Sustaining a System of Care

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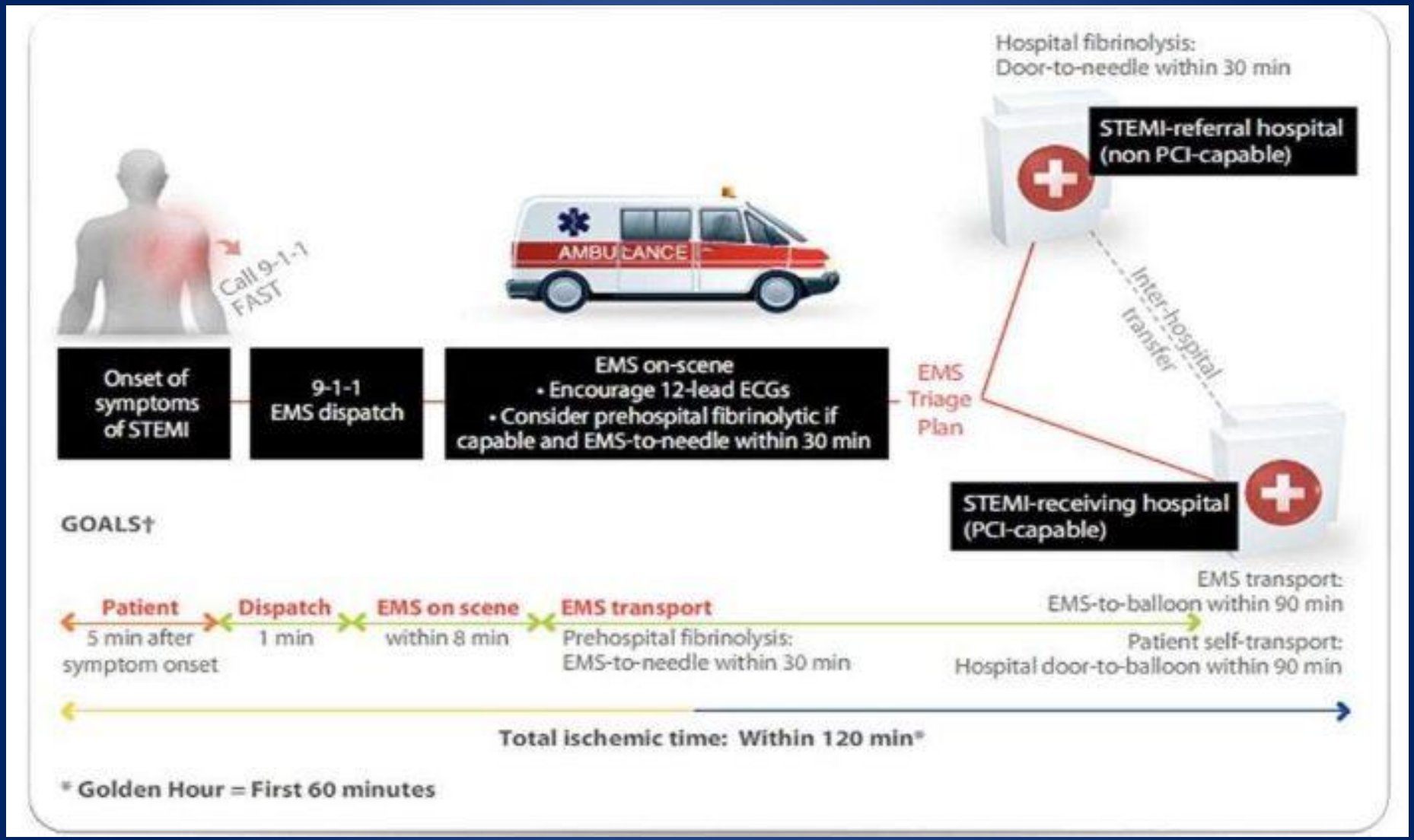
System of Care



