MGH National TeleStroke Consortium

MGH/NLH TeleStroke Kickoff Call

June 23rd, 2020

Connecting patients and providers, virtually everywhere

Northern Light
Eastern Maine Medical Center

MGH 1811
MASSACHUSETTS GENERAL HOSPITAL
TELENEUROLOGY

Agenda

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TELEHEALTH

1. TeleStroke Service Overview
2. Operational & Clinical Workflow
3. Implementation Process & Next Steps
4. Telehealth Portal and Education
5. Q&A

TeleNeurology Success Metrics

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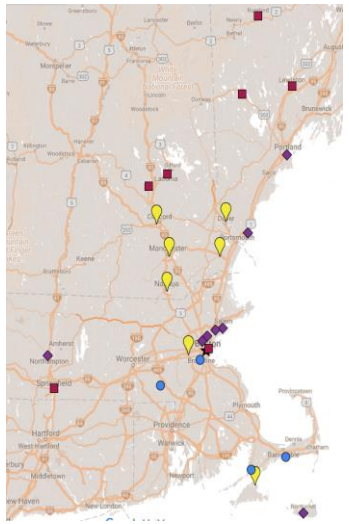
6.5 MILLION
NEW ENGLAND RESIDENTS
now with local access to our team of neurologists.



2190+ TeleStroke Consults

36% tPA treatment rate (compared to 6% nationally)

60+ Tele NeuroCritical Care Consults

~15% rate of change to 1ry and 2ry diagnoses (LOS impact TBD)

~85% OF TOTAL Pts. REMAINED AT THEIR COMMUNITY HOSPITALS

~50% OF TPA Pts. REMAINED AT THEIR COMMUNITY HOSPITALS

2,600+ TeleNeurology Consults

~2120 LOS days saved (~33%)

