Welcome to Mission: Lifeline® 101

**PRESENTERS:**

**Gray Ellrodt, MD**
- Chair, Mission: Lifeline Advisory Working Group
- Chief of Medicine, Berkshires Medical Center, Pittsfield, MA

- Disclosures:

**Chris Bjerke, BSN, MBA**
- Mission: Lifeline, National Director

- Disclosures:
Outline

Mission: Lifeline Background
- What is Mission: Lifeline
- Statistics
- Program History
- Addition of Cardiac Resuscitation
- Quality Improvement

Getting Involved with Mission: Lifeline
- Participation
- Recognition
- Accreditation

Upcoming Webinars
- EMS Recognition – June 18th, 1pm CDT

Questions and Answers
Mission: Lifeline is the American Heart Association’s national initiative to advance the systems of care for patients with ST-segment elevation myocardial infarction (STEMI) and Out-of-Hospital Cardiac Arrest.

The overarching goal of the initiative is to reduce mortality and morbidity for STEMI and Out of Hospital Cardiac Arrest patients and to improve their overall quality of care.
Mission: Lifeline Goals

- Promote the ideal STEMI and Cardiac Resuscitation systems of care
- Help STEMI and Cardiac Arrest patients get the life-saving care they need in time
- Bring together healthcare resources into an efficient, synergistic system
- Improve overall quality of care
Acute Myocardial Infarction (AMI) Statistics

- This year, ≈635,000 Americans will have an AMI and ≈280,000 will have a recurrent attack. It is estimated that an additional 150,000 silent MIs occur each year.

**TOTAL: 1,065,000**

- Over 340,000 of those are STEMIs
- 1 of 6 deaths (>400,000 per year) is from coronary disease
- Coronary heart disease is the single largest killer
- It is estimated that the combination of direct and indirect health care costs of coronary heart disease reached over $195.2 billion (2009)

ST Elevation Myocardial Infarction (STEMI)

- Early diagnosis and rapid reperfusion therapy for ST-segment myocardial infarction (STEMI) limits infarct size and improves survival.

- Door-to-balloon is <90 minutes in 95% of cases (non-transfer) in ACTION Registry®- Get With The Guidelines™.

- Current guidelines recommend reperfusion therapy within 90 minutes of first medical contact and within 120 minutes for hospital transfers.

- Delay in symptom onset to treatment increases mortality.

2013 ACCF/AHA guideline for the management of ST-elevation myocardial infarction. *Circulation*. 2013;127:
History 2004-2006

MAY 2004
AHA recruited an Advisory Working Group (AWG)

JUNE 2005
Price Waterhouse Coopers presents its market research to AWG

MARCH 2006
AWG Consensus Statement appears in Circulation
Stakeholders called to action
AWG develops a set of guiding principles
AHA held a conference of multidisciplinary groups involved in STEMI patient care
History 2007-2008

**EARLY 2007**

Drafts of STEMI Systems of Care manuscripts are finalized

Action items for the AHA begin to take shape

**APRIL 2007**

A cross-functional team was recruited to spearhead Mission: Lifeline

**MAY 2007**

Eleven manuscripts are published in *Circulation*

Mission: Lifeline was formally launched

**JULY 2008**

Affiliate Staff Kick-Off was held

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http://www.heart.org/missionlifeline
## History 2009-2011

<table>
<thead>
<tr>
<th>SPRING 2009</th>
<th>FALL 2009</th>
<th>2010</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Completion of a national EMS Assessment for STEMI Systems represents 91% of US population</td>
<td>Accreditation requirements for STEMI Systems, hospitals and EMS Agencies are released</td>
<td>Hospital recognition program and reports are released</td>
<td>AHA collaborates with SCPC and hospital accreditation program released</td>
</tr>
</tbody>
</table>

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http://www.heart.org/missionlifeline
2012 – 2013 Present

WINTER 2012
Mission: Lifeline Task Forces compose “ideal” components of cardiac resuscitation systems of care to support program development

APRIL 2012
Mission: Lifeline announces the addition of Cardiac Resuscitation systems of care to the program
Mission: Lifeline launches new user-friendly website

FALL /WINTER 2012
Mission: Lifeline EMS Task Force defines EMS recognition program requirements

MID 2013
EMS recognition program is developed and initial launch communications begin
EMS recognition applications can be submitted starting Jan 1 2014 for data collected in the 2013 calendar year.
Data will be self-reported
Why Add Cardiac Resuscitation to Mission: Lifeline STEMI?

