

Provider Intro to:

Emergent TeleNeurology
Consult Service

Emergent TeleNeurology (eTN):

What: eTN is a new service that provides emergent neurology consults to patients via TeleHealth technology. This service is a companion service alongside TeleStroke, which your site already has in place. The next two slides describe the service and what is considered “in scope” and “out of scope”. The Providence TH Panel is the same group of providers who cover both TeleStroke and Emergent TeleNeurology. These patients can be from the ED or Inpatient settings.

How: Your site is in process of implementing this service. This process includes providing selected nursing staff with self-paced HealthStream and/or Power Point modules; access to neurology assessment videos; a neurology exam guide; eTN algorithm; virtual classes and mock drills. After the Go Live, you will be able to access our service by calling the TeleNeurology Hotline (found on the algorithm).

When: This implementation process takes about 60 days of preparation before go live. We have started the process and there will be notices for the exact date.

***Reminder:** This is a consultative service in which on site providers are responsible for placing all orders and for making arrangements for any transfers.

Providence Emergent TeleNeurology



Clinical Service Offering

- Emergent TeleNeurology is a contracted, 24 x 7 Tier 2 consulting service aimed at providing treatment recommendations for adult patients > 18 years of age; presenting with emergent neurological symptoms, using web based, bi-directional, audio-video equipment.
- In collaboration with onsite healthcare providers, the technology used in TeleNeurology will allow a specialized neurologist to complete a clinical assessment, review diagnostic imaging, make recommendations and get the appropriate treatment plan started quickly for patients.



Platform

- Reliable audio/video connection to bedside
 - InTouch Health / Teladoc Cart and Peripherals



Staffing

- Providence TeleNeurology Providers are board certified vascular neurologists who are licensed and credentialed at each site they serve and base treatment recommendations and practices on the latest neurological research and outcomes data.



Administration

- Medical Director oversight of TeleNeurology providers, protocol definition, maintenance of provider network
- Project management and installation support; site training and operational support; reporting

Clinical Scope

Emergent TeleNeurology

Tier II

- ✓ **Includes Acute TeleStroke - Tier 1**
- ✓ **Comprehensive stroke triage and other acute neurology consults**

- Subacute stroke patients
- TIA / Stroke mimics
- Carotid and vertebral artery atherosclerotic disease FMD [Fibromuscular Dysplasia]
- Intracranial atherosclerosis recommendations
- Carotid and vertebral dissections
- PFO
- Stroke in Young
- Moyamoya
- Embolic strokes
- Lacunar strokes
- Thrombotic strokes
- Seizure (will need 24x7 EEG)
- Intracranial bleeds
- Headache and migraine (will need 24x7 MRI and CSF)

- Acute encephalopathy (EEG, MRI, LP)
- TIA/TGA
- Vertigo, dizziness, spells
- Pre-existing a diagnosis and myasthenia exacerbation, MS exacerbation (IVIg, Plasmapheresis)

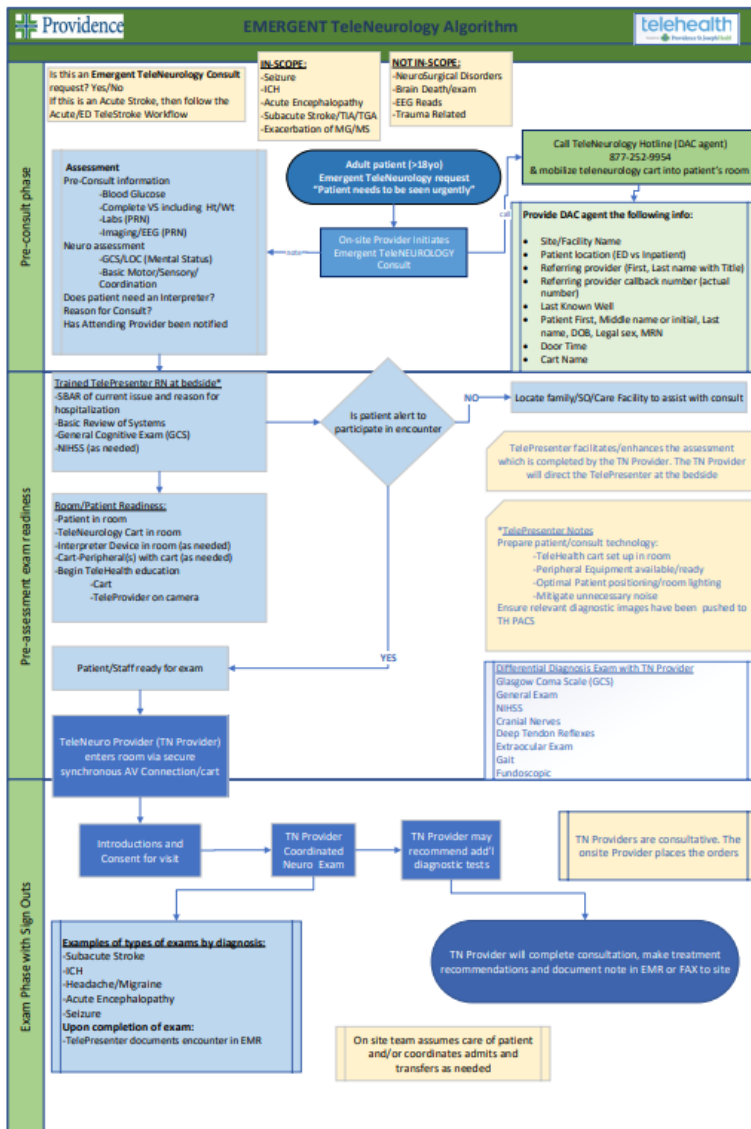
Limited Scope

- Encephalitis, paraneoplastic disorders advanced testing
- Neuromuscular disorders requiring in person neurology and EMG testing (e.g. AIDP, CIDP, ALS)
- Long standing dementia

