

The start of Arkansas Mission Lifeline

Arkansas Mission: Lifeline Inaugural Meeting

[American Heart Association](#)

Friday, May 2, 2014 from 9:15 AM to 2:00 PM (CDT)

[Little Rock, AR](#)

**Arkansas Foundation for Medical Care
1020 W. 4th Street, Suite 300
Little Rock, AR 72201**

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MISSION: LIFELINE®



IMPROVING STEMI PATIENT OUTCOMES BEGINS
WITH IMPROVING STEMI SYSTEMS OF CARE.
LET'S GET STARTED.



WHAT IS MISSION LIFELINE?

The numbers tell the story.

- ▶ It is estimated that Arkansas EMS will respond to 1400 STEMI patients in 2015
 - Almost 250,000 Americans experience STEMI, the deadliest form of heart attack, each year
 - Thirty percent of STEMI patients fail to receive percutaneous coronary intervention (PCI) or thrombolytic therapy
 - Of those who receive PCI, only 40 percent are treated within the first medical contact to device timeframe of 90 minutes, recommended by the American Heart Association
 - Of those who receive thrombolytic therapy, fewer than half are treated within the recommended door-to-needle timeframe of 30 minutes
 - Seventy percent of those patients who aren't eligible for thrombolytic therapy fail to receive PCI, the only other option to restore blood flow to blocked arteries



Mission: Lifeline[®] is working to change that.

Mission Lifeline is helping to create STEMI systems of care and improve existing ones to ensure prompt, seamless, effective treatment to STEMI patients.

Arkansas Emergency Medical Services

- ▶ 206 Ambulance Services License in Arkansas
 - ▶ Basic Life Support
 - ▶ Advanced Life Support
 - ▶ Volunteer/Industry
- ▶ City/County Based
- ▶ Fire Based
- ▶ Private For Profit
- ▶ Hospital Based
- ▶ Governmental third service
- ▶ Volunteer

Arkansas Emergency Medical Services

- ▶ 90 ALS Services
- ▶ 70 BLS Services
- ▶ 30 Air Medical (base stations)
- ▶ 20 Volunteer/Industry

Estimated numbers

The ideal EMS.....

- ▶ acquisition, interpretation and transmission of a pre-hospital 12-lead electrocardiogram (ECG).
- ▶ standardized point of entry protocols (created by state-based coalitions of EMS personnel, emergency physicians and cardiologists, and supported by payers and administrators)
- ▶ establish which patients are transported to the nearest hospital and which patients are transported to the nearest STEMI-Receiving hospital.
 - ▶ Based on acquisition, interpretation and transmission of a 12 lead ECG
- ▶ Cath Team activation by either EMS or emergency physician

Challenges

- ▶ Not all ALS Arkansas EMS Services have 12 lead capability
- ▶ Not all ALS services with 12 lead capability can transmit
- ▶ Not all ALS service paramedics are trained to recognize STEMI

Needs

- ▶ Grants and/or Philanthropic funding to assure 12 lead capability for all EMS
- ▶ Explore options to provide 12 lead capability for BLS
- ▶ Several States are allowing BLS services to perform and transmit 12 lead ECGs (CO, SD, OK, VA, WS)
- ▶ Buy in from:
 - ▶ Arkansas Section of EMS
 - ▶ EMS services
 - ▶ Cardiology Groups & Hospitals (Urban, Rural, PCI, Non-PCI)
 - ▶ EMS Associations (Arkansas Ambulance, Arkansas EMT Association etc.)

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WHEN STEMI PATIENTS DIE BECAUSE
OF GAPS IN SYSTEMS OF CARE,
IT'S TIME TO DRAW THE LINE.



What have we done so far?

- ▶ Developed an Arkansas Mission Lifeline STEMI Advisory Council
- ▶ Established Arkansas regions for Systems of Care for STEMI patients
- ▶ Developed PCI and Non-PCI facility protocols for STEMI patients
- ▶ Developed EMS STEMI Protocols
- ▶ 9 Arkansas EMS services have applied for Mission Lifeline's EMS recognition for excellence in STEMI care

EMS STEMI Protocol (Draft)

STEMI Alert Criteria

*ST segment elevation of ≥ 1
mm in 2 contiguous leads
signs & symptoms of ACS >15
minutes <12 hours*

EMS Goals

1. On scene time < 15 minutes
2. Administer ASA 324mg PO (chewed)
3. Maintain O2 saturation between 94-99%

Where do I take the patient?

