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CAPITAL AREA TRAUMA
REGIONAL ADVISORY COUNCIL

Cardiac Care Workgroup Update

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Sr. Director Mission:Lifeline
South Central Affiliate

April 22, 2010

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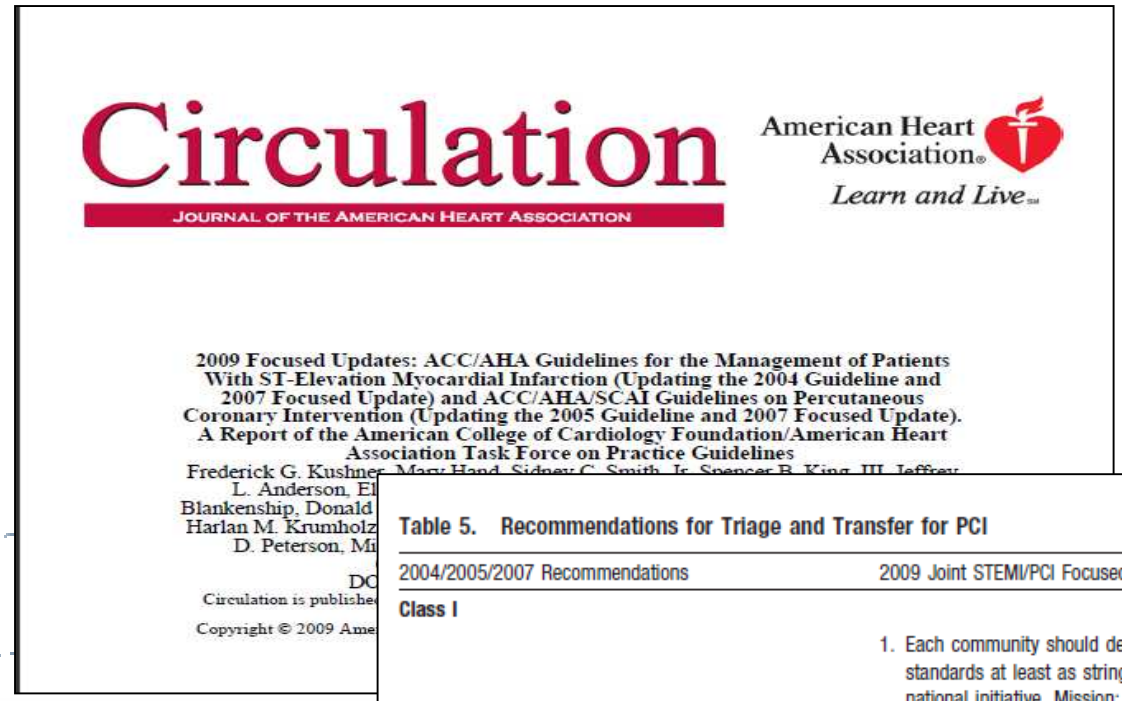
GETAC Cardiac Care Committee Recommendations

All RACs develop a task force to work on:

- Identifying all the cardiac acute care facilities in their jurisdiction.
- Develop EMS transportation guidelines to facilitate transportation of STEMI patients to appropriate facilities.
- Develop a minimum data set to be reported to EMS provider agencies for continued recognition as 24/7 cardiac cath center
- Encourage all ALS ambulances responding to 911 calls to have pre-hospital 12 lead ECG equipment.

Updated ACC/AHA STEMI Guidelines include Community STEMI System of Care



Circulation

JOURNAL OF THE AMERICAN HEART ASSOCIATION

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2009 Focused Updates: ACC/AHA Guidelines for the Management of Patients With ST-Elevation Myocardial Infarction (Updating the 2004 Guideline and 2007 Focused Update) and ACC/AHA/SCAI Guidelines on Percutaneous Coronary Intervention (Updating the 2005 Guideline and 2007 Focused Update). A Report of the American College of Cardiology Foundation/American Heart Association Task Force on Practice Guidelines

