

Modified question	Deleted question	New required question	New optional question		Item	Variable name
		1			Pre-Hospital/ Emergency Medical System (EMS) Data	InhospStk
1					Reasons not admitted	WhyNoAdm
1					Hospital admission data	AmbStatA
				1		
1					Initial glucose	AdmGlucose
1					Medications currently taking prior to admission	APltAdmYN
1					Medications currently taking prior to admission	ACoagAdmY N

			1		
			1		
			1		
			1		
			1		
			1		
			1		
		1			
		1			
1				Imaging	ImageD
		1			
1				Imaging	ImageT
		1			
1				Imaging	ImageRes
		1			
		1			
		1			
		1			
		1			
		1			
1				Thrombolytic Treatment	TrmIAM

1				Thrombolytic Treatment	TrmlAMD
		1			
1				Thrombolytic Treatment	TrmlAMT
		1			
1				Complications of thrombolytic therapy	ThrmCmpTX
1				Reasons for no tPA - 0-3 hour window.	NonTrtC
1				Reasons for no tPA - 0-3 hour window.	NonTrtCT

1					Reasons for no tPA - 0-3 hour window.	NonTrtWN
			1			
			1			
1					Reasons for no tPA - 3-4.5 hour window	NonTrtC4

1				Reasons for no tPA - 3-4.5 hour window	NonTrtCT4
1				Reasons for no tPA - 3-4.5 hour window	NonTrtWN4
1				Reasons for no tPA - 3-4.5 hour window	NonTrtNC4
			1		
1				Reasons for no tPA - 3-4.5 hour window	NonTrtIL4
1				Reasons for no tPA - 3-4.5 hour window	NonTrtFR4
1				Reasons for no tPA - 3-4.5 hour window	NonTrtRI4

1				Reasons for no tPA - 3-4.5 hour window	NonTrtSM4
1				If no documented contraindications or warnings, do these factors apply in the 3-4.5 hour time window?	NonTrtTD4
1				If no documented contraindications or warnings, do these factors apply in the 3-4.5 hour time window?	NonTrtDX4
1				If no documented contraindications or warnings, do these factors apply in the 3-4.5 hour time window?	NonTrtIV4
1				If no documented contraindications or warnings, do these factors apply in the 3-4.5 hour time window?	NonTrtOC4
1				Other warnings for patients treated in the 3-4.5 hour window?	NonTrMCA
			1		
			1		
			1		

			1		
			1		
			1		
1				Documented past medical history	MedhisDrug
1				Documented past medical history	MedhisFHStk
1				Documented past medical history	MedHisHRT
1				Documented past medical history	MedHisObese
1				Documented past medical history	MedHisMig
1				Documented past medical history	MedHisRenal
		1			
1				VTE Prophylaxis	OFXaVTEReason
1				Dysphagia Screening	DysphaPF

				1		
				1		
				1		
			1			

			1			
			1			
			1			
1					Antithrombotics at discharge	AthDCPlts
1					Antithrombotics at discharge	AthDCCoag
38	1	20	74			

*Variables in the table with the green background are required data elements. Vari

Text prompt	Legal values	Item	Variable name
Did this stroke occur as in-patient?	1 -Yes; 0 - No		
Reasons that the patient was not admitted	1 - discharged directly from ED to home or other location that is not an acute care hospital; 4 - Transferred from your ED to another acute care hospital; 6 - died in ED; 7 - Left ED AMA; 8 - discharged from observation status without an inpatient admission; 0 - Other;	Reasons not admitted	WhyNoAdm
Was patient ambulatory prior to stroke/TIA?	1 – Able to ambulate independently w/or w/o device; 2 - Yes but with assistance from another person; 3 - Unable to ambulate; 0 - ND	Hospital admission data	AmbStatA
		Functional status prior to stroke	mRS_pre
If patient received IV tPA (alteplase), what was the first blood glucose?	Numeric # = 3 digit	Initial glucose	AdmGluc
Antiplatelet medication	1 - Yes; 0 - No/ND	Medications currently taking prior to admission	APIAdm
Anticoagulant	1 - Yes; 0 - No/ND	Medications currently taking prior to admission	ACoagAdm

		Telestroke	TeleYN
		Telestroke	TeleVid
		Telestroke	TeleRad
		Telestroke	TelePho
		Imaging: prior hospital	ImagTYN
		Imaging: prior hospital	ImagTCT
		Imaging: prior hospital	ImagTCTA
		Imaging: prior hospital	ImagTCTP
		Imaging: prior hospital	ImagTMRI
		Imaging: prior hospital	ImagTMRA
		Imaging: prior hospital	ImagTMRP

		Imaging: prior hospital	ImagTDSA
		Imaging: prior hospital	ImagTND
		Imaging: prior hospital	ImagTD
		Imaging: prior hospital	ImagTDND
		Imaging: prior hospital	ImagTT
		Imaging: prior hospital	ImagTTND
		Imaging	ImageYCT
		Imaging	ImageYMR
Date of brain imaging	MMDDYYYY	Imaging	ImageD
		Imaging	ImageDND
Time of brain imaging	Time HHMM	Imaging	ImageT
		Imaging	ImageTND
Initial brain imaging findings?	1- Hemorrhage; 0 - No hemorrhage; 9 - ND or not available	Imaging	ImageRes
		Last known well	LKWDNK
		Last known well	LKWTNK
		Discovery of stroke symptoms	DiscDNK
		Discovery of stroke symptoms	DiscTNK
		Thrombolytic Treatment	TrmIVMDN
		Thrombolytic Treatment	TrmIVMTN
IA catheter-based reperfusion at this hospital?	1 - Yes; 0 - No	Thrombolytic Treatment	CathTx

