

BUSINESS TRACK

Connected in the Critical Moment: The Impact of Teleparamedicine

**SEPTEMBER 1
3:30PM-4:15PM**

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Using Telehealth to Improve Outcomes for Heart Failure Patients

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Disclaimer

- Jennifer Vigodsky and Kristin Davis have no financial conflicts of interest to disclose.
- Jennifer Vigodsky and Kristin Davis have not received any compensation for preparing and presenting this presentation.

Using Telehealth to Improve Outcomes for Heart Failure Patients

Learning Objectives:

- Understand the American College of Cardiology recommendations for heart failure patients.
- Understand the optimization of telehealth and other resources that improve treatment.
- Gain knowledge on reduction of EC visits, hospital admissions, and cost avoidance.





Problem Statement

Patients who have a chronic condition with functional impairment or transportation barriers require frequent, meaningful clinical responses.

Vulnerable populations have significant barriers to traditional outpatient appointments and rely heavily on emergency departments for care; especially in rural areas.

Specialty providers are often limited or non-existent in rural communities and communities with increased poverty rates.

Community Paramedicine can improve quality of life for the patient and decrease the impact on the healthcare system.



Kristin Davis, NRP, AAS

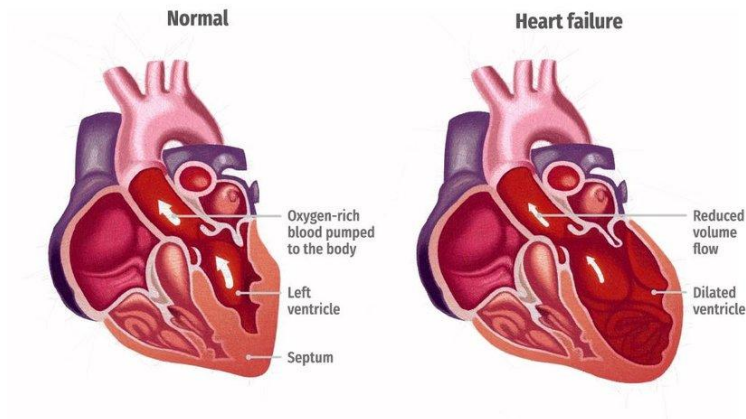


Scott Smith, NREMT-P





WHAT IS HEART FAILURE?



Heart Failure is:

- Weakened heart that does not pump blood the way the heart should
- Slow blood flow can cause blood to back up into lungs & veins
- **2 Types of Heart Failure:**
 - **Systolic** heart failure: my heart is “**weak**” = “**squeezing**” problem
 - **Diastolic** heart failure: my heart is “**stiff**” = “**filling**” problem



Heart Failure Signs & Symptoms

Not able to walk normal distances without stopping to breathe

Having to sleep on extra pillows or upright at night to breathe better

Swelling in ankles, legs, or abdomen

Feeling tired with no energy

Weight gain of 3 pounds overnight or 5 pounds in a week.

