

Ischemic Stroke / Non-Traumatic Hemorrhagic Stroke

Medical History				
O None	Drug Allergi	06		
g	O None	5 3		
o otrone	O lodine / Contrast			
- madrama momormago	Other			
O Hypertension				
O Hypercholesterolemia	Last Known	Well:	Date:	Time:
	Symptoms D	etected:	Date:	Time:
o CAD				
O PVD			_	
O DVT	Family enro	ute to E	D: ○ Yes ○) No
O Coagulation Disorder	Family Pho	ne Numb	oer	
O CHF		10 110111		
O A-Fib				
O Valvular Heart Disease	=140 D !! D	4- 5		
O Carollu Artery Disease	EMS Radio Re	-		
o PE	BP/ H	R RR	O2 sat	·
O COPD	RHYTHM	B:	s GCS	
O Spizura				
· · · · · · · · · · · · · · · · · · ·	OXYGEN O Nor			
	IV ACCESS:	(pr	efer 20g antecเ	ubital)
Surgical History	PRESENTATION:			
None				
○ CABG				
Aortic/Mitral Valve Replacement				
○ CEA				
	RECENT FALL: (
Other	HEADACHE: () Y	es 🔾 No T	Pain (0-10)	
Anti-Coagulants				
None	Stroke Scree	n "Be-F	ΔST"	
Coumadin (Warfarin)				
Eliquis (Apixaban)	BALANCE	O Difficulty V		
Pradaxa (Dabigatran)	COORDINATION	O Difficulty u	sing one nand	
Xarelto (Rivaroxaban)	EYES	O Double Vis	sion	
Heparin			d Cut RT / LT	
Lovenox		○ Gaze Devi	iation RT / LT	
LAST DOSE:	FACIAL DROOP	○ Normal		
	FACIAL DROOP	○ Normal	RT / I T	
Anti-Platelets		O 7 torrorman	, 2.	
○ None	ARM DRIFT	○ Normal		
O ASA 81 mg		○ Weak RT		
O ASA 325 mg		O No Movem	ient RT / LT	
O Plavix (Clopidogrel)	SPEECH	○ Normal		
O Aggrenox O Effient (Prasugrel)		Slurred		
O Brilinta (Ticagrelor)		O Wrong Wo		
LAST DOSE:		O Unable to	Speak	

Dominant Hand

O Right O Left

Not a Permanent Part of Patient Record Privileged & Confidential In-Hospital Code Stroke: Room # ____ Cheboygan ED - Fax to (231) 487-3423

> Direct To CT Unless ABC's Compromised or Discretion of Team Leader or Provider



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Code Stroke: Clock / Goal Start time **Date:** / /

FD: Registration Time (aka Door In)

	gistration Time (aka Door Ir pital: Time symptoms det				
V	Code Stroke Checklist				
	POC BS (ED may us	se EMS result)			
	Actual Weightkg	document in Cerner			
	Swallow Screen Completed	document in Cerner			
	Administer Aspirin in ED if N	IO IV Thrombolytic			
Time	Code Stroke Core Measures				
	Code Stroke called: 7-4444	Goal: 5 min or less			
	Code Provider at bedside	Goal: 3 min or less			
	CT 1st Slice	Goal: 15 min or less			
	CT results communicated to Provider directly				
	CTA Head & Neck (NIH 2 or greater)				
Time	MSN Telemedicine /	Transfer to Flint			
	1st Call: Telemedicine Call C	Center - At time of CT			
	2nd Call: if no call back in 9 min.				
	Neuro Interventionalist call back time				
	Decision to Transfer to Flint				
	Report to Flint PA (810-342-2828)				
	Depart ED Goal: Door In -	Door Out w/in 60 min			
Time	Thrombolytic Ad	Thrombolytic Administration			
	Decision by Provider fo	or Thrombolytics:			
	Thrombolytic Time Out Completed Document on Thrombolytic Documentation Tool				
	BP 180/105 or less prior	to TNK-ase bolus			
	Initiation of BP Manage	ement Medication			
	TNK-ase bolusmg (5 sec) Goal w/in 30 min				
	10 cc 0.9 NS Flush admir	nistered after Bolus			
	Initiate Thrombolytic M (Complete Times for				
	NIH handoff / Report provi				
	Code Stroke Nursing Not	e Created in Cerner			

Cancel Code Stroke – call 7-7777

Large Vessel Occlusion

NIH Stroke Scale 6 or greater

Visual field cut

Deviated gaze

Severe aphasia or mute

Face/arm weaker than leg

Posterior Circulation Stroke

NIH Stroke Scale may be 0 Dizziness **Deviated Gaze Double Vision** Discoordination Dysarthria Dysphagia

Look for DIZZY + 1

Large Vessel Occlusion suspected

EARLY notification: Both

Flight Crew & Local EMS

Flight: Time called

(Request stand-by for stroke, provide pt. wt.)