Date of IA catheter-based reperfusion at this hospital	MMDDYYYY	Thrombolytic Treatment	CathTxD
		Thrombolytic Treatment	CathTDND
Time of IA catheter-based reperfusion at this hospital	Time HHMM	Thrombolytic Treatment	CathTxT
		Thrombolytic Treatment	CathTTND
Were there bleeding complications in a patient transferred after IV tPA (alteplase)	1 - yes & detected prior to transfer; 2 - yes but detected after transfer; 3 - UTD; 9 - Not applicable	Complications of thrombolytic therapy	ThrmCmpt
Contraindications, which include any of the following: SBP > 185 or DBP > 110 mmHg Seizure at onset; Recent surgery/trauma (<15 days) Recent intracranial or spinal surgery, head trauma, or stroke (<3 mo.) History of intracranial hemorrhage or brain aneurysm or vascular malformation or brain tumor; Active internal bleeding (<22 days) Platelets <100,000, PTT> 40 sec after heparin use, or PT > 15 or INR > 1.7, or known bleeding diathesis;	1 Yes; 0 No	Reasons for no tPA - 0-3 hour window.	NonTrtC
Suspicion of subarachnoid hemorrhage (CT findings of ICH, SAH, or major infarct signs);	1 Yes; 0 No	Reasons for no tPA - 0-3 hour window.	NonTrtCT

<p>Warnings: conditions that might lead to unfavorable outcomes: Stroke severity – too severe Glucose < 50 or > 400 mg/dl; left heart thrombus; increased risk of bleeding due to: acute (or recent) pericarditis, subacute bacterial endocarditis (SBE), hemostatic defects including those secondary to severe hepatic or renal disease, pregnancy, diabetic hemorrhagic retinopathy, or other hemorrhagic ophthalmic conditions, septic thrombophlebitis or occluded AV cannula at seriously infected site; patients currently receiving oral anticoagulants, e.g., Warfarin sodium;</p>	<p>1 Yes; 0 No</p>	<p>Reasons for no tPA - 0-3 hour window.</p>	<p>NonTrtWN</p>
		<p>If no documented contraindications or warnings, do these factors apply in the 0-3 hour time window?</p>	<p>NonTrtS</p>
		<p>If no documented contraindications or warnings, do these factors apply in the 0-3 hour time window?</p>	<p>NonTrtOT</p>
<p>Contraindications, which include any of the following: SBP > 185 or DBP > 110 mmHg Seizure at onset; Recent surgery/trauma (<15 days) Recent intracranial or spinal surgery, head trauma, or stroke (<3 mo.) History of intracranial hemorrhage or brain aneurysm or vascular malformation or brain tumor; Active internal bleeding (<22 days) Platelets <100,000, PTT > 40 sec after heparin use, or PT > 15 or INR > 1.7, or known bleeding diathesis;</p>	<p>1 Yes; 0 No</p>	<p>Reasons for no tPA - 3-4.5 hour window</p>	<p>NonTrtC4</p>

Suspicion of subarachnoid hemorrhage (CT findings of ICH, SAH, or major infarct signs);	1 Yes; 0 No	Reasons for no tPA - 3-4.5 hour window	NoT4_CT
Warnings: conditions that might lead to unfavorable outcomes: Stroke severity – too severe Glucose < 50 or > 400 mg/dl; left heart thrombus; increased risk of bleeding due to: acute (or recent) pericarditis, subacute bacterial endocarditis (SBE), hemostatic defects including those secondary to severe hepatic or renal disease, pregnancy, diabetic hemorrhagic retinopathy, or other hemorrhagic ophthalmic conditions , septic thrombophlebitis or occluded AV cannula at seriously infected site; patients currently receiving oral anticoagulants, e.g., Warfarin sodium;	1 Yes; 0 No	Reasons for no tPA - 3-4.5 hour window	NoT4_WN
Care team unable to determine eligibility	1 Yes; 0 No	Reasons for no tPA - 3-4.5 hour window	NoT4_NC
		Reasons for no tPA - 3-4.5 hour window	NoT4_OH
Life expectancy <1 year or severe comorbid illness or CMO on admission	1 Yes; 0 No	Reasons for no tPA - 3-4.5 hour window	NoT4_ILL
Family refusal	1 Yes; 0 No	Reasons for no tPA - 3-4.5 hour window	NoT4_FR
Rapid improvement	1 Yes; 0 No	Reasons for no tPA - 3-4.5 hour window	NoT4_RI

Stroke severity too mild	1 Yes; 0 No	Reasons for no tPA - 3-4.5 hour window	NoT4_SM
Inhospital time delay	1 Yes; 0 No	If no documented contraindications or warnings, do these factors apply in the 3-4.5 hour time window?	NoT4_ED
Unable to diagnose or did not diagnose in 3 hour time frame	1 Yes; 0 No	If no documented contraindications or warnings, do these factors apply in the 3-4.5 hour time window?	NoT4_DX
No IV access	1 Yes; 0 No	If no documented contraindications or warnings, do these factors apply in the 3-4.5 hour time window?	NoT4_PT
Other:	1 Yes; 0 No	If no documented contraindications or warnings, do these factors apply in the 3-4.5 hour time window?	NoT4_O
Were there other documented warning conditions for patients treated in the 3-4.5 hour time window?	1 Yes; 0 No	Other warnings for patients treated in the 3-4.5 hour time window?	NonTrMCA
		IV tPA delay	tPA Del45
		Brain imaging	ImageVas
		Brain imaging	ImageCTA

