**Table of Contents**

- **Door To Arterial Puncture Times (Comprehensive)**
- **Median Time to INR Reversal (Comprehensive)**
- **Median Time to Procoagulant Treatment for Intracerebral Hemorrhage (ICH) (Comprehensive)**
- **Thrombolysis in Cerebral Infarction (TICI) Post-Treatment Reperfusion Grade (Comprehensive)**

**GWTG Comprehensive Stroke Pilot, Historic Measures:**

- Intracranial Hemorrhagic Complication, Intra-arterial thrombolytic therapy alone (Comprehensive, Historic)
- Intracranial Hemorrhagic Complication, IV (PA alone (Comprehensive, Historic)
- Intracranial Hemorrhagic Complication, IV (PA + Intra-arterial thrombolytic therapy (Comprehensive, Historic)
- Median time to recanalization (Comprehensive, Historic)
- National Institutes of Health Stroke Scale (NIHSS) Score on Arrival (Comprehensive, Historic)
- Nimodipine Treatment Initiated (Comprehensive, Historic)
- Procoagulant reversal agent initiated (Comprehensive, Historic)
- Severity Measurement on Arrival – Intracerebral Hemorrhage (ICH) (Comprehensive, Historic)
- Severity Measurement on Arrival – Subarachnoid Hemorrhage (SAH) (Comprehensive, Historic)
- Thrombolysis in Cerebral Infarction (TICI) Post-Treatment Reperfusion Grade 2B or 3 (Comprehensive, Historic)

**Note:** *Data field is from the Post Discharge Follow-up Form*

**Please note:** Get With the Guidelines aggregate comparative data is intended for internal quality improvement. Permission is required from the American Heart Association and Quintiles for external presentation or publication of benchmark data.

**Door To Arterial Puncture Times (Comprehensive):** Time from arrival to arterial puncture for ischemic stroke patients treated at my hospital with IA catheter-based treatment.

<table>
<thead>
<tr>
<th>Description</th>
<th>Pertinent Form Fields</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Denominator</strong></td>
<td></td>
</tr>
<tr>
<td>Include</td>
<td>Final clinical diagnosis related to stroke: Ischemic Stroke AND IA catheter-based treatment at this hospital?: Yes</td>
</tr>
<tr>
<td>Patients with a primary stroke diagnosis of ischemic stroke who received IA catheter based treatment at my hospital</td>
<td></td>
</tr>
<tr>
<td>Exclude</td>
<td>Age: &lt;18 OR Patient location when stroke symptoms discovered: Stroke occurred after hospital arrival (in ED/Obs/inpatient) OR Arrival Date/Time: is blank or unknown or just MM/DD/YYYY OR Arterial puncture Date/Time: is blank or unknown or just MM/DD/YYYY OR Arterial puncture Date/Time &lt; Arrival Date/Time OR During this hospital stay, was the patient enrolled in a clinical trial in</td>
</tr>
</tbody>
</table>
## Median Time to INR Reversal (Comprehensive)

The median time to INR reversal in patients treated with procoagulant reversal agent for warfarin related ICH was studied. The patient was admitted for the sole purpose of performance of elective carotid intervention.

### Display

<table>
<thead>
<tr>
<th>Description</th>
<th>Pertinent Form Fields</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Arterial puncture Date/Time - Arrival Date/Time</strong></td>
<td><strong>Final Clinical Diagnosis Related to Stroke:</strong> Intracerebral Hemorrhage</td>
</tr>
<tr>
<td></td>
<td><strong>Antiplatelet or Anticoagulant Medication(s) (medications prior to admission):</strong> Yes</td>
</tr>
<tr>
<td></td>
<td><strong>Anticoagulant:</strong> warfarin (Coumadin)</td>
</tr>
<tr>
<td></td>
<td><strong>INR:</strong> ≥ 1.4</td>
</tr>
<tr>
<td></td>
<td><strong>Is there documentation that a procoagulant reversal agent was initiated at this hospital?:</strong> Yes</td>
</tr>
</tbody>
</table>

### Denominator

**Include**

- Patients with intracerebral hemorrhage (ICH) with an INR ≥ 1.4 due to warfarin anticoagulation treated with procoagulant

