_\_\_

Time of Stroke Team Arrival: \_\_\_\_\_

Patient Location: \_\_\_\_\_

Last known well (Date/Time): \_\_\_\_\_

## NIH Stroke Scale:

- Level of consciousness:
- Current month and age:
- Open & close eyes/grip release hand:
- Best gaze:
- Visual field testing:
- Facial Palsy:
- Motor function left arm:
- Motor function right arm:

- Motor function left leg:
- Motor function right leg:
- Limb ataxia:
- Sensory:
- Best language:
- Dysarthria:
- Extinction/Inattention:

**Total score:**

**Time completed:**

**HPI:**

**Labs:**

**CT Head verbal prelim read by \*\*\* Date/ time: \*\*\***

**CT Head:**

**Discussed with Stroke Physician: Dr.**

**IV Thrombolytic Decision Time:**

**Contraindication/Considerations to Thrombolytic:** *(delete reasons that are N/A)*

- Last known well > 4.5 hours
- Mild non-disabling stroke symptoms
- Evidence of intracranial hemorrhage or major early infarct signs (e.g., substantial edema, mass effect, midline shift, hypodensity or age indeterminate infarct)
- Major surgery or trauma within 14 days
- Ischemic stroke within 3 months
- History of intracranial hemorrhage or intra-axial neoplasm
- Severe head trauma, intracranial or intraspinal surgery within the last 3 months
- GI Malignancy or recent bleeding event within the last 21 days
- Platelet count <100,000/mm<sup>3</sup>, INR > 1.7, aPTT > 40s, or PT > 15s
- Low molecular weight heparin within 24 hours
- Thrombin or factor Xa inhibitors (novel oral anticoagulants) within 48 hours
- Currently receiving Glycoprotein IIb/IIIa receptor inhibitors (Integrilin)
- Suspicion for subarachnoid hemorrhage
- Arterial vascular malformation or intracranial aneurysms
- Infective Endocarditis
- Aortic Arch Dissection
- SBP >185 or DBP > 110 despite aggressive treatment
- Dural or arterial puncture of a non-compressible site within 7 days
- Abnormal blood glucose (<50 or >400 mg/dl) despite treatment

- Known or suspected extracranial cervical or intracranial arterial dissection
- Known bleeding diathesis (hepatic or renal dysfunction, hematological disorder)
- Pregnancy or postpartum < 14 days
- Menstruation with menorrhagia (if significant anemia or hypotension consider consult with GYN)
- Extra-axial neoplasm
- Patient/Family refusal
- Acute pericarditis, left atrial/ventricular thrombus

- Systemic malignancy and life expectancy < 6 months
- Seizure at onset with postictal residual neurological impairments
- Diabetic hemorrhagic retinopathy or other hemorrhagic ophthalmic conditions
- 3-4.5 since last known well and age > 80
- 3-4.5 since last known well and history of stroke AND diabetes
- 3-4.5 since last known well and any current anticoagulation regardless of lab values
- 3-4.5 since last known well and NIHSS > 25

**Thrombolytic indicated:**

- Checklist for IV thrombolytic was reviewed and no contraindications were found
- Patient was deemed a thrombolytic candidate
- Written material regarding thrombolytic was provided to patient and or family
- Alternatives, risks, and benefits were discussed and verbal consent for thrombolytic
- Administration was obtained from: \_\_\_\_\_
- Reason for delay(if indicated): \_\_\_\_\_
  - Initial refusal
  - Inability to determine eligibility
  - The time of onset could not be clearly established
  - Timing of a recent procedure or surgery could not be definitively established
  - Hypertension requiring aggressive control with IV medications
  - Management of concomitant emergent/acute conditions such as cardiopulmonary arrest, respiratory failure

**CTA verbal prelim read by:** \_\_\_\_\_ **Date/ Time:** \_\_\_\_\_

**CTA Head result:** \_\_\_\_\_

**CTA reason not completed:** \_\_\_\_\_

**CTP Head result:** \_\_\_\_\_

**Premorbid modified Rankin Scale (baseline prior to this acute illness):** \_\_\_\_\_

**Modified Rankin Scale**

- **0:** No symptoms at all
- **1:** No significant disability despite symptoms; able to carry out all usual duties and activities
- **2:** Slight disability; unable to carry out all previous activities, but able to look after own affairs without assistance
- **3:** Moderate disability; requiring some help, but able to walk without assistance
- **4:** Moderately severe disability; unable to walk without assistance and unable to attend to own bodily needs without assistance
- **5:** Severe disability; bedridden, incontinent and requiring constant nursing care and attention

**Endovascular treatment indicated:** Y/ N

**EVT Decision time**

**Impression:**

**Plan:**

- No IV thrombolytic or endovascular treatment
- I V thrombolytic
- Endovascular treatment

**Recommendation:**

- Admit to NCCU
- Does not require NCCU admission

*The above plan was discussed with the attending physician and the family. Dr. \_\_\_\_\_ is in agreement. Critical care time spent: \_\_\_\_\_ **minutes**. This includes review of the history, physical, electronic medical record, laboratory and radiographic data, medication administration record, and other current clinical data. I have personally reviewed this information and confirmed the note contains additional details reflecting our critical assessment and plan. I have reviewed the plan with the house staff, nursing team, respiratory therapy, primary service, patient and/or family members, or other personnel as necessary.*

# INTERNAL STROKE PROGRAM MEETINGS

---

*This section should be updated according to your program's meetings.*

- **Insert Meeting Name**
  - **Frequency:** *List frequency of meeting here*
  - **Purpose:** *Describe purpose of this meeting*
  
- **Insert Meeting Name**
  - **Frequency:** *List frequency of meeting here*
  - **Purpose:** *Describe purpose of this meeting*
  
- **Insert Meeting Name**
  - **Frequency:** *List frequency of meeting here*
  - **Purpose:** *Describe purpose of this meeting*

# EXAMPLE MEETING AGENDA

**Meeting Name**

Date: 00/00/00

Time: 0000-0000

**Meeting Purpose:** Insert purpose here

**Invitees/Attendees:** Click the checkbox to document attendance.

<input type="checkbox"/> Participant Name				
<input type="checkbox"/> Participant Name				
<input type="checkbox"/> Participant Name				
<input type="checkbox"/> Participant Name				

*Copy and paste the cells to insert more names.*

TIME	TOPIC	PRESENTER	MEETING MINUTES

ACTION ITEM	RESPONSIBLE PARTY	DUE DATE

**Next meeting:**

# STROKE SIMULATION TOOLKITS TO ASSIST IN MOCK EVENTS

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**Stroke Simulation Toolkit:**

<https://www.stroke.org/en/professionals/stroke-resource-library/pre-hospitalems/prehospitalems-resources>

**Stroke Simulation Booklet - Downloadable PDF:**

[https://www.stroke.org/-/media/Stroke-Files/EMS-Resources/Simulation-Updates-072021/ASA\\_How to Guide Stroke Simulation Event 2021.pdf](https://www.stroke.org/-/media/Stroke-Files/EMS-Resources/Simulation-Updates-072021/ASA_How_to_Guide_Stroke_Simulation_Event_2021.pdf)

# COMPLIANCE REQUIREMENTS & DATA TRACKED

# ACCREDITATION, CERTIFICATION, & DESIGNATION

Hospital Accreditation	Program Certification	State Designation
<ul style="list-style-type: none"> <li>• Mandatory (<i>if facility bills Centers for Medicare and Medicaid [CMS]</i>)</li> <li>• Offered by number of healthcare organizations like TJC, DNV, &amp; HFAP</li> <li>• Accreditation visit every 1 – 3 years</li> <li>• Ensures quality &amp; safety of hospital care</li> </ul>	<ul style="list-style-type: none"> <li>• Voluntary</li> <li>• Disease-Specific</li> <li>• Program developed around the disease process &amp; external agency invited to certify</li> <li>• Evaluates the processes, structure and outcomes of care to ensure it meets certification standards</li> <li>• Offered by number of organizations: <i>External Agencies or State Designations (e.g., TJC, DNV - Det Norske Veritas , HFAP)</i></li> </ul>	<ul style="list-style-type: none"> <li>• Program Designation at state level</li> <li>• Great variability between states</li> <li>• Often based on state legislation</li> <li>• Some states rely on program certification in order to be designated by the state</li> </ul>

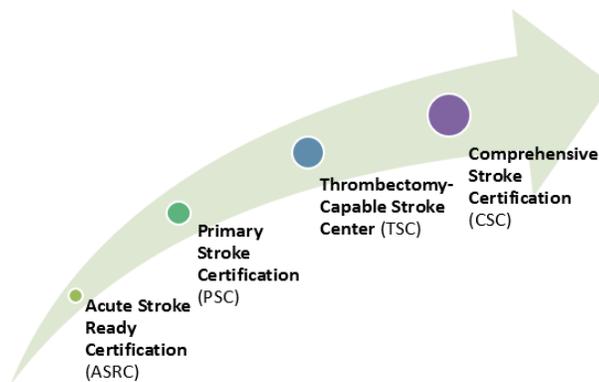
# STROKE CERTIFICATION

**Table 1** Stroke Center Capabilities

	Acute stroke-ready hospital	Primary stroke center	Thrombectomy-capable stroke center	Comprehensive stroke center
Stroke team available 24 h/d, 7 d/wk	+	+	+	+
NCCT available 24 h/d, 7 d/wk	+	+	+	+
Advanced imaging available 24 h/d, 7 d/wk	-	+	+	+
Offers IV tPA	+	+	+	+
Offers endovascular thrombectomy	-	+/-	+	+
Offers open neurosurgical and endovascular treatment of intracranial hemorrhage and aneurysms	-	+/-	+/-	+
Manages poststroke and intervention complications	-	+	+	+
Dedicated stroke care units	-	+	+	+
Dedicated neurocritical care unit/intensive care unit	-	+/-	+/-	+

Abbreviations: NCCT = noncontrast head CT; tPA = tissue plasminogen activator.  
 Advanced imaging includes CT angiography, CT perfusion, MRI, magnetic resonance angiography, and magnetic resonance perfusion.  
 \*Adapted from Adeoye et al.<sup>4</sup> with permission. Copyright © 2019 American Heart Association.

