Elevating Stroke Care in Rural Hospitals

A Framework for Digital Healthcare Implementation and Measureable Outcomes

Based on peer-reviewed data from Hendry Regional Medical Center, Clewiston, Florida. Presented at the American Heart Association National Conference, 2026.

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Industry White Paper

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The Rural Neurology Gap Has a Solution

Rural hospitals face a well-documented challenge: the gap between the neurological care their communities need and what they can reliably deliver. Limited specialist availability, high transfer rates, and delayed treatment windows translate directly into worse patient outcomes and increased mortality. For hospitals serving populations already at elevated cardiovascular risk, this gap is not an operational inconvenience. It is a clinical crisis.

This white paper presents a documented model for closing that gap. Drawing on peer-reviewed outcomes data from Hendry Regional Medical Center (HRMC) in Clewiston, Florida, a 25-bed Critical Access Hospital, it outlines the clinical, operational, and strategic framework that transformed a hospital with zero stroke admissions into a Joint Commission-certified Acute Stroke Ready facility in under three years.

The results are not theoretical. They are documented, reproducible, and relevant to any rural hospital facing similar access-to-care challenges.

Key Outcomes At A Glance

0 to 60
Stroke admissions 2022 to 2025

63-44 min
Door-to-needle 2023 to 2025

95.1%
GWTG-Stroke Composite 2025

<5 min
Neurologist response time

Without teleneurology, we would transfer every suspected stroke. Now we evaluate, treat, and admit. That is not incremental improvement. That is a different hospital.

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Understanding the Rural Stroke Challenge

Rural communities across the United States face a compounding set of risk factors that make stroke both more likely to occur and more likely to result in permanent harm. Hendry County illustrates this pattern precisely.

The Community Context

Hendry County is a rural agricultural community in southwest Florida, 45 or more minutes from the nearest major medical center. As a 25-bed Critical Access Hospital, HRMC is the sole healthcare hub for its residents.

The Risk Profile

Cardiovascular disease ranked as the fourth leading cause of death in the county per its 2023 Community Health Needs Assessment. Hendry County's age-adjusted stroke death rate of 382 per 100,000 sits above Florida's state median of 342. Rural residents nationally carry a 30% higher stroke mortality risk than urban populations

The Operational Reality Before 2021

Before the TeleSpecialists partnership, HRMC had no neurology coverage and no formal stroke program:

- √ **No neurologist available for real-time evaluation**
- √ **No capacity to administer IV thrombolysis on site**
- √ **Transfer to regional center for every ischemic stroke**
- √ **Door-to-specialist times measured in hours, not minutes**
- √ **Zero stroke admissions documented in 2022**

The transfer model is not a clinical failure. It is a structural limitation. It is also solvable.

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The Implementation Model: What HRMC Built

HRMC's transformation from zero stroke infrastructure to Joint Commission certification followed a phased, collaborative approach that can serve as a replicable model for similar facilities.

	Milestone	Key Actions
Phase 1 2021	**Launch 24/7 TeleNeurology Coverage**	Deploy telemedicine carts in the ED. Establish activation protocols. Train nursing staff on stroke alert workflows and cart operation. Set baseline metrics for door-to-provider time, activation time, and transfer rate.
Phase 2 2022-2023	**Optimize and Certify**	Conduct monthly quality reviews with TeleSpecialists' clinical team. Implement B-FAST protocol training for all ED and registration staff. Introduce quarterly mock stroke events. Achieve Joint Commission Acute Stroke Ready Certification (2023).
Phase 3 2024	**Expand to Inpatient Rounding**	Add TeleNeuroHospitalist rounding to reduce unnecessary transfers of admitted neurology patients. Present program results at AHA national conference.
Phase 4 2025+	**Sustain and Scale**	Maintain recertification through continuous quality monitoring. Explore outpatient neurology expansion. Use HRMC as a model for replication at similar rural facilities.

Clinical Workflow Integration

A core principle of the HRMC model was designing the digital healthcare workflow around existing staff capabilities. TeleSpecialists' quality team worked directly with HRMC's stroke coordinator to map the ED layout, define cart positioning, assign roles within the stroke alert protocol, and build in real-time CT suite access for the neurologist. The result was a workflow staff adopted rapidly because it made their existing roles clearer and their capabilities greater.

> ***Every little detail of our stroke process was talked through with TeleSpecialists. If something wasn't going to work, there was always a way to talk about it. I never felt like I was hitting a wall.***
>
> **-Tracy Victory, MSN, RN**
> **ER Director and Stroke Coordinator,**
> **Hendry Regional Medical Center**

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Documented Outcomes: 2022 to 2025

The following data was presented at the American Heart Association National Conference in 2026 by Tracy Victory, MSN, RN, ER Director and Stroke Coordinator at HRMC, with co-author Bernardo Kruszel, MD, Stroke Medical Director. All metrics reflect documented hospital performance tracked through the AHA Get With The Guidelines-Stroke Registry.

0-60	**Acute ischemic stroke admissions at HRMC, 2022 to 2025**
63-44 min	**Median door-to-needle time, 2023 to 2025. A 30% reduction.**
74.9% to 95.1%	**GWTG-Stroke Rural Overall Composite Score, 2023 to 2025**
Under 5 min	**Neurologist-to-patient evaluation time in 2025. Previously: no neurologist on site.**

Clinical Impact: Beyond the Numbers

Quantitative outcomes tell part of the story. The broader impact on the hospital's clinical culture and community standing provides the fuller picture. Staff confidence in stroke recognition increased measurably. The hospital moved from AHA Silver toward Gold designation. HRMC's relationship with local EMS shifted from adversarial to collaborative. Emergency Department visit volume tripled over the same period, reflecting increased community trust in the hospital's capabilities.