Frederick G. Kushner, Mary Hand, Sidney C. Smith, Jr, Spencer B. King, III, Jeffrey L. Anderson, El
Blankenship, Donald
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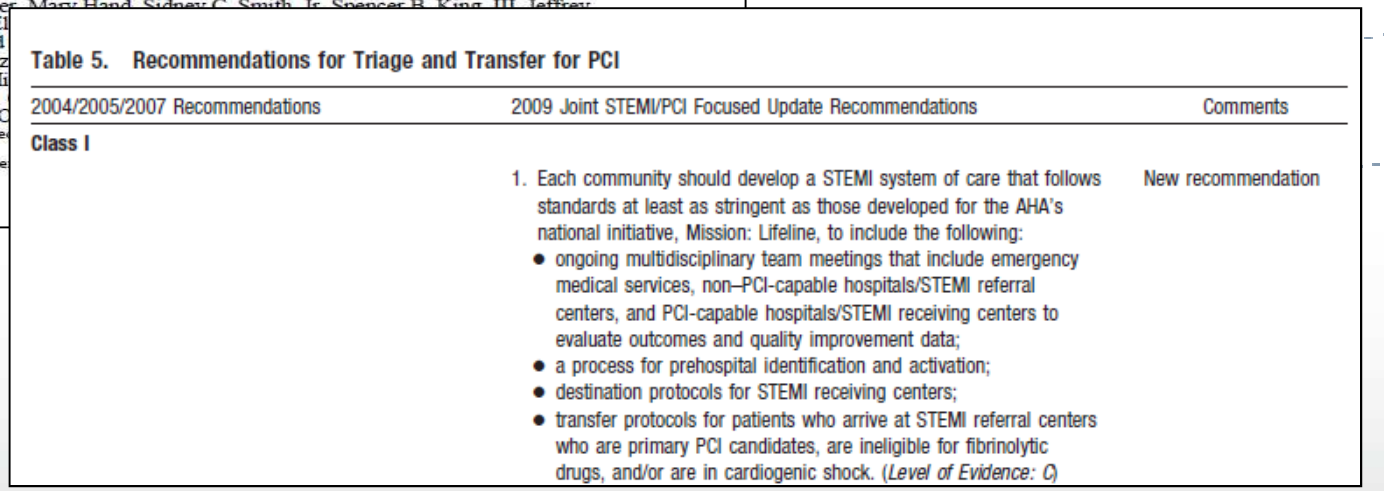

Table 5. Recommendations for Triage and Transfer for PCI

2004/2005/2007 Recommendations	2009 Joint STEMI/PCI Focused Update Recommendations	Comments
Class I		
	1. Each community should develop a STEMI system of care that follows standards at least as stringent as those developed for the AHA's national initiative, Mission: Lifeline, to include the following: • ongoing multidisciplinary team meetings that include emergency medical services, non–PCI-capable hospitals/STEMI referral centers, and PCI-capable hospitals/STEMI receiving centers to evaluate outcomes and quality improvement data; • a process for prehospital identification and activation; • destination protocols for STEMI receiving centers; • transfer protocols for patients who arrive at STEMI referral centers who are primary PCI candidates, are ineligible for fibrinolytic drugs, and/or are in cardiogenic shock. (*Level of Evidence: C*)	New recommendation

