### Release Notes for the 2018B Manual

#### Measure Information Forms

<table>
<thead>
<tr>
<th>Section</th>
<th>Rationale</th>
<th>Description</th>
</tr>
</thead>
</table>
| ASR-IP-1 | Update references to include new clinical practice guideline for acute ischemic stroke. | **Selected References:**  
Add  
| ASR-IP-2 | Update references to include new clinical practice guideline for acute ischemic stroke. | **Selected References:**  
Add  
| ASR-IP-3 | Update references to include new clinical practice guideline for acute ischemic stroke. | **Selected References:**  
Add  
| ASR-OP-1 | Update references to include new clinical practice guideline for acute ischemic stroke. | **Selected References:**  
Add  
| ASR-OP-2 | Update references and measure rationale to include new clinical practice guideline for acute ischemic stroke. | **Selected References:**  
Add  

Rationale:

Change second paragraph from:

Most patients with an acute stroke seen initially at an ASRH will require emergent transfer to a PSC or CSC. The Brain Attack Coalition recommends that such transfers occur within 2 hours of the patient presenting to the ASRH (Alberts, 2013). Additionally, written transfer agreements between the ASRH and at least one PSC or CSC and a transportation vendor with both ground and air ambulance transfer options are recommended. One in four patients are transferred while receiving intravenous (IV) thrombolytic therapy (t-PA) (Sheth, 2015); others transferred after initiation of coagulopathy reversal treatment. Reducing the time stroke patients remain in the emergency department (ED) can improve access to a higher-level of stroke care and advanced intra-arterial or endovascular treatments, and increase quality of care. For those stroke patients who are not transferred to a PSC or CSC, inpatient admission within 3 hours, preferably to a formal stroke unit, is recommended (Jauch, 2013).

To:

Most patients with an acute stroke seen initially at an ASRH will require emergent transfer to a PSC or CSC. The Brain Attack Coalition recommends that such transfers occur within 2 hours of the patient presenting to the ASRH (Alberts, 2013). Additionally, written transfer agreements between the ASRH and at least one PSC or CSC and a transportation vendor with both ground and air ambulance transfer options are recommended. One in four patients are transferred while receiving intravenous (IV) alteplase (Sheth, 2015); others transferred after initiation of coagulopathy reversal treatment. Reducing the time stroke patients remain in the emergency department (ED) can improve access to a higher-level of stroke care and advanced intra-arterial or endovascular treatments, and increase quality of care. A door to needle time goal within 60 minutes should be established for acute ischemic stroke patients treated with IV alteplase. Door to needle times within 45 minutes may be reasonable for some patients (Powers, 2018). For those stroke patients who are not transferred to a PSC or CSC, inpatient admission within 3 hours, preferably to a formal stroke unit, is recommended (Jauch, 2013).

CSTK-01
Update references to include new clinical practice guideline for acute ischemic stroke.

Selected References:
Add


CSTK-02
Update references to include new clinical practice guideline for acute ischemic stroke.

Selected References:
Add


**Change** thrombolytic (t-PA) to Alteplase

<table>
<thead>
<tr>
<th>CSTK-03</th>
<th>Correct missing exit point</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CSTK-05</strong></td>
<td>Update rationale and references to include new clinical practice guidelines for acute ischemic stroke.</td>
</tr>
<tr>
<td><strong>Medication name change</strong></td>
<td>Rationale</td>
</tr>
<tr>
<td><strong>Change to:</strong></td>
<td>Intravenous (IV) alteplase therapy for acute ischemic stroke was approved by the US Food and Drug Administration in 1996, following findings from the National Institute of Neurological Disorders and Stroke (NINDS) trial which demonstrated favorable outcomes in 31% to 50% of patients treated with recombinant tissue plasminogen activator (r-tPA), as compared to 20% to 38% of patients treated with placebo. Intra-arterial (IA) alteplase therapy has since been used to improve recanalization and clinical outcomes for select patients nonresponsive to IV therapy. Intracranial hemorrhage is the major risk of thrombolytic therapy with similar rates reported for both IV and IA routes. The NINDS trial found that 6.4% of patients treated with IV alteplase experienced symptomatic bleeding. Findings from the Prolyse in Acute Cerebral Thromboembolism (PROACT II) study found the intracranial hemorrhage with neurological deterioration within 24 hours occurred in 10% of patients treated with IA recombinant prourokinase. In addition to these agents, other available thrombolytic drugs include: streptokinase, p-anisoylated lys-plasminogen-streptokinase activator, and urokinase.</td>
</tr>
</tbody>
</table>

Endovascular reperfusion therapy in acute ischemic stroke comprises a number of pharmacological and mechanical procedures. Mechanical endovascular thrombectomy is a treatment option for patients with large vessel occlusions in whom pharmacological thrombolysis is contraindicated or might be ineffective. For eligible patients, initiation of EVT (e.g., groin puncture) within 6 hours of stroke symptom onset using a stent retriever is preferred (Powers WJ, et. al., 2015). The use of mechanical thrombectomy devices other than stent retrievers as first-line devices for mechanical thrombectomy may be reasonable in some circumstances (Powers WJ, et. al., 2018). Mechanical endovascular thrombectomy devices are intended to improve tissue rescue and diminish reperfusion hemorrhage while broadening the population eligible for therapy. These devices may be used alone or in conjunction with chemical thrombolysis (i.e., IV or IA alteplase). |