The program also contributed directly to nursing staff retention and professional development. Staff who progressed through the stroke program subsequently pursued additional certifications they had not previously considered, demonstrating that clinical capability programs function as staff engagement tools as well.

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Rural Stroke Program Readiness Checklist

The following checklist reflects the operational, clinical, and strategic requirements that supported HRMC's certification and performance outcomes. Hospital leadership teams can use this framework to assess current readiness and identify priority areas.

CLINICAL INFRASTRUCTURE

- ☐ 24/7 board-certified neurologist via digital healthcare platform
- ☐ Telemedicine cart positioned and maintained in ED
- ☐ Real-time CT image access for remote neurologist
- ☐ Stroke alert activation with defined goal times
- ☐ IV thrombolysis capability with bedside medication kit
- ☐ NIHSS assessment competency across ED nursing staff
- ☐ Dysphagia screening protocol in place
- ☐ AIS documentation standards met: timestamps, NIHSS scoring

QUALITY & CERTIFICATION

- ☐ GWTG-Stroke Registry enrollment and data submission active
- ☐ Monthly quality review meetings with clinical partner team
- ☐ Door-to-needle case review within 24 hrs of treatment
- ☐ Activation time trends reviewed and acted upon monthly
- ☐ Joint Commission Acute Stroke Ready Certification pursued
  Or equivalent certification body
- ☐ Annual recertification process documented and maintained
- ☐ Quality data available for partner review and reporting

WORKFLOW & OPERATIONS

- ☐ Role assignments defined for all stroke alert team members
- ☐ Cart readiness checklist completed daily
- ☐ Transfer protocol defined for higher level of care cases
- ☐ Stroke alert overhead notification system active
- ☐ Activation time tracked: arrival to specialist on camera
- ☐ EMS pre-notification protocols established and current
- ☐ BEFAST protocol materials posted at registration and ED

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LEADERSHIP & STRATEGY

- ☐ Designated stroke coordinator with executive support
- ☐ C-suite and board briefed on program ROI and rationale
- ☐ Leakage analysis completed to identify avoidable transfers
- ☐ Program expansion pathway defined
  e.g., inpatient rounding, outpatient neurology
- ☐ Patient outcome data shared with clinical partner quarterly

STAFF EDUCATION

- ☐ BEFAST training completed: all ED and registration staff
- ☐ Mock stroke events conducted quarterly
  Include TeleSpecialists neurologist when possible
- ☐ Annual stroke education for nurses and providers
- ☐ Case debriefs completed within 24-hours of thrombolysis
- ☐ EMS pre-notification protocols established and current

COMMUNITY ENGAGEMENT

- ☐ Community stroke education events held annually
- ☐ EMS partnership and protocol alignment confirmed
- ☐ Hospital stroke capabilities communicated publicly
- ☐ Community Health Needs Assessment reviewed for gaps
- ☐ Social media or digital channels used for stroke awareness

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Leadership Alignment

Every documented outcome at HRMC was preceded by senior leadership buy-in. The CNO connected program investment to board strategy. The stroke coordinator was given the authority and resources to execute. Identify your internal champion and equip them.

Partnership Architecture

The HRMC team consistently described their relationship with TeleSpecialists as a partnership, not a service contract. Monthly quality reviews, real-time case feedback, joint mock events, and certification support are what that partnership looks like in practice. Evaluate any digital healthcare partner on their commitment to these activities before and after implementation.

Incremental Scope Expansion

HRMC began with emergency stroke coverage and expanded to inpatient rounding when institutional confidence and capability supported it. Audit your transfer logs, identify the categories that could stay locally, and design toward that capacity.

Community Integration

Stroke certification changes a hospital's relationship with its community and EMS partners. HRMC's community engagement, including public education events and Facebook Live programming that reached more than 1,000 viewers, demonstrates that certification is also a community trust-building tool.

> **If you could take the results we have here and go across the country to rural settings, you could duplicate them. There is certainly the need.**
> **— Dakota Redd, Chief Nursing Officer, Hendry Regional Medical Center**

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Delivering Outcomes. Together.

The evidence from HRMC is clear and reproducible. A rural Critical Access Hospital, with the right digital healthcare infrastructure and a genuine clinical partnership, can deliver stroke outcomes that match or exceed regional medical centers on the metrics that matter most: time to treatment, patient retention, quality composite scores, and certification standards.

For hospital executives evaluating their neurology service strategy, the question is not whether this model works. The data answers that. The question is how quickly your institution can implement it, and which patients in your community will benefit first.

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Saving Lives. Together.

Maximizing Value. Together.

Delivering Outcomes. Together.

Ready to build this program at your hospital?

TeleSpecialists serves over 400 hospitals with 200+ board-certified physicians across TeleStroke, TeleNeuroHospitalist rounding, TeleEEG, and Outpatient Neurology. Contact us to discuss your hospital's specific needs.

Data Source: Tracy Victory, MSN, RN, and Bernardo Kruszel, MD. Implementation of Tele-Neurology Rounding to Improve Stroke Admission Rates in Rural Florida Hospital. Presented at the American Heart Association National Conference, 2025. Hendry Regional Medical Center, Clewiston, Florida. GWTG-Stroke Registry data, 2022 to 2025.

Replicating This Model: What Rural Hospital Leaders Need to Know

The HRMC model is not dependent on unique institutional characteristics. It depends on three things: committed clinical leadership at the hospital level, a digital healthcare partner that functions as a clinical colleague rather than a vendor, and a willingness to treat quality improvement as an ongoing practice rather than a one-time initiative.

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