[https://n.neurology.org/content/neurology/97/20\\_Supplement\\_2/S17.full.pdf](https://n.neurology.org/content/neurology/97/20_Supplement_2/S17.full.pdf)



For Volume, staffing, and resource requirements, refer to your certifying agency's site:

- **The Joint Commission (TJC) Stroke Certification Requirements:**  
<https://www.jointcommission.org/-/media/tjc/documents/accred-and-cert/certification/certification-by-setting/stroke/dsc-stroke-grid-comparison-chart-42021.pdf>
- **Healthcare Facilities Accreditation Program (HFAP)/ACHC Certification:**  
<https://www.achc.org/stroke-certification/>
- **Det Norske Veritas (DNV) Certification:**  
<https://www.dnv.us/assurance/healthcare/stroke-certs.html>



# GWTG PERFORMANCE MEASURES

## Performance Measures Requirements:

All currently certified Primary Stroke Center (PSC) programs, as well as those seeking initial certification, are required to collect data for a total of 11 performance measures and use this information for ongoing performance improvement efforts. In addition to data for eight Joint Commission stroke measures, data for stroke outpatient measures, data for the number of mechanical thrombectomy procedures performed by the PSC, and 1 comprehensive stroke measure are also required. Certified PSCs that do perform mechanical thrombectomy procedures are also required to report four additional comprehensive stroke measures specific for these procedures. Specifications for the measures are detailed in the Specifications Manual for Joint Commission National Quality Measures available at <https://manual.jointcommission.org/Manual/WebHome>. See the following tables showing the measures required for PSC certification. The standards for the PSC certification program appear after the tables.

### Standardized Performance Measure for Comprehensive Stroke

Joint Commission Quality Measures for Disease-Specific Care Certification

Set Measure No.	Measure Short Name	Ischemic Stroke	Hemorrhagic Stroke	Required for
CSTK-1	National Institutes of Health Stroke Scale (NIHSS) Score Performed for Ischemic Stroke Patients	X		All PSCs

### Standardized Performance Measures for Procedural Volume

Joint Commission Quality Measures for Disease-Specific Care Certification

Set Measure No.	Measure Short Name	Ischemic Stroke	Hemorrhagic Stroke
STK-VOL-1	Eligible Ischemic Stroke Patients Who Receive Mechanical Endovascular Reperfusion Therapy	X	

### Standardized Performance Measures for Stroke

Joint Commission Quality Measures for Disease-Specific Care Certification

Set Measure No.	Measure Short Name	Ischemic Stroke	Hemorrhagic Stroke
STK-1	Venous Thromboembolism (VTE) Prophylaxis	X	X
STK-2	Discharged on Antithrombotic Therapy	X	
STK-3	Anticoagulation Therapy for Atrial Fibrillation/Flutter	X	
STK-4	Thrombolytic Therapy	X	
STK-5	Antithrombotic Therapy by End of Hospital Day 2	X	
STK-6	Discharged on Statin Medication	X	
STK-8	Stroke Education	X	X
STK-10	Assessed for Rehabilitation	X	X

### Standardized Performance Measure for Stroke Outpatient

Joint Commission Quality Measure for Disease-Specific Care Certification

Set Measure No.	Measure Short Name <sup>1</sup>	Ischemic Stroke	Hemorrhagic Stroke
STK-OP-1	Door to Transfer to Another Hospital	X	
STK-OP-1b	■ Hemorrhagic Stroke	X	X
STK-OP-1d	■ Ischemic Stroke; No IV Alteplase Prior to Transfer, LVO and MER Eligible	X	
STK-OP-1e	■ Ischemic Stroke; No IV Alteplase Prior to Transfer, LVO and Not MER Eligible	X	
STK-OP-1f	■ Ischemic Stroke; No IV Alteplase Prior to Transfer, No LVO	X	
STK-OP-1g	■ Ischemic Stroke; IV Alteplase Prior to Transfer, LVO and MER Eligible	X	
STK-OP-1h	■ Ischemic Stroke; IV Alteplase Prior to Transfer, LVO and Not MER Eligible	X	
STK-OP-1i	■ Ischemic Stroke; IV Alteplase Prior to Transfer, No LVO	X	

The following are performance measures monitored for a certified Comprehensive Stroke Program. The first 18 measures are required, core measures that are reported quarterly to the certifying bodies for each Comprehensive Stroke Center (CSC) Certification. Of these, 10 are specific for CSCs [CSTK] and 8 are required for all stroke centers [STK]. Facilities often report this data through Get with the Guidelines (a database provided by the American Heart Association).

<b>Acute Ischemic Stroke (AIS)</b>			
<b>Performance Measure</b>	<b>Internal Goal</b>	<b>National Goals (Plus Award)</b>	<b>Performance Measure Description</b>
<b>CSTK-01</b>	≥ 95%	≥ 75%	<b>NIHSS</b> performed before intervention OR within 12 hrs of arrival
<b>CSTK-05</b>	≤ 5%	N/A	<b>Post Treatment (IV-alteplase, IA-alteplase, or EVT):</b> Hemorrhagic Transformation Rate (symptomatic ICH within 36 hours of t-PA or EVT)
<b>CSTK-08</b>	80%	≥ 75%	<b>Post-Endovascular Treatment Reperfusion Grade (TICI) ≥ 2B</b>
<b>CSTK-09</b>	70 min	N/A	<b>Large Vessel Occlusion (LVO) w/ Endovascular Treatment (EVT):</b> Hospital arrival time to IR Skin Puncture ≤70 Minutes (Continuous Variable based on Median time)
<b>CSTK-10</b>	50%	N/A	<b>Post Treatment (IV-alteplase, IA-alteplase, or EVT):</b> Modified Rankin Score (mRS) ≤ 2 (favorable outcome) at 90 Days
<b>CSTK-11</b>	80%	≥ 75%	<b>LVO with EVT:</b> Rate of Effective Reperfusion from Hospital Arrival ≤120 Minutes
<b>CSTK-12</b>	80%	≥ 75%	<b>LVO with EVT:</b> Rate of Effective Reperfusion from Skin Puncture ≤60 Minutes
<b>STK-2</b>	100%	≥85%	Discharged on antithrombotic therapy at discharge
<b>STK-3</b>	100%	≥85%	Anticoagulation for A Fib/ A Flutter (e.g., Warfarin or DOACs) or documented contraindication at discharge
<b>STK-4</b>	100%	≥85%	<b>Arrive within 2 hrs of LKW &amp; Eligible:</b> Thrombolytic Therapy (IV TPA) administered by hour 3 from LKW
<b>STK-5</b>	100%	≥85%	**Antithrombotic therapy administered by end of hospital day 2

<b>STK-6</b>	100%	≥85%	Statin ordered on discharge ( ≥ 75 YO - Moderate intensity statin; < 75 YO - High intensity statin)
<b>Hemorrhagic Stroke (SAH/ICH)</b>			
<b>CSTK-03</b>	90%	≥ 75%	<b>SAH &amp; ICH:</b> Severity measurement ( <i>Hunt &amp; Hess or ICH Score</i> ) completed before surgical intervention OR within 6 hrs of arrival
<b>CSTK-04</b>	100%	≥ 75%	<b>ICH:</b> Procoagulant Reversal Agent initiated for ICH if INR ≥ 1.4 at hospital arrival
<b>CSTK-06</b>	90%	≥ 75%	<b>SAH:</b> Nimodipine administered <i>within 24 hrs</i> of hospital arrival for aneurysmal SAH
<b>Acute Ischemic &amp; Hemorrhagic Stroke</b>			
<b>STK-1</b>	100%	≥85%	**Venous Thromboembolism (VTE) Prophylaxis ( <i>i.e., Low-molecular weight heparin, Low-dose unfractionated heparin, or Fondaparinux</i> ) by end of day hospital day 2
<b>STK-8</b>	90%	≥75%	Stroke education completed & documented by discharge ( <i>Risk Factors, Importance of calling EMS, Medications, Follow-up, &amp; Signs and Symptoms of stroke</i> )
<b>STK-10</b>	85%	≥75%	Assessed for rehab by discharge

# SITE VISIT RESOURCES (TJC SPECIFIC)

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## Preparing for the Review:

The Joint Commission will provide organizations access to a secure location accessible only to the organization and the assigned Joint Commission reviewer. A list of documents required for the review will be provided. These documents must be uploaded to the secure location no later than 72 hours prior to the first day of review

- List of all current patients in the disease-specific care program, including:
  - Patient medical record number or account number
  - Diagnosis/procedure (full description)
  - Gender
  - Age
  - Admission date
  - Admitting physician
- List of all discharged patients from the disease-specific care program (inpatient, outpatient, and observation) for the last 4 months (initial review) or 12 months (recertification), including:
  - Patient medical record number or account number
  - Patient room number/location
  - Diagnosis
  - Procedure (full description)
  - Gender
  - Age
  - Admission date
  - Admitting physician
  - Discharge date
- For reviews with surgery/procedures, include that day's operating room schedule or procedural schedule
- Standardized order sets, protocols, pathways and flowsheets, and clinical practice guidelines
- Roles and responsibilities of core team
- Emergency department call schedules for the previous month for all applicable physicians for the disease-specific care program, if applicable
- Written transfer plan/process, if applicable
- Patient educational material
- Data Use Session presentation slides or materials that need to address the following:
  - Performance improvement measures
  - Performance improvement plan
  - Performance initiatives that have taken you beyond the core measures
  - Patient satisfaction data
  - Patient satisfaction performance plan

# SITE VISIT SESSIONS

## Overview of the Orientation to the Program (45 minutes) *(TJC opening session)*

This 45-minute session is an exchange between the organization and reviewer about the disease management program(s) structure and scope of care and services. A brief, approximately 15-20 minute, summary presentation about the program is very helpful to the reviewer and often to organization staff participating in the review process. Additional discussion with the reviewer following the presentation will help clarify the documentation submitted by the program with their application for certification. The reviewer will facilitate the discussion and use the information as a base to build on while continuing their program review in other activities.

