# 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 Perfor- mance Measures	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													
Outcome and performance measures <sup>2</sup> , with Question #s	E E E	G         Q         Q         Q         Q         Q         Q         Q         Q         Q         Q         Q         Q         Q         Q         Q         Q         Q         Q         R	Q         II         12         13	$ \begin{array}{c c c c c c c c c c c c c c c c c c c $													

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Short Term Outcomes Measures	(1-2	2 yea	rs)																													
S1. Increased public awareness of																																
signs and symptoms of stroke	X	X																														
and knowledge of appropriate	Α	Α.																														
activation of emergency medical																																
systems																															-	
S2. Maintenance of existing broad																																
reach and/or increase in the state-		X																														
wide reach of the stroke system																																
of care																																
S3. Increased data usage and sharing																																
between components of the																																
stroke care system that will result																																
from having an integrated/linked	X	X																														
data platform for pre-hospital																																
data, in-hospital data, and early																																
post-discharge data																																
S3a. Improved reliability and																																
validity of data as																																
determined through annual		X																														
data validation of select and																																
highly important data																																
elements																																
S4. Increased workforce capacity and																																
scientific knowledge for stroke		X																														
surveillance within stroke		1																														
systems of care																																
S4a. Increased implementation of																																
quality improvement (QI)																																
strategies for acute stroke	X																															
care across the continuum of																																
stroke care																																
S4b. Increased efficiencies and				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
effectiveness of pre-hospital,																																

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	Pe	coce erfor anco easi	r- e		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										
Outcome and performance measures <sup>2</sup> , with Question #s	E 1	E 2	F	3	Q Q 1 2	Q 3	9 (	5	Q (	Q (	Q Q	2 1	Q C	Q Q 3	2	Q 4	<b>Q</b> 5	Q 6	Q (7 8	Q (9	Q Q	) Q	1 1	2 1	Q 13	Q 1	Q 2	Q 3	Q 4	Q 5	Q 6	<b>Q</b> 7	Q 8	Q 9		
in-hospital, and post-hospital stroke care practices and resources	al																																			
S4c. Increased pre-notification of hospitals by EMS of suspected stroke patients.	of						Х																													
S5. Improved patient and caregiver receipt of education on ongoing post-stroke care needs			X																			X														
Intermediate Outcome Measu	res (	3+ 7	Year	s)	_																															
I1. Reduced time to treatment for acute stroke events				X												Х								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				Х															X	X	X	X								X	X		х			
community resources, enhanced patient/caregiver education, and ongoing rehabilitation and secondary prevention																																				
I4. Improved quality of EMS care for possible stroke patients	or		Х		Х	X	Х	Х	X	X	X	X																								
I5. Improved quality of acute and sub-acute ED and hospital strok care as measured by adherence t established guidelines for care and quality metrics	e o			X									х	х	Х	х	х	X	X	X	X	X	X	X	х											
I6. Improved defect free care for acute stroke patients				X									Х	Х	Х	Х	Х	Х	Х	Х	X	X	Х	Х	Х											
I7. Improved tobacco control/reduction in smoking po	st			X																																

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Outcome and performance measures <sup>2</sup> , with Question #s	E 1	E 2	E3	3 Q		3	2 4	Q (	3	Q (	Q (7 8	2	Q I	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		
stroke																																				
I8. Improved medication adherence post-discharge				Х															X																	
19. Reduced 30-day hospital readmissions and ED visits for stroke-related complications afte stroke	r			Х										х	х																					
I10. Reduced 30-day mortality after acute stroke				Х									Х																							
Long Term Outcome Measures	s		,																			,						,								
L1. Reduced disparities in stroke care, death, and disability should result from adherence to stroke care guidelines	2	х	ζ.	Х	х	Х	X	х	X	х	Х		Х	X	х	X	х	X	X	X	X	х	X	X	X					х	x	Х	х			

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

<sup>&</sup>lt;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 % 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 Q4 Q5 Dysphagia screening performed and passed prior to food, fluids, or medication by mouth Anticoagulation on discharge for patients with atrial fibrillation/flutter Q6 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 O13 % 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