A cough with white or pink sputum that does not go away



Causes of Heart Failure

Hypertension

Arrhythmias

Coronary
Artery Disease

Myocardial
Infarction

Aortic or Mitral
Valve
Abnormality

Obesity

Genetics

Chemotherapy

Pregnancy

Viral Illness

Alcoholism

Drug Abuse

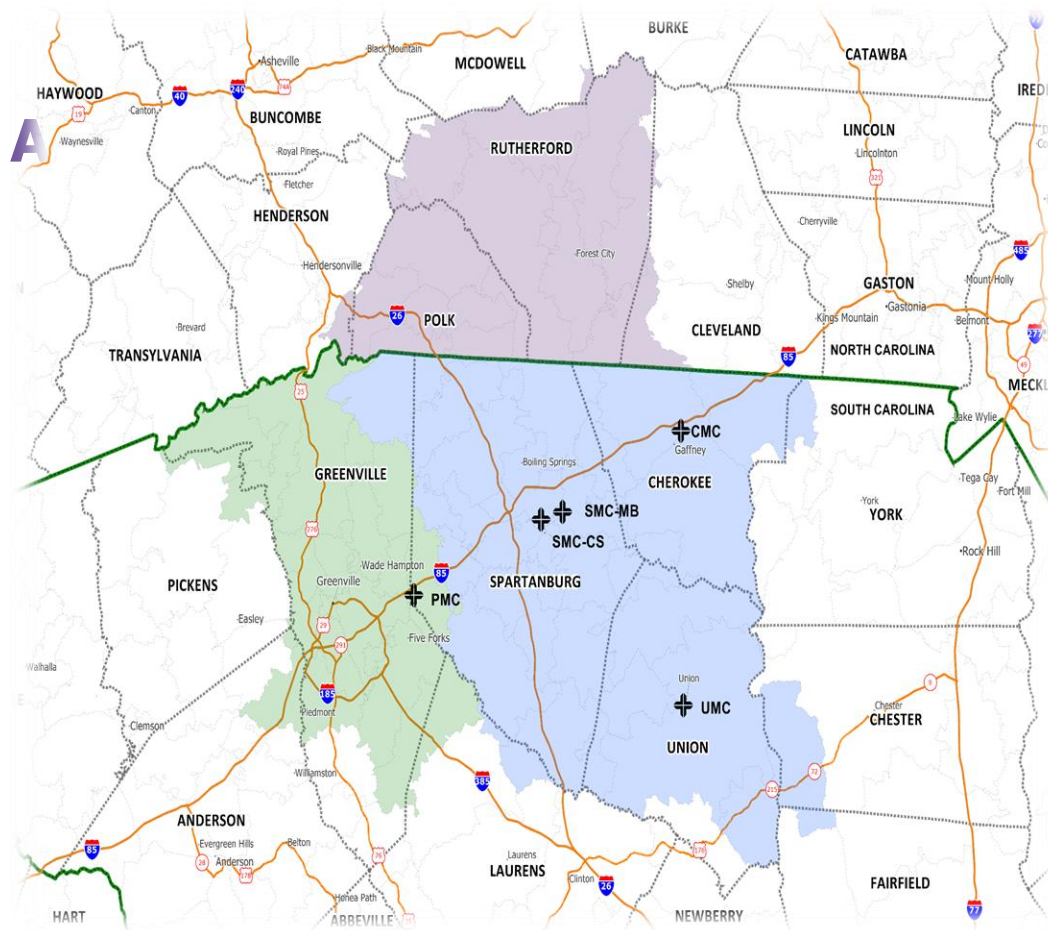


SRHS HEART FAILURE CLINICS

 SRHS Hospital

SRHS Service Areas

- Primary Service Area
- Secondary Service Area
- Tertiary Service Area





Poverty Rates for Counties Served

Cherokee County:
17.3%

Spartanburg County:
14.6%

Union County:
18.4%

National:
12.4%



Heart Failure Clinic Services

- Nurse Practitioner based clinics

- Collaborative Clinical Team:

Clinical nurses, Nurse Navigator, Patient Outreach Nurse,
Nurse Manager, Community Paramedics

- Prescribes evidence-based GDMT for heart failure

- Titrate and optimization of cardiac medications based on patient toleration

- Assist with 7-day hospital discharge follow-up

- Collect SDOH information

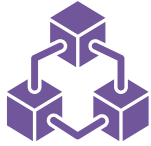
- Determine root cause of patient's non-compliance

- Administration of IV diuretics or Furoscix



**FUROSCIX® will deliver 80 mg of Furosemide over
5 hours subcutaneously**

Heart Failure Clinics Areas of Focus



Address Social
Determinants of Health



Determine root cause of
non-compliance



Provide extensive heart
failure education



Act as a “bridge” to
cardiology and primary
care



Complete financial
assistance paperwork
for cardiac medications



Reduce EC visit and
admissions



Importance of Post-Discharge Follow-Up Visits for Heart Failure Patients

❖ Reduce readmission and mortality risk

- ❖ Multiple studies show that timely outpatient visits after HF hospitalization are associated with a **21% lower risk of 30-day all-cause readmission** compared to no follow-up.

❖ Optimizing heart failure treatment

- ❖ At discharge, HF therapy is often not yet fully optimized or restarted. Follow-up allows clinicians to **titrate medications**, confirm decongestion, and adjust therapy based on patient response.

❖ Early detection of complications

- ❖ Follow-up visits provide an opportunity to detect worsening symptoms, medication side effects, or new comorbidities early.