Program representatives participating in this session should be able to discuss topics such as:

- Program mission, goals and objectives
- Program structure
- Program leadership and management
- Program design
- Composition of the program's interdisciplinary team
- Scope of services/continuum of care
- Developing, implementing and evaluating the program
- Target population for the program
- Identified needs of the program population
- The selection and implementation of clinical practice guidelines
- Evaluation of clinical practice guideline use and appropriateness to target population
- Performance improvement process, including evaluation of the disease management program's efficacy

## Overview of the Data Use System Tracer *(TJC data session)*

During the session, the reviewer(s) and organization will discuss:

- The basics of data gathering and preparation, including:
  - Selection of performance measures
  - Data collection, including validity and reliability
  - Data analysis and interpretation
  - Dissemination /transmission
  - Data use and actions taken on opportunities for improvement
  - Monitoring performance/improvement
- The performance measures selected to evaluate the processes and outcomes specific to the program, including how the selections were made (committee consensus, clinical staff voting, etc.) and measure implementation
- Performance improvement plan
- How clinical and management data is used in decision-making and in improving the quality of care and patient safety
- How patient satisfaction and perception of care data is used in decision-making and improving quality of care and patient safety
- Data variances as it pertains to clinical practice guidelines

- Strengths and weaknesses in the processes used to obtain data and meet internal and external information needs.
- Techniques used to protect confidentiality and security of all types of patient data.
- Use of data for all aspects of the program, including medication management and infection control, as applicable, should be discussed during this session
- The reviewer(s) will want to know about the program's priorities for performance improvement activities and how these fit into the organization's overall performance improvement processes.
- This discussion may include a review of:
  - Actions taken as a result of using data
  - Selection and prioritization of performance improvement activities
  - Dissemination of findings and staff involvement
  - Data reporting – when it occurs and to whom
  - Type of analyses being conducted – approach to trending data over time, comparing data to an expected level of performance, and looking at data in combination for potential cause and effect relationships

# QUARTERLY UPLOAD OF DATA TO TJC WEBSITE

## Uploading Certification Measurement Information Process (CMIP) Data From Quintiles (GWTG) to TJC Website (quarterly)

### \*\*\*CLICK SAVE AFTER EACH MEASURE\*\*\*

**Step 1:** Open TJC website and log in

**Step 2:** Switch from Accreditation to Certification

**Step 3:** Hover over Continuous Compliance tab and click "Certification Measure Information Process" under Performance Measure

**Step 4:** Next to "Enter CMIP Data" click Data Submission

**Step 5:** Navigate through all STK and CSTK measures in the drop down menu inputting information from Quintiles/GWTG.

**Step 6:** Open Quintiles/GWTG website and log in

**Step 7:** Hover over the bar chart icon in the "Get Started!" box in the top left which will say "run reports" and click it

**Step 8:** Click "Configurable Measure Reports"

**Step 9:** Select the time period that you would like to view data from (TJC wants monthly data so usually you'll select monthly as interval)

**Step 10:** Under Report 1 Heading drop down the second menu that says "GWTG Enhanced Version & Special Initiative Measures"

**Step 11:** Can do individually but faster to click \*STK Measure Set\*

**Step 12:** Click generate report at the bottom. New window will appear with bar graphs with data tables beneath each one.

**Step 13:** Input numbers from data tables to corresponding tables on TJC website.

**Step 14:** Repeat steps 11-13 for \*CSTK Measure Set\* BUT skip CSTK 10 and 10a-10d

**Step 15:** Re-run report back dating your months by a couple months since this measure requires more time to abstract

**Step 16:** Enter data for CSTK 10 and 10a-10d up until the month you have some sort of data for.

### \*\*\*CLICK SAVE AFTER EACH MEASURE\*\*

# PHASE III TARGET: STROKE

## PHASE III RECOGNITION LEVELS

### Honor Roll - Door to Needle Times

Door to IV Alteplase given within <b>60</b> minutes	<b>75%</b> of applicable patients
---	-----------------------------------

### Honor Roll - Elite - Door to Needle Times

Door to IV Alteplase given within <b>60</b> minutes	<b>85%</b> of applicable patients
---	-----------------------------------

### Honor Roll – Elite Plus - Door to Needle Times

Door to IV Alteplase given within <b>45</b> minutes	<b>75%</b> of applicable patients
---	-----------------------------------

Door to IV Alteplase given within <b>30</b> minutes	<b>50%</b> of applicable patients
---	-----------------------------------

### Honor Roll Advanced Therapy - Door to Device

<b>ED Arrivals:</b> Within <b>90</b> minutes <b>Transfers:</b> Within <b>60</b> minutes	<b>50%</b> of applicable patients
--	-----------------------------------

### Eligibility Requirements:

A hospital must currently hold Gold, Silver, or Bronze performance achievement status in Get With The Guidelines to be eligible for the Target: Stroke Honor Roll. It must also have DTN/DTD times that meet the criteria above for consecutive applicable patients (minimum 6) for at least one calendar quarter for initial awards and four calendar quarters for renewal.

# ACHIEVEMENT MEASURES

<b>ACHIEVEMENT AWARDS</b> <b>GOAL = ≥85%</b>	<b>QUALITY AWARDS</b> <b>GOAL = ≥75%</b>
<p>Each of these <b>7</b> Achievement Measures must independently be at <b>85%</b> or higher for the award timeframe in order to receive this award.</p> <ol style="list-style-type: none"> <li>1. IV Alteplase Arrive by 3.5 Hour, Treat by 4.5 Hour</li> <li>2. Early Antithrombotics</li> <li>3. VTE Prophylaxis</li> <li>4. Antithrombotics</li> <li>5. Anticoag for AFib/AFlutter</li> <li>6. Smoking Cessation</li> <li>7. Intensive Statin Therapy at Discharge</li> </ol>	<p>At least <b>5</b> of these Quality Measures must independently be at <b>75%</b> or higher for the award time frame in order to receive this add-on award.</p> <ol style="list-style-type: none"> <li>1. Dysphagia Screen</li> <li>2. Stroke Education</li> <li>3. Rehabilitation Considered</li> <li>4. Time to Intravenous Thrombolytic Therapy - 60 min</li> <li>5. LDL Documented</li> <li>6. NIHSS Reported</li> </ol>

These Performance Achievement Award levels reflect the amount of time for which a hospital must demonstrate compliance to the below eligibility criteria:

- **Bronze:** Recognizes performance on **3** consecutive months in a calendar quarter, with a minimum of 30 patients
- **Silver:** Recognizes performance on **12** consecutive months, on a January-December time frame
- **Gold:** Recognizes performance on **24** consecutive months, on a January-December time frame

# TARGET: TYPE 2 DIABETES

## Target: Type 2 Diabetes Honor Roll

**GOAL = ≥90%**

A composite of all required measures listed below must be at **90%** or higher for the award time frame in order to receive this add-on award. The hospital must have at least **10** patients with a new onset or previous history of diabetes within the patient population.

Note: Can be added-on to Silver, or Gold award.

1. IV alteplase arrive by 3 hour, treat by 4.5 hour for patients with Diabetes
2. Early antithrombotics for patients with Diabetes
3. VTE prophylaxis for patients with Diabetes
4. Antithrombotics for patients with Diabetes
5. Anticoagulant for AFib/Aflutter for patients with Diabetes
6. Smoking cessation for patients with Diabetes
7. Intensive Statin therapy for patients with Diabetes
8. Diabetes treatment
9. Therapeutic Lifestyle Recommendation for Patients with Diabetes (*TLC diet has to address cholesterol/sodium restrictions, or be the equivalent, a diet that takes into account the patient's diabetes*).

# AWARDS & CERTIFICATIONS

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## Certification

**Primary Stroke Center Certification by The Joint Commission**

*Insert years your facility received this certification here*

**Comprehensive Stroke Center Certification by The Joint Commission**

*Insert years your facility received this certification here*

## Program Award

**Stroke Gold Award**

*Insert years your facility received this award here*

**Stroke Gold Plus Award**

*Insert years your facility received this award here*

**Target: Stroke Honor Roll Award**

*Insert years your facility received this award here*

**Target: Stroke Honor Roll Elite Award**

*Insert years your facility received this award here*

**Target: Stroke Honor Roll Elite Plus Award**

*Insert years your facility received this award here*

**Target: Type II Diabetes Honor Roll Award**

*Insert years your facility received this award here*

## U.S. News & World Report

**Neurology & Neurosurgery**

*Insert years your facility received this award here*

**High Performing for Stroke**

*Insert years your facility received this award here*

# STROKE INTERVENTION GOAL TIMES

## THE 30 MINUTES DTN TIME GOALS ARE:

Action	Internal Program Time	Target: Stroke Time
Door to Physician	N/A	2.5 min
Door to ASRT Arrival	~5	5 min
Door to CT Initiated	~10	15 min
Door to CT Interpreted	~20	25 min
Interpreted to Needle	~5	N/A
Door to Needle	<b>30</b>	<b>30 min</b>

## THE 45 MINUTES DTN TIME GOALS ARE:

Action	Internal Program Time	Target: Stroke Time
Door to Physician	N/A	5 min
Door to ASRT Arrival	~15	10 min
Door to CT Initiated	~25	20 min
Door to CT Interpreted	~45	35 min
Door to Needle	<b>45</b>	<b>45 min</b>

## THE 60 MINUTES DTN TIME GOALS ARE

Action	Internal Program Time	Target: Stroke Time
Door to Physician	N/A	10 min
Door to ASRT Arrival	~15	15 min
Door to CT Initiated	~25	25 min
Door to CT Interpreted	~45	45 min
Door to Needle	<b>60</b>	<b>60 min</b>

## THE 90 MINUTES ED DTD TIME GOALS ARE

Action	Internal Program Time	Target: Stroke Time
Door to Physician	N/A	5 min
Door to ASRT Arrival	~5	10 min
Door to CT Initiated	~7	20 min
Door to CT Interpreted	~15	35 min
Interpreted to Needle	~5	N/A
Door to needle Time	~30	45 min
Door to neurointerventional Team Activation	N/A	40 min
Door to Advanced Initiated	~20	60 min
Door to Advanced Interpreted	~30	N/A
Advanced Imaging Interpreted to Decision for IR treatment	~15	N/A
IR to Puncture	~30	N/A
Puncture to Device	~15	N/A
Door to Patient Arrival in IR Suite	N/A	N/A
Door to Puncture	~70	75 min
Door to Device	90	90 min

