

Modernizing Telestroke

Cutting 10 Minutes from Door-to-Needle Time



perfect**serve** SUMMIT

Intro & Background

About Me



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Allegheny Health Network

Allegheny Health Network

- Serving western PA and southwestern NY
- 14 hospitals
- 200+ care practices
- 2,600 physicians
- Strong focus on stroke treatment as a regional leader in acute care



Allegheny General – The Pitt



Why Telestroke Matters

- Lack of stroke specialists at rural/spoke hospitals
- Timely consults = better patient outcomes
- American Heart Association's guidelines:
 - Stroke team within 10 minutes
 - DTN in 30 minutes or less

Time is brain!



The Challenge

Old Process

Step 1

ED staff calls AHN transfer center



Step 2

Transfer center pages on-call telestroke physician



Step 3

Physicians calls back for consult

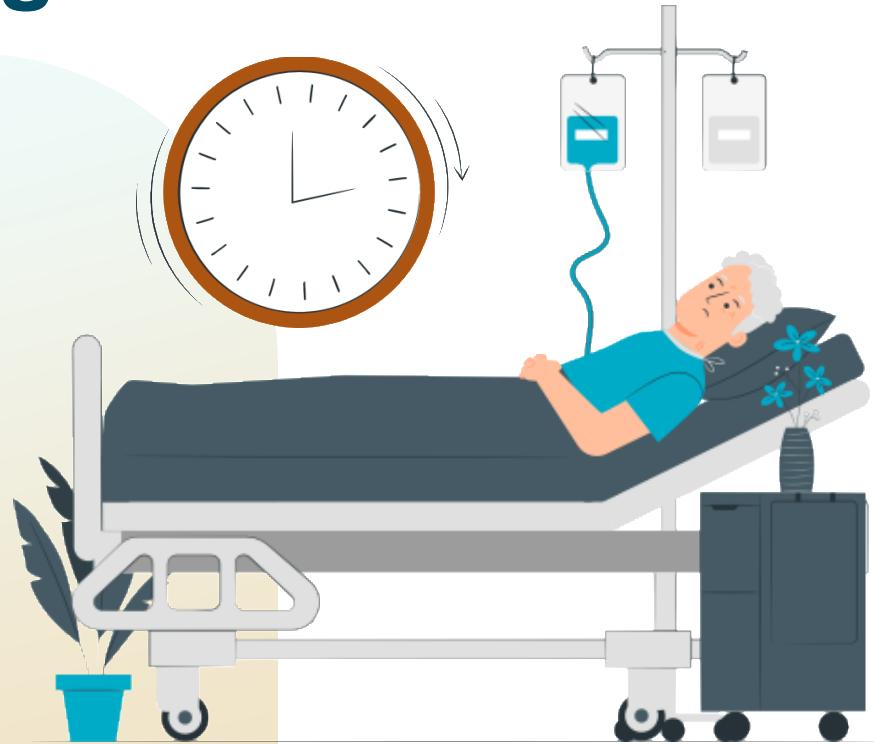


Why It Had to Change

Process worked, but:

- Clunky & slow for a time-critical condition
- Dependent on immediate answers
- Delays possible at multiple points

Needed a process that could move at the speed required for the best stroke care



The Solution

New Workflow

The screenshot shows a 'Conversations' interface with a 'Group' and 'Patient' section. A blue box highlights a telestroke alert message:

12/19/23 5:00 PM
412-469-5911 RE: Patient Age: 83 Patient Gender: F
Patient AHN MRN: Requesting Jefferson
Hospital Requesting MD/Service: goldwasser Last Known Well in 4.5
Hr Yes NIHSS: 4 CT Head Completed: Yes CTA Head/Neck
Completed: Yes patient is at ct finishing up Jefferson Hospital
TELESTROKE
3 of 3 read +

Message history:

- Agbe-Davies, Olanrewaju, MD - 12/19/23 5:21 PM: Level 1 transfer to AGH for thrombectomy
- Hansen, Andra - 12/19/23 5:26 PM: copy we will work on it
- Hansen, Andra - 12/19/23 5:26 PM: do you need flight
- Hansen, Andra - 12/19/23 5:27 PM: to the ED or Angio
- Agbe-Davies, Olanrewaju, MD - 12/19/23 5:27 PM: Flight. Straight to angio
- Hansen, Andra - 12/19/23 5:27 PM: coov thanks

- PerfectServe already used by AHN—familiar with real-time routing and intelligent escalation
- New workflow allowed staff at any spoke hospital to initiate telestroke alert in PerfectServe:
 - Alert includes transfer center team + on-call telestroke physician
 - References schedule to route to right physician
 - Quick and secure way to communicate in real-time
 - Escalation rules if no reply within set time
 - Read receipts & shared visibility for all parties



Implementation

- Staggered rollout across 20 hospitals
- In-person and virtual training, tip sheets, other reference materials
- Early buy-in once users saw the speed and ease of the automated PerfectServe alert

The Results

Key Data After 18 Months

↓ 66%

Decrease

↓ 10

Minutes

10,000

Fewer Calls

Median paging duration
decreased by 66% (down
to 1.69 minutes from 5
minutes)

Median door-to-needle time
decreased by 10 minutes

**Calls to and from the
transfer center**
decreased by 10,000

Key Data After 18 Months

Old Transfer Center
Paging Workflow:

29%

Sent within 3
minutes

- Only **29% of pages went out within 3 minutes** of a telestroke patient's arrival.

PerfectServe Paging
Workflow:

85%

Sent within 3
minutes

- In the 18-month window, **85% of pages went out within 3 minutes**.
- The odds of a page going out within 3 minutes are **almost 14 times higher with PerfectServe** compared to the transfer center process.

Why It Matters

- Every minute counts
- 10 minutes can be the difference between recovery and disability
 - Not just speeding things up—making a measurable difference for patients
- ALSO: No negative impact on transfer times for endovascular therapy patients



What's Next

Video-First Consults



- **Today:**

- Talk about cases over the phone first, then move to video if necessary

- **Future:**

- Direct to video consultation for select patients using criteria entered in PerfectServe



Expanding to Neurology

- **Today:**

- Consults are manual/EHR-based with no routing
- Slower and less trackable

- **Opportunity:**

- Apply telestroke model to inpatient & teleneurology consults
- Improve turnaround, capture richer data, address perception of delays, and reduce physician burnout & frustration

Key Takeaways

Key Ideas

The Role of Technology

Technology should support, not hinder, clinician workflows

Small Changes, Big Results

Small, targeted workflow changes can lead to major clinical benefits

Measuring Up

Measure your results to prove impact & drive further innovation (may be easier said than done, but it's possible)

Success Begets Success

Success with one workflow can lead to solutions/improvements for other workflows

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Q&A



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