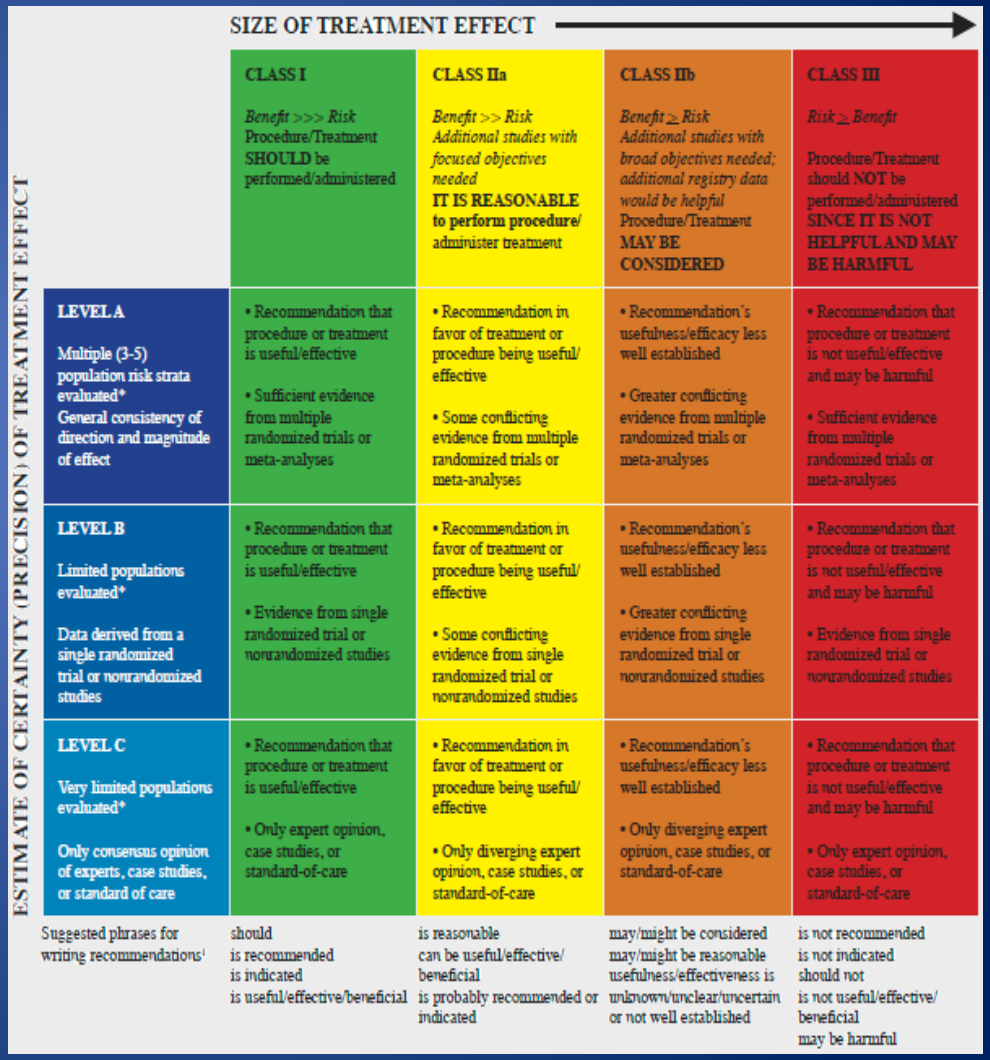
Levels of Evidence

Class I
Treatment Should Be Performed

Class IIa
It is reasonable to perform procedure or administer treatment

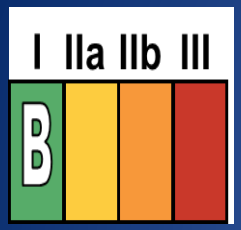
Class IIb
Procedure or Treatment may be considered

Class III
Procedure or Treatment should not be performed. Not helpful, may be harmful.



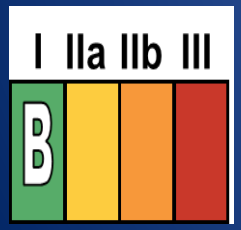
ESTIMATE OF CERTAINTY (PRECISION) OF TREATMENT EFFECT	SIZE OF TREATMENT EFFECT →			
	CLASS I *Benefit >>> Risk* Procedure/Treatment **SHOULD** be performed/administered	**CLASS IIa** *Benefit >> Risk* *Additional studies with focused objectives needed* **IT IS REASONABLE to perform procedure/** administer 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 (3-5) population risk strata evaluated* General consistency of direction and magnitude of effect	• 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 diverging 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

Regional Systems of STEMI Care, Reperfusion Therapy, and Time-to-Treatment Goals



All communities should create and maintain a regional system of STEMI care that includes assessment and continuous quality improvement of EMS and hospital-based activities.

Performance can be facilitated by participating in programs such as Mission: Lifeline and the D2B Alliance.