### THE 60 MINUTES TRANSFER DTD TIME GOALS ARE

Action	Internal Program Time	Target: Stroke Time
Door to Physician	N/A	N/A
Door to ASRT Arrival	~0	N/A
Door to neurointerventional Team Activation	N/A	N/A
Door to Advanced Initiated	~10	N/A
Door to Advanced Interpreted	~20	N/A
Advanced Imaging Interpreted to Decision for IR treatment	~5	N/A

IR to Puncture	~15	N/A
Puncture to Device	~20	N/A
Door to patient Arrival in IR suite	N/A	N/A
Door to puncture	~40	N/A
Door to device	60	N/A

### THE 90 MINUTES IN-HOUSE DTD TIME GOALS ARE

Action	Internal Program Time	Target: Stroke Time
Paged to ASRT Arrival	~5	N/A
Paged to Imaging Initiated	~50	N/A
Paged to Imaging Interpreted	~55	N/A
Imaging Interpreted to Decision for EVT	~15	N/A
IR to Puncture	~5	N/A
Puncture to Device	~15	N/A
Paged to Puncture	~70	N/A
Paged to Device	90	N/A

### OTHER ENDOVASCULAR TREATMENT GOALS

Action	Internal Program Time	Target: Stroke Time
Decision to Puncture	~35	N/A
Skin Puncture to TICI 2B or Higher	60	60 min
Arrival Time to TICI 2B or Higher	120	120 min

### OTHER TREATMENT GOALS

Action	Internal Program Time	Target: Stroke Time
Laboratory test time 80% reported from order	45	N/A

# INTERNALLY MONITORED DATA

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*This section should be updated according to your facility's processes. Example from CSC provided below.*

- **Stroke Patient Data**

- Get with the Guidelines Number
- Patient Class (inpatient, observation, in-house, ED discharged)
- Admit/Discharge date
- Off Unit
- Last name/First name
- MRN/HAR number
- Gender
- Age
- Stroke Type (AIS, TIA, SAH, ICH)
- COVID-19 screening & results
- SAH Aneurysmal cases
- Pediatric cases
- Arrival Type (ED, direct admit, outside hospital transfers)
- EMS vendor and report tracking information
- Miscellaneous Audits (TJC related, order sets, etc.)

- PIPS candidates
- Research patients
- **Procedures:**
  - Angioplasty
  - Arteriogram
  - Attempted endovascular treatment
  - CAS
  - CEA
  - Clipping
  - Coiling
  - Craniectomy
  - Drip & Ship
  - EVD
  - IA Alteplase
  - IV Tenecteplase
  - IV Alteplase
  - Thrombectomy
  - Venous thrombectomy

- **Stroke Activation Data**

1. Total activations
2. Activations by time
3. Paged to team arrival average time
4. RN minutes off unit average time
5. Activations by location
6. Total ED & off unit activations diagnosed with stroke

- **Volumes of Stroke Patients Transferred to Facility**

- **HCAHPS Stroke Patient Data**

1. Surveys sent out the day after discharge
2. Surveys sent to home address listed in Epic
3. Hospice cases are included
4. Rehab cases are included

- **Stroke Intervention Volumes**

1. IV Alteplase
2. IA Alteplase
3. IV Tenecteplase
4. Thrombectomies
5. Drip & Ships
6. Carotid Artery Stents
7. Angioplasties
8. Attempted Endovascular Treatments (aborted cases due to tortuous anatomy, clots resolving, angiogram only, thrombectomy should not be coded)

- **Clipping & Coiling Volumes**

- **Stroke Patient follow-up 7 day and 90-day phone calls**

# GWTG STROKE PATIENT REGISTRY

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- **Patient Exclusions:**
  - In-House Strokes
  - Coded Secondary Stroke
  - In-House Interventions
  - Retinal Occlusions (EXCEPT interventional cases)
  - Mimics
  - Carotid stenosis & stenting cases
  - Pediatric (< 18YO) cases
- **Abstraction Process:**
  - **Abstraction Fields:** [All fields to abstract and where to find them in O2](#)
  - **Case Allocation:**
    1. OI Team abstracts all inpatient AIS, SAH, ICH cases
    2. Stroke Team abstracts all observation class strokes, TIA's, and retinal occlusions with stroke interventions
- **Report Favorites:**
  1. GWTG Standard Measures: **\*\*Consensus-GWTG/PAA Set\*\*** (Report lists achievement measures (Gold Award). Display options must be filtered as below and the aggregate data box must be checked.)

## DISPLAY OPTIONS HIDE

- 95% Confidence Interval
- Display Standard Error
- One benchmark group per graph
- Similar measures on the same graph
- Display Baseline
- Display Goal
- Display Achievement Goal
- Display Plus Goal
- Display 25th Percentile
- Display 50th Percentile
- Display 75th Percentile
- Display 90th Percentile
- Display Number of Sites

2. GWTG Standard Measures: **\*\*GWTG Stroke Quality Measures\*\***(Report lists quality measures (Plus Award). Display options must be filtered as below and the aggregate data box must be checked.)

**DISPLAY OPTIONS** [HIDE](#)

- 95% Confidence Interval
- Display Standard Error
- One benchmark group per graph
- Similar measures on the same graph
- Display Baseline
- Display Goal
- Display Achievement Goal
- Display Plus Goal
- Display 25th Percentile
- Display 50th Percentile
- Display 75th Percentile
- Display 90th Percentile
- Display Number of Sites

3. GWTG Standard Measures: Time to Intravenous Thrombolytic Therapy-60 (Percent of AIS patients receiving IV tPA within 60 min window)
4. GWTG Standard Measures: Time to Intravenous Thrombolytic Therapy-45 (Percent of AIS patients receiving IV tPA within 45 min window)
5. GWTG Standard Measures: Time to Intravenous Thrombolytic Therapy-30 (Percent of AIS patients receiving IV tPA within 30 min window)
6. GWTG Standard Measures: Time to Intravenous Thrombolytic Therapy Times (Report shows median times for IV tPA cases)
7. GWTG Enhanced Version & Special Initiative Measures: Door to Start of Device (DTD) within 60 minutes
8. GWTG Enhanced Version & Special Initiative Measures: Door to Start of Device (DTD) within 60 minutes for patients transferred from an outside hospital OR within 90 minutes for patients presenting with directly - 6 hour treatment window
9. GWTG Enhanced Version & Special Initiative Measures: Door to Start of Device (DTD) within 60 minutes for patients transferred from an outside hospital OR within 90 minutes for patients presenting with directly - 24 hour treatment window
10. GWTG Enhanced Version & Special Initiative Measures: **\*\*MER Measure Set\*\*** (Reports for EV treatment measures)
11. GWTG Enhanced Version & Special Initiative Measures: Door to Arterial Puncture Times (door to puncture median times report)

12. GWTG Standard Measures: Diagnosis (This report breaks down strokes in volumes by type). This section has all the demographic reports (age, race, gender, diagnosis, prior medical history, etc.)
13. GWTG Enhanced Version & Special Initiative Measures: **\*\*STK Measures Set\*\***  
(Measure group with all Stroke Core Measures)
14. GWTG Enhanced Version & Special Initiative Measures: **\*\*CSTK Measures Set\*\***  
(Measure group with all CSTK Measures)

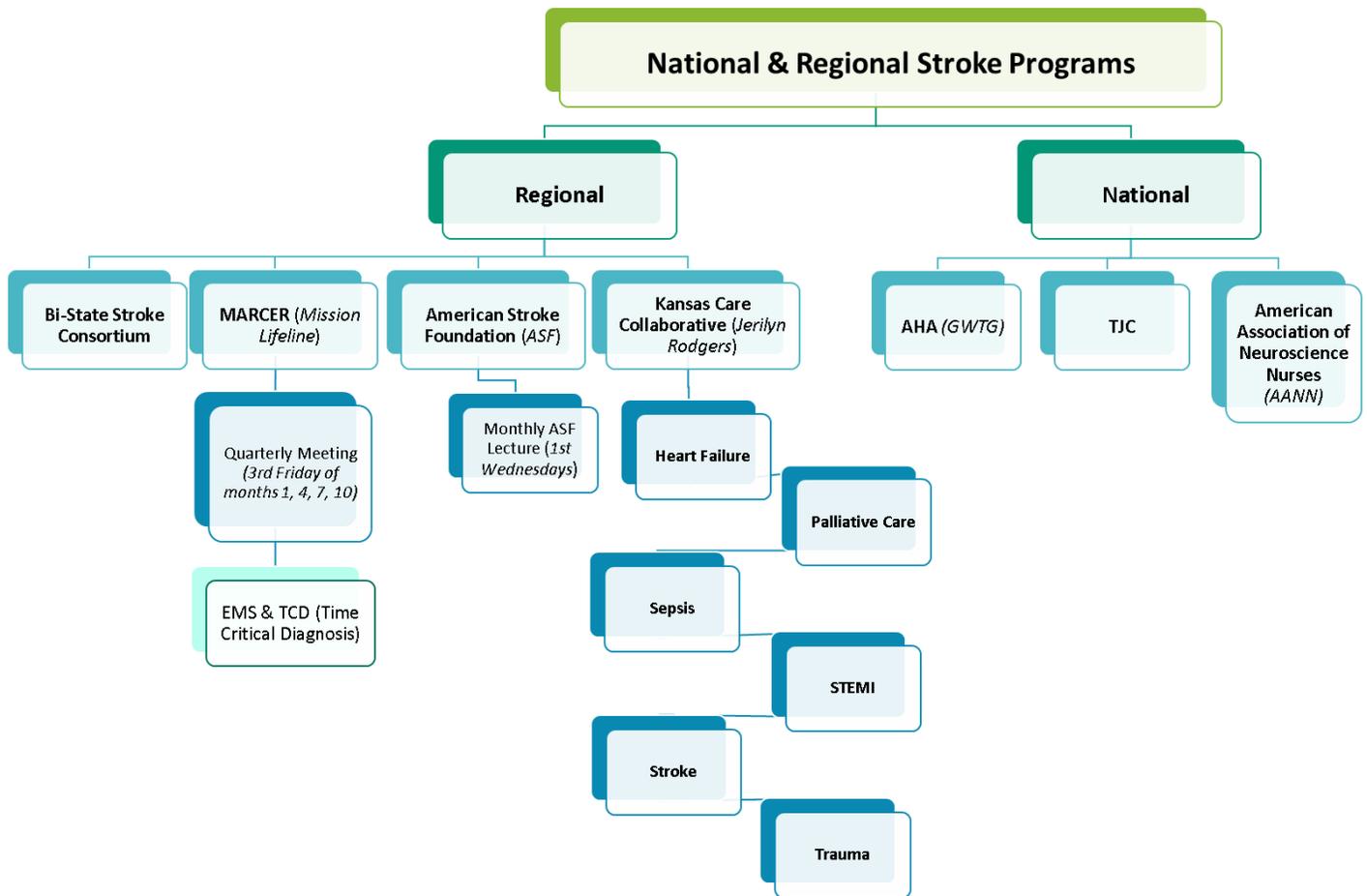
# STROKE OUTREACH

*This section should be updated according to your facility's outreach efforts.*

- **Requirements:** Sponsors at least two public educational activities that focus on stroke prevention & care annually