**Exclude**

- Age < 18 years
- Comfort Measures Only documented on day of arrival or day after arrival
- Blank or missing procoagulant initiated date/time
- Blank or missing time for INR < 1.4
- Patients with a length of stay > 120 days
- Stroke occurred after hospital arrival (in ED/Obs/inpatient)
- Clinical Trial
- Elective Carotid Intervention

**Age:** < 18

**When is the earliest documentation of comfort measures only?:** Day 0 or 1

**Arrival Date/Time – Date/Time Last Known Well:** > 24 hours

**Date/Time procoagulant initiated:** is blank, unknown, or just MM/DD/YYYY

**If initial INR ≥ 1.4 and treated with procoagulant, Date/Time first INR ≤ 1.4 after treatment:** is blank, unknown, or just MM/DD/YYYY
### Median Time to Procoagulant Treatment for Intracerebral Hemorrhage (ICH) (Comprehensive)

Median time to treatment with a procoagulant reversal agent for warfarin related ICH

<table>
<thead>
<tr>
<th>Description</th>
<th>Pertinent Form Fields</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Denominator</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Include</strong></td>
<td></td>
</tr>
<tr>
<td>• Patients with intracerebral hemorrhage (ICH) with an INR ≥ 1.4 due to warfarin anticoagulation treated with procoagulant</td>
<td><strong>Final Clinical Diagnosis Related to Stroke:</strong> Intracerebral Hemorrhage AND <strong>Antiplatelet or Anticoagulant Medication(s) (medications prior to admission):</strong> Yes AND <strong>Anticoagulant:</strong> warfarin (Coumadin)] AND <strong>INR:</strong> ≥ 1.4 AND <strong>Is there documentation that a procoagulant reversal agent was initiated at this hospital?:</strong> Yes</td>
</tr>
<tr>
<td><strong>Exclude</strong></td>
<td></td>
</tr>
<tr>
<td>• Age &lt; 18 years</td>
<td><strong>Age:</strong> &lt; 18 OR <strong>When is the earliest documentation of comfort measures only?:</strong> Day 0 or 1 OR <strong>Arrival Date/Time:</strong> is blank, unknown, or just MM/DD/YYYY OR <strong>Date/time procoagulant initiated:</strong> is blank, unknown, or just MM/DD/YYYY</td>
</tr>
</tbody>
</table>
Thrombolysis in Cerebral Infarction (TICI) Post-Treatment Reperfusion Grade (Comprehensive): Patients grouped by Thrombolysis in Cerebral Infarction (TICI) Post-Treatment Reperfusion Grade

<table>
<thead>
<tr>
<th>Description</th>
<th>Pertinent Form Fields</th>
</tr>
</thead>
</table>
| Include     | Final clinical diagnosis related to stroke: Ischemic Stroke  
AND  
IA catheter-based treatment at this hospital?: Yes |
| Exclude     | Age <18  
OR  
Patient location when stroke symptoms discovered: Stroke occurred after hospital arrival (in ED/Obs/inpatient)  
OR  
Discharge Date - Arrival Date > 120 days  
OR  
During this hospital stay, was the patient enrolled in a clinical trial in which patients with the same condition as the measure set were being studied?: Yes  
OR  
Was this patient admitted for the sole purpose of performance of elective carotid intervention?: Yes |

**Elective Carotid Intervention**

MM/DD/YYYY

OR

**Discharge Date** – **Admission Date**: > 120 days

OR

**Patient location when stroke symptoms discovered**: Stroke occurred after hospital arrival (in ED/Obs/inpatient)

OR

**During this hospital stay, was the patient enrolled in a clinical trial in which patients with the same condition as the measure set were being studied?**: Yes

OR

**Was this patient admitted for the sole purpose of performance of elective carotid intervention?**: Yes

Display

a.) Percent of patients in 20-minute intervals based on time from arrival to time of initiation of procoagulant

*(A categorical graph with 15 bars: Twelve 20-minute intervals from 0-260 min., one 10 min interval for 260-270, one interval for >270 min.)*

b.) Statistics: Mean, Standard Deviation, Median, and Range of time from arrival to time of administration of procoagulant
## Intracranial Hemorrhagic Complication, Intra-arterial thrombolytic therapy alone (Comprehensive, Historic)