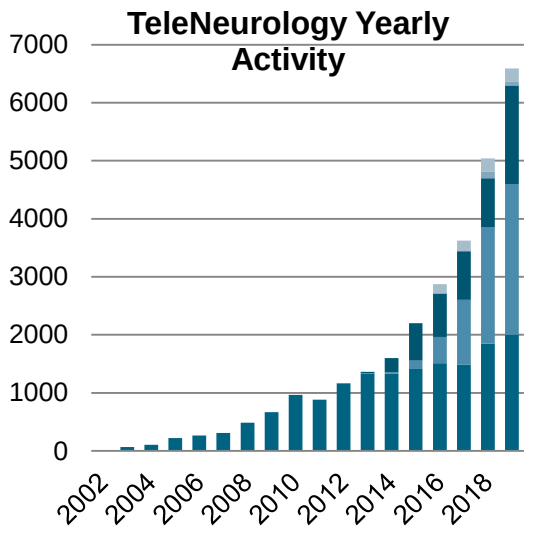
200+ TeleEEG Interpretations

1,700+ TeleNeurology Virtual Visits

~30% decrease in need for in-person visits

60 CASES
Identified as candidates for Endovascular Thrombectomy (EVT)

$11.1M of potential stroke DRG reimbursement for community recipients



TeleStroke Service Overview – Clinical Quality

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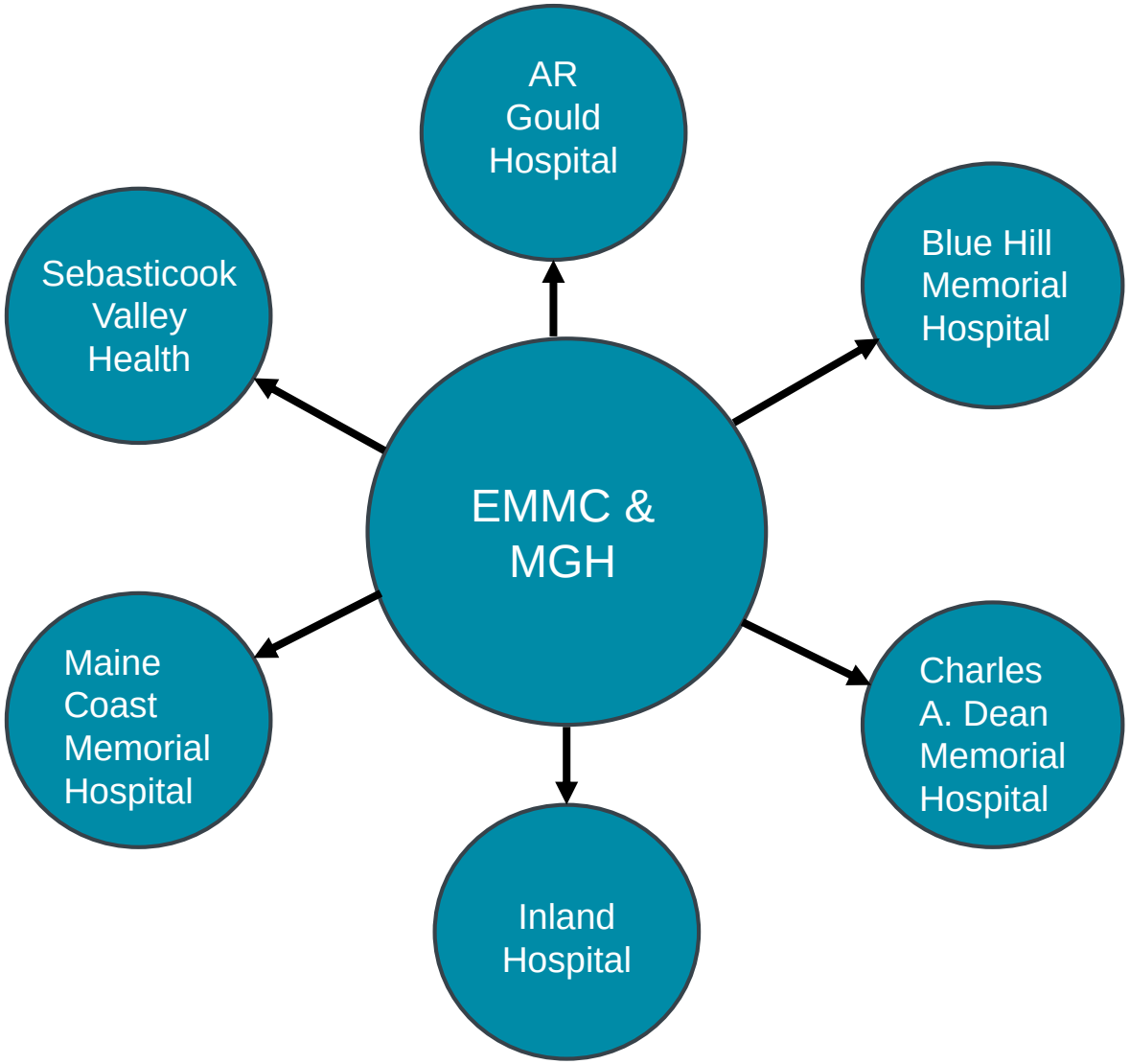
Our attending staff members are all board-certified neurocritical, vascular, or general neurologists and provide the *highest quality 24/7/365 TeleNeurology coverage available.*

- 150+ Independently-funded research grants
- 1,000+ Peer-Reviewed Publications
- 1060+ Invited Presentations

Operational & Clinical Workflow – Hub and Spoke Model



Operational & Clinical Workflow – Coverage Model

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Time	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
12:00 AM							
1:00 AM							
2:00 AM							
3:00 AM							
4:00 AM							
5:00 AM							
6:00 AM							
7:00 AM							
8:00 AM							
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10:00 PM							
11:00 PM							

Key:

	MGH Coverage
	EMMC Coverage

**Visual represents a standard week – MGH will provide full coverage on holidays including New Year's Day, Memorial Day, Fourth of July, Labor Day, Thanksgiving Day, Christmas Day*

Operational & Clinical Workflow – Clinical Overview

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Step 1: Initiate Consult

When a patient with stroke symptoms is in need of emergent care, the spoke team pushes the patient's imaging and calls the TeleStroke answering service.