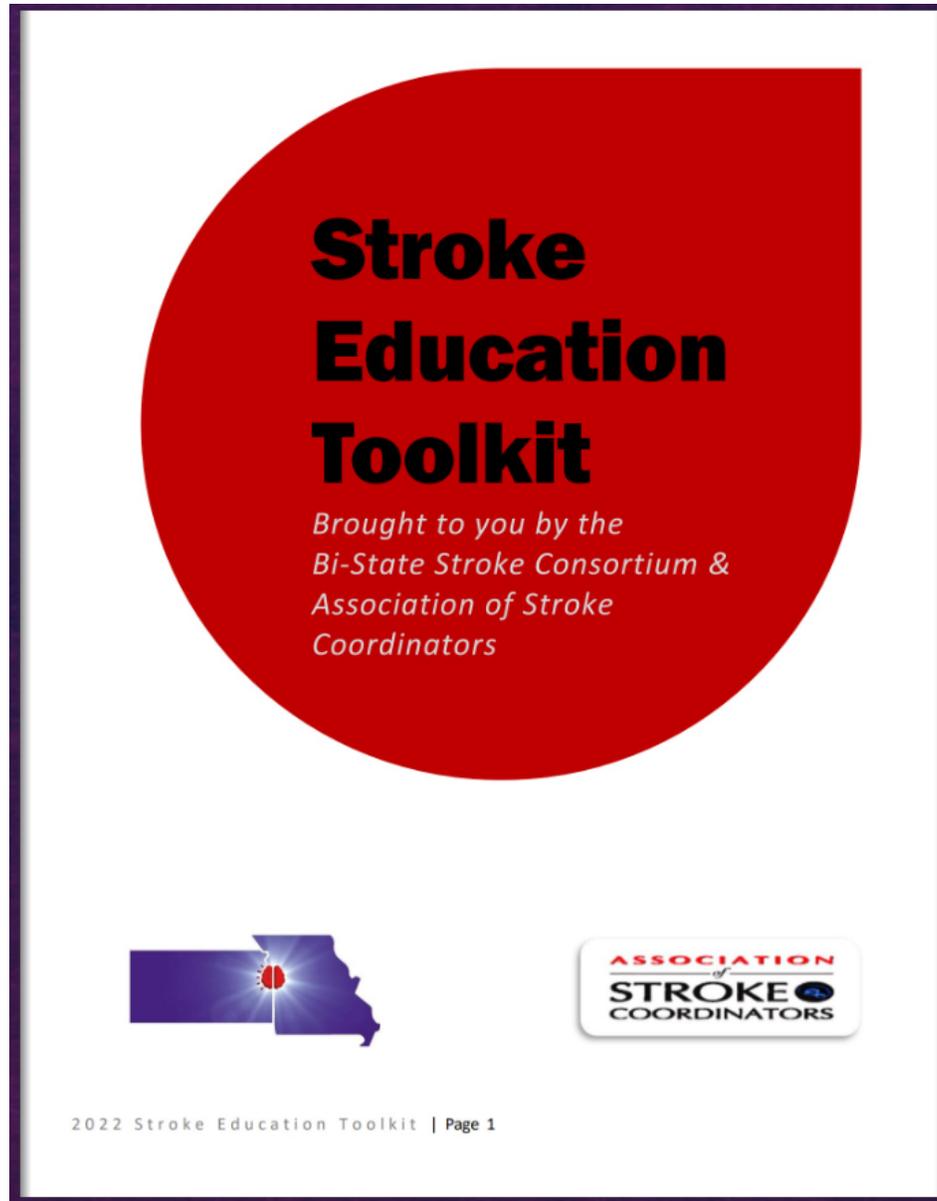
# PARTNERSHIPS SPECIFIC TO YOUR FACILITY:

*This section should be updated according to your facility's partnerships. See example below:*



# COMMUNITY OUTREACH TOOLKIT

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<https://online.fliphtml5.com/tcnhs/gsoh/?1659708012271>

# EMS PATIENT FOLLOW-UP REPORT TEMPLATE

<b>Stroke Team</b>	EMS:	Date of Service:	Stroke Pre-Alert: RMC Arrival:
<b>Patient Information</b>	Name:	Age/Gender:	PCP:
<b>History</b>			
<b>Imaging</b>	(Insert imaging here if possible)		
<b>Clinical Outcome</b>			
<b>Discharge</b>	Date:	Disposition:	NIHSS:

# HOSPITAL PATIENT FOLLOW-UP REPORT TEMPLATE

## EXAMPLE

<b>EMS</b>	EMS agency (if applicable):	Service: Incident #:	Stroke Pre-Alert: Arrival time:
<b>Patient Information</b>	Date of Transfer:	MRN:	
	Name:	DOB:	PCP:
<b>History</b>			
<b>Initial Imaging (Include pictures if possible)</b>			
<b>Consultations</b>			
<b>Treatment (ECHO; Procedures;</b>			
<b>Follow-up Imaging (Include pictures if possible)</b>			
<b>Clinical Outcome</b>			
<b>Complications/Oppor tunities</b>	Hemorrhagic transformation? Yes <input type="radio"/> No <input type="radio"/> Notes:		
<b>Discharge</b>	Date:	Disposition:	NIHSS/mRS:

# EXTERNAL MEETINGS

- **MARCER TCD**

- **Frequency:** Monthly, 3rd Friday of the month from 0730-0900
- **Purpose:** Regional STEMI, Stroke, Sepsis, Trauma Coordinators collaborate and report out to EMS Leadership in the Region. Regional Medical Director gives an update and MO TCD Program report out also given.
- Email contact: Jennifer Sutherlin <[jsutherlin@MARC.ORG](mailto:jsutherlin@MARC.ORG)>

- **MARCER**

- **Frequency:** Monthly, 3rd Friday of the month from 0900-1100
- **Purpose:** Hospital and EMS Leadership gather together to discuss current status of entities and collaboration projects.
- Email contact: Erin Lynch <[elynch@MARC.ORG](mailto:elynch@MARC.ORG)>

- **Bistate Stroke Consortium**

- **Meeting Frequency:** Every other month; the second Tuesday.
- **Purpose:** Stroke Coordinators collaborate with American Heart Association to share case studies, new research/initiatives, best practices, data review from the Region.
- **Email contact:** Kayli Saathoff <[Kayli.Saathoff@heart.org](mailto:Kayli.Saathoff@heart.org)>
- **Website:** <https://www.heart.org/en/affiliates/bi-state-stroke-consortium>

# BI-STATE STROKE CONSORTIUM

## BACKGROUND

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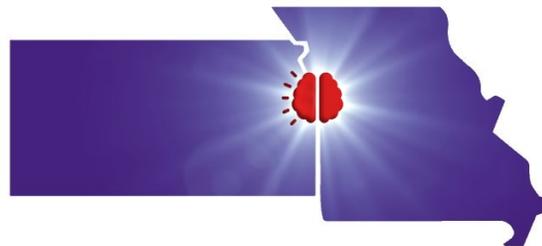
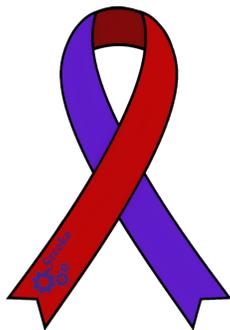
### HISTORY:

The first professional Stroke conference in the Kansas City metro area was held in 1998. Between 2000-2001, a group was formed called the "Operation Stroke Task Force Committee, Greater Kansas City Division." Later it was shortened to "Greater Kansas City Stroke Task Force." Members from area hospitals who were interested in improving Stroke care were invited to serve on this group from physicians, to nurses, to Therapists and EMS providers.

Operation Stroke was an initiative to mobilize whole communities to provide better outcomes for stroke patients. It crosses all key work processes and brings together the expertise of advocacy, emergency cardiovascular care (ECC), communications, community programs and development of volunteers in the targeted communities. One of the main goals of this task force was to implement an acute stroke treatment program in all hospitals in the metro Kansas City area with representation from each hospital.

From the membership of this Stroke Task Force, 4 subcommittees were formed with specific goals:

1. EMS Subcommittee (Goal: Treat Stroke as a medical emergency)
2. Medical Subcommittee (Goal: Refine Stroke treatment in the ED and acute stroke treatment programs)
3. Recovery/Rehabilitation Subcommittee: (Goal: Discharge protocols for Stroke patients, support groups, peer visitor groups, survivor/caregiver groups)
4. Public Education Subcommittee: (Goal: Educate the public - Risk Factors for Stroke and Heart Disease, ie., Church gatherings, Malls, Royals Games, advertise that May is Stroke Awareness Month)



# TIMELINE:

## 1997:

- With the advent of IV tPA use in stroke care, education was necessary and key to the success of this new treatment.
- The first “Acute Stroke Treatment Seminar” was held in 1997 with 30 participants.