References:

<https://www.heart.org/en/professional/quality-improvement/target-heart-failure/strategies-and-clinical-tools>,

https://www.cdc.gov/ncd/issuacs/2024/24_0138.htm

[https://onlinejcf.com/article/S1071-9164\(25\)00433-6/abstract](https://onlinejcf.com/article/S1071-9164(25)00433-6/abstract)



Importance of Post-Discharge Follow-Up Visits for Heart Failure Patients

❖ Improving patient education and self-management

- ❖ Follow-up reinforces **patient education** on medication use, fluid and salt restriction, activity levels, and when to seek help.

❖ Enhancing care coordination

- ❖ Structured follow-up ensures continuity between hospital and outpatient care, coordinates with specialists (cardiology, nephrology, rehab), and addresses social determinants of health.

❖ Guideline recommendations

- ❖ The AHA/ACC/HFSA emphasize early follow-up as a key quality improvement strategy.

References:

<https://www.heart.org/en/professional/quality-improvement/target-heart-failure/strategies-and-clinical-tools>,
https://www.cdc.gov/pcd/issues/2024/24_0138.htm
[https://onlinejcf.com/article/S1071-9164\(25\)00433-6/abstract](https://onlinejcf.com/article/S1071-9164(25)00433-6/abstract)



MEDICATION COSTS



Patients Needing PAP at HFC

Uninsured,
underinsured, and
low income

Medicare with high
deductible and only
source of income is
Social Security

Patients receive
anywhere from 1
to 5 medications
through PAP

2025 Patient Assistance Paperwork within the Heart Failure Clinic

- Patient encounters: 791
- Applications started: 241
- Approved PAP applications: 215
- Total value of approved medications: **\$1.6 million**





COMMUNITY PARAMEDICINE

How did a group of nurses get into Community Paramedicine?





What about everyone else?

What about the patients that are unable to come into the clinic due to lack of caregiver support or no transportation?

What about the patients that use a wheelchair and its difficult for them to come into the clinic?

What about the patients that don't have family that can take off from work to bring them to appointments?

.....Are all of those patients just left out?

Barriers to In-Clinic Appointments

Transportation Issues	Immobility	Unhoused	Appointment Preferences
Family or caregiver works Patient no longer drives Patient is not comfortable with SRHS transportation or Medical Uber	Wheelchair bound Amputations Difficulty ambulating into the office	Homelessness Living in a shelter Living at motels	Patient's work schedule Lack of caregiver support Caregiver or family schedule



Benefits of Community Paramedicine

Patients who have a chronic condition with functional impairment or transportation barriers require frequent, meaningful clinical responses.

Vulnerable populations have significant barriers to traditional outpatient appointments and rely heavily on emergency departments for care; especially in rural areas.

Specialty providers are often limited or non-existent in rural communities and communities with increased poverty rates.

Community Paramedicine can improve quality of life for the patient and decrease the impact on the healthcare system.



Benefits of Community Paramedicine

Paramedics are generally trusted and respected for their medical expertise and the patient care they provide.

Meets the needs of patients who do not qualify for home health.

Facilitates telehealth with assessment given to provider.



Community paramedics often serve the following populations:

- People who live in rural areas
- Post–hospital discharge patients
- People with chronic comorbidities
- People who need geriatric care or palliative care
- Populations that are medically underserved
- Frequent 911 callers/EMS users
- Nursing home patients



Community Paramedic Equipment

Ford Explorer with Sierra Wireless Connectivity on both Verizon and ATT networks and power inverter with extra battery

Dell Rugged Laptop with Touchscreen

iPad with holder and tripod for conducting video visits through EPIC native platform with Doxy.Me as the backup connection

iPhone with Rave Guardian Application for safety check-ins

Nighthawk portable WIFI with ATT-First Net connectivity

LifePak 15 with LifeNet transmission capabilities

Medical Bags with DHEC approved supplies and medications for treating acute patient problems prior to EMS arrival for transport



Services Provided by HFC MIH-CP

- Facilitate a telehealth video visit between the patient and the nurse practitioner to optimize treatment regimen set forth by ACC
- Physical assessment of the patient
- Reconciliation of medications – med trays are filled
- Obtain weight & vital signs
- Provide heart failure education
- EKG
- Lab Work
- IV Furosemide (Lasix) or Furoscix Infuser
- Completion of medication financial assistance paperwork

Benefits of Telehealth with Community Paramedics



Increased access to care using most up to date technology. Patients often have no/limited internet services in rural areas or lower income communities.



