



**Paul Coverdell National Acute Stroke Program (PCNASP)**

**Cross Walk Showing Relationships among Short/Intermediate/Long-Term Outcome Measures, and Data Sources for Associated Performance Measures**

	DATA SOURCE <sup>1</sup>																																
	Process Performance Measures <sup>3</sup>			Performance Measures for Pre-Hospital Quality of Care Source: Data Elements from Emergency Services								Performance Measures for In-Hospital Quality of Care Source: Data Elements from Hospital Records													Performance Measures for Post-Hospital Quality of Care Sources: Data Elements from Hospital Records and Community Care								
<u>Outcome and performance measures<sup>2</sup>, with Question #s</u>	E 1	E 2	E3	Q 1	Q 2	Q 3	Q 4	Q 5	Q 6	Q 7	Q 8	Q 1	Q 2	Q 3	Q 4	Q 5	Q 6	Q 7	Q 8	Q 9	Q 10	Q 11	Q 12	Q 13	Q 1	Q 2	Q 3	Q 4	Q 5	Q 6	Q 7	Q 8	Q 9

in-hospital, and post-hospital stroke care practices and resources																																					
S4c. Increased pre-notification of hospitals by EMS of suspected stroke patients.						X																															
S5. Improved patient and caregiver receipt of education on ongoing post-stroke care needs		X																				X															
<b>Intermediate Outcome Measures (3+ Years)</b>																																					
I1. Reduced time to treatment for acute stroke events			X												X																			X	X		
I2. Improved transition of care from emergency services to hospital emergency department (ED)			X		X	X	X	X	X	X	X																									X	
I3. Improved transition of care from hospital to home, which may include reintegration with primary care provider, access to community resources, enhanced patient/caregiver education, and ongoing rehabilitation and secondary prevention			X																X	X	X	X												X	X	X	
I4. Improved quality of EMS care for possible stroke patients		X		X	X	X	X	X	X	X	X																										
I5. Improved quality of acute and sub-acute ED and hospital stroke care as measured by adherence to established guidelines for care and quality metrics			X									X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
I6. Improved defect free care for acute stroke patients			X									X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
I7. Improved tobacco control/reduction in smoking post			X																																		

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stroke																																					
I8. Improved medication adherence post-discharge			X																X																		
I9. Reduced 30-day hospital readmissions and ED visits for stroke-related complications after stroke			X											X	X																						
I10. Reduced 30-day mortality after acute stroke			X									X																									
<b>Long Term Outcome Measures</b>																																					
L1. Reduced disparities in stroke care, death, and disability should result from adherence to stroke care guidelines	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								X	X	X	X

<sup>1</sup> Data sources may contribute to short and/or intermediate and/or long-term performance measures. Additionally, hospital inventory data elements (**attachments 4a and 4b**) are used across patient-level measures for stratification on size and capacity

<sup>2</sup>See the process and quality of care performance measure reference numbers in the table below

<sup>3</sup>Process measures are reported in awardees’ annual performance report (APR), unless otherwise noted in this table

**Process Performance Measures**

- E1 Process-level performance measures, which include public awareness, partnerships, recruitment, data infrastructure, data use, quality improvement, and sustainability
- E2 Short-term outcome performance measures, which include public awareness, reach, data linkage, data reliability/validity, workforce capacity, stroke care, and patient education
- E3 Intermediate outcome performance measures, which include systems of stroke care, stroke care, and health outcomes

**Pre-Hospital Quality of Care Performance Measures (DRAFT)- derived from pre-hospital data elements (attachment 3a)**

- Q1 % of stroke transports with an on-scene time <15 minutes
- Q2 % of stroke transports with a blood glucose checked and recorded
- Q3 % of stroke transports where EMS called in a stroke alert pre-notification
- Q4 % of stroke transports that had a stroke screen completed and recorded
- Q5 % of stroke transports that had a documented time last known to be well
- Q6 % of stroke transports that had a documented time of discovery
- Q7 % of stroke transports that had a thrombolytic stroke check completed and documented
- Q8 % of stroke transports where EMS diagnosis agreed with hospital diagnosis

**In-Hospital Quality of Care Performance Measures- derived from in-hospital data elements (attachment 3b)**

- Q1 VTE prophylaxis provided by end of hospital day 2
- Q2 Antithrombotic medication by end of hospital day 2
- Q3 Antithrombotic medication at discharge
- Q4 % of ischemic stroke patients that arrive by 2 hours of time last known well and are treated with IV tPA by 3 hours of last known well
- Q5 Dysphagia screening performed and passed prior to food, fluids, or medication by mouth
- Q6 Anticoagulation on discharge for patients with atrial fibrillation/flutter
- Q7 Statin medication provided on discharge
- Q8 Smoking cessation counseling and/or treatment provided
- Q9 Assessed for rehabilitation needs
- Q10 Stroke education: patients or caregivers who were given educational materials during the hospital stay addressing all of the following: activation of emergency medical system, need for follow-up after discharge, medications prescribed at discharge, risk factors for stroke, and warning signs and symptoms of stroke
- Q11 % ischemic stroke patients with initial NIHSS score recorded
- Q12 Median door-to-needle time
- Q13 % patients with door-to-needle time <= 60 minutes

**Post-Hospital Quality of Care (TOC) Performance Measures (DRAFT)- derived from post-hospital data elements (attachment 3c)**

- Q1 % of stroke patients discharged to home who have died by 30 days
- Q2 % of stroke patients who were seen in ED within 30 days of discharge
- Q3 % of stroke patients who were readmitted to the hospital within 30 days of discharge
- Q4 % of stroke patients reporting blood pressure (BP) >140 systolic or >90 diastolic among those checking their BP at home
- Q5 % of stroke patients checking the BP at home
- Q6 % of stroke patients reporting 2 or more falls within 30 days of discharge
- Q7 % of stroke patients who stopped taking medications since discharge
- Q8 % of stroke transports where EMS diagnosis agreed with hospital diagnosis
- Q9 % of stroke patients that had a follow-up appointment scheduled prior to discharge