## 1998:

- The Metro Stroke Task Force tried to organize, however there were participation issues and hospital conflicts of interest. This was a springboard to the Annual Stroke Symposium and Consortium development.

## January 2001:

- American Stroke Association develops a tool to assess hospitals titled: “Primary Stroke Center Assessment.
- Operation Stroke and American Stroke Association defined their goal to decrease Stroke by 25% by the year 2010.

## November 2003:

- The Joint Commission collaborated with the American Heart Association/American Stroke Association to develop Performance Measures for disease specific certification for Primary Stroke Centers. This advanced level program was designed to recognize Primary Stroke Centers that make exceptional efforts to foster better outcomes for stroke patient care. This program was based on the specific requirements and expectations for the Brain Attack Coalition recommendations for Primary Stroke Centers. One requirement was 8 hours of stroke education per year for core stroke teams and staff who care for stroke patients.

## 2004:

- The Professional Stroke Education Committee continues to plan the 7th Annual Stroke Symposium.
- In fall of 2004, the Professional Stroke Education Committee transitioned to the Stroke Education Consortium. The goal of this group was to address the need for stroke education hours in the greater Kansas City area. Eight participating hospitals signed an agreement to abide by the rules of the consortium - provide 4 hours of evidence-based stroke education per year, free to any member of the hospitals in the consortium.
- “Original 8”: Lee’s Summit Hospital, Olathe Medical Center, Providence Medical Center, Research Medical Center, Saint Joseph Medical Center, Saint Luke’s Hospital, Shawnee Mission Medical Center, and The University of Kansas Medical Center. Nurses from these hospitals from both sides of the state line, banded together through the facilitation and leadership of the American Heart Association/American Stroke Association to form the Bistate Stroke Consortium.
- The purpose of the consortium was to provide education and enhance stroke systems of care.

## **2005:**

- Brochure developed for consortium hospitals. The consortium is composed of eight area hospitals and facilitated by the American Heart Association/American Stroke Association. The organizations agreed to collaborate to enhance the educational opportunities for providers of stroke care at all levels of practice. Continuing Education credit is provided by each sponsoring facility.
- The goal of this group was to provide evidence-based education emphasizing best nursing practice and patient outcomes.
- All area hospitals, organizations, and institutions involved in stroke care were invited to participate in this consortium.
- The first 4-hour program offered was sponsored by the American Heart Association/American Stroke Association on February 22, 2005 - "Anatomy to Outcomes: An Overview of Stroke A&P and Outcome Management."
- The AHA/ASA facilitated meetings, provided facilities and administrative support. This allowed all organizations to meet in a neutral zone, which helped provide a collaborative environment for all. (No power struggles, conflicts of interest or competition)

## **2006:**

- As the group expanded, a need to spell out expectations and guidelines for membership were identified.
- A Collaborative Agreement was developed by members of the consortium. This document outlined the expectations for each member as well as responsibilities and attendance.
- The Mission Statement was outlined in the first sentence "To facilitate clinical stroke education and improve patient outcomes through collegiality and collaboration."
- All program content is to adhere to the Brain Attack Coalition guidelines or Evidence-Based practice guidelines. Evidence-Based education will emphasize best nursing practice and patient outcomes.
- A confidentiality clause was added that specifies appropriate conduct and use of information by each member. At no time will any member use information shared via meeting agendas, minutes, communications, email, or verbally to harm, threaten or discredit another organization or individual.
- Additional guidelines included requirements for membership.
- The Stroke Program Coordinator or designee from each organization will serve as the representative to the consortium.
- Each Healthcare Facility will plan and provide one 4-hour education program each year, including all program costs, CEU's and materials. If an organization is licensed for 100 or fewer beds - they can choose to provide their program every 2 years or partner with another member hospital.
- Supporting industries (Pharmacological Companies) are not required to provide CE programs as well as non-profit agency members (American Stroke Foundation), but still have full member benefits and are encouraged to partner with member hospitals to provide education in area of expertise.
- Program brochures are developed by the sponsoring/hosting organization and will include: Title of the presentation, course objectives, course outline, location, speakers, time and date along with registration information.
- Program Implementation Tools are provided to each institution - brochure template and logo, standardized evaluation form and needs assessment.

# BI-STATE CONTRACT AGREEMENT

## 2020/2021 Bi-State Stroke Consortium Guidelines

**Mission Statement:** Facilitate clinical stroke education and improve patient outcomes through collegiality and collaboration.

**Purpose of Consortium:** The Bi-State Stroke Consortium is committed to optimizing stroke continuum of care through quality improvement initiatives, professional networking, and education utilizing evidence based practices.

1. Participating institutions must agree to plan and provide one, four hour continuing education program annually, which is free to all consortium members and all EMS personnel. The institution must provide continuing nursing education credit and agree to incur all costs associated with the provision of the program. A fee, to be determined by the institution, may be charged to non-consortium members. Supporting industries are not required to provide CE programs but are still entitled to full benefits. Exempt from the requirement are hospitals licensed for 100 or fewer beds. Those hospitals can choose to provide a continuing education program every 2 years or partner with another member. Not for profit agency members are not required to host a program but encouraged to partner with a hospital member to provide education on their area of expertise.
2. Consortium Committee Members of the Bi-State Stroke Consortium will regularly/actively participate in either the monthly planning meetings, Consortium correspondence, or the planning and execution of the annual Stroke Symposium. "Regular and active" terms indicate that a representative attends at least 6 meetings in a calendar year, responds positively to group email requests, and will present a best practice, article review, or case study once a year. This group is facilitated by the American Heart/Stroke Association and all members will exercise confidentiality.
3. CONFIDENTIALITY: At no time will members use information shared within the scope of this collaborative to harm, threaten, or discredit another organization (including non-members). Improved patient outcomes and treatment and systems of care throughout the region is paramount. Failure to comply with this confidentiality clause may result in the exclusion of either the member and/or organization from the Bi-State Stroke Consortium.
4. Members of the Bi-State Stroke Consortium are allowed to attend the annual Stroke Symposium at no charge.
5. Members of the Bi-State Stroke Consortium should adhere to the following guidelines for their CE annual program:
  - a. Program content is determined by institution needs assessment and education plan.
  - b. All program content will adhere to the Brain Attack Coalition Guidelines or evidence based practice.
  - c. The goal is to announce the program approximately six weeks prior to the program. Consortium Committee members will distribute to staff at their institution. The AHA designee will post the brochure on the Bi-State web page and keep on file a summary of the program content for purposes of planning future meetings or symposia. Event announcements will include the following:

- i. The Bi-State Stroke Consortium logo (clip art image seen above) should be placed on all brochures.
- ii. Promotional brochures or day of event handouts should promote that year's Annual Stroke Symposium and ensure that such information will include appropriate registration fees, as this is a non-Consortium event – even though it is planned by the same committee.
- d. Pre-registration is required and space may be limited by the provider on a first come first serve and/or space available basis to providing institution.
- e. The sponsoring agency reserves the right to cancel and reschedule the program at their discretion provided 6 weeks' notice is given to Consortium leadership.
- f. Consortium Committee members will represent the Consortium and its activities to their organizations
- g. Vendor/pharmaceutical support will be up to each institution's availability/cost to determine support/participation - vendors/pharma who are interested need to contact the monthly site coordinator for further details.
- h. A summary of the program evaluations with total attendance number, attendance by organization, CE evaluation summary, and Bi-State Stroke Consortium survey must be sent to the AHA designee for monitoring of programs.
- i. The Bi-State Stroke Consortium is committed to optimizing stroke continuum of care through quality improvement initiatives which will require participation of all Consortium members in gathering and sharing data, respect of individual strengths when professional networking among the members, and providing unbiased education that is scientific evidence based.

\_\_\_\_\_ (organization name) agrees to provide a representative from our organization to participate as a committee member of the Bi-State Stroke Consortium, will adhere to the above guidelines and, will update AHA designee if the named representative changes. This agreement is in effect until December 31, 2021.

\_\_\_\_\_  
 Organization Representative Signature

\_\_\_\_\_  
 Date

\_\_\_\_\_  
 Printed name

# MORE INFORMATION ABOUT BISTATE FUNCTIONS

## Annual Stroke Symposium

The Bistate Stroke Committee helps the American Heart Association plan an annual Stroke Symposium that is usually the first Friday in November each year. This Symposium awards EMS, RN and Provider contact hours. Our AHA representative will start the planning process early in each year and the planning committee meets monthly.

## Co-Chairs

Each year, Co-chairs are nominated for the Bistate group. There is usually one co-chair from Missouri and one from Kansas. These co-chairs each serve a two year commitment with the group and change out yearly so that there is always an experienced co-chair in the group. The AHA representative will ask for volunteers for this role when there are vacancies. Roles include: helping plan meetings with AHA representation approximately 1 week before larger group meeting, being present on the planning committee for the annual stroke symposium and being a resource for anything else needed.

## Brainsaver Award

- **Purpose:** To recognize courageous acts in recognizing the warning signs of stroke and taking action to promote early intervention and treatment, advancing the mission of the American Stroke Association.
- **Eligibility:** Anyone, outside of a clinical setting, who recognizes the warning signs of stroke and takes action to promote a rapid response to prevent damage to the brain. To be recognized at the Awards Ceremony on November 5, 2021, the event must have taken place August 2020 through August 2021. Recipients must reside in either Kansas or Missouri.
- **Nominations:** In 1500 words or less, describe the event and the actions taken to promote early stroke intervention.
  - Some items to include in the nomination:
    - Describe the stroke survivor: age, occupation, personality, impact on community.
    - What they were doing at the time of the onset of symptoms?
    - Describe the person(s) who recognized the event: age, occupation, training, response.
    - What was the interaction between the person and emergency services?
    - How did this person(s) act courageously?
    - How did the stroke survivor respond to treatment?
    - How is the stroke survivor today?
    - What impact did this have on your life?
    - Was there an impact on the community?
  - Provide a detailed description of how the person taking action demonstrated courage and conviction in the event.
  - Nominees must have first-hand knowledge of the acute event
  - Consent to share the story of both the stroke survivor and respondent is mandatory for the nomination. In the event the stroke survivor does not wish to be named but the responder should still be recognized, please indicate on the Nomination Form.
  - Award recipients will be honored on Friday, November 5, 2021 at the 23rd Annual Stroke Symposium at Arrowhead Stadium. Families and colleagues may be invited to attend the awards ceremony portion of the Symposium. The stroke survivor and their families/friends are also encouraged to attend.
- **Submission**
  1. Nominations may be submitted at any time. However to be considered for the current years' conference, nominations must be submitted by date determined by AHA Representative

2. Nominations will be blinded and reviewed by the Stroke Symposium Committee for selection.
3. Two Brain Saver Awards can be given annually at the Stroke Symposium one for emergency response personnel and another for community responder.