Percent of ischemic stroke patients treated with IA catheter-based reperfusion therapy at this hospital that develop intracranial hemorrhagic complications within 36 hours of treatment

<table>
<thead>
<tr>
<th>Denominator</th>
<th>Pertinent Form Fields</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Include</strong></td>
<td><strong>Final clinical diagnosis related to stroke:</strong> Ischemic Stroke AND <strong>IA catheter-based treatment at this hospital:</strong> Yes</td>
</tr>
<tr>
<td>Age &lt; 18 years</td>
<td><strong>Age:</strong> &lt;18 OR <strong>Patient location when stroke symptoms discovered:</strong> Stroke occurred after hospital arrival (in ED/Obs/inpatient) OR <strong>Discharge Date - Arrival Date</strong> &gt; 120 days OR <strong>IV tPA initiated at this hospital?</strong> Yes OR <strong>IV tPA at an outside hospital?</strong> Yes OR <strong>IA catheter-based treatment at outside hospital:</strong> Yes OR <strong>During this hospital stay, was the patient enrolled in a clinical trial in which patients with the same condition as the measure set were being studied?</strong> Yes OR <strong>Was this patient admitted for the sole purpose of performance of elective carotid intervention?</strong> Yes</td>
</tr>
<tr>
<td>Stroke occurred after hospital arrival (in ED/Obs/inpatient)</td>
<td><strong>Age:</strong> &lt;18 OR <strong>Patient location when stroke symptoms discovered:</strong> Stroke occurred after hospital arrival (in ED/Obs/inpatient) OR <strong>Discharge Date - Arrival Date</strong> &gt; 120 days OR <strong>IV tPA initiated at this hospital?</strong> Yes OR <strong>IV tPA at an outside hospital?</strong> Yes OR <strong>IA catheter-based treatment at outside hospital:</strong> Yes OR <strong>During this hospital stay, was the patient enrolled in a clinical trial in which patients with the same condition as the measure set were being studied?</strong> Yes OR <strong>Was this patient admitted for the sole purpose of performance of elective carotid intervention?</strong> Yes</td>
</tr>
<tr>
<td>Patients with a Length of Stay &gt; 120days</td>
<td><strong>Age:</strong> &lt;18 OR <strong>Patient location when stroke symptoms discovered:</strong> Stroke occurred after hospital arrival (in ED/Obs/inpatient) OR <strong>Discharge Date - Arrival Date</strong> &gt; 120 days OR <strong>IV tPA initiated at this hospital?</strong> Yes OR <strong>IV tPA at an outside hospital?</strong> Yes OR <strong>IA catheter-based treatment at outside hospital:</strong> Yes OR <strong>During this hospital stay, was the patient enrolled in a clinical trial in which patients with the same condition as the measure set were being studied?</strong> Yes OR <strong>Was this patient admitted for the sole purpose of performance of elective carotid intervention?</strong> Yes</td>
</tr>
<tr>
<td>Patients treated with IV tPA at your hospital</td>
<td><strong>Age:</strong> &lt;18 OR <strong>Patient location when stroke symptoms discovered:</strong> Stroke occurred after hospital arrival (in ED/Obs/inpatient) OR <strong>Discharge Date - Arrival Date</strong> &gt; 120 days OR <strong>IV tPA initiated at this hospital?</strong> Yes OR <strong>IV tPA at an outside hospital?</strong> Yes OR <strong>IA catheter-based treatment at outside hospital:</strong> Yes OR <strong>During this hospital stay, was the patient enrolled in a clinical trial in which patients with the same condition as the measure set were being studied?</strong> Yes OR <strong>Was this patient admitted for the sole purpose of performance of elective carotid intervention?</strong> Yes</td>
</tr>
<tr>
<td>Patients that received IV tPA or IA tPA at an outside hospital prior to transfer to your hospital</td>
<td><strong>Age:</strong> &lt;18 OR <strong>Patient location when stroke symptoms discovered:</strong> Stroke occurred after hospital arrival (in ED/Obs/inpatient) OR <strong>Discharge Date - Arrival Date</strong> &gt; 120 days OR <strong>IV tPA initiated at this hospital?</strong> Yes OR <strong>IV tPA at an outside hospital?</strong> Yes OR <strong>IA catheter-based treatment at outside hospital:</strong> Yes OR <strong>During this hospital stay, was the patient enrolled in a clinical trial in which patients with the same condition as the measure set were being studied?</strong> Yes OR <strong>Was this patient admitted for the sole purpose of performance of elective carotid intervention?</strong> Yes</td>
</tr>
<tr>
<td>Clinical Trial</td>
<td><strong>Age:</strong> &lt;18 OR <strong>Patient location when stroke symptoms discovered:</strong> Stroke occurred after hospital arrival (in ED/Obs/inpatient) OR <strong>Discharge Date - Arrival Date</strong> &gt; 120 days OR <strong>IV tPA initiated at this hospital?</strong> Yes OR <strong>IV tPA at an outside hospital?</strong> Yes OR <strong>IA catheter-based treatment at outside hospital:</strong> Yes OR <strong>During this hospital stay, was the patient enrolled in a clinical trial in which patients with the same condition as the measure set were being studied?</strong> Yes OR <strong>Was this patient admitted for the sole purpose of performance of elective carotid intervention?</strong> Yes</td>
</tr>
<tr>
<td>Elective Carotid Intervention</td>
<td><strong>Age:</strong> &lt;18 OR <strong>Patient location when stroke symptoms discovered:</strong> Stroke occurred after hospital arrival (in ED/Obs/inpatient) OR <strong>Discharge Date - Arrival Date</strong> &gt; 120 days OR <strong>IV tPA initiated at this hospital?</strong> Yes OR <strong>IV tPA at an outside hospital?</strong> Yes OR <strong>IA catheter-based treatment at outside hospital:</strong> Yes OR <strong>During this hospital stay, was the patient enrolled in a clinical trial in which patients with the same condition as the measure set were being studied?</strong> Yes OR <strong>Was this patient admitted for the sole purpose of performance of elective carotid intervention?</strong> Yes</td>
</tr>
</tbody>
</table>