Step 2: Case Review

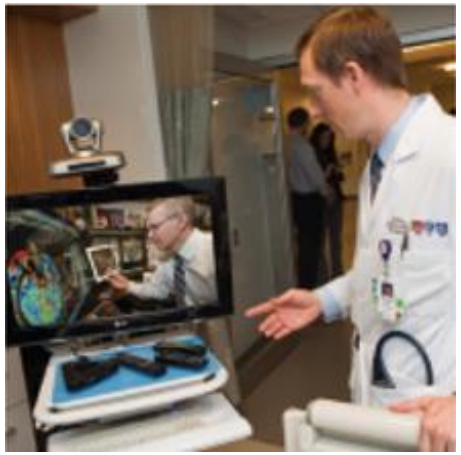
The Neurologist returns the call within 5 minutes to discuss the case and review images. The consult may transition to video where the neurologist will asses the patient with the assistance of local staff.

Step 3: Collaborative Decision-Making

Upon completion of the examination, the findings will be discussed with your team, and the patient and family if available. Together you will decide on a plan of care for the patient.

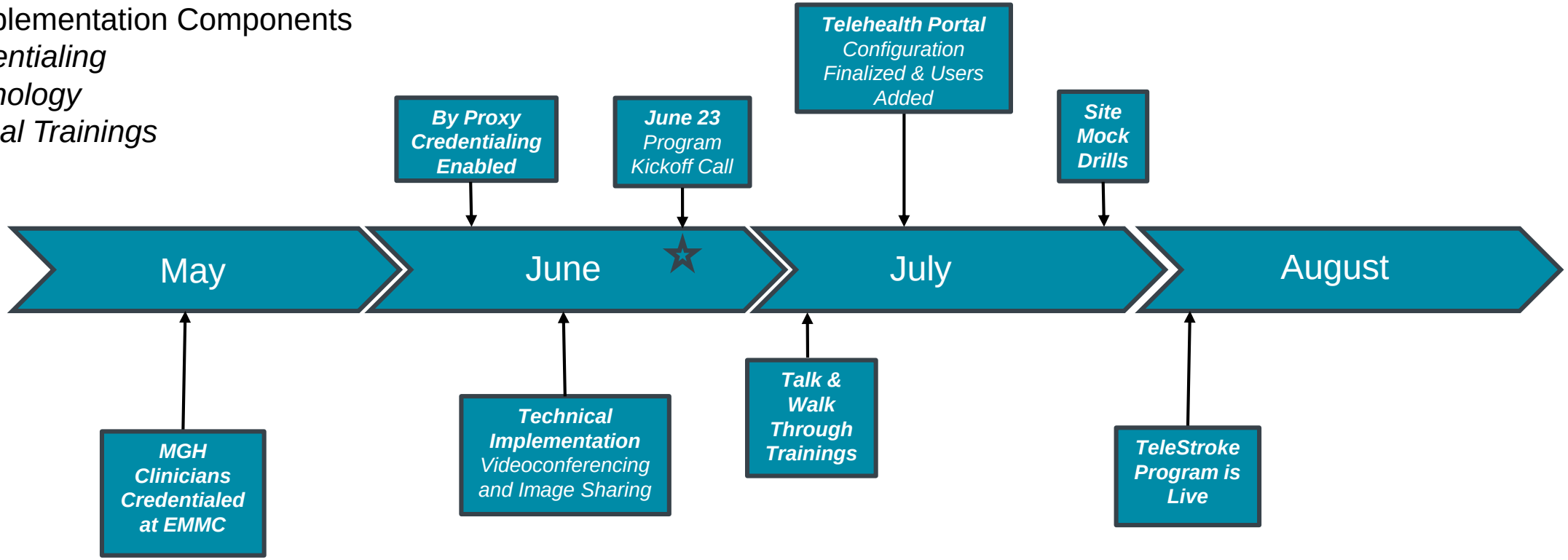
Step 4: Documentation

The Hub Neurologist will document their assessment of the patient and recommendations in the TeleHealth Portal. Consult notes are available for those with access to the portal, and will also be uploaded, manually or through API integration, into the EMR.