# PROFESSIONAL ORGANIZATIONS & EDUCATION

*You may consider joining the following Organizations to help you network*

# AMERICAN ASSOCIATION OF NEUROSCIENCE NURSES (AANN)

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- AANN supports your professional development through quality education opportunities, collaboration and networking in local chapters, discounts on neuroscience products, and more!
- [American Association of Neuroscience Nurses \(aann.org\)](http://aann.org)
- Local Chapter of AANN (Kansas City): [The AANN MoKan Chapter | Nursing Network](#)

# ASSOCIATION OF STROKE COORDINATORS

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- **Contact:** Jane Puszkar, [rjpuszkar@att.net](mailto:rjpuszkar@att.net)
- **Website:** [The Association of Stroke Coordinators](#)
- **Mission:** It is the mission of the Association of Stroke Coordinators (ASC) to improve care for patients and families who have experienced a stroke. Established in 2011, the ASC is a not-for-profit organization founded in the state of Missouri that meets bi-monthly to discuss stroke related topics and actions to improve stroke care. We believe that by helping each other navigate the world of stroke and sharing best practices with this group, all can benefit from the experiences each of us have had.
- We welcome new and experienced stroke coordinators, as well as other professionals directly involved in stroke care. The members of ASC, representing clinical nursing professionals involved in stroke care are invited to serve and observe various committees within this group. Our main objective is the education of ourselves and the communities in which we serve.

# ASSOCIATION OF NEUROVASCULAR CLINICIANS (ANVC)

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- **Contact:** info@anvc.org
- **Website:** <https://www.anvc.org/>
- **About:** The Association of Neurovascular Clinicians (ANVC) is an organization of stroke professionals dedicated to improving quality and access to acute stroke care. The organization was formed to meet the needs of interdisciplinary health professionals engaged in the care of stroke patients, and is the only stroke-specific professional membership organization for non-physicians in the world. Multiple neurovascular stroke certifications are available in addition to annual conferences and monthly continue education opportunities.
- **Certifications through ANVC:**
  - **Advanced Stroke Coordinator (ASC):** The ASC Certification examination is the only certification that recognizes the unique and essential contributions of a stroke coordinator. Attainment of ASC-BC status demonstrates expertise in stroke competencies including understanding and mastery of skills used to diagnose stroke, evidence-based management of principles for both ischemic and hemorrhagic stroke, knowledge of role history and role evolution, stroke data collection, data analysis methods, data presentation, quality management, and principles and strategies supporting effective adult education, change mastery, and time management. Review courses supporting attainment of the ASC-BC credential are available throughout the year. Exams can be take year-round at Prometric Test Centers.
  - **Advanced Neurovascular Practitioner (ANVP):** The ANVP certification examination is the premier certification in acute neurovascular clinical practice for advanced practice providers (APP). Attainment of ANVP-BC status demonstrates APP expertise in the assessment, medical diagnosis by localization and neuroimaging interpretation, and hyperacute treatment decision-making for highly vulnerable acute stroke patients. The ANVP's incorporation of key pathophysiologic concepts and evolving research findings also ensures expertise in methods for establishment of stroke pathogenic mechanisms with related secondary prevention knowledge and competencies. The advanced scope of practice tested by the exam has made the ANVP-BC credential an important requirement at numerous acute care practice sites that aim to use APPs in expanded roles supporting telemedicine, mobile stroke units, and emergency stroke response. Exam eligibility is supported by strict criteria, ensuring certification of clinicians capable of combining theoretical knowledge with expert hands-on clinical practice skills. Review courses supporting attainment of the ANVP-BC credential are available throughout the year. Exams can be taken year-round at Prometric Test Centers.

# NEUROVASCULAR REGISTERED NURSE (NVRN):

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- The NVRN certification examination is the only certification for registered nurses that focuses exclusively on acute neurovascular care. Attainment of the NVRN-BC status demonstrates nursing expertise in the provision of acute neurovascular care to highly vulnerable, hospitalized, acute stroke patients. The NVRN certification was the first stroke certification recognized by Magnet and has been continuously available since 2011. Review courses supporting attainment of the NVRN-BC credential are available throughout the year. Exams can be taken year-round at Prometric Testing Centers.
- **Certified Neuro-Interventional Clinician (CNIC)**: Coming soon!

# AMERICAN BOARD OF NEUROSCIENCE NURSING

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- ABNN is solely responsible for the development, administration, and evaluation of the [Certified Neuroscience Registered Nurse](#) (CNRN®) and [Stroke Certified Registered Nurse](#) (SCRN®) certification and recertification programs. The mission of ABNN is to promote and advance the practice of neuroscience nursing through specialty certification. ABNN's vision is that every person with neurological health needs receives care from ABNN certified registered nurses.

# CERTIFIED NEURO REGISTERED NURSE (CNRN)

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- The Certified Neuroscience Registered Nurse (CNRN®) is the only credential that represents an all-encompassing knowledge of and experience with fundamental neuroscience nursing concepts. If you treat patients with neurological trauma, chronic illnesses, tumors, infections, seizures, and other conditions in your daily practice, then the CNRN credential may be ideal for your career growth.
- For more information, visit: [About the CNRN Exam | ABNN Certification](#)

# STROKE CERTIFIED REGISTERED NURSE (SCRN) CERTIFICATION

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- Expand your expertise in stroke nursing with the SCRN® certification, designed to promote excellence and professionalism in stroke patient care. As a stroke nurse, you can offer stroke patients hyperacute, acute, and post-acute care, as well as secondary and preventative care. With an SCRN certification, you can advance your career while providing better outcomes for your patients.
  - For more information, visit: [About the SCRN Credential | ABNN Certification](#)

# IMPORTANT EDUCATION LINKS

- **NIHSS Websites & Training:**

<http://core.la/resources/career-vitals/nihss-instructions.pdf>

<https://dcu.musc.edu/campus/>

- **Modified Rankin Training:**

<https://dcu.musc.edu/campus/>

# COORDINATOR-SPECIFIC RESOURCES

# EXAMPLE STROKE PATIENT FOLLOW-UP PHONE CALL TEMPLATE

**Information Source:** *{Insert Drop-Down List: Patient, Caregiver\*\*\*, Translator\*\*\*, Spouse\*\*\*, Child\*\*\*, Parent\*\*\*, Other\*\*\*}*

*(insert description of phone conversation and patient assessment/plan here)*

- **Current Estimate mRS:** *{Insert Drop-Down List: 0 - No symptoms at all; 1 - No significant disability despite symptoms, able to carry out all usual duties/activities; 2 - Slight disability, unable to carry out all previous activities but able to look after own affairs without assistance; 3 - Moderate disability, requiring some help but able to walk without assistance; 4 - Moderate to severe disability, unable to walk without assistance & unable to attend to own bodily needs without assistance; 5 - Severe disability, bedridden, incontinent, & requiring constant nursing care and attention; 6 - Patient expired}*
- **Walking?** Y/N
- **Experiencing Depression?** \*\*\*
- **Experiencing Fatigue?** \*\*\*

**Stroke Risk Factors Reviewed:** *{Insert Drop-Down List: yes, no, declined}*

- Hypertension? *{Insert Drop-Down List: Hx of HTN/No hx of HTN/unknown/na}*
  - Checking BP at Home? *{Insert Drop-Down List: yes/no/unknown/maybe/na}*
- Elevated Cholesterol? *{Insert Drop-Down List: Hx of HLD/No hx of HLD/unknown/na}* }
  - Taking a Statin? *{Insert Drop-Down List: yes/no/unknown/na}*
- Smoking History? \*\*\*
- Diabetes? \*\*\*
- Atrial Fibrillation? \*\*\*
- Medication Adherence? *{Insert Drop-Down List: Not currently on medications for this problem; taking as prescribed; Not taking \*\*\* as prescribed; Adverse effects: \*\*\*; Medication Compliance Problems: \*\*\*; Medication Management Problems: \*\*\*; Other: \*\*\*}*
  - Barriers to Medication Adherence: *{Insert Drop-Down List: Cost of Medications; Access to pharmacy/pharmacy services; Health Literacy; Medication Side Effects; None; Other: \*\*\*}*

**Follow-Up Appointments?**

- **Neurology?** \*\*\*
- **PCP?** \*\*\*
- **Other?** \*\*\*

**Stroke Education Provided:** *{Insert Drop-Down List: yes, no, declined} {Insert Drop-Down List: Verbalized Understanding; Unable to Verbalize Understanding; Return Demonstration; Unable to Demonstrate Understanding; More Instruction Required}*