| Numerator | |
|-----------||
| Patients with complications to thrombolytic therapy, defined as a 4 or more point increase in NIHSS accompanied by neuroimaging evidence of intracranial hemorrhage within 36 hours of treatment or death. | **Was there a clinical deterioration within 36 hours of the onset of treatment with IV or IA pharmacologic thrombolytic therapy, or endovascular reperfusion procedure?** Yes |
Intracranial Hemorrhagic Complication, IV tPA alone (Comprehensive, Historic): Percent of ischemic stroke patients treated with IV tPA at this hospital that develop intracranial hemorrhagic complications within 36 hours of treatment

<table>
<thead>
<tr>
<th>Description</th>
<th>Pertinent Form Fields</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Denominator</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Include</strong></td>
<td></td>
</tr>
<tr>
<td>Patients with a primary stroke diagnosis of ischemic stroke who received IV t-PA at my hospital</td>
<td><strong>Final clinical diagnosis related to stroke</strong>: Ischemic Stroke AND IV tPA initiated at this hospital?: Yes</td>
</tr>
<tr>
<td><strong>Exclude</strong></td>
<td></td>
</tr>
<tr>
<td>Age &lt; 18 years</td>
<td>Age: &lt;18 AND OR</td>
</tr>
<tr>
<td>Stroke occurred after hospital arrival (in ED/Obs/inpatient)</td>
<td>OR Patient location when stroke symptoms discovered: Stroke occurred after hospital arrival (in ED/Obs/inpatient) OR Discharge Date - Arrival Date &gt; 120 days</td>
</tr>
<tr>
<td>Patients with a length of stay &gt;120 days</td>
<td>OR IV tPA at an outside hospital?: Yes AND OR IA catheter-based treatment at outside hospital?: Yes OR IA catheter-based treatment at this hospital?: Yes</td>
</tr>
<tr>
<td>Patients that received IV tPA or IA tPA at an outside hospital prior to transfer to your hospital</td>
<td>OR During this hospital stay, was the patient enrolled in a clinical trial in which patients with the same condition as the measure set were being studied?: Yes</td>
</tr>
</tbody>
</table>
**Table of Contents**

**Intracranial Hemorrhagic Complication, IV tPA + Intra-arterial thrombolytic therapy (Comprehensive, Historic):** Percent of ischemic stroke patients treated with IV tPA followed by IA catheter-based reperfusion therapy at this hospital that develop intracranial hemorrhagic complications within 36 hours of treatment

### Numerator

Patients with complications to thrombolytic therapy, defined as a 4 or more point increase in NIHSS accompanied by neuroimaging evidence of intracranial hemorrhage within 36 hours of treatment or death.