**Selected References**

1. **Add:**


**Change** thrombolytic(t-PA) to Alteplase

<table>
<thead>
<tr>
<th>CSTK08</th>
<th>Update rationale and references to include new clinical practice guidelines for acute ischemic stroke. Medication name change</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Rationale</td>
</tr>
<tr>
<td></td>
<td><strong>Change to:</strong> The Thrombolysis in Cerebral Infarction (TICI) Reperfusion Grade is used to measure cerebral reperfusion. Four results are possible with this scoring system: 0 (no perfusion); 1 (perfusion past the initial occlusion, but no distal branch filling); 2 (perfusion with incomplete or slow distal branch filling); and , 3 (full perfusion with filling of all distal branches). Reperfusion past the target arterial occlusion and into the distal arterial bed and terminal branches, in conjunction with recanalization of the target arterial occlusion, demonstrates flow restoration or revascularization.</td>
</tr>
<tr>
<td></td>
<td>The Interventional Management of Stroke (IMS) I trial suggested that the combined use of reduced-dose intravenous (IV) alteplase therapy, followed by microcatheter delivered intra-arterial (IA) alteplase therapy, was safe and effective in selected ischemic stroke patients, as compared to patients treated with full dose IV alteplase in the National Institute of Neurologic disease and Stroke (NINDS) rt-PA trial. In IMS I, a final TICI 2/3 reperfusion was achieved in 62% of ischemic stroke patients treated.</td>
</tr>
<tr>
<td></td>
<td>Endovascular therapy (EVT) is now the standard of care for treatment of acute ischemic stroke due to large-vessel occlusion (LVO). In 2015, the American Heart Association/American Stroke Association published a focused update to the 2013 Guidelines for the Early Management of Patients with Acute Ischemic Stroke regarding endovascular treatment (Powers WJ, et. al., 2015). Endovascular therapy with a stent retriever is recommended for eligible patients. The use of mechanical thrombectomy devices other than stent retrievers as first-line devices for mechanical thrombectomy may be reasonable in some circumstances, but stent retrievers remain the first choice (Powers WJ, et. al., 2018).</td>
</tr>
</tbody>
</table>

**Selected References**

**Add:**


**Change** thrombolytic(t-PA) to Alteplase
Update rationale and references to include new clinical practice guideline for acute ischemic stroke and findings from recent clinical trials.

Medication name change

Denominator exclusion for Delayed Endovascular Reperfusion Procedure aligned with data element definition.

Rationale

**Change to:**
Timely recanalization of an occluded intracerebral artery is a strong predictor of improved functional outcome and reduced mortality in patients with an acute ischemic stroke. Initiation of intra-venous (IV) alteplase within three hours of time last known well is recommended first before attempting other treatment; however, endovascular treatment (EVT) with devices and/or intra-arterial (IA) thrombolysis (alteplase) is also recommended as a second-line therapy after IV thrombolysis failure or lapse of the therapeutic window. For eligible patients, initiation of EVT (e.g., groin puncture) within 6 hours of stroke symptom onset using a stent retriever is preferred (Powers WJ, et. al., 2015). Findings from clinical trials published in 2018 (i.e., DAWN, DEFUSE 3) have reported the benefits of mechanical thrombectomy in the extended window up to 24 hours of last known well for select ischemic stroke patients meeting certain criteria. The use of mechanical thrombectomy devices other than stent retrievers as first-line devices for mechanical thrombectomy may be reasonable in some circumstances, but stent retrievers remain the first choice (Powers WJ, et. al., 2018).

Since “time is brain”, the overall speed of the revascularization process is an important and appropriate measure. In multicenter clinical trials of intra-arterial catheter-directed therapies, the probability of good outcome as defined by a Modified Rankin Score of 0-2 at 90 days decreased as time to angiographic revascularization increased. It is estimated that for every 30-minute delay in time to revascularization, there is a 10% decrease in the likelihood of a good outcome from EVT.

**Selected References**

**Add:**


**Change** thrombolytic(t-PA) to Alteplase

Denominator Excluded Populations:

**Change** to: Patients who have a Delayed Endovascular Rescue Procedure later than 8 hours after hospital arrival (ICD-10-PCS Principal or Other Procedure Codes as defined in Appendix A, Table 8.1a or Table 8.1b)
Medication name change


**Change** thrombolytic(t-PA) to Alteplase

CSTK-11

Update rationale and references to include new clinical practice guideline for acute ischemic stroke and findings from recent clinical trials.

**Rationale**

**Change to:**

The Thrombolysis in Cerebral Infarction (TICI) Reperfusion Grade is used to measure cerebral reperfusion. Results with this scoring system range between zero and three: 0 (no perfusion); 1 (perfusion past the initial occlusion, but no distal branch filling); 2 (perfusion with incomplete or slow distal branch filling); and, 3 (full perfusion with filling of all distal branches). Reperfusion past the target arterial occlusion and into the distal arterial bed and terminal branches, in conjunction with recanalization of the target arterial occlusion, demonstrates flow restoration or revascularization.

Endovascular therapy (EVT) is now the standard of care for treatment of acute ischemic stroke due to large-vessel occlusion (LVO). In 2015, the American Heart Association/American Stroke Association published a focused update to the 2013 Guidelines for the Early Management of Patients with Acute Ischemic Stroke regarding endovascular treatment (Powers WJ, et. al., 2015). Endovascular therapy with a stent retriever is recommended for eligible patients. The use of mechanical thrombectomy devices other than stent retrievers as first-line devices for mechanical thrombectomy may be reasonable in some circumstances, but stent retrievers remain the first choice (Powers WJ, et. al., 2018).

To ensure benefit, reperfusion to TICI 2B/3 should be achieved as early as possible and within 6 hours of stroke onset. The DAWN Clinical Trial Investigators (Nogueira RG, et. al., 2018) reported the benefits of mechanical thrombectomy in the extended window up to 24 hours of last known well for select patients meeting certain criteria. As with IV alteplase (t-PA), reduced time from symptom onset to reperfusion with EVT is highly associated with better clinical outcomes. Recent recommendations from the Society of Vascular and Interventional Neurology (SVIN) offer procedural metrics which include time from hospital arrival to groin puncture less than 90 minutes, and time from groin puncture to TICI 2B or better or conclusion of procedure less than 60 minutes (English JD, et. al., 2016).