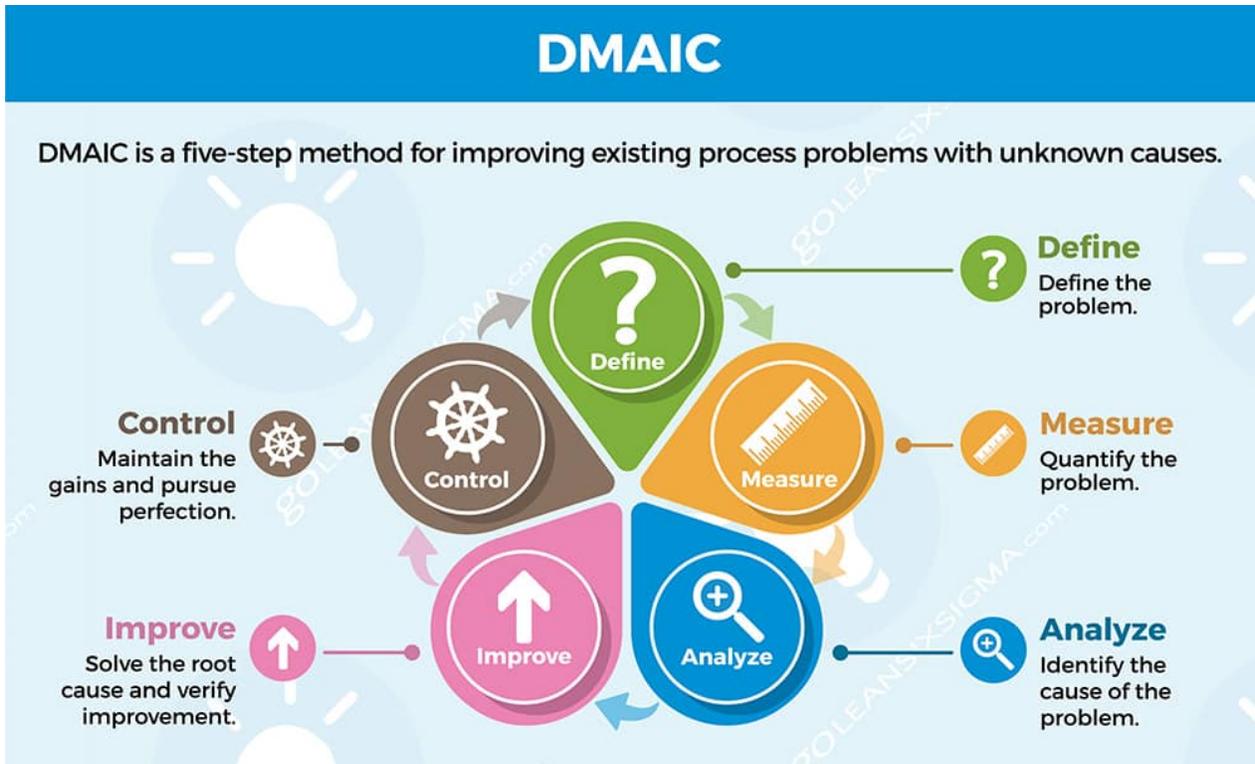
# QUALITY IMPROVEMENT TECHNIQUES

## PLAN, DO, CHECK, ACT (PDCA OR PDSA)



<https://www.siteware.co/methodologies/what-is-the-pdca-cycle/>

# DEFINE, MEASURE, ANALYZE, IMPROVE, CONTROL (DMAIC) - SIX SIGMA



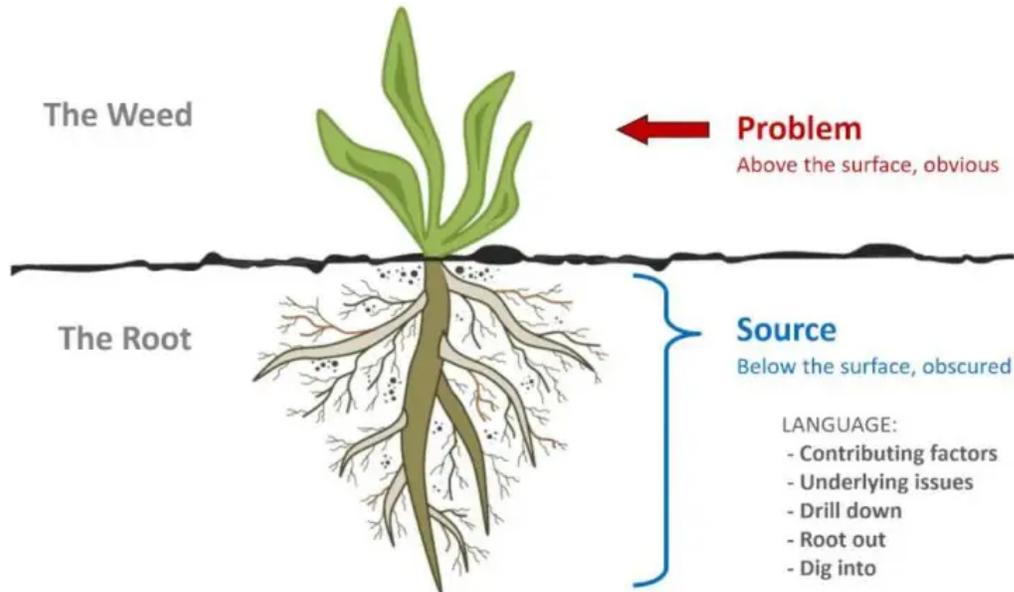
[DMAIC - The 5 Phases of Lean Six Sigma | GoLeanSixSigma.com](http://GoLeanSixSigma.com)



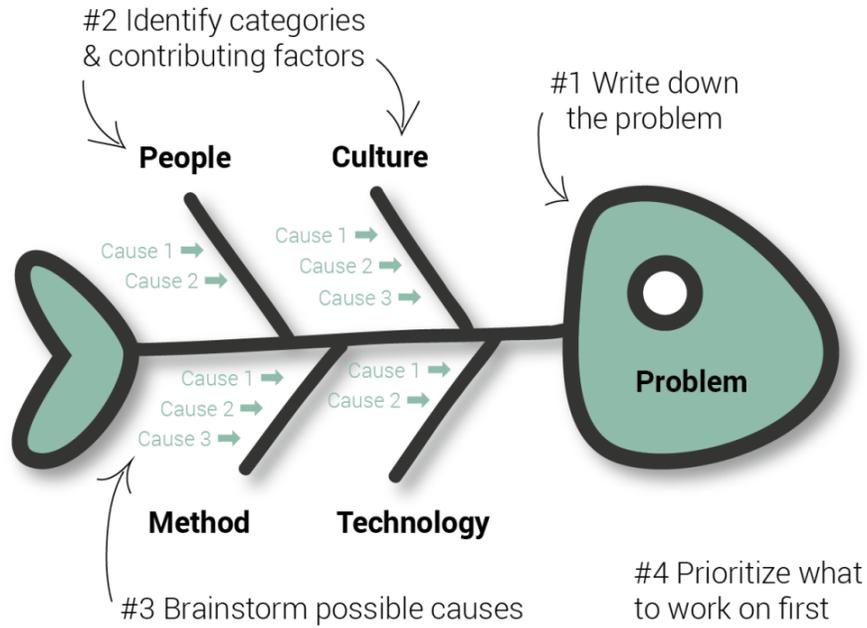
[Black Belt training benefits companies, customers - Today's Medical Developments \(todaysmedicaldevelopments.com\)](http://todaysmedicaldevelopments.com)

# ROOT CAUSE ANALYSIS (RCA)

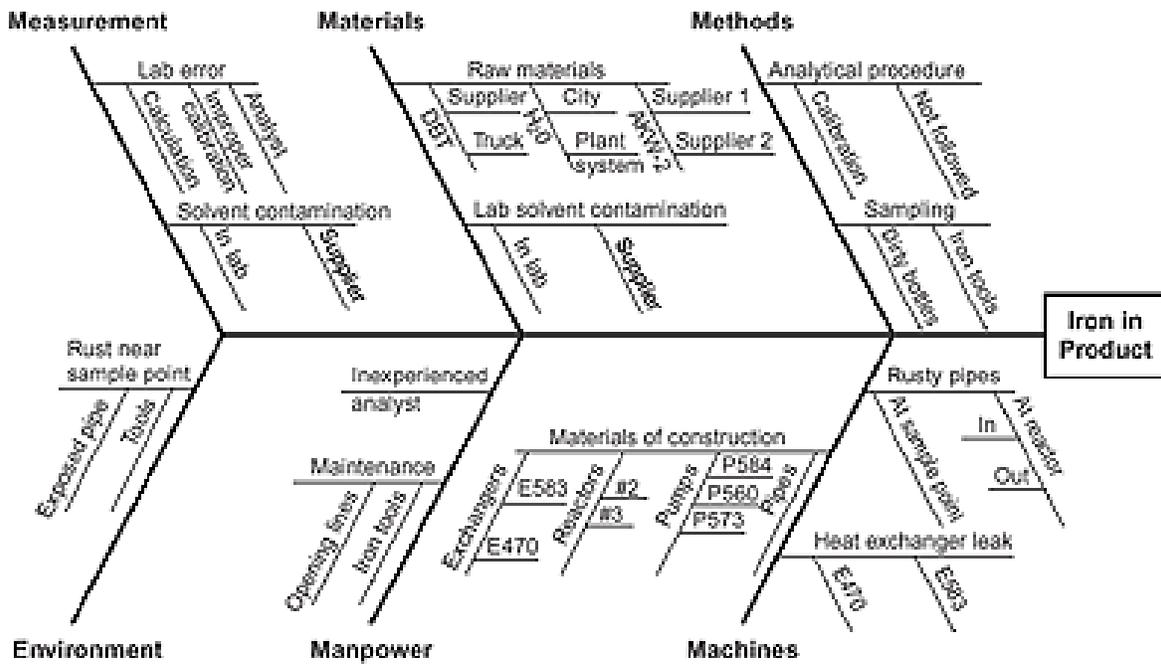
## Root Cause Analysis - The Concept



# FISHBONE DIAGRAM



[Fishbone Diagram: A Tool to Organize a Problem's Cause and Effect \(utah.edu\)](http://utah.edu)



[What is a Fishbone Diagram? Ishikawa Cause & Effect Diagram | ASQ](#)

# STROKE RESEARCH

This section should be updated according to your facility's structure or removed if your facility does not have a Research requirement.

→ **ACSC Requirements:**

- ◆ Must be participating in patient-centered (clinical) stroke research that is approved by the Institutional Review Board.
- ◆ Written research protocol for current stroke research

→ **Insert Name of Research:**

- ◆ Description of research
- ◆ Description of potential outcome
- ◆ **PI:** PI Name here

→ **Insert Name of Research:**

- ◆ Description of research
- ◆ Description of potential outcome
- ◆ **PI:** PI Name here

→ **Insert Name of Research:**

- ◆ Description of research
- ◆ Description of potential outcome
- ◆ **PI:** PI Name here