Real-time treatment and decision making by provider; EKG, labs and IV diuretics



Same day response by paramedic for acute visits



Helps decrease EMS transports for unnecessary Emergency Department visits



Medicare does not determine length of service



Goals of Community Paramedicine

Telehealth visit will be performed within 7 days of discharge even if patient does not have SDOH barriers.

Patient will be transitioned to in-clinic for follow up appointments.

Meet and exceed 75% goal set forth by AHA for 7-day follow up appointment.

How can Community Paramedicine help improve GDMT compliance?

- CP can assist patient to complete prescription assistance (PAP) applications at first appointment.
- CP to follow up on outstanding PAP applications if required documentation is not received within 7 days.





Heart Failure Treatment Protocol

American College of Cardiology (ACC)



**AMERICAN
COLLEGE of
CARDIOLOGY®**

- Trusted source of evidence-based cardiovascular guidance
- Delivers prompt, actionable recommendations that support clinicians in providing optimal patient care.



ACC Expert Consensus for Treatment of HFrEF: Key Points

Management of HF is complex and requires a high degree of care coordination.

A multidisciplinary, team-based approach should be used, with an emphasis on patient-centered care, shared decision making, and effective communication.

Assessing and addressing social determinants of health for patients is important in the context of the increasing complexity of HF care.



2024 ACC Expert Consensus for Treatment of HFrEF: Key Points

Rural populations with heart failure, particularly heart failure with reduced ejection fraction (HFrEF), face significantly lower rates of GDMT optimization and higher mortality compared to urban counterparts.

Disparities are driven by limited access to specialized care, higher comorbidities, and socioeconomic barriers, such as cost and travel distance



Heart Failure Clinic Community Paramedic Data

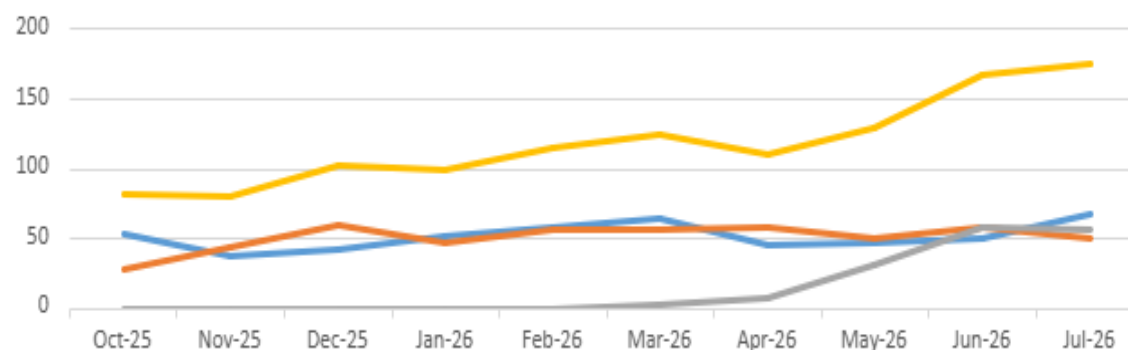
Program Enrollment: 420 patients



Current	243
Transition to Clinic	45
Graduated	42
Expired	57
No Longer Interested	12
Hospice	6
Dismissed	6
GFR < 20	4
Transitioned to Nursing Home	5



FY26 Community Paramedicine Visits



	Oct-25	Nov-25	Dec-25	Jan-26	Feb-26	Mar-26	Apr-26	May-26	Jun-26	Jul-26
Community Paramedic#1 Visits (Kristin Davis)	53	37	43	52	59	64	45	47	51	68
Community Paramedic #2 Visits (Scott Smith)	29	44	60	47	56	57	58	50	59	50
Community Paramedic #3 Visits (Allison Nelson)	0	0	0	0	0	3	7	32	58	57
Monthly Total	82	81	103	99	115	124	110	129	168	175