**Selected References**

**Add:**


CSTK12

Update rationale and references to include new clinical practice guideline for acute ischemic stroke and findings from recent clinical trials.

Rationale

Change to:
The Thrombolysis in Cerebral Infarction (TICI) Reperfusion Grade is used to measure cerebral reperfusion. Results with this scoring system range between zero and three: 0 (no perfusion); 1 (perfusion past the initial occlusion, but no distal branch filling); 2 (perfusion with incomplete or slow distal branch filling); and, 3 (full perfusion with filling of all distal branches). Reperfusion past the target arterial occlusion and into the distal arterial bed and terminal branches, in conjunction with recanalization of the target arterial occlusion, demonstrates flow restoration or revascularization.

Endovascular therapy (EVT) is now the standard of care for treatment of acute ischemic stroke due to large-vessel occlusion (LVO). In 2015, the American Heart Association/American Stroke Association published a focused update to the 2013 Guidelines for the Early Management of Patients with Acute Ischemic Stroke regarding endovascular treatment (Powers WJ, et. al., 2015). Endovascular therapy with a stent retriever is recommended for eligible patients. The use of mechanical thrombectomy devices other than stent retrievers as first-line devices for mechanical thrombectomy may be reasonable in some circumstances, but stent retrievers remain the first choice (Powers WJ, et. al., 2018).

To ensure benefit, reperfusion to TICI 2B/3 should be achieved as early as possible and within 6 hours of stroke onset. The DAWN Clinical Trial Investigators (Nogueira RG, et. al., 2018) reported the benefits of mechanical thrombectomy in the extended window up to 24 hours of last known well for select patients meeting certain criteria. As with IV alteplase (t-PA), reduced time from symptom onset to reperfusion with EVT is highly associated with better clinical outcomes. Recent recommendations from the Society of Vascular and Interventional Neurology (SVIN) offer procedural metrics which include time from hospital arrival to groin puncture less than 90 minutes, and time from groin puncture to TICI 2B or better or conclusion of procedure less than 60 minutes (English JD, et. al., 2016).

Selected References

Add:


<table>
<thead>
<tr>
<th>PC</th>
<th>New measure, PC-06, Unexpected Complications in Term Newborns added to PC measure set.</th>
<th><strong>Add</strong> new measure, PC-06, Unexpected Complications in Term Newborns, added to Initial Patient Population flow.</th>
</tr>
</thead>
<tbody>
<tr>
<td>PC-01</td>
<td>Algorithm changed to check History of Stillbirth at the end to ease abstraction burden.</td>
<td>History of Stillbirth checked at end of algorithm.</td>
</tr>
</tbody>
</table>
| PC-02| Update data element list to reflect new data element name. Update algorithm to use new data element. Updates to Selected References. | **Change** Data Element:  
From: *Number of Previous Live Births*  
To: *Previous Live Births*.  

**Change** Algorithm:  
From: *Number of Previous Live Births*  
To: *Previous Live Births*  
Note: Allowable values are now Y/N rather than a count.  

**Change** Algorithm branches:  
From: 0 or >0  
To: Y or N  

**Change** Selected References:  
To: California Office of Statewide Hospital Planning and Development. (2017). Hospital Volume and Utilization Indicators for California, Retrieved from the Internet on February 22, 2018 at: https://www.oshpd.ca.gov/HID/AHRQ-Volume-Utilization.html |
| PC-05| Updates to selected references | **Change** select references:  
To: California Department of Public Health. (2017). Division of Maternal, Child and Adolescent Health, Breastfeeding Initiative, In-Hospital Breastfeeding Initiation Data, Hospital of Occurrence: Available at: https://www.cdph.ca.gov/Programs/GFHD/DMCAH/Breastfeeding/Pages/In-Hospital-Breastfeeding-Initiation-Data.aspx |
STK-1
Update references to include new clinical practice guideline for acute ischemic stroke.

Selected References:
Add

STK-10
Update references to include new clinical practice guideline for acute ischemic stroke.

Selected References:
Add

STK-2
Update references to include new clinical practice guideline for acute ischemic stroke.

Selected References:
Add

<table>
<thead>
<tr>
<th>STK-3</th>
<th>Update references to include new clinical practice guideline for acute ischemic stroke.</th>
<th>Selected References:</th>
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</thead>
</table>

<table>
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<th>STK-4</th>
<th>Update references to include new clinical practice guideline for acute ischemic stroke.</th>
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</thead>
</table>

<table>
<thead>
<tr>
<th>STK-5</th>
<th>Update references to include new clinical practice guideline for acute ischemic stroke.</th>
<th>Selected References:</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>STK-6</th>
<th>Update references to include new clinical practice guideline for acute ischemic stroke.</th>
<th>Selected References:</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>STK-8</th>
<th>Update references to include new clinical practice guideline for acute ischemic stroke.</th>
<th>Selected References:</th>
</tr>
</thead>
</table>