### Denominator

#### Include

- Patients with a primary stroke diagnosis of ischemic stroke treated with intra-arterial thrombolytic therapy at my hospital

#### Exclude

- Age < 18 years
- Stroke occurred after hospital arrival (in ED/Obs/inpatient)
- Patients with a Length of Stay > 120 days
- Patients that received IV tPA or IA tPA at an outside hospital prior to transfer to your hospital
- Clinical Trial
- Elective Carotid Intervention

### Description

Was this patient admitted for the sole purpose of performance of elective carotid intervention?: Yes

Was there a clinical deterioration within 36 hours of the onset of treatment with IV or IA pharmacologic thrombolytic therapy, or endovascular reperfusion procedure?: Yes

AND

( Highest NIHSS within 36 hours of IV or IA pharmacologic thrombolytic therapy, or endovascular reperfusion procedure – NIHSS that most closely preceded treatment with IV or IA pharmacologic thrombolytic therapy, or endovascular reperfusion procedure: ≥ 4

AND

Neuroimaging evidence of hemorrhagic complication within 36 hours?: Yes

AND

Results of positive brain image: PH2 OR IVH OR SAH OR RIH

OR

If patient died, was there documentation that the patient’s death was due to an intracranial hemorrhagic complication within 36 hours of the onset of treatment with IV or IA pharmacologic thrombolytic therapy, or endovascular procedure?: Yes

### Pertinent Form Fields

**Final clinical diagnosis related to stroke:** Ischemic Stroke

AND

**IV tPA initiated at this hospital?:** Yes

AND

**IA catheter-based treatment at this hospital:** Yes

**Age:** <18

OR

**Patient location when stroke symptoms discovered:** Stroke occurred after hospital arrival (in ED/Obs/inpatient)

OR

**Discharge Date - Arrival Date:** > 120 days

OR

**IV tPA at an outside hospital?:** Yes

OR

**IA catheter-based treatment at outside hospital:** Yes
Median time to recanalization (Comprehensive, Historic): Median time from arrival to first radiographic image showing access of the occluded arterial segment with a microcatheter in acute ischemic stroke patients who undergo recanalization therapy

OR

During this hospital stay, was the patient enrolled in a clinical trial in which patients with the same condition as the measure set were being studied?: Yes

OR

Was this patient admitted for the sole purpose of performance of elective carotid intervention?: Yes

Numerator

- Patients with complications to thrombolytic therapy, defined as a 4 or more point increase in NIHSS accompanied by neuroimaging evidence of intracranial hemorrhage within 36 hours of treatment or death.

Was there a clinical deterioration within 36 hours of the onset of treatment with IV or IA pharmacologic thrombolytic therapy, or endovascular reperfusion procedure?: Yes

AND

(Highest NIHSS within 36 hours of IV or IA pharmacologic thrombolytic therapy, or endovascular reperfusion procedure – NIHSS that most closely preceded treatment with IV or IA pharmacologic thrombolytic therapy, or endovascular reperfusion procedure; ≥ 4

AND

Neuroimaging evidence of hemorrhagic complication within 36 hours?: Yes

AND

Results of positive brain image: PH2 OR IVH OR SAH OR RIH

)

OR

If patient died, was there documentation that the patient’s death was due to an intracranial hemorrhagic complication within 36 hours of the onset of treatment with IV or IA pharmacologic thrombolytic therapy, or endovascular procedure?: Yes

Denominator

Include

- Patients with a diagnosis of ischemic stroke
- Patients undergoing catheter-based reperfusion therapy

Final clinical diagnosis related to stroke: Ischemic Stroke

AND

IA catheter-based treatment at this hospital?: Yes

Exclude

- Age less than 18 years
- Stroke occurred after hospital arrival (in ED/Obs/inpatient)
- Length of stay > 120 days
- Clinical Trial
- Elective Carotid Intervention