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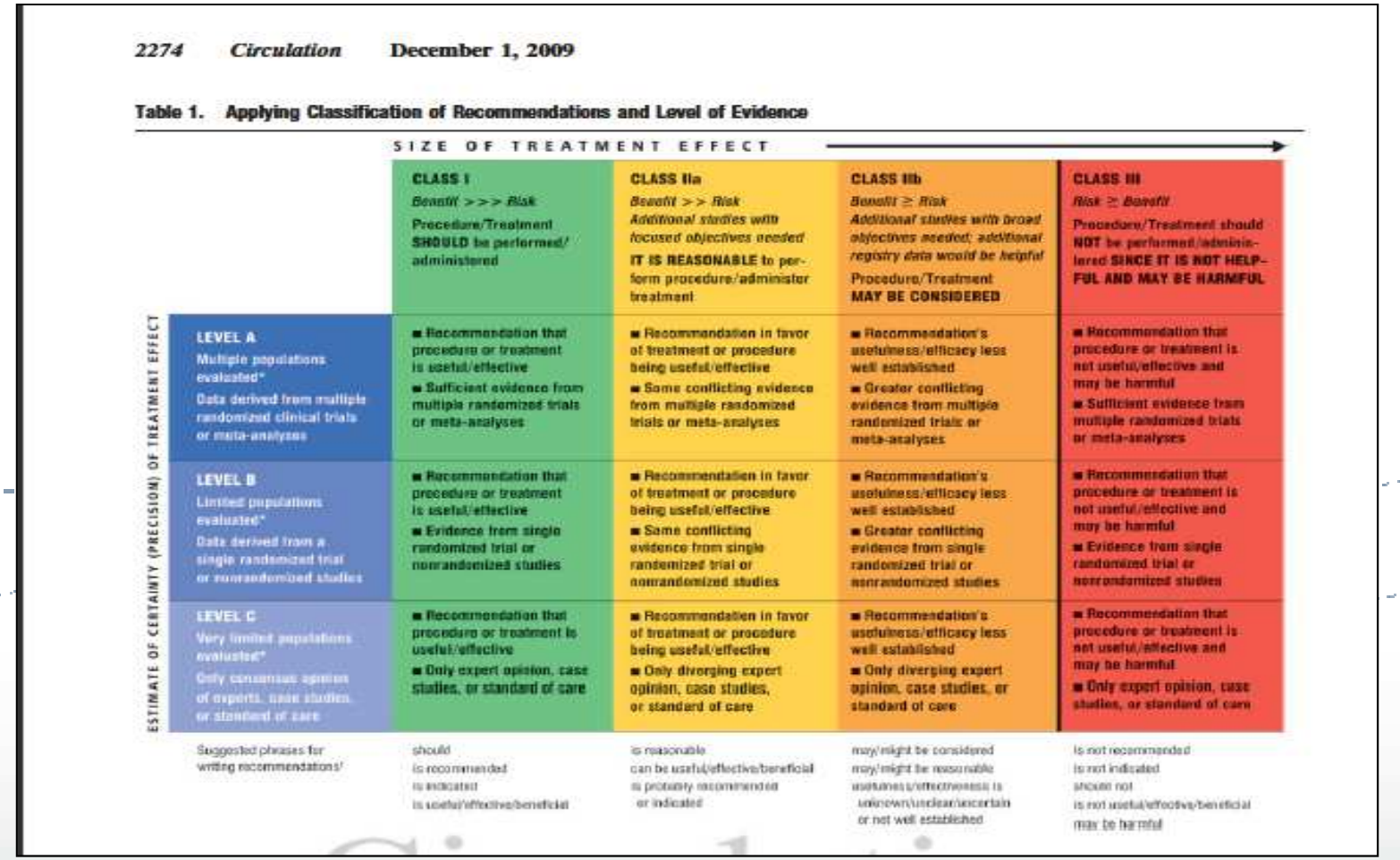
Class I is The Highest Level of Recommendation



