Quality Management for Telestroke Programs

VSSTF Meeting, January 18, 2019

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Objectives

- Discuss current challenges to developing a comprehensive quality management program for telestroke programs
- Review AHA guidelines for telestroke quality, outline current efforts underway at UVA to address these challenges
- Review considerations for providers of telestroke services
- Review considerations for recipients of telestroke services

About the UVA Telestroke Program

Formally started in 2011, the UVA Telestroke Program is a collaborative, "in-house" program between the UVA Deptartment of Neurology and UVA Telehealth Operations

- Staffed by 1 vascular or neurocritical care neurologist and 1 telehealth engineer
- Cisco video conference platform built and maintained by UVA Telehealth Engineers
- Imaging review by direct, secure image transfer to UVA PACS
- Custom built documentation platform - ViTel Net
- Data collection and processing via TRP

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About the UVA Telestroke Program

- 6 sites throughout the commonwealth – modified hub and spoke

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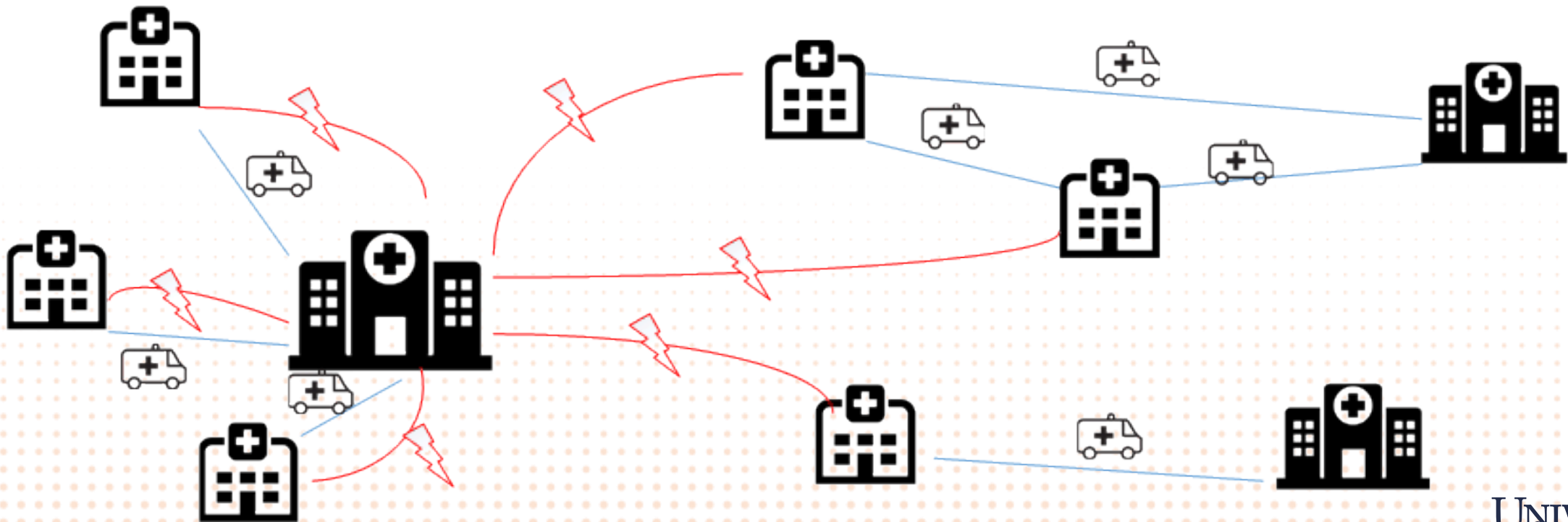
Data Collection and Quality Management

UVA Telestroke - summary of previous activities to date

- Basic data collection and trending of volumes and times
  - Closely tracked, but no clearly established benchmarks or goals
- Hampered by disparate data sources
  - Clinical data from consult notes
  - Technical data from video conferencing and image transfers
  - Timestamps from phone calls in and out of the UVA Transfer Center
  - Spoke EHRs

Data Collection and Quality Management

Challenges to comprehensive quality management in telestroke systems

- Telestroke is unique! Or is it?
- Do we hold our telestroke encounters to the same standards as we do our in-person encounters?
  - Our patients are our patients, no matter where they are. They all should be treated to the same standards!
  - But a telestroke encounter is so different from an in-person encounter! We can treat the patients the same, but how we measure performance should be different.