Age: <18

OR

Patient location when stroke symptoms discovered: Stroke occurred after hospital arrival (in ED/Obs/inpatient)

OR

Discharge Date - Arrival Date ≥ 120 days

OR

During this hospital stay, was the patient enrolled in a clinical trial in which patients with the same condition as the
Modified Rankin Score (mRS) at 90 days (Comprehensive, Historic): Percent of ischemic stroke patients treated with IV or IA pharmacologic thrombolytic therapy or endovascular reperfusion procedure for whom a 90 day (≥75 days and ≤105 days) mRS is obtained via telephone or in-person and documented

<table>
<thead>
<tr>
<th>Description</th>
<th>Pertinent Form Fields</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Denominator</strong></td>
<td>Final clinical diagnosis related to stroke: Ischemic Stroke</td>
</tr>
<tr>
<td><strong>Include</strong></td>
<td>AND</td>
</tr>
<tr>
<td>• Patients with diagnosis of ischemic stroke</td>
<td>(</td>
</tr>
<tr>
<td>• Patients treated with IV tPA or who undergo an endovascular procedure</td>
<td>IV tPA initiated at this hospital?: Yes</td>
</tr>
<tr>
<td></td>
<td>OR</td>
</tr>
<tr>
<td></td>
<td>IV tPA at an outside hospital?: Yes</td>
</tr>
<tr>
<td></td>
<td>OR</td>
</tr>
<tr>
<td></td>
<td>IA catheter-based treatment at this hospital: Yes</td>
</tr>
<tr>
<td><strong>Exclude</strong></td>
<td>Age: &lt;18</td>
</tr>
<tr>
<td>• Age &lt;18</td>
<td>OR</td>
</tr>
<tr>
<td>• Stroke occurred after hospital arrival (in ED/Obs/inpatient)</td>
<td>Patient location when stroke symptoms discovered: Stroke occurred after hospital arrival (in ED/Obs/inpatient)</td>
</tr>
<tr>
<td>• Patients with a Length of Stay &gt; 120 days</td>
<td>OR</td>
</tr>
<tr>
<td></td>
<td>Discharge Date – Admission Date: &gt; 120 days</td>
</tr>
<tr>
<td><strong>Numerator</strong></td>
<td>*Post discharge Modified Rankin Scale performed (via telephone or in person)?: Yes</td>
</tr>
<tr>
<td>• Documented Modified Rankin Score at 90 days (≥75 days and ≤105 days)</td>
<td>AND</td>
</tr>
<tr>
<td></td>
<td>(*If yes, Total Score: 0, 1, 2, 3, 4, or 5</td>
</tr>
<tr>
<td></td>
<td>AND</td>
</tr>
<tr>
<td></td>
<td>*Date post discharge Modified Rankin Scale performed – Discharge Date: ≥75 days and ≤105 days)</td>
</tr>
</tbody>
</table>
OR

(*If yes, Total Score: 6

AND

*Date post discharge Modified Rankin Scale performed - Discharge Date: \leq 105\text{ days})

OR

Discharge Disposition: 6-Expired
### Nimodipine Treatment Initiated (Comprehensive, Historic)

### Percent of subarachnoid hemorrhage (SAH) patients for whom nimodipine treatment was initiated within 24 hours of arrival

<table>
<thead>
<tr>
<th>Description</th>
<th>Pertinent Form Fields</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Denominator</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Include</strong></td>
<td></td>
</tr>
<tr>
<td>• Patients with a diagnosis of ischemic stroke</td>
<td></td>
</tr>
<tr>
<td><strong>Exclude</strong></td>
<td></td>
</tr>
<tr>
<td>• Age &lt; 18 years</td>
<td></td>
</tr>
<tr>
<td>• Stroke occurred after hospital arrival (in ED/Obs/inpatient)</td>
<td></td>
</tr>
<tr>
<td>• Patients with a Length of Stay &gt; 120 days</td>
<td></td>
</tr>
<tr>
<td>• Stroke symptoms resolved at time of presentation</td>
<td></td>
</tr>
<tr>
<td>• Clinical Trial</td>
<td></td>
</tr>
<tr>
<td>• Elective Carotid Intervention</td>
<td></td>
</tr>
<tr>
<td><strong>Numerator</strong></td>
<td></td>
</tr>
<tr>
<td>• NIH Stroke scale performed prior to the initiation of thrombolytic therapy</td>
<td></td>
</tr>
<tr>
<td>• OR Performance of endovascular procedure or within 12 hours of arrival</td>
<td></td>
</tr>
<tr>
<td>AND</td>
<td></td>
</tr>
<tr>
<td>• Actual Total Score is reported</td>
<td></td>
</tr>
</tbody>
</table>