1st Aero Med: (800) 862-0921

2nd Guardian Flight: (800) 828-0168

Ground: Time called

Petoskey: Emmet EMS (231) 330 - 1836

(If no call back in 5 minutes, call 911)

Cheboygan: Cheboygan Life Support

(231) 439 - 3500 (Non-Emergent)

Dispatch: (800) 577-1911

Flint Telemedicine Call Center 1-844-880-3500

Neuro Interventionalist (Please ✓)

Dr. Aniel Majjhoo Dr. Bharath Naravetla Dr. Mahmoud Rayes

FLINT PA DIRECT LINE: 810.342.2828

Phone #s	Petoskey	Cheboygan	
House Supervisor	73300		
CT Mobile	VOCERA	21532	
Lab	74519	21217	
Pharmacy	74217	21251	



Ischemic Stroke / Non-Traumatic Hemorrhagic Stroke

11-Item NIH Stroke Scale		Complete: Code stroke activation / Baseline Every Hour until Admission/Transfer	Date Time	1	1	1
Category			111110			
1a Level of Consciousness	1 1	Alert; keenly responsive				
(LOC)	1 1	Not alert; arousable by minor stimuli				
, ,		Arousable to only painful stimuli				
		Reflex response / Unresponsive / Coma				+
1b LOC Orientation Questions	1 1	Answers both correctly				
(Month and age)		Answers one correctly or endotracheal tube				
(Neither correct / No comprehension / Com	a			
1c LOC Commands	0	Performs both tasks correctly				
ic Loc commands	1 1	Performs one task correctly				
	2 1	Performs neither task correctly / Coma				
2 Horizontal Gaze	0 1	Normal eye movement all way to right & le	ft			
Patient follows examiner's		Gaze deviation but pupil crosses midline				
finger or face		Gaze deviation and pupil does not cross mid	dline			
		No visual loss				1
<u>3 Visual</u>	1 - 1	Partial hemianopia – 1 quadrant				
Test all 4 quadrants by finger		Complete hemianopia – 1 quadrant Complete hemianopia – upper & lower qua	drant			
counting or visual threat	1 1		urant			
4.5t-l.D-l-	-	Bilateral hemianopia or blindness				+
4 Facial Palsy	1 - 1	Equal smile				
Smile / show teeth - raise		Unequal smile, flattened nasal labial fold				
eyebrows and squeeze eyes	1 1	Paralysis of lower face				
shut (mimic ok)	3	Paralysis of upper & lower face				
		No drift at end of 10 seconds				
	1 1	Drifts down, does not hit bed by end of 10 s	seconds			
5 Motor - Arm	1 1	Drifts down, does not like bed by end of 10 s Drifts down & hits bed before 10 seconds	LT			
Arm outstretched by patient	1 1					
or lifted up by examiner	1 1	Arm moves on bed, no effort against gravity				
	1 1	No movement	RT			
	X I	Unable to assess (amputation, fusion)				
6 Motor - Leg		Test for 5 seconds	LT			
Raise each leg to 30° for 5		Score same as motor arm				
seconds		Score same as motor and	рт			
30001103			RT			
<u>7 Limb Ataxia</u>	1 - 1	Normal smooth movement or coma or unal	ole to			
Finger - nose - finger; heel		understand your command				
down shin (score only if no	1 1	Present in one extremity, upper or lower				
weakness or deficit identified)	2 1	Present in both upper and lower extremity				
		Name of acception				
8 Sensory	1 - 1	Normal sensation				
Pin prick to face, arm & legs	1 1	Mild loss but aware of touch				
, , ,	2	Severe loss, unaware of touch / Coma				
0.0	0 1	Normal				
9 Best Language	1 1	Mild impairment				
Identify objects, read	1 1	Severe, fragmented speech				
sentences, explain picture		Mute, no usable speech				
	3	ata, no asasie speculi				+
<u>10 Dysarthria</u>		Normal, no slurring				
Repeats mama, tip top, 50 50,		Mild to moderate slurring but some words underst	andable			
huckleberry, baseball player	2	Severe, unintelligible, mute or coma				
		No abnormality, coma, aphasic				+
11 Extinction & Inattention	1 1.					
Test double stimulation to	1 - 1	Present with touch or vision				
vision and touch	2	Present with both touch & vision				
		Total Comm	0 (0_ 42)			
		Total Scor	c (U=42)			-
		Dizziness Y (yes)	N (no)			
		Double Vision Y (yes)	N (no)			
		Nausea / Vomiting Y (yes)	N (no)			
		Headache Rate pain in bo	x 0 - 10			
						+

Is pt. able to hold a conversation? R or L Handed? Is pt. able to sit on the edge of the bed? Ambulate?