**STATISTICS**

- 382,000 individuals with out of hospital cardiac arrest assessed by EMS annually
  - Roger *Circulation* 2012

- About 50% of cardiac arrest victims have acute occlusion on coronary angiography
  - Nichol *Circulation* 2010

- 11.4% of those treated by EMS for cardiac arrest survive to discharge
  - Roger *Circulation* 2012

- 41% received bystander CPR
  - Roger *Circulation* 2012

- 2.1% had an AED applied by lay persons before EMS arrival
  - Weisfeldt *JACC* 2010
Why Add Cardiac Resuscitation to Mission: Lifeline STEMI?

OPPORTUNITIES

- Increase community response and action
  - Bystander CPR
  - Public access to AEDs

- Improve coordination by First Responder Professionals, EMS, Emergency Departments and Hospital providers
  - Effective and Continuous CPR
  - Induction of Therapeutic Hypothermia
  - Prompt PCI when indicated
  - Multidisciplinary Approach throughout the continuum of care

- Develop and implement regional system of care for patients resuscitated from OHCA

- Increase in continuous monitoring and reporting of OHCA incidence, process variables and outcomes
### Cardiac Arrest
- Unresponsive
- Not breathing normally

### Community
- Hands Only CPR | Bystander CPR
- Early activation of 911
- Apply AED before EMS arrival

### EMS ON-SCENE
- Minimize interruptions of CPR
- Encourage 12-lead ECG after ROSC
- Consider Destination Protocol

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**EMS Triage Plan**

**Receiving Hospital (PCI-capable)**
- Initiate hypothermia <8 hrs from onset of arrest
- Consider early PCI
- Defer Prognosis assessment for 3 days
- Consider need for ICD before discharge

**Interhospital transfer**

**Referral Hospital (non PCI-capable)**
- Initiate hypothermia <6 hrs from onset of arrest
- Consider transfer to reanimation receiving center if unconscious and hemodynamically stable
Mission: Lifeline STEMI Systems Coverage
As of 11/29/2012 (656 Systems; 65.0% Population Coverage)
STEMI + Cardiac Resuscitation System Coverage

As of 04/26/2013
(665 STEMI Systems - 65.24% Population Coverage)
(37 Cardiac Resuscitation Systems - 4.76% Population Coverage)

All system data, including coverage area, is self-reported data.

Source:
Centers for Disease Control and Prevention, National Center for Health Statistics, Compressed Mortality File 1999-2006. CDC Wonder Online Database. ICD10 I21-I22.

Note:
Cardiac Resuscitation Coverage Areas listed are also indicative of a STEMI system in place. Mission: Lifeline does not recognize Cardiac Resuscitation Systems that are not also associated with an active STEMI System.
## Mission: Lifeline Data
(Premier and Limited)

<table>
<thead>
<tr>
<th>Measure Metric</th>
<th>National Score Q1 2010</th>
<th>National Score Q4 2012</th>
<th>Δ</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall Mission: Lifeline Composite Score</td>
<td>94.5%</td>
<td>95.4%</td>
<td>+0.9%</td>
</tr>
<tr>
<td>Time to PPCI &lt;=90 Minutes</td>
<td>91.5%</td>
<td>95.1%</td>
<td>+3.6%</td>
</tr>
<tr>
<td>Mission: Lifeline FMC to PPCI &lt;=90 Minutes</td>
<td>56.9%</td>
<td>67.9%</td>
<td>+11.0%</td>
</tr>
<tr>
<td>Reperfusion Therapy</td>
<td>93.0%</td>
<td>91.6%</td>
<td>-1.4%</td>
</tr>
<tr>
<td>ASA at Arrival</td>
<td>99.1%</td>
<td>99.3%</td>
<td>+0.2%</td>
</tr>
<tr>
<td>ASA at Discharge</td>
<td>98.5%</td>
<td>99.0%</td>
<td>+0.5%</td>
</tr>
<tr>
<td>Beta Blocker at Discharge</td>
<td>97.2%</td>
<td>98.2%</td>
<td>+1.0%</td>
</tr>
<tr>
<td>Statin at Discharge</td>
<td>98.5%</td>
<td>99.0%</td>
<td>+0.5%</td>
</tr>
<tr>
<td>ACE-I or ARB for LVSD at Discharge</td>
<td>89.7%</td>
<td>91.3%</td>
<td>+1.6%</td>
</tr>
<tr>
<td>Adult Smoking Cessation Advice</td>
<td>98.6%</td>
<td>98.8%</td>
<td>+0.2%</td>
</tr>
</tbody>
</table>
Use of Reperfusion Therapy for STEMI (Premier Only)