---

**Table of Contents**

---

**Nimodipine Treatment Initiated (Comprehensive, Historic)**: Percent of subarachnoid hemorrhage (SAH) patients for whom nimodipine treatment was initiated within 24 hours of arrival

<table>
<thead>
<tr>
<th>Description</th>
<th>Pertinent Form Fields</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Denominator</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Include</strong></td>
<td></td>
</tr>
<tr>
<td>• Patients with a diagnosis of Subarachnoid hemorrhage</td>
<td></td>
</tr>
<tr>
<td><strong>Exclude</strong></td>
<td></td>
</tr>
<tr>
<td>• Age &lt; 18 years</td>
<td></td>
</tr>
<tr>
<td><strong>Final clinical diagnosis related to stroke: Subarachnoid hemorrhage</strong></td>
<td></td>
</tr>
</tbody>
</table>
Procoagulant reversal agent initiated (Comprehensive, Historic): Percent of patients with intracerebral hemorrhage (ICH) and an INR $\geq 1.4$ due to warfarin anticoagulation that are treated with a procoagulant reversal agent

| Numerator | | Denominator |
|-----------|--------------------------------------------------|
| Oral nimodipine initiated within 24 hours of hospital arrival. | Nimodipine treatment initiated in SAH at this hospital?: Yes AND If yes, was nimodipine treatment initiated within 24 hours of arrival?: Yes |

**Table of Contents**

Procoagulant reversal agent initiated (Comprehensive, Historic): Percent of patients with intracerebral hemorrhage (ICH) and an INR $\geq 1.4$ due to warfarin anticoagulation that are treated with a procoagulant reversal agent

<table>
<thead>
<tr>
<th>Description</th>
<th>Pertinent Form Fields</th>
</tr>
</thead>
<tbody>
<tr>
<td>Include</td>
<td>Final Clinical Diagnosis Related to Stroke: Intracerebral Hemorrhage AND Antiplatelet or Anticoagulant Medication(s) (medications prior to admission): Yes AND Anticoagulant: warfarin (Coumadin) AND INR: $\geq 1.4$</td>
</tr>
<tr>
<td>Exclude</td>
<td>Age: $&lt; 18$ OR When is the earliest documentation of comfort measures only?: Day 0 or 1 OR Procoagulant treatment initiated in ICH at this hospital: NC</td>
</tr>
</tbody>
</table>
### Table of Contents

- Severity Measurement on Arrival – Intracerebral Hemorrhage (ICH) (Comprehensive, Historic): Percent of ICH patients with ICH Score on arrival
- Severity Measurement on Arrival – Subarachnoid Hemorrhage (SAH) (Comprehensive, Historic): Percent of SAH patients with Hunt and Hess Score on arrival

### Severity Measurement on Arrival – Intracerebral Hemorrhage (ICH) (Comprehensive, Historic): Percent of ICH patients with ICH Score on arrival

<table>
<thead>
<tr>
<th>Description</th>
<th>Pertinent Form Fields</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Denominator</strong></td>
<td></td>
</tr>
<tr>
<td>Include</td>
<td></td>
</tr>
<tr>
<td>Patients with a diagnosis of Intracerebral Hemorrhage</td>
<td>Final clinical diagnosis related to stroke: Intracerebral hemorrhage</td>
</tr>
<tr>
<td><strong>Exclude</strong></td>
<td></td>
</tr>
<tr>
<td>Age &lt;18 years</td>
<td>Age: &lt;18</td>
</tr>
<tr>
<td>Stroke occurred after hospital arrival (in ED/Obs/inpatient)</td>
<td>Patient location when stroke symptoms discovered: Stroke occurred after hospital arrival (in ED/Obs/inpatient)</td>
</tr>
<tr>
<td>Patients with a Length of Stay &gt; 120 days</td>
<td>Discharge Date – Admission Date: &gt; 120 days</td>
</tr>
<tr>
<td>Contraindication to ICH Score</td>
<td>ICH Score (ICH): NC</td>
</tr>
<tr>
<td><strong>Numerator</strong></td>
<td></td>
</tr>
<tr>
<td>ICH score recorded on arrival</td>
<td>ICH score: Yes</td>
</tr>
<tr>
<td><strong>AND</strong></td>
<td></td>
</tr>
<tr>
<td><strong>If yes, ICH score:</strong> Not Blank (numeric between 0 and 6)</td>
<td></td>
</tr>
</tbody>
</table>