2274 *Circulation* December 1, 2009

Table 1. Applying Classification of Recommendations and Level of Evidence

ESTIMATE OF CERTAINTY (PRECISION) OF TREATMENT EFFECT	SIZE OF TREATMENT EFFECT →			
	CLASS I *Benefit >>> Risk* Procedure/Treatment **SHOULD** be performed/ administered	**CLASS IIa** *Benefit >> Risk* *Additional studies with focused objectives needed* **IT IS REASONABLE** to perform procedure/administer treatment	**CLASS IIb** *Benefit ≥ Risk* *Additional studies with broad objectives needed; additional registry data would be helpful* Procedure/Treatment **MAY BE CONSIDERED**	**CLASS III** *Risk ≥ Benefit* Procedure/Treatment should **NOT** be performed/administered **SINCE IT IS NOT HELPFUL AND MAY BE HARMFUL**
LEVEL A Multiple populations evaluated* Data derived from multiple randomized clinical trials or meta-analyses	■ Recommendation that procedure or treatment is useful/effective ■ Sufficient evidence from multiple randomized trials or meta-analyses	■ Recommendation in favor of treatment or procedure being useful/effective ■ Some conflicting evidence from multiple randomized trials or meta-analyses	■ Recommendation's usefulness/efficacy less well established ■ Greater conflicting evidence from multiple randomized trials or meta-analyses	■ Recommendation that procedure or treatment is not useful/effective and may be harmful ■ Sufficient evidence from multiple randomized trials or meta-analyses
LEVEL B Limited populations evaluated* Data derived from a single randomized trial or nonrandomized studies	■ Recommendation that procedure or treatment is useful/effective ■ Evidence from single randomized trial or nonrandomized studies	■ Recommendation in favor of treatment or procedure being useful/effective ■ Some conflicting evidence from single randomized trial or nonrandomized studies	■ Recommendation's usefulness/efficacy less well established ■ Greater conflicting evidence from single randomized trial or nonrandomized studies	■ Recommendation that procedure or treatment is not useful/effective and may be harmful ■ Evidence from single randomized trial or nonrandomized studies
LEVEL C Very limited populations evaluated* Only consensus opinion of experts, case studies, or standard of care	■ Recommendation that procedure or treatment is useful/effective ■ Only expert opinion, case studies, or standard of care	■ Recommendation in favor of treatment or procedure being useful/effective ■ Only diverging expert opinion, case studies, or standard of care	■ Recommendation's usefulness/efficacy less well established ■ Only divergent expert opinion, case studies, or standard of care	■ Recommendation that procedure or treatment is not useful/effective and may be harmful ■ Only expert opinion, case studies, or standard of care
Suggested phrases for writing recommendations†	should is recommended is indicated is useful/effective/beneficial	is reasonable can be useful/effective/beneficial is probably recommended or indicated	may/might be considered may/might be reasonable usefulness/effectiveness is unknown/unclear/uncertain or not well established	is not recommended is not indicated should not is not useful/effective/beneficial may be harmful

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Community STEMI System of Care to Include:

- Ongoing multidisciplinary team meetings that include emergency medical services, non-PCI capable hospitals/STEMI referral centers, and PCI-capable hospitals/STEMI receiving centers to evaluate outcomes and quality improvement data.
- A process for pre-hospital identification and activation.
- Destination protocols for STEMI receiving centers.
- Transfer protocols for patients who arrive at STEMI referral centers who are primary PCI candidates, are ineligible for fibrinolytic drugs, and/or are in cardiogenic shock.

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Community STEMI System of Care Became a Class 1 Recommendation

- **Each community should develop a STEMI system of care that follows standards at least as stringent as those developed for the AHA's national initiative, Mission: Lifeline, to include the following:**

Made a Plan

CATRAC
Capital Area Trauma Regional Advisory Council

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Mission: Lifeline
Texas State Coalition for Mission: Lifeline.

Texas State Coalition efforts support the goal of the American Heart Association's Mission: Lifeline program, working to improve health care systems' response to and treatment of STEMI heart attacks.

CATRAC Mission: Lifeline mission statement: Optimize the outcome of CV emergencies through multi-disciplinary collaboration in CATRAC.

Updated March 30, 2010

Mission: Lifeline – Texas CATRAC Plan
June 2009 through December 2010
Top 5 Workgroup goals for 2010 are highlighted in yellow

Action	*Activity*	*Date*	*Lead/Contact*
INFRASTRUCTURE SUPPORT			
1. Establish Regional stakeholder advisory committee	• CATRAC Mission: Lifeline Cardiac Care Workgroup and Workgroup leadership established • Workgroup mission determined and regular meetings scheduled.	June 2009 July 2009	AHA: Denne CATRAC:Dave Reimer Leadership: Wozniak/Zidar
2. Create a solid, inclusive and effective CATRAC Mission: Lifeline infrastructure.	• CATRAC Mission: Lifeline sub-workgroups established Recruit participation and leadership from EMS, non-PCI and PCI hospitals, RAC and other key alliance partners to establish sub-workgroups: **1). EMS** **2). QI** **3). Protocols and Planning** **4). Education and Public Awareness** Finalize work plan for 2009-2010	July 2009 November 2009	Denne/Reimer/Wozniak/ Zidar Zidar/Wozniak/Denne/C ardiac Care Workgroup
3. Planning session to determine priority actions	• Assessment of current regional system including identification of PCI and non-PCI hospitals and EMS agencies. • Establishment of regional plan based on ACC/AHA guidelines • EMS equipment assessment for entire region • Public awareness of heart attack signs/symptoms • Report out from initial sub-workgroup meetings	August 2009	CATRAC Mission: Lifeline Cardiac Care Workgroup
4. Communication with CATRAC Mission: Lifeline Cardiac Care Workgroup and Sub-group members	• Maintain distribution list and update general and sub-group leadership on additions to workgroups • Email Mission: Lifeline updates to distribution list- upcoming conferences, webinars, etc. • Schedule upcoming CATRAC M:L Cardiac Care Workgroup mtgs and create agenda w/ leadership • Planning meetings w/ leadership	Fall 2009-Spring 2010	AHA: Loni Denne
INFRASTRUCTURE SUPPORT			
5. Support STEMI systems and	• Statewide STEMI conference sponsored by S&W.	October	Dr. Tim Mixon