- ▶ BLS Services: Consider early ground ALS intercept for patients with associated signs & symptoms and/or history
- ▶ All EMS Services: Consider early air medical intercept for transport to PCI capable hospital

Where do I take the patient?

If estimated time from first medical contact (EMS at patient's side) to balloon is LESS than 90 minutes: TRANSPORT TO PCI CAPABLE HOSPITAL

1. TRANSMIT 12 LEAD ECG (IF CAPABLE)
2. CONTACT RECEIVING PCI HOSPITAL EARLY
3. ACTIVATE CATH LAB

Where do I take the patient?

If estimated time from first medical contact (EMS at patient's side) to balloon is GREATER than 90 minutes: TRANSPORT TO NON-PCI HOSPITAL OR AIR TRANSPORT DIRECTLY TO PCI CAPABLE HOSPITAL

1. TRANSMIT 12 LEAD ECG (IF CAPABLE)
2. CONTACT RECEIVING PCI HOSPITAL EARLY
3. TREAT ON STRETCHER AS NOT TO DELAY TRANSPORT TO PCI HOSPITAL

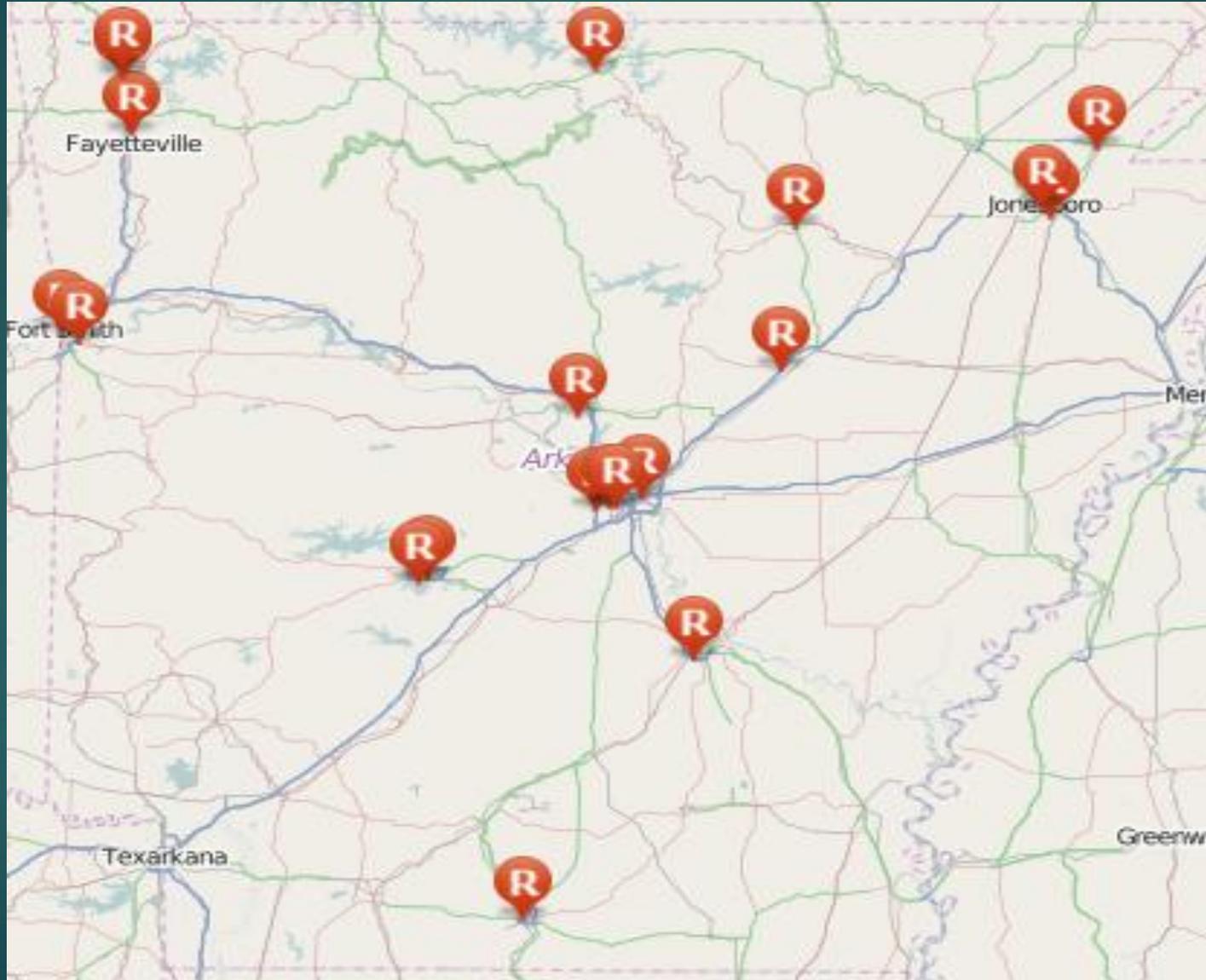
ALS Treatment during transport

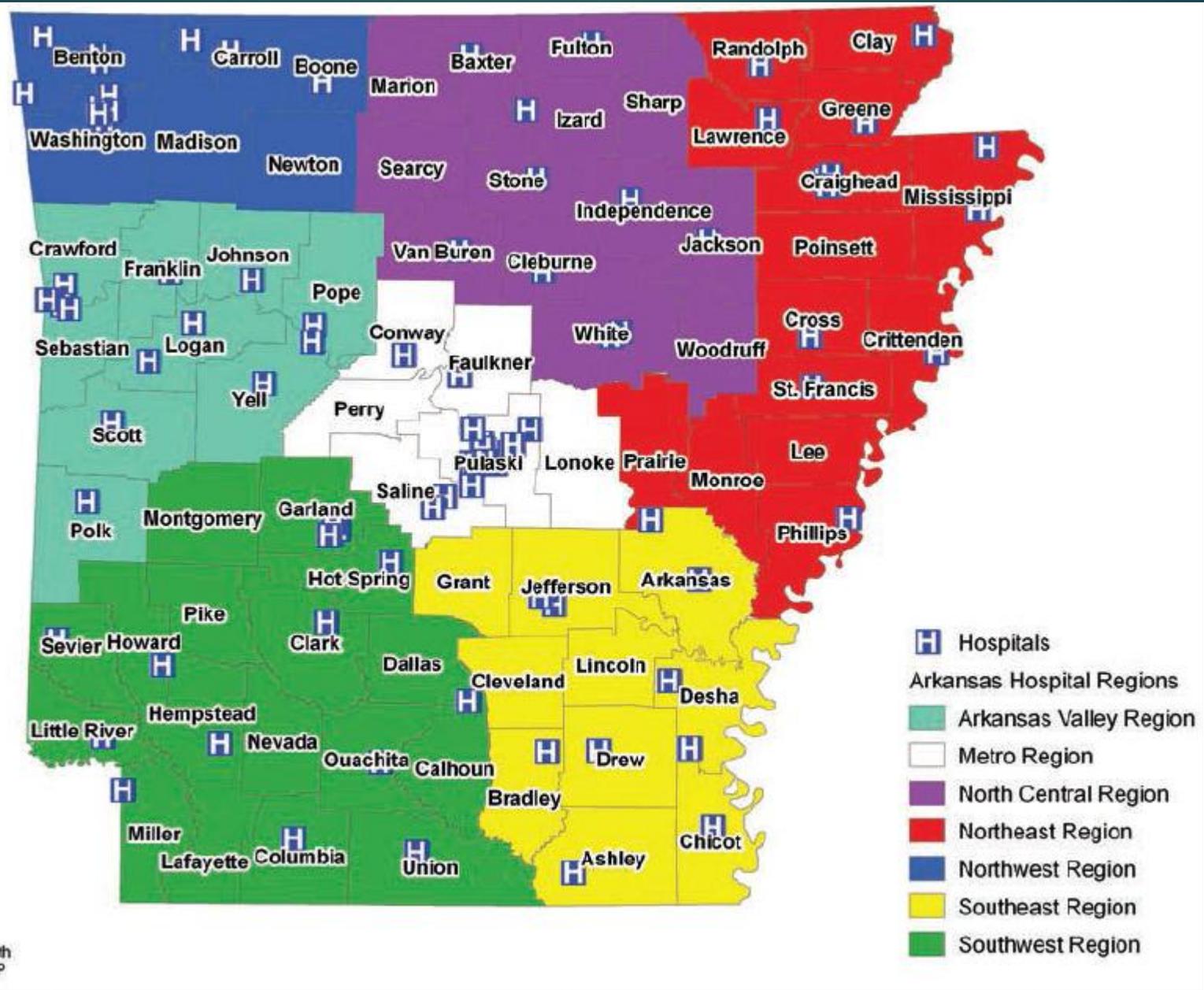
1. ESTABLISH I.V. ACCESS (EST 2ND I.V. IF POSSIBLE)
2. ADMINISTER TNG PER PROTOCOL
3. ADMINISTER NARCOTIC (for pain control)