		Brain imaging	ImageCTP
		Brain imaging	ImageMRA
		Brain imaging	ImageMRP
		Brain imaging	ImageDSA
		Brain imaging	ImageND
		Brain imaging	ImagVD
		Brain imaging	ImagVDND
		Brain imaging	ImagT
		Brain imaging	ImagTND
		Brain imaging	LVO

		Brain imaging	LVOICA
		Brain imaging	LVOIICA
		Brain imaging	LVOICICA
		Brain imaging	LVOIOT
		Brain imaging	LVOMCA
		Brain imaging	LVOMCAM1
		Brain imaging	LVOMCAM2
		Brain imaging	LVOMCAOt
		Brain imaging	LVOBasAr
		Brain imaging	LVOOth

		Brain imaging	LVOVerAr
		Catheter-based endovascular stroke treatment	ArtPuncD
		Catheter-based endovascular stroke treatment	ArtPuncT
		Catheter-based endovascular stroke treatment	MERPROC
		Catheter-based endovascular stroke treatment	NoMERDoc
		Catheter-based endovascular stroke treatment	NoMEREx1
		Catheter-based endovascular stroke treatment	NoMEREx2
		Catheter-based endovascular stroke treatment	NoMEREx3

		Catheter-based endovascular stroke treatment	NoMEREx4
		Catheter-based endovascular stroke treatment	NoMEREx5
		Catheter-based endovascular stroke treatment	NoMEREx6
		Catheter-based endovascular stroke treatment	NoMEREx7
		Catheter-based endovascular stroke treatment	MERType1
		Catheter-based endovascular stroke treatment	MERType2
		Catheter-based endovascular stroke treatment	MERType3
		Catheter-based endovascular stroke treatment	MERType4
		Catheter-based endovascular stroke treatment	MERType5
		Catheter-based endovascular stroke treatment	MERType6

		Catheter-based endovascular stroke treatment	FPassD
		Catheter-based endovascular stroke treatment	FPassDND
		Catheter-based endovascular stroke treatment	FPassT
		Catheter-based endovascular stroke treatment	FPassTND
		Catheter-based endovascular stroke treatment	MERDelay
		Catheter-based endovascular stroke treatment	WhyMERD1
		Catheter-based endovascular stroke treatment	WhyMERD2
		Catheter-based endovascular stroke treatment	WhyMERD3
		Catheter-based endovascular stroke treatment	WhyMERD4
		Catheter-based endovascular stroke treatment	WhyMERD5
		Catheter-based endovascular stroke treatment	TICIG

		Catheter-based endovascular stroke treatment	TICID
		Catheter-based endovascular stroke treatment	TICIDND
		Catheter-based endovascular stroke treatment	TICIT
		Catheter-based endovascular stroke treatment	TICITND
			NIHSSPre
Drug or alcohol abuse?	1 - Yes; 0 - No/ND	Documented past medical history	MHDRUG
Family history of stroke	1 - Yes; 0 - No/ND	Documented past medical history	MHFHSTK
Hormone replacement therapy	1 - Yes; 0 - No/ND	Documented past medical history	MHHRTX
Obesity	1 - Yes; 0 - No/ND	Documented past medical history	MHOBESE
Migraines	1 - Yes; 0 - No/ND	Documented past medical history	MHMIGRN
Chronic renal insufficiency (serum creatinine)	1 - Yes; 0 - No/ND	Documented past medical history	MHRENAL
		Dysphagia Screening	Dyspha24
Is there a documented reason for using Oral Factor Xa Inhibitor for VTE?	1 - Yes; 0 - No	VTE Prophylaxis	OFXAVTE
If patient was screened for dysphagia, what were the results of the screen?	1 - Pass; 2 - Fail; 9 - ND	Dysphagia Screening	DysphaPF

		NIHSS ICD-10-CM code	NIHSSICD
		Stroke etiology	EtioDoc
		Stroke etiology	EtioType
		Lipid Treatment	CholesTx

		Lipid Treatment	StatnDos
		Lipid Treatment	StatnInt
		Lipid Treatment	StatnWhy
If patient was discharged on an antithrombotic medication, was it an antiplatelet?	1 - Yes; 0 - No/ND	Antithrombotics at discharge	DC_PLT
If patient was discharged on an antithrombotic medication, was it an anticoagulant?	1 - Yes; 0 - No/ND	Antithrombotics at discharge	DC_Coag

ables in the table with the blue background are optional data elements.

Text prompt	Legal values	Change description
		Variable is deleted, because it can be captured through an existing variable.
Reasons that the patient was not admitted	1 - discharged directly from ED to home or other location that is not an acute care hospital; 4 - Transferred from your ED to another acute care hospital; 6 - died in ED; 7 - Left ED AMA; 8 - discharged from observation status without an inpatient admission; 9 - Other;	Legal values will be modified to align with GWTG
Was patient ambulatory prior to stroke/TIA?	1 – Able to ambulate independently w/or w/o device; 2 - Yes but with assistance from another person; 3 - Unable to ambulate; 9 - ND	Legal values will be modified to align with GWTG
Modified Rankin Score pre-stroke	0 - No symptoms; 1 - no significant disability despite symptoms; 2 - slight disability; 3 - moderate disability, can walk without assistance; 4 - moderate to severe disability, needs assistance to walk; 5 - severe disability, bedridden; 9 - ND	This new data element was added by GWTG, which is the data collection method for a majority of Coverdell participating hospitals. Its addition aligns exactly with GWTG to reduce data burden. This question will help compare functional status before and after a stroke to improve quality of care.
If patient received IV tPA (alteplase), what was the first blood glucose?	Numeric # = 3 digit	Variable name modified to align with GWTG
Antiplatelet medication	1 - Yes; 0 - No/ND	Variable name modified to align with GWTG
Anticoagulant	1 - Yes; 0 - No/ND	Variable name modified to align with GWTG