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Brian Aldred, MD, SMC Williamson
Jim Allday, RN, Star Flight
Brenda Barnes, RN, ED Mgr, Seton Southwest
Jennifer Blakely, RN, QI, Westlake
Barbara Borman, RN, Dir CV Services, Seton MC
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Dennis Clark EMT-P, Acadian
Robert Carroll, CV Tech, St. David's NAMC
Catherine Cloud, Cath Lab, Westlake
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Louis Gonzales, LP, ATCEMS System QI, OMD
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Fred Gray, Air Evac
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Melissa Juarez, RN, Chest Pain Coord, Scott & White RR
Keith Karpinski, RN, ED Mgr, Seton MC Hayes
Richard Kay, EMT-P, Wimberley EMS
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Terri King, LP, Clinical Comm., Williamson Co. EMS
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Ronda Mackey, RN, St. David's HealthCare
Troy Maxer, EMT-P, Acadian
Lilly McAteer, RN, Seton
Idalia Mendez, RN, Heart Hospital
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John Moseley, EMT-P, Hays Co EMS
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Buddy Owen, MD, Heart Hosp of Austin
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Sherry Reynolds, Heart Hospital of Austin
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K Smathers, EMT-P Marble Falls EMS
Terri Thompson, Air Evac
Sandy Tolces, RN, Air Medical/Cath Lab
Curtis Townsend, RN, Seton
Amy Urban, RN, STEMI Coord, Heart Hospital of Austin
Marco Villasenor, Captain, City of Austin
Michael Watkins, MD, SMC
Carol Winick, VP QI, AHA
Robert Wozniak, MD, TCC
Susan Youngblood, RN, ED, CTMC
Frank Zidar, MD, Austin Heart Associates
Christopher Ziebell, MD, ED, UMCB