Head CT Positive for BLEED				
Time	Quality Metrics: Nontraumatic			
	ICH: SBP 130 - 150			
	SAH: SBP 120 - 140			
	Goal: w/in 1 hr of arrival			
	BP goal/target may be			
individualized by Neurosurgeon				
	or Neuro Interventionalist			
	Rapid Reversal Protocol initiated			
	Goal: w/in 1 hr of arrival			
	Neurosurgeon consulted - EVD			
	Non-traumatic SAH transferred to			
	Flint: aneurysm coiling / neuro ICU			

Glasgow Coma Scale	
Eye Opening Response	
Spontaneous – open w blinking at baseline	4
So verbal stimuli, command, speech	3
To pain only (not applied to face)	2
No response	1
Verbal Response	
Oriented	5
Confused conversation but able to answer	
questions	4
Incomprehensible speech	3
Inappropriate words	2
No response	1
Motor Response	
Obeys command for movement	6
Purposeful movement to painful stimuli	5
Withdraws in response to pain	4
Flexion: decorticate posturing	3
Extension: decerebrate posturing	2
No response	1
TOTAL	

Per National Requirements

GCS Less or Equal to 5

You Must Call

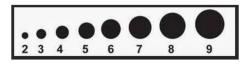
GIFT OF LIFE (1-800-482-4881)

In 1ST Hour after Arrival

PUPILS:

NON-REACTIVE / REACTIVE / SLUGGISH

RIGHT _____ LEFT____



Evaluating Disability Questions:

- 1. Will you be able to return to work as normal with these deficits?
- 2. Will you be able to perform your everyday activities or hobbies?
- 3. Do you consider your symptoms to be disabling?



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Direct Thrombin inhibitors and

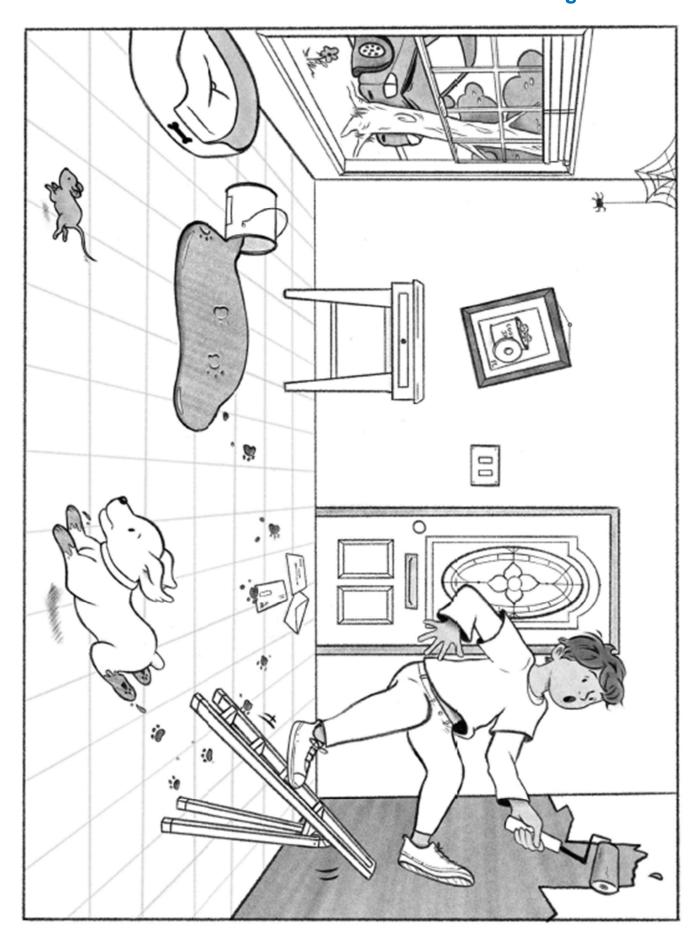
		/ pee			
Inc	HICTOR.	- VC	usion	CPT	CITA