Was telestroke consultation performed?	1- Yes, the patient received telestroke consultation from my hospital staff when the patient was located at another hospital; 2- Yes, the patient received telestroke consultation from someone other than my staff when the patient was located at another hospital; 3- Yes, the patient received telestroke consultation from a remotely located expert when the patient was located at my hospital; 4- No telestroke consult performed; 9- ND	This new data element was added by GWTG. It aligns exactly with GWTG to reduce data burden. This optional question will allow CDC and states to better understand the use of telemedicine to improve stroke care.
Telestroke consultation performed via interactive video	1 - Yes; 0 - No	This new question is being added by GWTG. This optional question will allow CDC and states to better understand the use of telemedicine to improve stroke care.
Telestroke consultation performed via teleradiology	1 - Yes; 0 - No	This new question is being added by GWTG. This optional question will allow CDC and states to better understand the use of telemedicine to improve stroke care.
Telestroke consultation performed via telephone call	1 - Yes; 0 - No	This new question is being added by GWTG. This optional question will allow CDC and states to better understand the use of telemedicine to improve stroke care.
Was brain or vascular imaging performed prior to transfer to your facility?	1 – Yes; 0 – No/ND	This optional question is added in alignment with GWTG to understand advanced stroke care
If yes, which imaging tests were performed: CT	1 – Yes; 0 – No/ND	This optional question is added in alignment with GWTG to understand advanced stroke care
If yes, which imaging tests were performed: CTA	1 – Yes; 0 – No/ND	This optional question is added in alignment with GWTG to understand advanced stroke care
If yes, which imaging tests were performed: CT Perfusion	1 – Yes; 0 – No/ND	This optional question is added in alignment with GWTG to understand advanced stroke care
If yes, which imaging tests were performed: MRI	1 – Yes; 0 – No/ND	This optional question is added in alignment with GWTG to understand advanced stroke care
If yes, which imaging tests were performed: MRA	1 – Yes; 0 – No/ND	This optional question is added in alignment with GWTG to understand advanced stroke care
If yes, which imaging tests were performed: MR Perfusion	1 – Yes; 0 – No/ND	This optional question is added in alignment with GWTG to understand advanced stroke care

If yes, which imaging tests were performed: DSA	1 – Yes; 0 – No/ND	This optional question is added in alignment with GWTG to understand advanced stroke care
If yes, which imaging tests were performed: Image type not documented	1 – Yes; 0 – No/ND	This optional question is added in alignment with GWTG to understand advanced stroke care
Date 1 st vessel or perfusion imaging initiated at prior hospital	MMDDYYYY	This optional question is added in alignment with GWTG to understand advanced stroke care
Date 1 st vessel or perfusion imaging initiated at prior hospital not documented	1 – Yes; 0 – No	This optional question is added in alignment with GWTG to understand advanced stroke care
Time 1 st vessel or perfusion imaging initiated at prior hospital	Time HHMM	This optional question is added in alignment with GWTG to understand advanced stroke care
Time 1 st vessel or perfusion imaging initiated at prior hospital not documented	1 – Yes; 0 – No	This optional question is added in alignment with GWTG to understand advanced stroke care
If brain imaging performed was it a CT?	1- Yes; 0-No/ND	New question added to align with changes made by GWTG. Only required if selected "yes" to ImageYN
If imaging performed was it a diffusion MRI?	1- Yes; 0-No/ND	New question added to align with changes made by GWTG. Only required if selected "yes" to ImageYN
Date brain imaging first initiated at your hospital	MMDDYYYY	The modified wording of this question will align with changes made by GWTG
Date imaging first initiated not documented	1 - Yes; 0 - No	This variable is added to align with GWTG
Time brain imaging first initiated at your hospital	Time HHMM	The modified wording of this question will align with changes made by GWTG
Date imaging first initiated not documented	1 - Yes; 0 - No	This variable is added to align with GWTG
Initial brain imaging findings?	1- acute hemorrhage; 0 - No acute hemorrhage; 9 - ND or not available	Wording of legal values changed to align with GWTG
last known well date not documented	1 - Yes; 0 - No	This variable is added to align with GWTG
Last known well time not documented	1 - Yes; 0 - No	This variable is added to align with GWTG
Discovery date not documented	1 - Yes; 0 - No	This variable is added to align with GWTG
Discovery time not documented	1 - Yes; 0 - No	This variable is added to align with GWTG
IV tPA initiation date not documented	1 - Yes; 0 - No	This variable is added to align with GWTG
IV tPA initiation time not documented	1 - Yes; 0 - No	This variable is added to align with GWTG
Catheter-based treatment at this hospital?	1 - Yes; 0 - No	The modified wording and variable of this question will align with changes made by GWTG, and to capture scientific advances in stroke care