STEMI
N = 40,478

Reperfusion
N = 34,224 (85%)

Not Eligible for Reperfusion Therapy Contraindication Listed
N = 6,065 (15%)

No Reperfusion - No Contraindication Listed
N = 189

99% of eligible patients reperfused

Primary PCI - 93% *
Fibrinolytics - 5% *
Both PCI + Lytics - 2% *

* Among patients receiving reperfusion

ACTION Registry-GWTG DATA: July 01, 2011 – June 30, 2012
## In-Hospital Outcomes - STEMI

<table>
<thead>
<tr>
<th>Variable</th>
<th>STEMI</th>
</tr>
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<tbody>
<tr>
<td>Death*</td>
<td>6.0%</td>
</tr>
<tr>
<td>Re-infarction</td>
<td>0.8%</td>
</tr>
<tr>
<td>HF</td>
<td>5.8%</td>
</tr>
<tr>
<td>Cardiogenic Shock</td>
<td>6.9%</td>
</tr>
<tr>
<td>Stroke</td>
<td>0.7%</td>
</tr>
<tr>
<td>RBC Transfusion**</td>
<td>4.4%</td>
</tr>
<tr>
<td>Suspected Bleeding Event**</td>
<td>3.6%</td>
</tr>
</tbody>
</table>

*Unadjusted mortality
** Among non-CABG

ACTION Registry-GWTG DATA: July 1, 2010 – Dec 31, 2012
Mission: Lifeline Program Participation

Accreditation

Recognition

Participation

Participation
Mission: Lifeline Levels of Involvement

**PARTICIPATION**
- Mission: Lifeline System Registration
- Mission: Lifeline Hospital Registration
- Quality Improvement/Data Analysis

**RECOGNITION**
- Gold Receiving 2012
- Silver Receiving 2012
- Bronze Receiving 2012

**ACCREDITATION**
- Society of Cardiovascular Patient Care

Join our Facebook site: [https://www.facebook.com/AHAMissionLifeline](https://www.facebook.com/AHAMissionLifeline)

Join the Mission: Lifeline Network: [http://MLNetwork.heart.org](http://MLNetwork.heart.org)

Mission: Lifeline Reports
Access to Mission: Lifeline Tools and Regional Staff
MEMORANDUM OF UNDERSTANDING

THIS MEMORANDUM OF UNDERSTANDING (this "Agreement") is made by and among the American Heart Association ("AHA") and each of the Emergency Medical Service agencies ("EMS agencies") and hospitals ("Hospital") participating in Mission: Lifeline executing a signature page hereto, and is effective as of the date set forth on the signature page below.

BACKGROUND

In 2004, the American Heart Association (AHA) recruited an Advisory Working Group (AWG) to evaluate the quality of care for all acute myocardial infarction patients and to explore the issue of increasing the number of ST-elevation Myocardial Infarction (STEMI) patients with timely access to primary percutaneous coronary intervention (PCI). As a result, a market research study was conducted in order to understand cardiac services for these patients. The market research suggested that there was a recognized need to improve the systems of care for STEMI patients and that the American Heart Association should play a leading role in bringing together all of the constituents involved in the care of these patients. This research resulted in an AHA AWG Consensus Statement published in Circulation in 2006 and a stakeholder “Call to Action”. The AWG developed a set of Guiding Principles (below) to lead the initiative.

REGISTER YOUR SYSTEM OF CARE.
Submit Data via ACTION Registry®-GWTG™

- Enroll in ACTION Registry-GWTG
- Complete an ACC/AHA Data Release Consent Form and email to ncdr@acc.org
- Data submission = Quarterly
- Submission Deadline = 60 days after end of the quarter

- Q1 - Jan, Feb, March
- Q2 - April, May, June
- Q3 - July, Aug, Sept
- Q4 - Oct, Nov, Dec
Mission: Lifeline Regional Hospital Report
Quarter 1, 2012
*Confidential Information*

This document contains confidential material. If User desires to publish, present externally or otherwise distribute or use, in whole or in part, any aggregate data or reports provided by Mission: Lifeline, or produced in connection with or derived from Mission: Lifeline reports, with the exception of strictly internal use within User’s organization, User must first obtain the prior express written consent of American Heart Association. To the extent User is permitted to publish aggregate data, such aggregate data and any related information published or presented in connection with it must be reviewed and approved by American Heart Association prior to publication.