Data Elements
| Section                  | Rationale                                                                                                                                                                                                                                                                                                                                 | Description                                                                                                                                                                                                                     |
|-------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------
| Arrival Date            | Abstraction guidance for this data element was revised to address acute stroke ready hospitals.                                                                                                                                                                                                                                           | Notes for Abstraction: Change to CSTK, STK, AND ASR MEASURES ONLY EXCEPTION: Use the arrival time at the comprehensive stroke center/primary stroke center/acute stroke ready hospital.                                                                                     |
| Arrival Time            | The data element was updated to align with 2019 OQR v12.0 Specifications Manual                                                                                                                                                                                                                                                            | Exclusion Guidelines for Abstraction: Add Pre-printed times on a vital sign graphic record                                                                                                                                                                                                   |
|                         |                                                                                                                                                                                                                                                                                                                                                                                                  | Notes for Abstraction: Change to CSTK, STK, AND ASR MEASURES ONLY EXCEPTION: Use the arrival time at the comprehensive stroke center/primary stroke center/acute stroke ready hospital.                                                                                     |
| Atrial Fibrillation/Flutter | The data element was updated to provide abstraction guidance regarding left atrial appendage closure.                                                                                                                                                                                                                               | Notes for Abstraction Add new seventh bullet:  
  - If there is documentation of a history of left atrial appendage (LAA) closure with a device, select “Yes”.                                                                                                           |
| Certification Type      | To accommodate multiple certification programs to use CSTK measure set each with different measures.                                                                                                                                                                                                                                  | Defining the new element to provide the certification program.                                                                                                                                                                                                                           |
| E/M Code                | The data element definition was updated to address the addition of new measure STK-OP-1.                                                                                                                                                                                                                                               | Allowable Values: Change from:  
  - For **ASR-OP measures**, select the E/M code from Appendix A, Table 1.0.  
  - For **ACHFOP measures**, select the E/M code from Appendix A, Table 2.0.  
    To:  
    - For **ASR-OP measures**, select the E/M code from Appendix A, Table 1.0.  
    - For **STK-OP measures**, select the E/M code from Appendix A, Table 1.0.  
    - For **ACHFOP measures**, select the E/M code from Appendix A, Table 2.0.  
    Inclusion Guidelines for Abstraction Change to:  
    - For ASR-OP measures, refer to Appendix A, Table 1.0, E/M Codes for Emergency Department Encounters  
    - For STK-OP measures, refer to Appendix A, Table 1.0, E/M Codes for Emergency Department Encounters  
    - For ACHFOP measures, refer to Appendix A, Table 2.0, E/M Codes for Hospital Outpatient Encounters |
| ED Departure Date       | The data element was updated to align with OQR v12.0 Measure Specifications                                                                                                                                                                                                                                                         | Inclusion Guidelines for abstraction: Add  
  - ED checkout date |
<table>
<thead>
<tr>
<th>ED Departure Time</th>
<th>The data element was updated to align with OQR v12.0 Measure Specifications and allowable values changed to time format.</th>
</tr>
</thead>
</table>

Inclusion Guidelines for Abstraction:

**Add**
- ED order for observation status
- Release time
- Out time
- Gone time
- Transport documented time
- The event log, registration sheet, transfer record, etc. (if a discharge time is noted and the document is part of the permanent medical record)
- Transfer time

Exclusion Guidelines for Abstraction:

**Add**
- Discharge instructions time
- Coding summary
- Physicians discharge summary
- ED record released from holding time
- Chart closed time
- Off the tracking board time

Allowable Values:

**Change** from:
- MM = Month (01-12)
- DD = Day (01-31)
### Education Addresses Activation of Emergency Medical System

**Change from:**
- Documentation must clearly convey that the patient/caregiver was given a copy of the material to take home. When the material is present in the medical record and there is no documentation which clearly suggests that a copy was given, the inference should be made that it was given IF the patient's name or the medical record number appears on the material AND hospital staff or the patient/caregiver has signed the material. This applies to educational materials in the form of discharge instruction sheets, brochures, booklets, teaching sheets, videos, CDs, DVDs or other patient-oriented materials. Providing a link to electronic materials is not sufficient.

**To:**
- Documentation must clearly convey that the patient/caregiver was given a copy of the material to take home. When the material is present in the medical record and there is no documentation which clearly suggests that a copy was given, the inference should be made that it was given IF the patient's name or the medical record number appears on the material AND hospital staff or the patient/caregiver has signed the material. An electronic staff signature is acceptable. This applies to educational materials in the form of printed, electronic, or digital patient-oriented materials. Providing a link to electronic materials is not sufficient.

### Education Addresses Follow-up After Discharge

**Change from:**
- Documentation must clearly convey that the patient/caregiver was given a copy of the material to take home. When the material is present in the medical record and there is no documentation which clearly suggests that a copy was given, the inference should be made that it was given IF the patient's name or the medical record number appears on the material AND hospital staff or the patient/caregiver has signed the material. This applies to educational materials in the form of discharge instruction sheets, brochures, booklets, teaching sheets, videos, CDs, DVDs or other patient-oriented materials. Providing a link to electronic materials is not sufficient.