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Cardiac Care Workgroup

April 22, 2009

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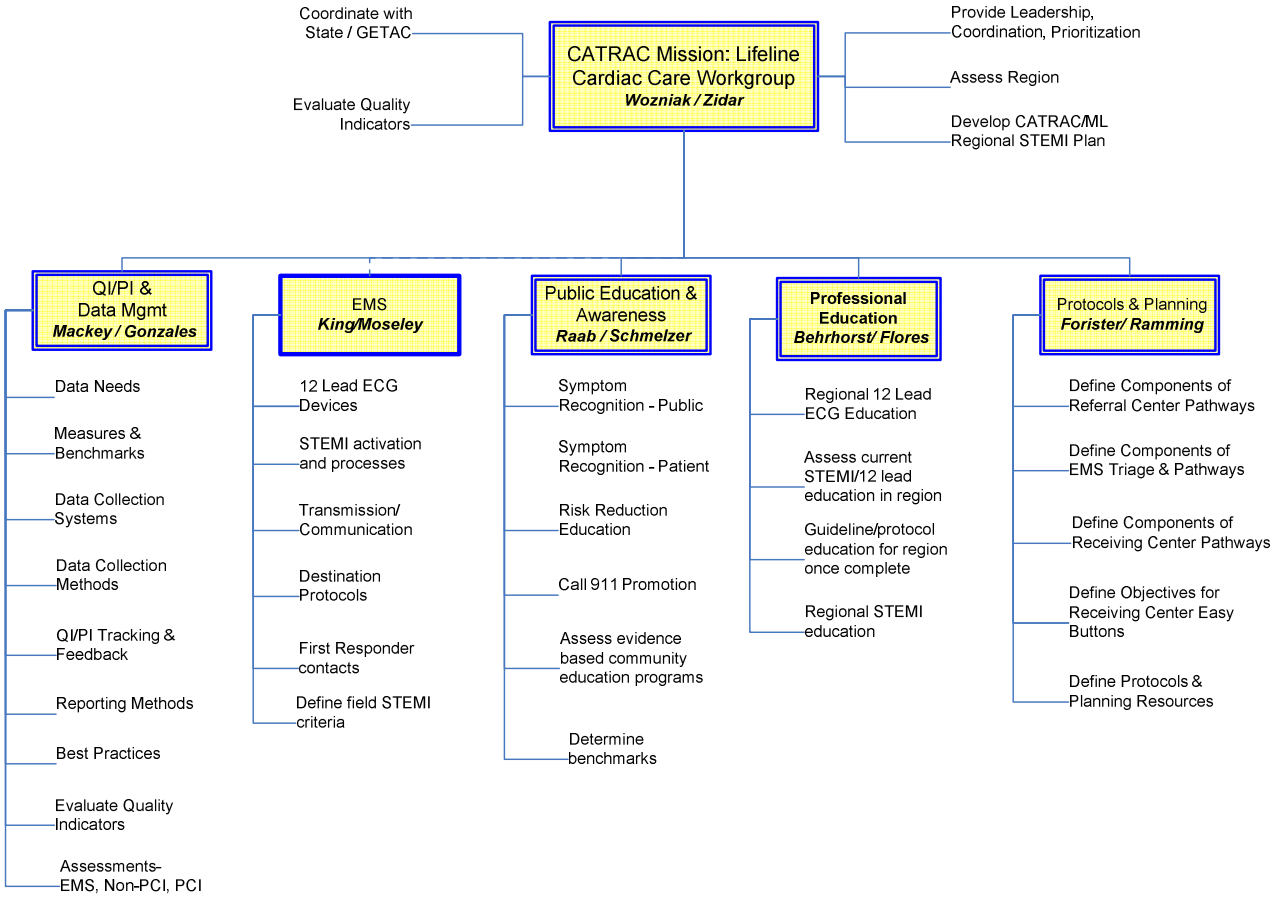

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Set Top Five CATRAC Mission: Lifeline 2010 Goals:

Goal #1

Evaluate Outcomes and QI Data

1). Identify key measures that we would be interested in capturing.

2). Investigate data collection methods that could capture key measures.

3). Support PCI and non-PCI hospital participation in the national American College of Cardiology Acute MI database, Action Registry GWTG.

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Top Five CATRAC Mission: Lifeline Goals

Goal #2

A process for pre-hospital activation and identification.

1). Define what will activate the “STEMI response” in our region

2). Define name for activation “Code STEMI” , “STEMI Alert”

3). Define process for activation depending on point of entry and computer algorithm interpretation, EMS provider interpretation or wireless transmission/physician interpretation.

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Top Five CATRAC Mission: Lifeline Goals for 2010

Goal #3

Written regional destination protocols for STEMI receiving centers:

- If first medical contact (EMS/non-PCI hospital or PCI hospital) to first device used can be accomplished in under 90 minutes, patient should be directed to STEMI receiving center for reperfusion in the cath lab.
- If it is determined that first medical contact (EMS/non-PCI hospital or PCI hospital) to first device used will not be possible in under 90 minutes, administer lytics if patient is eligible and then transfer to STEMI receiving center.

Written regional transfer protocols for patients who arrive at STEMI referral centers who are primary PCI candidates, are ineligible for fibrinolytic drugs, and/or are in cardiogenic shock.

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Top Five CATRAC Mission: Lifeline Goals for 2010

Goal #4

A plan for regional EMS, non-PCI hospital and PCI hospital education about regional STEMI protocols once they are complete.

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Top Five CATRAC Mission: Lifeline Goals for 2010

Goal #5

Develop plan to address key finding that there are counties in our region without EMS equipment and training.

1). Meet with key contacts from each of these service areas to understand their obstacles and interest.

2). Identify their specific equipment needs and interest.

3). Identify their specific training needs and interest.

4). Develop plan to obtain funding if needed.