Performance of a 12-lead ECG by EMS personnel at the site of FMC is recommended in patients with symptoms consistent with STEMI.

Regional Systems of STEMI Care, Reperfusion Therapy, and Time-to-Treatment Goals

LEVELS OF EVIDENCE

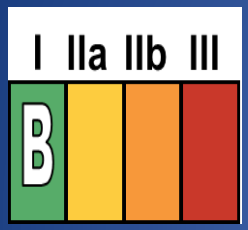
Reperfusion therapy should be administered to all eligible patients with STEMI with symptom onset within the prior 12 hours.

Primary PCI is the recommended method of reperfusion when it can be performed in a timely fashion by experienced operators.

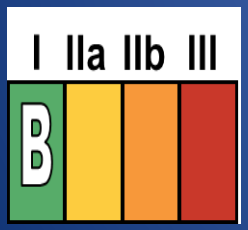
EMS transport directly to a PCI-capable hospital for primary PCI is the recommended triage strategy for patients with STEMI with an ideal FMC-to-device time system goal of 90 minutes or less.*

Regional Systems of STEMI Care, Reperfusion Therapy, and Time-to-Treatment Goals

LEVELS OF EVIDENCE



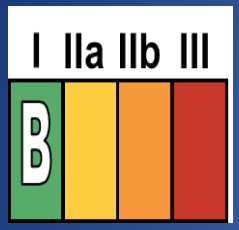
Immediate transfer to a PCI-capable hospital for primary PCI is the recommended triage strategy for patients with STEMI who initially arrive at or are transported to a non–PCI-capable hospital, with an FMC-to-device time system goal of 120 minutes or less.*



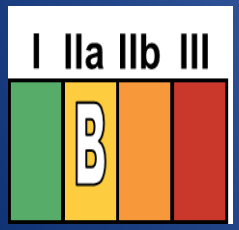
In the absence of contraindications, fibrinolytic therapy should be administered to patients with STEMI at non–PCI-capable hospitals when the anticipated FMC-to-device time at a PCI-capable hospital exceeds 120 minutes because of unavoidable delays.

Regional Systems of STEMI Care, Reperfusion Therapy, and Time-to-Treatment Goals

LEVELS OF EVIDENCE



When **fibrinolytic therapy** is indicated or chosen as the primary reperfusion strategy, it should be **administered within 30 minutes of hospital arrival.***



Reperfusion therapy is reasonable for patients with STEMI and symptom onset within the prior 12 to 24 hours who have clinical and/or ECG evidence of ongoing ischemia**. Primary PCI is the preferred strategy in this population.**

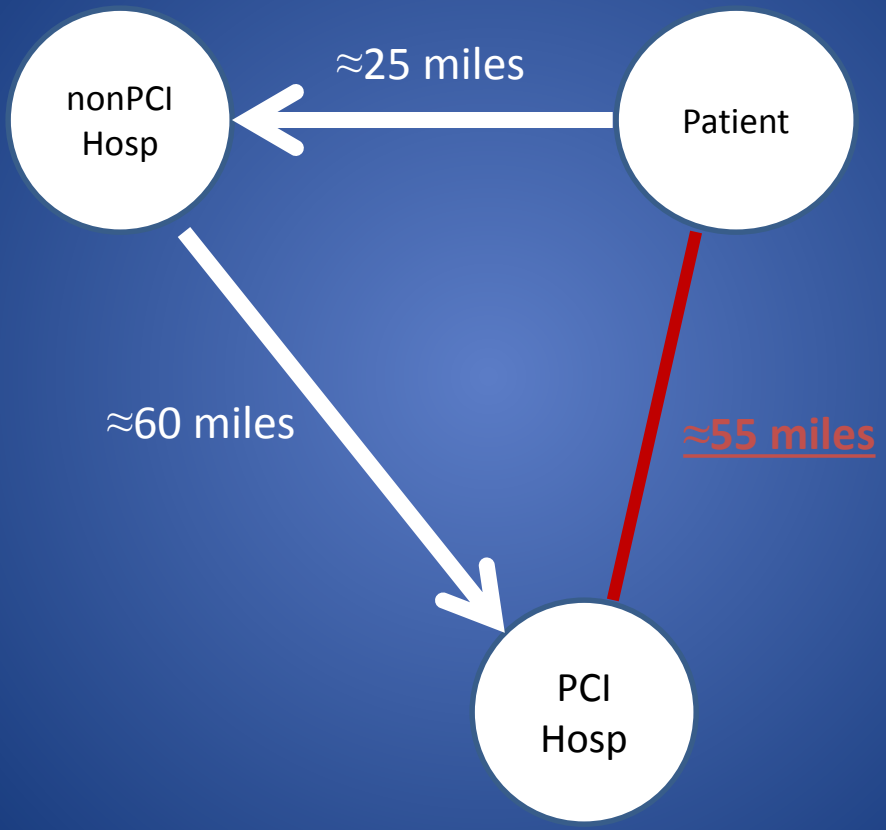
*The proposed time windows are system goals. For any individual patient, every effort should be made to provide reperfusion therapy as rapidly as possible.