**To:**
- Documentation must clearly convey that the patient/caregiver was given a copy of the material to take home. When the material is present in the medical record and there is no documentation which clearly suggests that a copy was given, the inference should be made that it was given IF the patient's name or the medical record number appears on the material AND hospital staff or the patient/caregiver has signed the material. An electronic staff signature is acceptable. This
| Education Addresses Risk Factors for Stroke | Update note to include more current terminology. | Notes for Abstraction:  
7th bullet  
**Change** from:  
- Documentation must clearly convey that the patient/caregiver was given a copy of the material to take home. When the material is present in the medical record and there is no documentation which clearly suggests that a copy was given, the inference should be made that it was given IF the patient's name or the medical record number appears on the material AND hospital staff or the patient/caregiver has signed the material. This applies to educational materials in the form of discharge instruction sheets, brochures, booklets, teaching sheets, videos, CDs, DVDs or other patient-oriented materials. Providing a link to electronic materials is not sufficient.  
To:  
- Documentation must clearly convey that the patient/caregiver was given a copy of the material to take home. When the material is present in the medical record and there is no documentation which clearly suggests that a copy was given, the inference should be made that it was given IF the patient's name or the medical record number appears on the material AND hospital staff or the patient/caregiver has signed the material. An electronic staff signature is acceptable. This applies to educational materials in the form of printed, electronic, or digital patient-oriented materials. Providing a link to electronic materials is not sufficient. |
| Education Addresses Warning Signs and Symptoms of Stroke | Update note to include more current terminology. | Notes for Abstraction:  
4th bullet  
**Change** from:  
- Documentation must clearly convey that the patient/caregiver was given a copy of the material to take home. When the material is present in the medical record and there is no documentation which clearly suggests that a copy was given, the inference should be made that it was given IF the patient's name or the medical record number appears on the material AND hospital staff or the patient/caregiver has signed the material. This applies to educational materials in the form of discharge instruction sheets, brochures, booklets, teaching sheets, videos, CDs, DVDs or other patient-oriented materials. Providing a link to electronic materials is not sufficient.  
To:  
- Documentation must clearly convey that the patient/caregiver was given a copy of the material to take home. When the material is present in the medical record and there is no documentation which clearly suggests that a copy was given, the inference should be made that it was given IF the patient's name or the medical record number appears on the material AND hospital staff or the patient/caregiver has signed the material. An electronic staff signature is acceptable. This applies to educational materials in the form of printed, electronic, or digital patient-oriented materials. Providing a link to electronic materials is not sufficient. |
| Failed Attempt at Thrombectomy | The data element was updated to provide clarification for | Notes for Abstraction  
**Change** first bullet to: |
abstractors regarding a failed attempt at thrombectomy.

If medical record documentation does not include an ICD-10-PCS Principal or Other Procedure Code on Table 8.1b Mechanical Endovascular Reperfusion Procedures, continue to review the record for documentation that an extirpation procedure failed. When documentation clearly indicates that a mechanical thrombectomy procedure was attempted but unsuccessful or aborted before removal of the LVO, select “Yes.”

Examples:

* 67 Y/O male presents with acute right MCA stroke and occlusion. Neuroendovascular interventionalist documents in a procedure note, e.g., "Despite multiple passes with the wire, distal access with the microcatheter could not be obtained. Given the tortuosity, distal nature of clot, and chronicity/organization of the clot, the procedure was concluded." * Operative note states, e.g., "Attempted mechanical thrombectomy of M1 occlusion, S/P unsuccessful mechanical thrombectomy. Procedure terminated after multiple attempts at clot. The M1 segment remained occluded with no recanalization."

**Change** second bullet to:

If a mechanical thrombectomy procedure was attempted and down coded to the root ICD-10-PCS Principal or Other Procedure Code due to extirpation procedure failure, select “Yes”. **A procedure code on Table 8.1c is not necessary to select “Yes” for this data element,** but may assist abstraction.

Examples:

- Operative note includes documentation that left groin was punctured but thrombectomy intervention could not be completed due to inability to access the target parent vessel. Pre-procedure TICI 0; post-procedure TICI 0. No root procedure code assigned. ICD-10-PCS Applications/LocalApps.B3121ZZ fluoroscopy is the only procedure code. Select "Yes".
- ICD-10-PCS procedure code 037J3ZZ Dilation of Left Common Carotid Artery, Percutaneous Approach assigned. ICD-10-PCS 037J3ZZ is on Table 8.1c. Medical record documentation indicates that mechanical thrombectomy attempted but unsuccessful. Select "Yes".
- ICD-10-PCS procedure code 037J3ZZ Dilation of Left Common Carotid Artery, Percutaneous Approach assigned. Medical record documentation indicates that carotid artery stenting was performed. Select "No".
- ICD-10-PCS procedure codes 037J3ZZ Dilation of Left Common Carotid Artery, Percutaneous Approach and 03CL3ZZ Extirpation of Matter from Left Internal Carotid Artery, Percutaneous Approach assigned. TICI score 2A post-procedure, select "No".

**ADD** new third bullet:

If medical record documentation includes an ICD-10-PCS Principal or Other Procedure Code on Table 8.1b Mechanical Endovascular Reperfusion Procedures, select "No."

<table>
<thead>
<tr>
<th>Measure Category Assignment</th>
<th>Editorial change to move lengthy note to the data transmission section.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Move the following text from the data element to Section 7: Joint Commission National Quality Measures Data Transmission: Notes: Episode of care records that calculate with a Measure Category Assignment of “X” (missing data) for one or more measures will be rejected by the Joint Commission's Data Warehouse. Refer to the Missing and Invalid Data section in this manual for more information. All hospital measures use this data element. The ORYX Vendor's calculated Measure Category Assignment will be transmitted to The Joint Commission on a quarterly basis with the associated hospital clinical data. These measure results will be used in the Joint Commission's data</td>
<td></td>
</tr>
</tbody>
</table>
quality analysis and continuous measure verification process. ORYX Vendors can refer to the Joint Commission's ORYX Data Quality Manual for more information. Measure Category Assignment must be transmitted to The Joint Commission but cannot be transmitted to CMS. Files transmitted to the QIO Clinical Warehouse that contain Measure Category Assignment will be rejected.

| Minutes of Physical Restraint | Notes for Abstraction updated to clarify the priority for tracking time in restraint/seclusion when a patient is placed in restraint and seclusion at the same time. | Notes for Abstraction Change 3rd bullet: If a patient is in Event Type 1 (physical restraint(s)) and then changed to Event Type 2 (seclusion), the time for Event Type 1 (physical restraint(s)) STOPS. The initiation of Event Type 2 (seclusion) stops the time for Event Type 1 (physical restraint(s)).