Data Collection and Quality Management

Challenges to comprehensive quality management in telestroke systems

- Different data sources
- No nationally accepted standards exist
  - Telemedicine Quality and Outcomes in Stroke (Wechsler et. al.) provides excellent starting point – comprehensive list of metrics to collect data on, but no benchmarks or standards
- No prescribed benchmarks provided by accrediting or certifying bodies
  - Difficult to use existing benchmarks and standards exactly as they are written
- No forum exists for sharing information

Data Collection and Quality Management

How do we address the challenges? Ongoing efforts at UVA:

- Map it out – setting goals for data collection, establishing benchmarks and triggers
    - AHA paper (Wechsler et. al) is a great place to start, but should not be only source
    - Currently 38 different data points/metrics mapped out
        - Processes
        - Outcomes
        - Satisfaction
        - Technology

Data Collection and Quality Management

How do we address the challenges? Ongoing efforts at UVA:

AHA guidelines: Processes

- Response times
  - Alert to phone response
  - Alert to video start
- Length of consult
- Treatment times
  - Alert to decision
  - Alert to tPA, door to tPA, LSW to tPA
- Transfer dispositions, including door in, door out times

Data Collection and Quality Management

How do we address the challenges? Ongoing efforts at UVA:

AHA guidelines: Outcomes

- Referring facility disposition
- Hospital course – LOS, NIHSS scores, diagnoses, complications, and survival to d/c
- Follow up – Modified Rankin at discharge and 90 day
- tPA treatment – volumes, rates

Data Collection and Quality Management

How do we address the challenges? Ongoing efforts at UVA:

AHA guidelines: Satisfaction

- Patient satisfaction
- Referring provider satisfaction
- Consulting provider satisfaction

Data Collection and Quality Management

## How do we address the challenges? Ongoing efforts at UVA:

AHA guidelines: Technology

- Technical failures
- Technical issues
- Image quality issues
- Imaging workflow issues
- Imaging workflow failures

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Data Collection and Quality Management

How do we address the challenges? Ongoing efforts at UVA:

- Wrangle those data sources!
  - Automation
  - Push/pull of clinical data
- Share your data and network w/ others
- Close the loop
  - Data is meaningless if you don't do something with it!
- Recognition as a means of sharing feedback and follow up
  - Lightning bolt pins
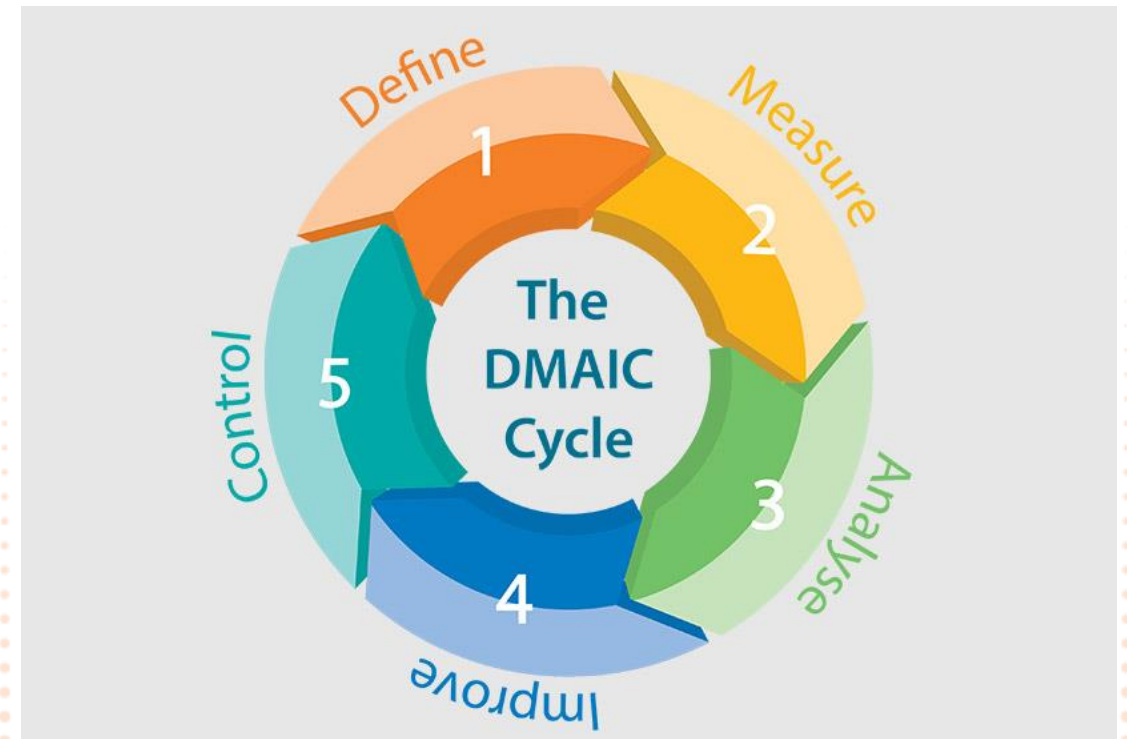
Considerations for Telestroke Providers

- Share your data!
- Identify the clinical and quality champions at your partner sites
- Network with other hospitals – you're not the only telestroke provider out there
- Consider the phases of a telestroke encounter – who "owns" which phase?
  - Option 1: Focus on the phases you can own, and focus on which phases your partner owns
    - Example: door to alert time (spoke), alert to decision time (hub)
  - Option 2: Focus on the patient – consider the encounter as a whole
    - Example: door to tPA time

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Considerations for Telestroke Recipients

- Share your data!
- Develop the relationship – your telestroke provider can help you improve care for your patients
- Get the workflows dialed
    - Expedite initial steps as much as possible – triage, orders, send patient to imaging

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Thank you!

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