Community Paramedic#1 Visits (Kristin Davis) Community Paramedic #2 Visits (Scott Smith)
Community Paramedic #3 Visits (Allison Nelson) Monthly Total



Community Paramedicine as of 07/31/2026

Heart Failure Clinic Community Paramedicine Program

Program Goal: Reduce visits for heart failure

91.39% decrease in admissions
94.52% reduction in EC visits
256 patients enrolled in CP for at least 12 months

467 patients- Spartanburg, Union
and Cherokee Counties
2,937 patient encounters
1,795 telehealth encounters

of paramedics: 3
Support 5 Heart Failure Clinics

Spartanburg County

279 patients

Greenville County
9

Cherokee County

77 patients

Union County

91 patients

Other Counties
Chester, York-
11

FY26 AOP Goal-Improve Health

Achieve 25% increase in patients connected to care through the congestive heart failure paramedicine program

Month	# of patients 1st day of month	# of patients enrolled during month	# of patients month end	Monthly Increase	FY26 Total Percentage Increase
Oct-25	277	9	286	3.25%	3.25%
Nov-25	286	6	292	2.10%	5.42%
Dec-25	292	21	313	7.19%	13.00%
Jan-26	313	21	334	6.71%	20.58%
Feb-26	334	18	352	5.39%	27.08%
Mar-26	352	27	379	7.67%	36.82%
Apr-26	379	16	395	4.22%	42.59%
May-26	395	24	419	6.08%	51.26%
Jun-26	419	32	451	7.64%	62.81%
Jul-26	451	17	468	3.77%	68.95%



Outcomes for 249 Patients Enrolled in MIH-CP Program for at Least 12 months



91.68 % reduction in emergency room visits from the 12 months prior to enrollment.



94.81 % decrease in hospital admissions from the 12 months prior to enrollment.

Impact of Community Paramedicine

MRN	DOB	First Community Paramedicine Visits	Hospital Admissions 12 months prior to CP enrollment	Hospital Admissions after being enrolled for at least 12 months	EC Vists 12 months prior to CP enrollment	EC visits after being enrolled for at least 12 months	Legal Sex	Race	Pt City	County
00246727	12/31/1977	1/15/2025	6	0	13	1	Female	White	BUFFALO	UNION
00208968	6/2/1958	2/13/2024	9	0	14	0	Female	White	UNION	UNION
00030943	4/15/1957	4/29/2024	15	3	2	0	Female	Black or African American	SPARTANBURG	SPARTANBURG
00290943	12/4/1951	2/17/2025	5	1	6	1	Female	White	UNION	UNION
00077602	5/14/1949	3/5/2025	7	0	1	0	Female	Black or African American	UNION	UNION
00092127	6/2/1948	1/30/2025	4	0	0	0	Female	White	INMAN	SPARTANBURG
00487636	1/15/1945	8/21/2023	9	0	10	1	Female	White	COWPENS	SPARTANBURG
00035649	3/19/1942	10/12/2023	10	1	4	1	Female	White	JONESVILLE	UNION
00711405	4/15/1942	10/12/2023	10	1	4	1	Female	White	SPARTANBURG	SPARTANBURG
00711405	4/15/1942	3/28/2024	5	0	0	0	Female	White	LYMAN	SPARTANBURG
00648282	6/4/1941	10/29/2024	3	0	2	0	Male	White	LYMAN	SPARTANBURG
00423078	1/4/1941	7/19/2023	11	0	5	1	Female	Black or African American	UNION	UNION
00013111	4/15/1940	10/14/2024	6	0	1	0	Female	White	LYMAN	SPARTANBURG
							Female	Black or African American	JONESVILLE	UNION



How Did We Achieve This Reduction in Quality Metrics?

Meeting

Meeting these patients where they are at in life.

Ownership

Initiation and titration of GDMT
Taking ownership of the SDOH barrier and doing something about it.

Completing

Completing financial assistance paperwork for medications.

Facilitating

Facilitating telehealth with the use of a MIH-CP.

Utilizing mail order prescriptions.

Program Revenue



MIH-CP telehealth visits with the NP are billable using billing code of 99214



Non telehealth visits with CP are not billable at this time





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Healthcare System