Add as 4th bullet: If a patient is in Event Type 1 (physical restraint(s)) and Event Type 2 (seclusion) at the same time, the time should be counted as Minutes of Physical Restraint. Time in physical restraints supersedes time in seclusion. |
| Minutes of Seclusion | Notes for Abstraction updated to clarify the priority for tracking time in restraint/seclusion when a patient is placed in restraint and seclusion at the same time. | Notes for Abstraction Change 3rd bullet: If a patient is in Event Type 2 (seclusion) and then changed to Event Type 1 (physical restraint(s)), the time for Event Type 2 (seclusion) STOPS. The initiation of Event Type 1 (physical restraint(s)) stops the time for Event Type 2 (seclusion).

Add as 4th bullet: If a patient is in Event Type 1 (physical restraint(s)) and Event Type 2 (seclusion) at the same time, the time should be counted as Minutes of Physical Restraint. Time in physical restraints supersedes time in seclusion. |
| Positive Brain Image | The data element was updated to provide additional inclusion and exclusion terms for Positive Brain Image. | Inclusion Guidelines for Abstraction:
Add
- Intracranial hemorrhage
- Intraparenchymal hemorrhage

Exclusion Guidelines for Abstraction:
Add
- Punctate |
| Post-Treatment Thrombolysis in Cerebral Infarction (TICI) Reperfusion Grade | Exclusion Guidelines for Abstraction were updated to address documentation that uses modified Thrombolysis in Cerebral Infarction (mTICI) scores. | Exclusion Guidelines for Abstraction
Change third bullet: * Scoring methodologies other than TICI/mTICI |
| Post-Treatment Thrombolysis in Cerebral Infarction (TICI) Reperfusion Grade Time | Inclusion Guidelines and Notes for Abstraction were updated to add new terms / guidance for abstraction. | Inclusion Guidelines for Abstraction
Change to:
- Reperfusion time
- Revascularization time
- Stroke reperfusion time
- TICI time |
<table>
<thead>
<tr>
<th>Notes for Abstraction</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Add</strong> new fifth bullet: A grade value (e.g., 2B/3) must be documented to meet this data element. <strong>Do not infer</strong> a TICI grade based on other documentation in the medical record, e.g., TICI estimated from the dictated angiography report.</td>
<td></td>
</tr>
<tr>
<td><strong>Add</strong> new fifth bullet: A grade value (e.g., 2B/3) must be documented to meet this data element. <strong>Do not infer</strong> a TICI grade based on other documentation in the medical record, e.g., TICI estimated from the dictated angiography report.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Pre-Stroke Modified Rankin Score (mRS)</th>
<th>A new data element was developed and added to the measure specifications for purposes of risk adjustment, since a favorable outcome for a person with a mRS greater than 2 prior to the acute stroke event would be return to the pre-stroke level of function.</th>
<th>Measure Information Form <strong>Add</strong> new data element to the risk adjustment data element list.</th>
</tr>
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<tbody>
<tr>
<td><strong>Pre-Stroke Modified Rankin Score (mRS)</strong></td>
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<td>Measure Information Form <strong>Add</strong> new data element to the risk adjustment data element list.</td>
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<tr>
<td>Previous Live Births</td>
<td>Data element <em>Number of Previous Live Births</em> is being replaced with the new data element <em>Previous Live Births</em> to allow for capture of nulliparous by a yes or no allowable value and to reduce the burden of abstracting the actual number of previous live births.</td>
<td>Data element: <em>Number of Previous Live Births</em> replaced with new data element: <em>Previous Live Births</em></td>
</tr>
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<td>Data element: <em>Number of Previous Live Births</em> replaced with new data element: <em>Previous Live Births</em></td>
</tr>
</tbody>
</table>
| Reason for Not Administering Antithrombotic Therapy by End of Hospital Day 2 | The data element was updated to provide abstraction guidance regarding the administration of ticagrelor on the day of or day after hospital arrival. | Notes for Abstraction **Remove** third sub-bullet under fourth bullet:  
- Physician/APN/PA or pharmacist documentation of a hold on an antithrombotic medication or discontinuation of an antithrombotic medication that occurs the day of or day after hospital arrival constitutes a "clearly implied" reason for not administering antithrombotic therapy by end of hospital day 2. A hold/discontinuation of all PO. medications counts if an antithrombotic was on order at the time of the notation.  
**Add** a new fifth bullet:  
- For patients receiving ticagrelor as antithrombotic therapy for acute coronary syndrome (ACS), NSTE-ACS treated with early invasive strategy and/or coronary stenting, or other indications, select “Yes” if it is administered on the day of or day after hospital arrival.  
**Change** last bullet to:  
- For patients on warfarin therapy prior to hospital arrival and no order for warfarin on the day of or day after arrival due to “high INR,” select “Yes.” |
| Reason for Not Administering Antithrombotic Therapy by End of Hospital Day 2 | The data element was updated to provide abstraction guidance regarding the administration of ticagrelor on the day of or day after hospital arrival. | Notes for Abstraction **Remove** third sub-bullet under fourth bullet:  
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**Change** last bullet to:  
- For patients on warfarin therapy prior to hospital arrival and no order for warfarin on the day of or day after arrival due to “high INR,” select “Yes.” |
| Reason for Not Prescribing Antithrombotic Therapy at Discharge | The data element was updated to provide abstraction guidance when ticagrelor is prescribed as | Notes for abstraction:  
**Add** new third sub-bullet under second bullet: Documentation of “do not continue” or “do not convert” a home antithrombotic medication to an inpatient medication, or an inpatient antithrombotic |
| **Reason for Not Prescribing Antithrombotic Therapy at Discharge** | The data element was updated to provide abstraction guidance when ticagrelor is prescribed as | Notes for abstraction:  
**Add** new third sub-bullet under second bullet: Documentation of “do not continue” or “do not convert” a home antithrombotic medication to an inpatient medication, or an inpatient antithrombotic |
antithrombotic therapy at discharge. Guidance for the terms "do not continue" and "do not convert" used in electronic medical record documentation was also added.

medication to a discharge medication, does not count as a reason for not prescribing antithrombotic therapy at discharge. Do not infer that an antithrombotic medication was not prescribed or discontinued without explicit documentation of a reason for not prescribing an antithrombotic medication at discharge.