2018 AHA/ASA Guidelines

Inclusion Criteria:		r Xa Inhibitora
☐ Diagnosis of ischemic stroke causing measurable neurological deficit	GENERIC NAME	BRAND NAME
Onset of symptoms <4.5 hours before beginning treatment can be confirmed with Last Known Well time	Dabigatran	Pracaxa
☐ Age greater than or equal to 18 years	Fondaparinux	Artxtra
Exclusion Criteria:	Apixaban Apixaban	Xareito Eliquis
Current intracranial hemorrhage	FOOXADAN	Savaysa
☐ Subarachnoid hemorrhage		
Active internal bleeding		
Arterial puncture at noncompressive site in previous 7 days		
Recent (within 3 months) intracranial or intraspinal surgery or serious head trauma		
Presence of intracranial conditions that may increase the risk of bleeding (e.g. some neoplasms; arteriove	nous malformatio	ons: or aneurvsms
☐ Bleeding diathesis		,,
Current severe uncontrolled hypertension		
☐ Last Known Well time cannot be determined		
Known bleeding diathesis including, but not limited to:		
Platelet count <100 000/mm3		
Heparin received within 48 hours resulting in abnormally elevated PTT greater than the upper limit of normality	nal	
Current use of anticoagulant with INR >1.7 or PT >15 seconds or PTT> 40 seconds	iidi	
Current use of thrombin inhibitors or factor Xa inhibitors with elevated lab tests (aPTT; INR; Platelet coun	: FCT: TT or Fact	tor Xa assav)
XA inhibitor within 48 hours	., 201, 11 01 140	tor Ad dobdy)
☐ Initial Blood glucose concentration <50 mg/dl		
CT demonstrates multilobar infarction (within previous 3 months)		
Relative Exclusion Criteria:		
□ None		
☐ Age >80 years		
☐ Pregnancy		
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)		
Recent acute myocardial infarction (within previous 3 months)		
Additional Warnings for TNK-ase use from 3 to 4.5 hours:		
None		
☐ Age >80 Years		
Severe Stroke(NIHSS >25)		
☐ Taking an oral anticoagulant regardless of INR		
History of both diabetes and prior ischemic stroke		

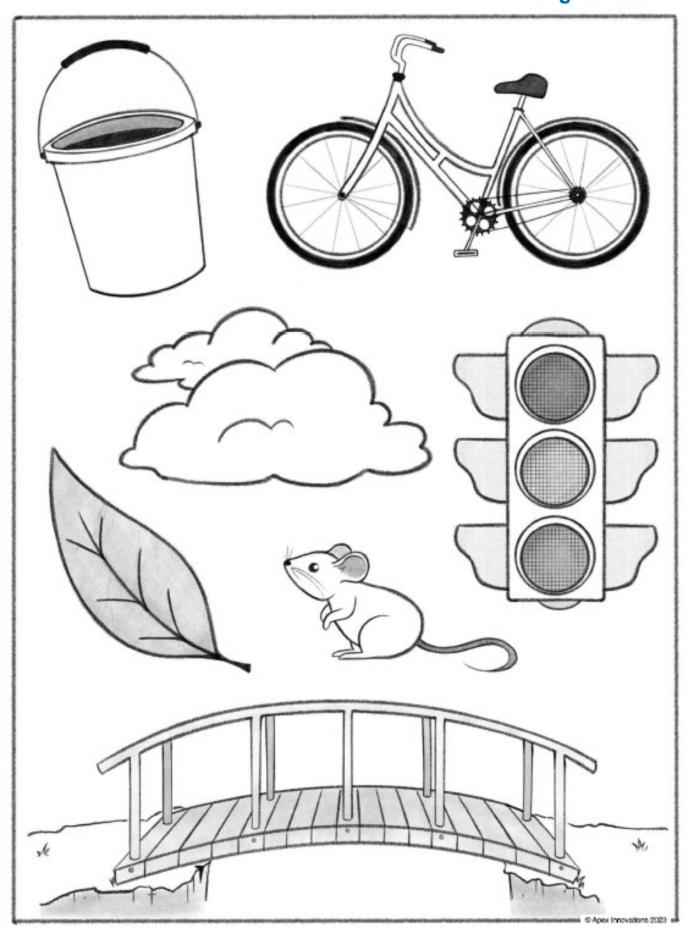


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MAMA

TIP - TOP

FIFTY — FIFTY

THANKS

HUCKLEBERRY

BASEBALL PLAYER

CATERPILLAR

You know how.

Down to earth.

I got home from work.

Near the table in the dining room.

They heard him speak on the radio last night.