At PCI Hospital

1. Provide copy of 12 lead for receiving hospital
2. Leave EMS run sheet copy at ER with time of symptom onset and time at patient's side.

PCI Hospitals

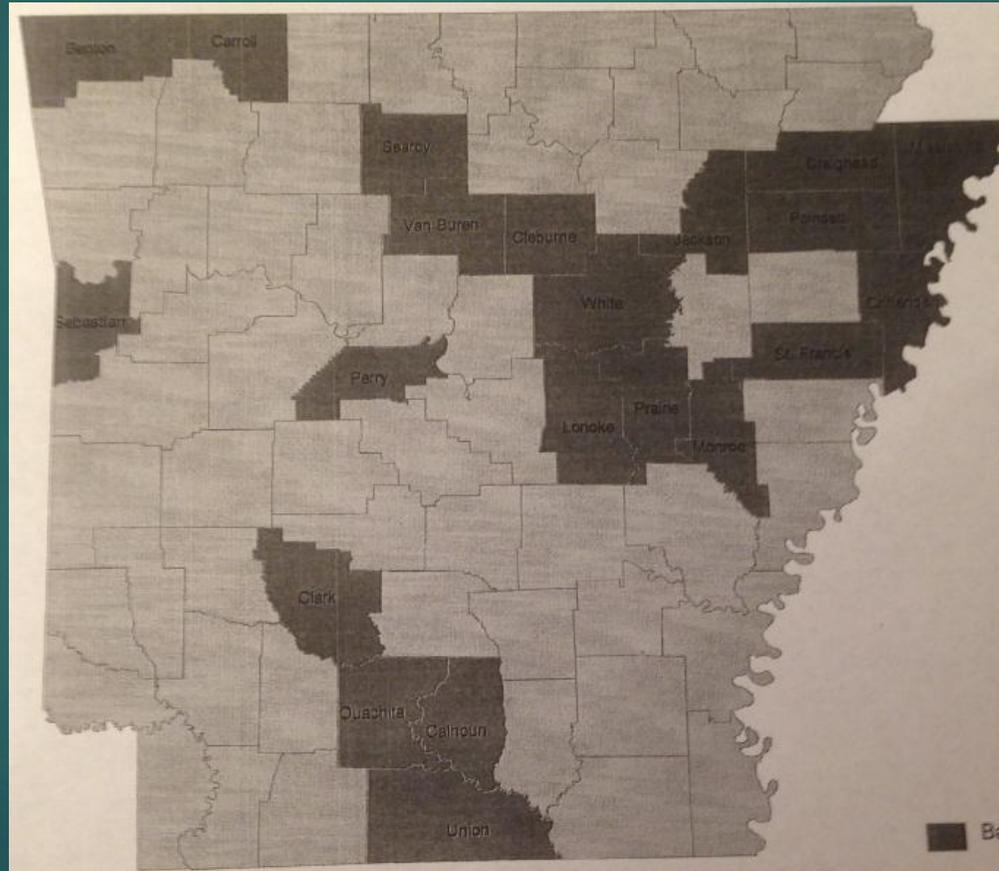




Counties without Hospitals



BLS as 911 Responders



Goals

- ▶ Develop regional STEMI Systems of Care
- ▶ Data collection
- ▶ Consistent evidence based STEMI protocols for all PCI and Non-PCI hospitals
- ▶ Consistent statewide EMS STEMI protocols with transport destination guidelines
- ▶ Public Education about Acute Coronary Syndrome, Signs and Symptoms, and the benefits of calling 911
- ▶ Implement STEMI Systems of care into the current Arkansas Trauma Communications Center program

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YOUR MISSION IS TO SAVE MORE PATIENTS' LIVES.
OUR MISSION IS TO HELP YOU SUCCEED.