Date of IA t-PA or MER initiation at this hospital	MMDDYYYY	The modified wording and variable of this question will align with changes made by GWTG to provide clarity, and to capture scientific advances in stroke care
Date of IA t-PA or MER initiation not documented	1 - Yes; 0 - No	This variable is added to align with GWTG
Time of IA t-PA or MER initiation at this hospital	Time HHMM	The modified wording and variable of this question will align with changes made by GWTG, and to capture scientific advances in stroke care
Time of IA t-PA or MER initiation not documented	1 - Yes; 0 - No	This variable is added to align with GWTG
Were there bleeding complications in a patient transferred after IV tPA (alteplase)	1 - yes & detected prior to transfer; 2 - yes but detected after transfer; 3 - UTD; 9 - Not applicable	Variable is modified to align with GTWG and adhere to character length guidelines
Contraindications, which include any of the following: Elevated blood pressure (systolic > 185 or diastolic > 110 mmHg) despite treatment; Recent intracranial or spinal surgery or significant head trauma, or prior stroke in previous 3 months; History of previous intracranial hemorrhage, intracranial neoplasm, arteriovenous malformation, or aneurysm; Active internal bleeding; Acute bleeding diathesis (low platelet count, increased PTT, INR ≥ 1.7 or use of NOAC); Arterial puncture at non-compressible site in previous 7 days; Blood glucose concentration <50 mg/dL (2.7 mmol/L)	1 Yes; 0 No	Updates are needed to align with the most recent FDA-approved contraindications and warnings for thrombolytics administration. Updates will also better align with changes in GWTG
Symptoms suggest subarachnoid hemorrhage; CT demonstrates multilobar infarction (hypodensity >1/3 cerebral hemisphere)	1 Yes; 0 No	Updates are needed to align with the most recent FDA-approved contraindications and warnings for thrombolytics administration. Updates will also better align with changes in GWTG

<p>Warnings: Pregnancy; Recent acute myocardial infarction (within previous 3 months); Seizure at onset with postictal residual neurological impairments; Major surgery or serious trauma within previous 14 days; Recent gastrointestinal or urinary tract hemorrhage (within previous 21 days)</p>	<p>1 Yes; 0 No</p>	<p>Updates are needed to align with the most recent FDA-approved contraindications and warnings for thrombolytics administration. Updates will also better align with changes in GWTG</p>
<p>Stroke too severe</p>	<p>1 Yes; 0 No</p>	<p>This will be added to align with its new addition in GWTG</p>
<p>Other reasons (text)</p>	<p>1 Yes; 0 No</p>	<p>This will be added to align with its new addition in GWTG</p>
<p>Contraindications, which include any of the following: Elevated blood pressure (systolic > 185 or diastolic > 110 mmHg) despite treatment; Recent intracranial or spinal surgery or significant head trauma, or prior stroke in previous 3 months; History of previous intracranial hemorrhage, intracranial neoplasm, arteriovenous malformation, or aneurysm; Active internal bleeding; Acute bleeding diathesis (low platelet count, increased PTT, INR ≥ 1.7 or use of NOAC); Arterial puncture at non-compressible site in previous 7 days; Blood glucose concentration <50 mg/dL (2.7 mmol/L)</p>	<p>1 Yes; 0 No</p>	<p>Updates are needed to align with the most recent FDA-approved contraindications and warnings for thrombolytics administration. Updates will also better align with changes in GWTG</p>

Symptoms suggest subarachnoid hemorrhage; CT demonstrates multi-lobar infarction (hypodensity >1/3 cerebral hemisphere)	1 Yes; 0 No	Updates are needed to align with the most recent FDA-approved contraindications and warnings for thrombolytics administration. Variable name was also modified to adhere to character length guidelines set by GWTG. This will ultimately reduce burden for states that use a mix of GWTG and other systems.
Warnings: Pregnancy; Recent acute myocardial infarction (within previous 3 months); Seizure at onset with postictal residual neurological impairments; Major surgery or serious trauma within previous 14 days; Recent gastrointestinal or urinary tract hemorrhage (within previous 21 days)	1 Yes; 0 No	Updates are needed to align with the most recent FDA-approved contraindications and warnings for thrombolytics administration. Variable name is also modified to adhere to character length guidelines set by GWTG. This will ultimately reduce burden for states that use a mix of GWTG and other systems.
Care team unable to determine eligibility	1 Yes; 0 No	Variable name is modified to adhere to character length guidelines set by GWTG. This will ultimately reduce burden for states that use a mix of GWTG and other systems.
IV or IA thrombolysis/thrombectomy at an outside hospital prior to arrival	1 Yes; 0 No	New optional variable will be collected to capture thrombolytic administration prior to hospital arrival
Life expectancy <1 year or severe comorbid illness or CMO on admission	1 Yes; 0 No	Variable name is modified to adhere to character length guidelines set by GWTG. This will ultimately reduce burden for states that use a mix of GWTG and other systems.
Patient/family refusal	1 Yes; 0 No	Variable name is modified to adhere to character length guidelines set by GWTG. This will ultimately reduce burden for states that use a mix of GWTG and other systems.
Rapid improvement	1 Yes; 0 No	Variable name is modified to adhere to character length guidelines set by GWTG. This will ultimately reduce burden for states that use a mix of GWTG and other systems.

Stroke severity too mild	1 Yes; 0 No	Variable name is modified to adhere to character length guidelines set by GWTG. This will ultimately reduce burden for states that use a mix of GWTG and other systems.
In-hospital time delay	1 Yes; 0 No	Variable name is modified to adhere to character length guidelines set by GWTG. This will ultimately reduce burden for states that use a mix of GWTG and other systems.
Delay in stroke diagnosis	1 Yes; 0 No	Variable name is modified to adhere to character length guidelines set by GWTG. This will ultimately reduce burden for states that use a mix of GWTG and other systems.
No IV access	1 Yes; 0 No	Variable name is modified to adhere to character length guidelines set by GWTG. This will ultimately reduce burden for states that use a mix of GWTG and other systems.
Other reasons	1 Yes; 0 No	Variable name is modified to adhere to character length guidelines set by GWTG. This will ultimately reduce burden for states that use a mix of GWTG and other systems.
Additional relative exclusion criteria: Age >80; History of both diabetes and prior ischemic stroke; Taking an oral anticoagulant regardless of INR; Severe stroke (NIHSS >25)	1 Yes; 0 No	Updates are needed to align with the most recent FDA-approved contraindications and warnings for thrombolytics administration.
If IV tPA (alteplase) was initiated greater than 45 minutes after hospital arrival, were eligibility or medical reasons documented as the cause for delay?	1 Yes; 0 No	New required element to align with new national time goals set by AHA/ASA.
Was vascular or perfusion imaging performed at your hospital?	1 - Yes; 0 - No/ND	Added as optional to collect information for advanced stroke treatment performance measures. Question is only available for certain stroke patients
If yes, type of imaging: CTA	1 - Yes; 0 - No/ND	Added as optional to collect information for advanced stroke treatment performance measures. Question is only available for certain stroke patients