Example:
Patient on Plavix 75 mg daily while an inpatient. During discharge medication reconciliation, physician checks "do not convert" box next to Plavix, select "No."

Remove:
- Physician/APN/PA or pharmacist documentation of a hold on an antithrombotic medication or discontinuation of an antithrombotic medication that occurs during the hospital stay constitutes a "clearly implied" reason for not prescribing antithrombotic therapy at discharge. A hold/discontinuation of all p.o. medications counts if an oral antithrombotic medication (e.g., Plavix) was on order at the time of the notation.

EXCEPTIONS:
- Documentation of a conditional hold or discontinuation of an antithrombotic medication does not count as a reason for not prescribing an antithrombotic medication at discharge (e.g., "Hold ASA if guaiac positive," "Stop Plavix if rash persists," "No ASA for 24 hours following thrombolytic therapy").
- Discontinuation of a particular antithrombotic medication documented in combination with the start of a different antithrombotic medication (i.e., switch type of antithrombotic medication) does not count as a reason for not prescribing an antithrombotic medication at discharge. Examples:
  - "Stop Plavix" and "Start Plavix 75 mg po daily" in same physician order
  - "Change Plavix to aspirin" in progress note
  - "Do not continue after discharge" checked for Plavix and "Continue after discharge" checked for clopidogrel on a physician-signed discharge medication reconciliation form
- Discontinuation of an antithrombotic medication at a particular dose documented in combination with the start of a different dose of that antithrombotic (i.e., change in dosage) does not count as a reason for not prescribing an antithrombotic medication at discharge. Examples:
  - "Stop Ecotrin 300 mg po daily" and "Start Ecotrin 325 mg po daily" in same physician order
  - "Increase Ecotrin 81 mg to 325 mg daily" in progress note
  - "Do not continue after discharge" checked for Ecotrin 300 mg and "Continue after discharge" checked for Ecotrin 325 mg on a physician-signed discharge medication reconciliation form

Remove: * Crossing out of an antithrombotic medication counts as a "clearly implied reason" for not prescribing antithrombotic therapy at discharge only if on a pre-printed form.
<table>
<thead>
<tr>
<th>Reason for Not Prescribing Anticoagulation Therapy at Discharge</th>
<th>The data element was updated to provide abstraction guidance for the terms &quot;do not continue&quot; and &quot;do not convert&quot; when documented in an electronic medical record.</th>
<th>Notes for Abstraction:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Add new third sub-bullet under second bullet: Documentation of &quot;do not continue&quot; or &quot;do not convert&quot; a home anticoagulant medication to an inpatient medication, or an inpatient anticoagulant medication to a discharge medication, does not count as a reason for not prescribing anticoagulation therapy at discharge. Do not infer that an anticoagulant medication was not prescribed or discontinued without explicit documentation of a reason for not prescribing an anticoagulant medication at discharge. Example: Patient on Coumadin 2.5 mg while an inpatient. During discharge medication reconciliation, physician checks &quot;do not convert&quot; box next to Coumadin, select &quot;No.&quot;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Remove:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>o Physician/APN/PA or pharmacist documentation of a hold on an anticoagulant medication or discontinuation of an anticoagulant medication that occurs during the hospital stay constitutes a &quot;clearly implied&quot; reason for not prescribing anticoagulation therapy at discharge. A hold/discontinuation of all p.o. medications counts if an oral anticoagulant medication (e.g., warfarin) was on order at the time of the notation. EXCEPTIONS:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Documentation of a conditional hold or discontinuation of an anticoagulant medication does not count as a reason for not prescribing an anticoagulant medication at discharge (e.g., &quot;Hold Coumadin if guaiac positive,&quot; &quot;Stop warfarin if rash persists,&quot; &quot;No warfarin for 24 hours following thrombolytic therapy&quot;).</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Discontinuation of a particular anticoagulant medication documented in combination with the start of a different anticoagulant medication (i.e., switch type of anticoagulant medication) does not count as a reason for not prescribing an anticoagulant medication at discharge. Examples:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- &quot;Stop warfarin&quot; and &quot;Start warfarin 2 mg po daily&quot; in same physician order</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- &quot;Change Coumadin to Pradaxa&quot; in progress note</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- &quot;Do not continue after discharge&quot; checked for warfarin and &quot;Continue after discharge&quot; checked for Coumadin on a physician-signed discharge medication</td>
</tr>
</tbody>
</table>
Discontinuation of an anticoagulant medication at a particular dose documented in combination with the start of a different dose of that anticoagulant (i.e., change in dosage) does not count as a reason for not prescribing an anticoagulant medication at discharge.

Examples:
- “Stop warfarin 5 mg po daily” and “Start warfarin 2.5 mg po daily” in same physician order
- “Decrease dabigatran 150 mg po BID to 75 mg po BID” in progress note
- “Do not continue after discharge” checked for Coumadin 5 mg and “Continue after discharge” check for Coumadin 2.5 mg on a physician-signed discharge medication reconciliation form

Remove: * Crossing out of an antithrombotic medication counts as a “clearly implied reason” for not prescribing antithrombotic therapy at discharge only if on a pre-printed form.

Change to: * When the current record includes documentation of a pre-arrival reason for no antithrombotic therapy, the following counts regardless of whether this documentation is included in a pre-arrival record made part of the current record or whether it is noted by hospital staff during the current hospital stay:
Example: “Hx Gi bleeding with warfarin” documented in a transferring record.
- Documentation of a conditional hold or discontinuation of a statin medication does not count as a reason for not prescribing a statin medication at discharge (e.g., "Hold Zocor if severe diarrhea persists," "Stop atorvastatin if myalgias persist").
- Discontinuation of a particular statin medication documented in combination with the start of a different statin medication (i.e., switch in type of statin medication) does not count as a reason for not prescribing a statin medication at discharge.