Implementation Process - Overview

Core Implementation Components
- *Credentialing*
- *Technology*
- *Clinical Trainings*



Clinical Trainings – Core Program

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Talk Through

- Led by Clinical Program Manager at MGH
- Includes an overview of the TeleStroke workflow
- One Session

Walk Through

- The Walk Through Sessions build on the Talk Through – program workflow is built out to include site specifics
- Videoconferencing cart is in place to reference as part of the program
- Two Sessions

Mock Drill

- All technical requirements for the program must be in place
- Replicates real-life “code stroke”
- Two for each site – MGH and EMMC

Participants

- ED physicians
- Nurses
- IT Support
- ED Staff
- Neurologists

…all those involved in requesting a TeleStroke Consult and documenting the encounter

Additional Training Components

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Hub Provider Trainings

Group: EMMC Physicians Providing TeleStroke Coverage

Content: Provider-specific training on the TeleHealth Portal and Videoconferencing

Led By: MGH TeleHealth Engineers

EMMC Clinical Kickoff

Group: EMMC Nursing Staff

Content: Localization of stroke, Completing a Stroke Scale, and Basics of Endovascular Therapy

Led by: MGH Nursing Educators

Telehealth Portal

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tPA Information

Stroke Expert Recommendations after acute stroke evaluation

TeleStroke-Video/In-Person tPA Risks And Benefits Language
Phone Only tPA Discussion

Eligible IV tPA? * ◉ Yes ○ No

Recommend IV tPA? * ◉ Yes ○ No

tPA Administered * ◉ Yes ○ No ○ tPA administered prior to TeleStroke consult

IV tPA Dosing Information

Patient Weight * lbs 0 Kg

Patient Weight (lbs) lbs

Patient Weight (kg) 0 kg

Total Dose 0 mg

Bolus Dose 0 mg (given over 1 minute)

Infusion 0 mg (given over 1 hour)

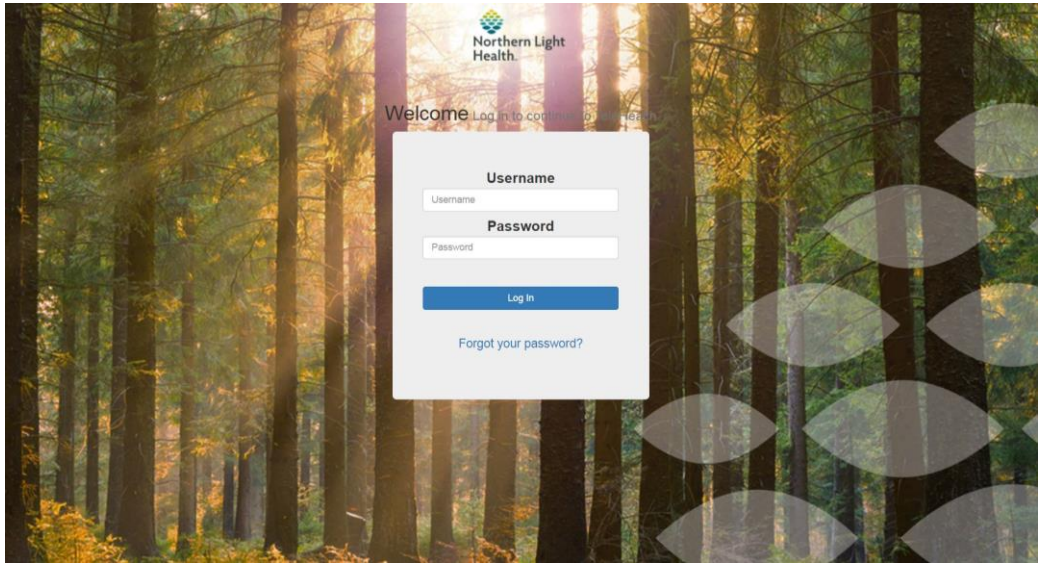
Discard Dose 100 mg

tPA recommended at * Now

Bolus given at * Now

If tPA given >60 min from ED arrival, list main reason why

- ☐ Social/ Religious
- ☐ Initial refusal
- ☐ Care-team unable to determine eligibility
- ☐ Hypertension requiring aggressive control with IV medications
- ☐ Further diagnostic evaluation to confirm stroke for patients with hypoglycemia (blood glucose < 50), seizures, or major metabolic disorders
- ☐ Management of concomitant emergent/acute conditions such as cardiopulmonary arrest, respiratory failure (requiring intubation)
- ☐ Investigational or experimental protocol for thrombolysis
- ☐ Delay in stroke diagnosis
- ☐ In-hospital time delay
- ☐ Equipment-related delay



TeleHealth Reports

These tools are designed to empower service recipients and providers to make optimal use of the available TeleHealth resources. They enable users to make informed decisions that support continuous program improvements and make a positive impact on patient care.