If yes, type of imaging: CT Perfusion	1 - Yes; 0 - No/ND	Added as optional to collect information for advanced stroke treatment performance measures. Question is only available for certain stroke patients
If yes, type of imaging: MRA	1 - Yes; 0 - No/ND	Added as optional to collect information for advanced stroke treatment performance measures. Question is only available for certain stroke patients
If yes, type of imaging: MR Perfusion	1 - Yes; 0 - No/ND	Added as optional to collect information for advanced stroke treatment performance measures. Question is only available for certain stroke patients
If yes, type of imaging: DSA (catheter angiography)	1 - Yes; 0 - No/ND	Added as optional to collect information for advanced stroke treatment performance measures. Question is only available for certain stroke patients
If yes, type of imaging: ND	1 - Yes; 0 - No/ND	Added as optional to collect information for advanced stroke treatment performance measures. Question is only available for certain stroke patients
Date 1 st vessel or perfusion imaging initiated at your hospital	MMDDYYYY	Added as optional to collect information for advanced stroke treatment performance measures. Question is only available for certain stroke patients
Date 1 st vessel or perfusion imaging initiated at your hospital not documented	1 - Yes; 0 - No	Added as optional to collect information for advanced stroke treatment performance measures. Question is only available for certain stroke patients
Time 1 st vessel or perfusion imaging initiated at your hospital	Time HHMM	Added as optional to collect information for advanced stroke treatment performance measures. Question is only available for certain stroke patients
Time 1 st vessel or perfusion imaging initiated at your hospital not documented	1 - Yes; 0 - No	Added as optional to collect information for advanced stroke treatment performance measures. Question is only available for certain stroke patients
Was a target lesion (large vessel occlusion) visualized?	1 - Yes; 0 - No	Added as optional to collect information for advanced stroke treatment performance measures. Question is only available for certain stroke patients

If yes, site of large vessel occlusion: ICA	1 - Yes; 0 - No	Added as optional to collect information for advanced stroke treatment performance measures. Question is only available for certain stroke patients
If yes, site of large vessel occlusion: Intracranial ICA	1 - Yes; 0 - No	Added as optional to collect information for advanced stroke treatment performance measures. Question is only available for certain stroke patients
If yes, site of large vessel occlusion: Cervical ICA	1 - Yes; 0 - No	Added as optional to collect information for advanced stroke treatment performance measures. Question is only available for certain stroke patients
If yes, site of large vessel occlusion: ICA other/UTD	1 - Yes; 0 - No	Added as optional to collect information for advanced stroke treatment performance measures. Question is only available for certain stroke patients
If yes, site of large vessel occlusion: MCA	1 - Yes; 0 - No	Added as optional to collect information for advanced stroke treatment performance measures. Question is only available for certain stroke patients
If yes, site of large vessel occlusion: MCA M1	1 - Yes; 0 - No	Added as optional to collect information for advanced stroke treatment performance measures. Question is only available for certain stroke patients
If yes, site of large vessel occlusion: MCA M2	1 - Yes; 0 - No	Added as optional to collect information for advanced stroke treatment performance measures. Question is only available for certain stroke patients
If yes, site of large vessel occlusion: MCA Other/UTD	1 - Yes; 0 - No	Added as optional to collect information for advanced stroke treatment performance measures. Question is only available for certain stroke patients
If yes, site of large vessel occlusion: Basilar artery	1 - Yes; 0 - No	Added as optional to collect information for advanced stroke treatment performance measures. Question is only available for certain stroke patients
If yes, site of large vessel occlusion: Other cerebral artery branch	1 - Yes; 0 - No	Added as optional to collect information for advanced stroke treatment performance measures. Question is only available for certain stroke patients