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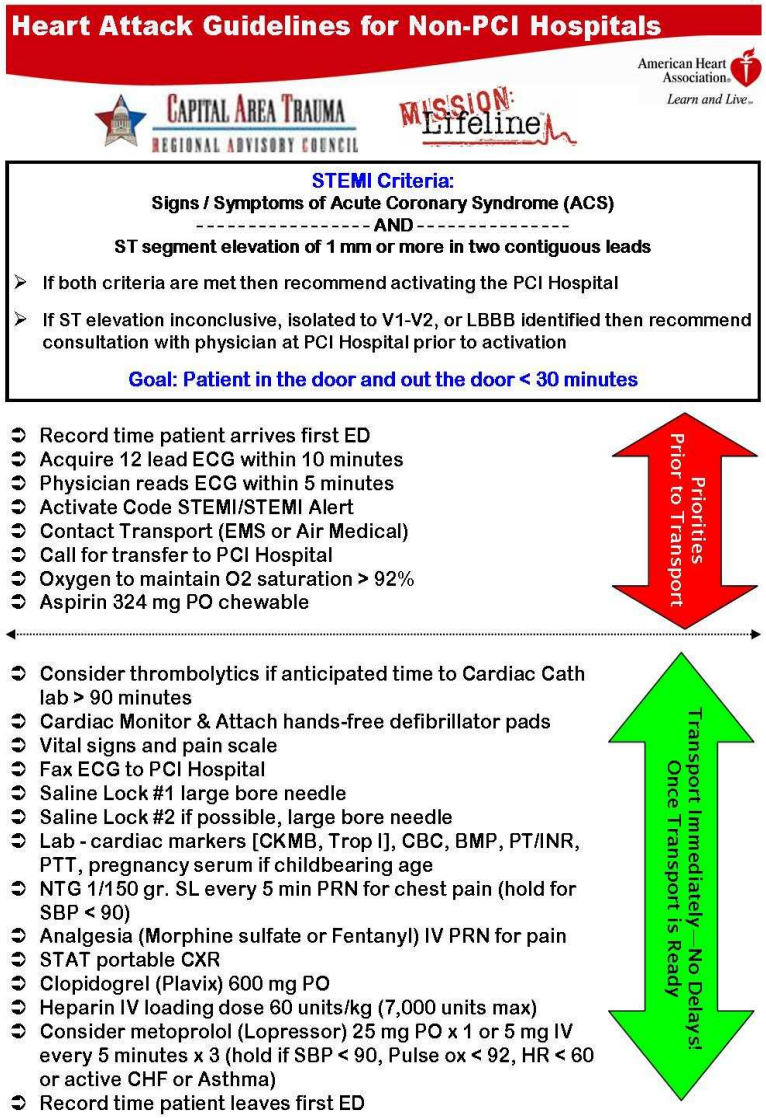
Protocols and Planning Subgroup

- **Working to develop regional guidelines that are based on American College of Cardiology and American Heart Association science.**



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Non-PCI Hospital STEMI Guidelines

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CATRAC Mission: Lifeline Education Subgroup

Professional

EMS and Hospital staff 12 Lead ECG and STEMI training

EMS and Hospital staff education on the regional guidelines once they are completed by the Protocols/Planning Subgroup

Public

Public awareness and education

Evaluating evidence based public awareness campaigns

Evaluating data from DSHS to help focus the campaign at the target audience

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EMS Subgroup

Defining the process for pre-hospital activation and identification.

1). Define what will activate the "STEMI response" in our region

2). Define name for activation "Code STEMI" , "STEMI Alert"

3). Define process for activation depending on point of entry and computer algorithm interpretation, EMS provider interpretation or wireless transmission/physician interpretation.

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STEMI Criteria:

Signs / Symptoms of Acute Coronary Syndrome (ACS)

- - - - - - - - - - - - - - - - - AND - - - - - - - - - - - - - - - -

ST segment elevation of 1 mm or more in two contiguous leads

If both criteria are met then recommend activating the PCI Hospital

If ST elevation inconclusive, isolated to V1-V2, or LBBB identified then recommend consultation with physician at PCI Hospital prior to activation

Goal: Patient in the door and out the door < 30 minutes

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QI Subgroup Report

- Assessments
- Key Findings from the assessments were used to set goals and address needs
- Thank you for your assistance with the assessments!

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QI Subgroup

- Identifying STEMI elements the region would be interested in capturing in order to benchmark and improve
- Investigating data management solutions

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