To request such permission, please contact the Mission Lifeline Program Coordinator, Katherine Kuzan, at 214-706-1105 or katherine.kuzan@heart.org.

Prepared by:
ACTION Registry-GWTG™
Duke Clinical Research Institute

- One time low cost based on number of participating hospital
- Available as Blinded or Identified
- Requires second Data Release Consent form

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http://www.heart.org/missionlifeline
Mission: Lifeline Recognition
Mission: Lifeline Recognition Award Requirements (for Receiving and Referral)

**BRONZE**
1 calendar quarter - 90 consecutive days

**SILVER**
4 calendar quarters - 12 consecutive months

**GOLD**
8 consecutive quarters - 24+ consecutive months

Must meet 85% or greater composite score with no single measure below 75% for specified periods of time. Bronze must show progression in number of quarters achieved year to year.
In a cardiac emergency, you won’t have time to find your hospital on our list.

The hospitals on our list got there by demonstrating extraordinary performance in Mission: Lifeline®, a program created by the American Heart Association to foster prompt, effective care for heart attack patients. Learn more about this and other programs that help hospitals deliver better care at heart.org/missionlifeline.
## Mission: Lifeline Recognition History

- **77** Total Mission: Lifeline Recognized Hospitals 2010
- **131** Total Mission: Lifeline Recognized Hospitals 2011
- **226** Total Mission: Lifeline Recognized Hospitals 2012

**Approx. 300** Total Mission: Lifeline Recognized Hospitals 2013

<table>
<thead>
<tr>
<th></th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Receiving Bronze</td>
<td>73</td>
<td>92</td>
<td>147</td>
<td>?</td>
</tr>
<tr>
<td>Receiving Silver</td>
<td>4</td>
<td>35</td>
<td>44</td>
<td>?</td>
</tr>
<tr>
<td>Receiving Gold</td>
<td>0</td>
<td>2</td>
<td>25</td>
<td>?</td>
</tr>
<tr>
<td>Referral Bronze</td>
<td>0</td>
<td>3</td>
<td>5</td>
<td>?</td>
</tr>
<tr>
<td>Referral Silver</td>
<td>0</td>
<td>0</td>
<td>5</td>
<td>?</td>
</tr>
<tr>
<td>Referral Gold</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>?</td>
</tr>
</tbody>
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http://www.heart.org/missionlifeline
Documents required for Reporting and Recognition

AHA MISSION LIFELINE DATA RELEASE CONSENT FORM

APPENDIX TO THE AMERICAN COLLEGE OF CARDIOLOGY FOUNDATION NATIONAL CARDIOVASCULAR DATA REGISTRY AGREEMENT BY AND BETWEEN THE AMERICAN COLLEGE OF CARDIOLOGY FOUNDATION

AND

DATA RELEASE CONSENT FORM

AUTHORIZING AND DIRECTING THE AMERICAN COLLEGE OF CARDIOLOGY FOUNDATION TO TRANSMIT DATA FINDINGS TO DUKE UNIVERSITY

("Participant") and the American College of Cardiology Foundation ("ACCF") acknowledge and agree as follows.

1. Participant has entered into an agreement with ACCF to provide patient record data to ACCF’s National Cardiovascular Data Registry ("NCDR") ACTION Registry®-GWTG® and to receive certain comparative reports from ACCF (the "Agreement"). The data provided by Participant to ACCF under the Agreement includes facility, physician, and patient level data. Such data shall be referred to herein as the "ACTION Registry Dataset.”

2. Participant acknowledges that it has been informed that ACCF and AHA have entered or will enter into an agreement; the purposes of such agreement are to provide the ACTION Registry Dataset on the behalf of Participant for the American Heart Association’s ("AHA") Mission Lifeline ("ML") program.

3. Participant acknowledges that it has been informed that ACCF and Duke University ("Duke") have entered or will enter into an agreement; the purposes of such agreement is to provide data to Duke acting as AHA’s subcontractor on the behalf of Participant for AHA Mission Lifeline ("ML") program. Such data shall be used to produce ML reports and to conduct cardiovascular research using a Limited Dataset as permitted by the Business Associate Agreement and consistent with the limitations imposed.