<p>If yes, site of large vessel occlusion: Vertebral artery</p>	<p>1 - Yes; 0 - No</p>	<p>Added as optional to collect information for advanced stroke treatment performance measures. Question is only available for certain stroke patients</p>
<p>What is the date of skin puncture at this hospital to access the arterial site selected for endovascular treatment of a cerebral artery occlusion?</p>	<p>MMDDYYYY</p>	<p>Added as optional to collect information for advanced stroke treatment performance measures. Question is only available for certain stroke patients</p>
<p>What is the time of skin puncture at this hospital to access the arterial site selected for endovascular treatment of a cerebral artery occlusion?</p>	<p>Times HHMM</p>	<p>Added as optional to collect information for advanced stroke treatment performance measures. Question is only available for certain stroke patients</p>
<p>Was a mechanical endovascular reperfusion procedure attempted during this episode of care (at this hospital)?</p>	<p>1 - Yes; 0 - No</p>	<p>Added as optional to collect information for advanced stroke treatment performance measures. Question is only available for certain stroke patients</p>
<p>Are reasons for not performing mechanical endovascular reperfusion therapy documented?</p>	<p>1 - Yes; 0 - No</p>	<p>Added as optional to collect information for advanced stroke treatment performance measures. Question is only available for certain stroke patients</p>
<p>Reasons for not performing mechanical endovascular therapy includes: significant pre-stroke disability (pre-stroke mRS >1); no evidence of proximal occlusion; NIHSS <6; brain imaging not favorable/hemorrhage transformation (ASPECTS score <6); groin puncture could not be initiated within 6 hours of symptom onset; anatomical reason- unfavorable vascular anatomy that limits access to the occluded artery; patient/family refusal; and/or MER performed at outside hospital</p>	<p>1 - Yes; 0 - No</p>	<p>Added as optional to collect information for advanced stroke treatment performance measures. Question is only available for certain stroke patients</p>
<p>Reason for not performing mechanical endovascular therapy: equipment-related delay</p>	<p>1 - Yes; 0 - No</p>	<p>Added as optional to collect information for advanced stroke treatment performance measures. Question is only available for certain stroke patients</p>
<p>Reason for not performing mechanical endovascular therapy: no endovascular specialist available</p>	<p>1 - Yes; 0 - No</p>	<p>Added as optional to collect information for advanced stroke treatment performance measures. Question is only available for certain stroke patients</p>

Reason for not performing mechanical endovascular therapy: delay in stroke diagnosis	1 - Yes; 0 - No	Added as optional to collect information for advanced stroke treatment performance measures. Question is only available for certain stroke patients
Reason for not performing mechanical endovascular therapy: vascular imaging not performed	1 - Yes; 0 - No	Added as optional to collect information for advanced stroke treatment performance measures. Question is only available for certain stroke patients
Reason for not performing mechanical endovascular therapy: advanced age	1 - Yes; 0 - No	Added as optional to collect information for advanced stroke treatment performance measures. Question is only available for certain stroke patients
Reason for not performing mechanical endovascular therapy: other reason	1 - Yes; 0 - No	Added as optional to collect information for advanced stroke treatment performance measures. Question is only available for certain stroke patients
If MER treatment at this hospital, type of treatment: retrievable stent	1 - Yes; 0 - No	Added as optional to collect information for advanced stroke treatment performance measures. Question is only available for certain stroke patients
If MER treatment at this hospital, type of treatment: other mechanical clot removal device besides stent retrieval	1 - Yes; 0 - No	Added as optional to collect information for advanced stroke treatment performance measures. Question is only available for certain stroke patients
If MER treatment at this hospital, type of treatment: clot suction device	1 - Yes; 0 - No	Added as optional to collect information for advanced stroke treatment performance measures. Question is only available for certain stroke patients
If MER treatment at this hospital, type of treatment: intracranial angioplasty, with or without permanent stent	1 - Yes; 0 - No	Added as optional to collect information for advanced stroke treatment performance measures. Question is only available for certain stroke patients
If MER treatment at this hospital, type of treatment: cervical carotid angioplasty, with or without permanent stent	1 - Yes; 0 - No	Added as optional to collect information for advanced stroke treatment performance measures. Question is only available for certain stroke patients
If MER treatment at this hospital, type of treatment: other mechanical clot removal device besides stent retrieval	1 - Yes; 0 - No	Added as optional to collect information for advanced stroke treatment performance measures. Question is only available for certain stroke patients

What is the date of the first pass of a clot retrieval device at this hospital?	MMDDYYYY	Added as optional to collect information for advanced stroke treatment performance measures. Question is only available for certain stroke patients
Date of the first pass of clot retrieval device at this hospital not documented	1 - Yes; 0 - No	
What is the time of the first pass of a clot retrieval device at this hospital?	Time HHMM	Added as optional to collect information for advanced stroke treatment performance measures. Question is only available for certain stroke patients
Time of the first pass of clot retrieval device at this hospital not documented	1 - Yes; 0 - No	
Is a cause(s) for delay in performing mechanical endovascular reperfusion therapy documented?	1 - Yes; 0 - No	Added as optional to collect information for advanced stroke treatment performance measures. Question is only available for certain stroke patients
Reasons for delay: social/religious; initial refusal; care-team unable to determine eligibility; management of concomitant emergent/acute conditions such as cardiopulmonary arrest, respiratory failure (requiring intubation); and/or investigational or experimental protocol for thrombolysis	1 - Yes; 0 - No	Added as optional to collect information for advanced stroke treatment performance measures. Question is only available for certain stroke patients
Reasons for delay: delay in stroke diagnosis	1 - Yes; 0 - No	Added as optional to collect information for advanced stroke treatment performance measures. Question is only available for certain stroke patients
Reasons for delay: in-hospital time delay	1 - Yes; 0 - No	Added as optional to collect information for advanced stroke treatment performance measures. Question is only available for certain stroke patients
Reasons for delay: equipment-related delay	1 - Yes; 0 - No	Added as optional to collect information for advanced stroke treatment performance measures. Question is only available for certain stroke patients
Reasons for delay: other	1 - Yes; 0 - No	Added as optional to collect information for advanced stroke treatment performance measures. Question is only available for certain stroke patients
(TICI) Post-Treatment Reperfusion Grade	Grade 2a; 4 – Grade 2b; 5 – Grade 3; 6 - ND	This optional question is added to capture advanced stroke treatment