### Severity Measurement on Arrival – Subarachnoid Hemorrhage (SAH) (Comprehensive, Historic): Percent of SAH patients with Hunt and Hess Score on arrival

<table>
<thead>
<tr>
<th>Description</th>
<th>Pertinent Form Fields</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Denominator</strong></td>
<td></td>
</tr>
<tr>
<td>Include</td>
<td></td>
</tr>
<tr>
<td><strong>Numerator</strong></td>
<td></td>
</tr>
</tbody>
</table>
Thrombolysis in Cerebral Infarction (TICI) Post-Treatment Reperfusion Grade 2B or 3 (Comprehensive, Historic):  The proportion of patients undergoing catheter-based reperfusion therapy in whom the end of procedure TICI reperfusion grade is 2B or higher

### Numerator
- Hunt and Hess score recorded on arrival

### Denominator
- Patients with a diagnosis of Subarachnoid hemorrhage
- Final clinical diagnosis related to stroke: Subarachnoid hemorrhage

### Exclude
- Age <18
- Stroke occurred after hospital arrival (in ED/Obs/inpatient)
- Patients with a Length of Stay > 120 days
- Patients with a contraindication to having a score performed

### Pertinent Form Fields
- Hunt and Hess Score recorded: Yes
- AND
- If yes, Hunt and Hess score: Not Blank (numeric between 1 and 5)
- Age: <18
- OR
- Patient location when stroke symptoms discovered: Stroke occurred after hospital arrival (in ED/Obs/inpatient)
- OR
- Discharge Date - Admission Date: > 120 days
- OR
- Hunt and Hess Scale (SAH): NC

---

**Table of Contents**

---

**Thrombolysis in Cerebral Infarction (TICI) Post-Treatment Reperfusion Grade 2B or 3 (Comprehensive, Historic):** The proportion of patients undergoing catheter-based reperfusion therapy in whom the end of procedure TICI reperfusion grade is 2B or higher

<table>
<thead>
<tr>
<th>Description</th>
<th>Pertinent Form Fields</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Denominator</strong></td>
<td></td>
</tr>
</tbody>
</table>
| **Include** | Final clinical diagnosis related to stroke: Ischemic Stroke

AND

IA catheter-based treatment at this hospital?: Yes

<table>
<thead>
<tr>
<th>Description</th>
<th>Pertinent Form Fields</th>
</tr>
</thead>
</table>
| **Exclude** | Age: <18

OR

Patient location when stroke symptoms discovered: Stroke occurred after hospital arrival (in ED/Obs/inpatient)

OR

Thrombolysis in Cerebral Infarction (TICI) Post-Treatment Reperfusion Grade: ND

OR

Discharge Date - Arrival Date > 120 days

OR

During this hospital stay, was the patient enrolled in a clinical trial in which patients with the same condition as the measure set were being studied?: Yes

OR

Was this patient admitted for the sole purpose of performance of elective carotid intervention?: Yes
<table>
<thead>
<tr>
<th>Numerator</th>
<th>Thrombolysis in Cerebral Infarction (TICI) Post-Treatment Reperfusion Grade: Grade 2B</th>
</tr>
</thead>
<tbody>
<tr>
<td>● TICI 2B or 3</td>
<td>OR</td>
</tr>
<tr>
<td></td>
<td>Thrombolysis in Cerebral Infarction (TICI) Post-Treatment Reperfusion Grade: Grade 3</td>
</tr>
</tbody>
</table>