4. Participant has registered with the AHA for participation in the ML program and such registration contemplates the transmission of the ACTION Registry Dataset by ACCF (on behalf of Participant) to Duke a subcontractor of ACCF for ML.

5. Participant authorizes and directs ACCF to transmit the ACTION Registry Dataset to Duke University for the purposes described above.

6. This Addendum shall be effective for the duration of ML or the Agreement, whichever is shorter. This Addendum may be terminated by Participant or ACCF upon written notice at any time. Termination of this Addendum shall not constitute a termination of the Agreement, unless otherwise provided by Participant or ACCF.

7. As amended by this Addendum, the Agreement is in all respects ratified and confirmed, and the Agreement and this Addendum shall be read, taken, and construed as one and the same instrument. To the extent any inconsistency exists between the Business Associate Agreement which is attached to the Agreement and this Addendum, the terms of such Business Associate Agreement shall control.

AHA MISSION LIFELINE

Agreement shall control. In all requests
Agreement is hereby ratified, approved

IN WITNESS WHEREOF, each
as of the, day of,

PARTICIPANT

Participant #: 
Signature: 
Title: 
Date: 
Email Address: 
Phone:

To learn more about how your hospital can be recognized by Mission: Lifeline, go to http://www.americanheart.org/missionlifeline

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http://www.heart.org/missionlifeline
Mission: Lifeline Accreditation

REGISTER YOUR SYSTEM OF CARE.

Mission: Lifeline STEMI Systems Coverage
As of 1/1/2013: 294 Systems (100% Population Covered)

BRONZE RECEIVING 2013
SILVER RECEIVING 2013
GOLD RECEIVING 2013

American Heart Association
ACCREDITATION
Meets standards for
Heart Attack Receiving Center

American Heart Association
ACCREDITATION
Meets standards for
Heart Attack Referring Center

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http://www.heart.org/missionlifeline
Mission: Lifeline Accreditation

- Offered in collaboration with Society of Cardiovascular Patient Care (formerly Society of Chest Pain Centers)
- Available for both **STEMI Receiving** and **STEMI Referring** Hospitals
- **ONLY** hospitals with a current Mission: Lifeline recognition award (Bronze, Silver or Gold) may apply for accreditation. Eligibility for accreditation lasts 1 year.
Why Achieve Mission: Lifeline Accreditation?

- **IMPROVE CARDIAC CARE** by providing a standardized, team approach to the treatment of STEMI patients.

- **NATURAL PROGRESSION** for Mission: Lifeline recognized hospitals to achieve accreditation status.

- **FORWARD THE MISSION** of both organizations with a combined goal to improve the consistency of cardiac care.

- **STRENGTHENS COMMUNITY CONFIDENCE** in the quality and safety of care, treatment and services by the distinguished recognition of the AHA brand.

- Hospitals will be able to use the **AHA’S ACCREDITATION HEART CHECK MARK** to promote their accomplishment.
Application Process

• Determine which American Heart Association's Mission: Lifeline® Accreditation tracks you will be applying for:
  – **Track 1**: STEMI Referring Center – for those facilities that transfer their STEMI patients to a PCI STEMI Receiving Center
  – **Track 2**: STEMI Receiving Center – for facilities that perform onsite primary PCI for STEMI patients 24/7

• Purchase the American Heart Association's Mission: Lifeline® Accreditation Manual provided by the Society of Cardiovascular Patient Care at [www.scpcp.org](http://www.scpcp.org).

• Complete all application documents and mail to the Society of Cardiovascular Patient Care.
Upcoming Webinar – Mark Your Calendars!

Mission: Lifeline® EMS Recognition

Tuesday, June 18th, 2013 1:00 pm CDT (60 min)

Mission: Lifeline® is adding EMS Recognition to its existing hospital recognition program. This new program will award its first class of EMS agencies in the spring of 2014 based on 2013 calendar year data. Join us to learn more about the criteria and achievement measures for EMS Recognition, data collection requirements, and what to expect as we launch this new opportunity for EMS agencies and providers. Time will be reserved for Q&A at the end of the presentation.

Pre-registration will be required. Please check the “Hot Topics” section of our website (www.heart.org/missionlifeline) or the upcoming May Focus on Quality E-Newsletter.
From the American Heart Association, Mission: Lifeline® Team:

Thank you for attending the Mission: Lifeline 101 Webinar

If you would like further information on Mission: Lifeline or how to get started, email us at:

Missionlifeline@heart.org