Not in scope

- Neurosurgical disorders – brain tumors, surgical hemorrhages, trauma
- Brain death and prognosis exams
- EEG Reads (TeleEEG)

eTN Algorithm

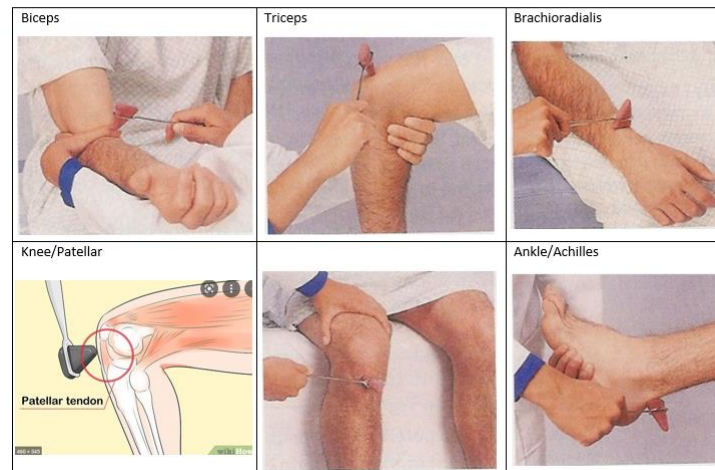


On site Nursing Champions receive about 4 hours of training to assist and facilitate the eTN consults

Glasgow Coma Scale (GCS):

Best motor response	Best verbal response	Eye opening
6 Obeying commands	5 Oriented (time, place, person)	4 Spontaneous
5 Localizing to pain	4 Confused conversation	3 In response to speech
4 Withdrawing to pain	3 Inappropriate speech	2 In response to pain
3 Flexor response to pain	2 Incomprehensible sounds	1 None
2 Extensor response to pain	1 None	
1 No response to pain		

Reference for Reflex Exam:



eTN Exam Guide

Emergent TeleNeurology Exam: TelePresenter Guide

Pre-Consult:

- Chief Complaint/Reason for Consult (SBAR)
- Pt History
- Testing *****Remind Imaging to push images Prov TeleStroke**

Neuro Exam:

Test Higher Cortical Functions:

- Orientation and Wakefulness
- Speech and Neglect
- GCS (Glasgow Coma Scale) for drowsy and encephalopathic patients.
- Use full NIHSS for stroke cases

Orientation and Wakefulness:

- How old are you?
- What year is it?
- Make a fist with your right hand?
- Open and close your eyes?
- Point to the window?
- Point to the ceiling?
- Show me 2 fingers?
- Where are you?
- Why are you in the hospital?

Speech and Neglect:

- Use NIHSS to assess Speech and Neglect

GCS (Glasgow Coma Scale): 0-15

- As Needed

CN	Test	What to look for:
II	Visual Fields: (like NIH) check 4 quadrants in both eyes ***Check for fundus in appropriate patients	Vision deficits
III, IV & VI	Extraocular Movement- Follow finger with eyes while keeping head stationary ***Check for pupils in lethargic patients	Eyes not moving together up/down and right/left ***Gaze abnormalities and nystagmus
V	Sensation of Face- Touch face on both sides	Symmetry in sensation
VII	Facial Expression-Raise eyebrows, smile,	Symmetry
VIII	Hearing – Rub both fingers by pt's ears	Hearing Deficits
IX/X	Have pt say "AH" after asking them to open mouth (shine light if necessary)	Symmetry of palate and any uvular deviation
XI	Shoulder shrug	Bilateral Strength
XII	Have pt stick out tongue	Symmetry

Motor: Ability to move arms/legs.

- **Score 0-5** (0=no muscle movement, 5=full strength)

	Deltoid	Elbow	Wrist	Grip	Hip	Knee	Ankle
R							
L							

Sensory:

- Sensory Exam, test bilaterally, to light touch, pin prick and sometimes vibration

Coordination:

- Arm: Finger-Nose-Finger-Nose
- Leg: Heal-shin test
- Romberg: Ask patient to stand up feet close to each other, hands crossed in front and close eyes
- Gait: Can patient walk?

Reflexes:

- **+++ (hyper), ++ (normal) or hypo (0 or +) -- Look for symmetry**

	Biceps	Triceps	Brachioradialis	Patellar/Knee	Achilles/Ankle	Plantar/Toe
R	+	+	+	+	+	down
L	+	+	+	+	+	down

Thank you for your time