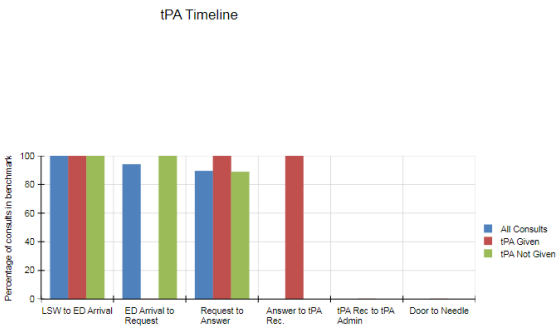
For your convenience, these reports can be exported in a variety of formats, including Excel and PDF documents. If you have any questions or feedback with regards to the use of these tools, please contact telestrokesupport@partners.org.

tPA Timeline
A TeleStroke timeline of events, including from LSW to tPA Administration, with comparison against standard benchmarks will allow you to gauge the expeditiousness of your thrombolytic treatment processes.
View Report

Patient Location
A comparison of consult type and patient location may help you gauge whether TeleHealth utilization is meeting your expectations across different care settings.
View Report

NIHSS Analysis
Segments NIHSS results for patients that were and were not administered tPA and/or transferred. Offers insights into the severity of the stroke cases retained by your facility(ies).
View Report

Disposition
Displays the recommended disposition of patients by service line, providing valuable insights into TeleHealth-optimized patient triage for your facility(ies).
View Report



Education and Certification Support

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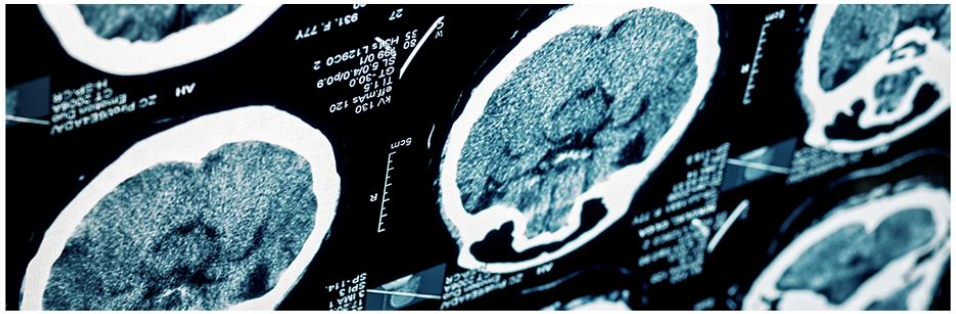
ALREADY REGISTERED? REGISTER

Stroke and Other Common Neurological Conditions

HARVARD MEDICAL SCHOOL



COURSE OVERVIEW | COURSE OUTLINE | FACULTY | ACCREDITATION | DISCLOSURE STATEMENT | FEES | CONTACT US

STROKE AND OTHER COMMON NEUROLOGICAL CONDITIONS

Stroke and Other Common Neurological Conditions covers a variety of essential neurological topics, including vascular neurology, neurocritical care, general neurology, and patient care. The topics were chosen with the purpose of targeting the increasing disparity between demand and availability of neurologists and empowering health care professionals to increase their comfort level in the referral, recognition, and treatment of neurological conditions.

Eleven lectures from world-renown neurologists and neuroscience nurses from Massachusetts General Hospital are currently available in this course. Eight additional lectures are being added to the course and will become available in mid-October 2019.

LEARNING OBJECTIVES

Offered By:

MASSACHUSETTS GENERAL HOSPITAL

Earn up to

17.00 *AMA PRA Category 1 Credits™*

17.00 CNE Contact Hours

EARN PUBLIC **RECOGNITION** FOR YOUR ACHIEVEMENT.

American Heart Association | American Stroke Association.

GET WITH THE GUIDELINES.

American Heart Association
American Stroke Association
CERTIFICATION
Meets standards for
Primary Stroke Center

Questions?

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Program Contact Information

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Implementation/General Program Information

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