Examples:
- "Stop lovastatin" and "Start atorvastatin 80 mg po q hs" in same physician order
- "Change Crestor to Lipitor" in progress note
- "Do not continue after discharge" checked for Vytorin and "Continue after discharge" checked for Advicor on a physician-signed discharge medication reconciliation form
- Discontinuation of a statin medication at a particular dose documented in combination with the start of a different dose of that statin (i.e., change in dosage) does not count as a reason for not prescribing a statin medication at discharge.

Examples:
- "Stop Simvastatin 20 mg po q hs" and "Start Simvastatin 40 mg po q hs" in same physician order
- "Increase Pravachol 40 mg to 80 mg" in progress note
- "Do not continue after discharge" checked for Zocor 40 mg and "Continue after discharge" checked for Zocor 80 mg on a physician-signed discharge medication reconciliation form

Change to:
* When the current record includes documentation of a pre-arrival reason for no statin medication, the following counts regardless of whether this documentation is included in a pre-arrival record made part of the current record or whether it is noted by hospital staff during the current hospital stay.

Examples:
- "Pre-arrival statin allergy" * "Hx muscle soreness to statins in past" documented in a transferring record.

<table>
<thead>
<tr>
<th>Reason for Oral Factor Xa Inhibitor</th>
<th>The data element is being updated to provide clarification for abstractors regarding acceptable indications for an Oral Factor Xa Inhibitor.</th>
</tr>
</thead>
</table>

Notes for Abstraction

Add new 3rd bullet:
- If the patient has a history of previous strokes and/or taking an Oral Factor Xa Inhibitor prior to hospital arrival, select "Yes".

Inclusion Guidelines for Abstraction

Add
- Stroke prevention / history of stroke
<table>
<thead>
<tr>
<th>Section</th>
<th>Rationale</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appendix A - ICD-10 Code Tables</td>
<td>Appendix A code tables were revised to reflect the ICD-10 code updates for Fiscal Year (FY) 2019, effective for discharges October 1, 2018. Update code table 11.05 to reflect current codes to identify induction of labor. Update code table 1.0 name to reflect addition of STK-OP measures</td>
<td>Change: Multiple codes added, removed, or revised per 2019 update on these tables: Table 10.01 Mental Disorders Table 11.01.1 Delivery Table 11.07 Conditions Possibly Justifying Elective Delivery Prior to 39 Weeks Gestation Table 11.09 Multiple Gestations and Other Presentations Table 11.18 Major Surgery Table 8.1 Ischemic Stroke Table 8.1b Mechanical Endovascular Reperfusion Procedures Table 8.2e Surgical Intervention Procedures Table 8.2f Traumatic Brain Injury Table 8.3 Carotid Intervention Procedures Appendix A Table 11.05 Medical Induction of Labor Add: 3E0DXGC Introduction of Other Therapeutic Substance into Mouth and Pharynx, External Approach 3E0P3VZ Introduction of Hormone into Female Reproductive, Percutaneous Approach 3E0P7VZ Introduction of Hormone into Female Reproductive, Via Natural or Artificial Opening Appendix A Table 1.0 table name Change to: ASR-OP/STK-OP E/M Codes for Emergency Department Encounters</td>
</tr>
<tr>
<td>Introduction to the Manual</td>
<td>Updates are being made to reflect the current Joint Commission and related quality initiatives, and to align with the Specifications Manual for National Hospital Inpatient Quality Measures.</td>
<td>Changes throughout the Introduction Section. Refer to the manual for complete content edits.</td>
</tr>
<tr>
<td>Sampling</td>
<td>Add STK-OP and PC-06 to align with the manual changes</td>
<td>Add STK-OP and PC-06 to be consistent with other parts of the manual.</td>
</tr>
<tr>
<td>Table of Contents</td>
<td>Added new PC-06 and STK-OP measures.</td>
<td>Add PC-06 measure. Add STK-OP-1 measure.</td>
</tr>
<tr>
<td>Transmission of Data</td>
<td>To align with the addition of STK-OP and PC-06 and new CSTK certification programs. For clinical XML layout file: Align with data dictionary changes For Allowable Measure Set</td>
<td>Updated data transmission section with STK-OP, PC-06, which are being added to the manual. Updated CSTK transmission section with CSC/TSC/PSC certification programs. Updates to file &quot;23a_Hospital_Clinical_Data_XML_File_Layout.xlsx&quot; Add PC-06, STK-OP-1 to Applicable Measure(s) column. Add four new elements Certification Type, MER Eligibility, Large Vessel Occlusion (LVO), Pre-Stroke</td>
</tr>
</tbody>
</table>
**General Release Notes**

<table>
<thead>
<tr>
<th>Rationale</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Change t-PA to alteplase.</td>
<td>Change the word t-PA to alteplase throughout ASR-IP, ASR-OP, STK, STK-OP, and CSTK MIFs and data elements.</td>
</tr>
<tr>
<td>PC-06 Unexpected Complications in Term Newborns is being added to the</td>
<td>PC-06 Unexpected Complications in Term Newborns MIF, algorithm and Appendix A code tables are being added to the manual.</td>
</tr>
<tr>
<td>Perinatal Measure Set.</td>
<td></td>
</tr>
<tr>
<td>Stroke Outpatient (STK-OP) measure set is being added to this manual.</td>
<td>Stroke Outpatient (STK-OP), MIF STK-OP-1 Door to Transfer to Another Hospital, algorithm and associated data elements are being added to the manual.</td>
</tr>
</tbody>
</table>