Date a post-treatment TICI Reperfusion Grade of 2B/3 was first documented during the mechanical thrombectomy procedure?	Date MMDDYYYY	This optional question is added to capture advanced stroke treatment
Date a post-treatment TICI reperfusion grade 2B/3 not documented during the mechanical thrombectomy procedure?	1 - Yes; 0 - No	
Time a post-treatment TICI reperfusion grade 2B/3 not documented documented prior to initiation of IA t-PA or MER at this hospital?	Time HHMM	This optional question is added to capture advanced stroke treatment
Time a post-treatment TICI reperfusion grade 2B/3 not documented	1 - Yes; 0 - No	
documented prior to initiation of IA t-PA or MER at this hospital?	Numeric # = 1 digit	This optional question is needed for advanced stroke treatment performance measures
Drug or alcohol abuse?	1 - Yes; 0 - No/ND	This variable name is modified to align with GWTG
Family history of stroke	1 - Yes; 0 - No/ND	This variable name is modified to align with GWTG
Hormone replacement therapy	1 - Yes; 0 - No/ND	This variable name is modified to align with GWTG
Obesity	1 - Yes; 0 - No/ND	This variable name is modified to align with GWTG
Migraines	1 - Yes; 0 - No/ND	This variable name is modified to align with GWTG
Chronic renal insufficiency (serum creatinine)	1 - Yes; 0 - No/ND	This variable name is modified to align with GWTG
Was the patient screened for dysphagia within 24 hours of admission?	1 - Yes; 0 - No or ND; 2 - NC	Question is needed to capture this data for dysphagia screening performance measure.
Is there a documented reason for using Oral Factor Xa Inhibitor for VTE?	1 - Yes; 0 - No	Variable name is modified to align with GWTG
If patient was screened for dysphagia, what were the results of the most recent screen prior to oral intake?	1 - Pass; 2 - Fail; 9 - ND	Question wording is changed to align with GWTG.

<p>ICD-10-CM code for first captured NIHSS score (any position)</p>	<p>0 – R29.700; 1 – R29.701; 2 – R29.702; 3 – R29.703; 4 – R29.704; 5 – R29.705; 6 – R29.706; 7 – R29.707; 8 – R29.708; 9 – R29.709; 10 – R29.710; 11 – R29.711; 12 – R29.712; 13 – R29.713; 14 – R29.714; 15 – R29.715; 16 – R29.716; 17 – R29.717; 18 – R29.718; 19 – R29.719; 20 – R29.720; 21 – R29.721; 22 – R29.722; 23 – R29.723; 24 – R29.724; 25 – R29.725; 26 – R29.726; 27 – R29.727; 28 – R29.728; 29 – R29.729; 30 – R29.730; 31 – R29.731; 32 – R29.732; 33 – R29.733; 34 – R29.734; 35 – R29.735; 36 – R29.736; 37 – R29.737; 38 – R29.738; 39 – R29.739; 40 – R29.740; 41 – R29.741; 42 – R29.742; 70 – R29.70; 71 – R29.71; 72 – R29.72; 73 – R29.73; 74 – R29.74; 75 – R29.7</p>	<p>Addition of this optional variable will provide an understanding of agreement between clinically documented NIHSS and those that are included as ICD-10-CM codes before stroke severity is added into nationally reported risk-adjustment models</p>
<p>Was stroke etiology documented in the patient medical record?</p>	<p>1 – Yes; 0 - No</p>	<p>Addition of this optional variable is needed to capture information on mechanism of the stroke documented in the patient record. It aligns directly with GWTG.</p>
<p>If the stroke etiology was documented, select the type.</p>	<p>1 – Large-artery atherosclerosis (e.g., carotid or basilar stenosis); 2 – Cardioembolism (e.g., atrial fibrillation/flutter, prosthetic heart valve, recent MI); 3 – Small-vessel occlusion (e.g., subcortical or brain stem lacunar infarction <1.5 cm); 4 – Stroke of other determined etiology (e.g., dissection, hypercoagulability, other); 5 – Cryptogenic stroke (multiple potential etiologies, undetermined etiology); 9 - Unspecified</p>	<p>Addition of this optional variable is needed to capture information on mechanism of the stroke documented in the patient record. It aligns directly with GWTG.</p>
<p>Was a cholesterol-reducing treatment prescribed at discharge?</p>	<p>1 – None; 2 – None-contraindicated; 3 – Statin; 4 – Fibrate; 5 – Other med; 7 – Niacin; 8 – Absorption inhibitor; 9 – PCSK9</p>	<p>This new variable is needed for the calculation of a new intensive statin therapy performance measure. It aligns directly with GWTG, which requires the collection of this question.</p>

Statin dose	Text 25 characters	This new variable is needed for the calculation of a new intensive statin therapy performance measure. It aligns directly with GWTG, which requires the collection of this question.
What intensity was the statin that was prescribed at discharge?	1 - High-intensity statin; 2 - Moderate-intensity statin; 3 - Low-intensity statin; 9 - Unknown	This new variable is needed for the calculation of a new intensive statin therapy performance measure. Specific medications that are collected by GWTG are mapped to the legal value categories to reduce burden.
Was there a documented reason for not prescribing guideline recommended statin dose?	1 - Intolerant to moderate or greater intensity; 2 - No evidence of atherosclerosis (cerebral, coronary, or peripheral vascular disease); 3 - Other documented reason; 9 - Unknown	This new variable is needed for the calculation of a new intensive statin therapy performance measure. It aligns directly with GWTG, which requires the collection of this question.
If patient was discharged on an antithrombotic medication, was it an antiplatelet?	1 - Yes; 0 - No/ND	Variable name is modified to align with GWTG
If patient was discharged on an antithrombotic medication, was it an anticoagulant?	1 - Yes; 0 - No/ND	Variable name is modified to align with GWTG