Sioux City Regional STEMI Task Force

- 1) Goal of Identical PCI-H Systems of Care
  - Pre-hospital treatment recommendations
  - STEMI Alerts
  - PCI-Hospital ED & Referral-Hospital ED expedited care
- 2) Outreach
- 3) Automated Chest Compressions Device
- 4) OOHCA Protocol
- 5) Hypothermia Protocol
- 6) Case Reviews

CASE REVIEW #1

CASE #1:
Patient called 911 with complaints of Chest Pain



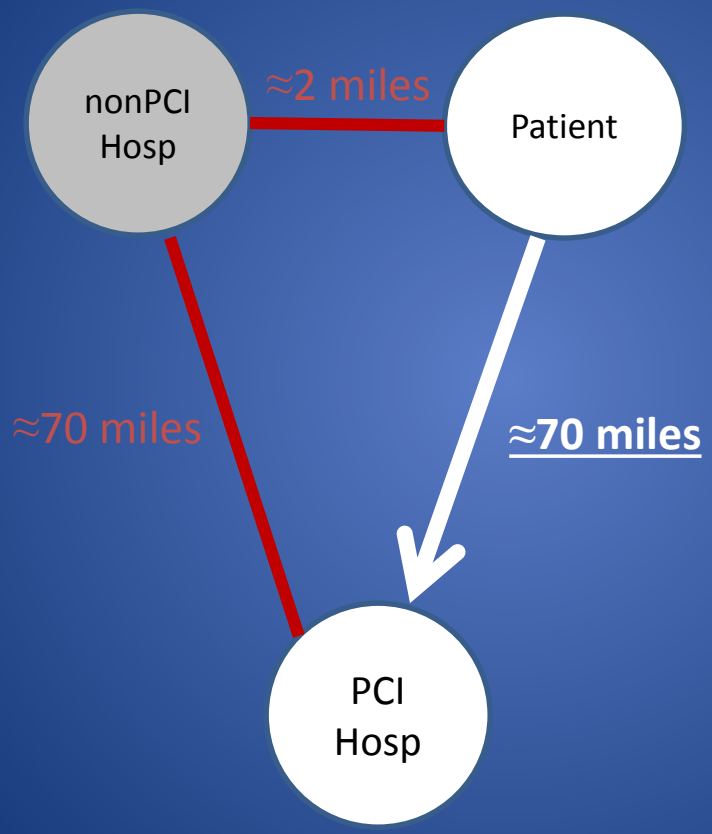
- EMS (BLS) dispatched for Chest Pain patient
- 000: FMC
- 003: EKG, and call for paramedic assist
- 016: Heli notified of possible transport need
- 019: Paramedic assist arrival
  - EKG and cardiologist notified of STEMI
- 026: Heli dispatch
- 034: Arrival to nonPCI-H
- 048: Medications ✓
- 063: Heli lands at nonPCI-H
- 084: Heli lift-off
- 087: MI Alert at PCI-H
- 112: Heli lands at PCI-H
- 115: Hand-off of care in CCL
- 144: Device

Notes to Consider

- FMCtoEKG: 3min
- 84min before heading toward PCI-H
  - Expedite the transfer?
- Fibrinolytics?
- To PCI-H door in 115min.
- PCI-H D2B: 29min
- FMCtoDEVICE: 144min

CASE REVIEW #2

CASE #2:
Patient called 911 with complaints of Chest Pain



CASE #2

- EMS (ALS) dispatch for CP patient
- 000: At patient (FMC)
- 006: EKG – anteroseptal ST elevation
- 007: EKG transmitted
  - MI Alert called to PCI-H
- 008: ASA
- 010: SL Nitro
- 011: Plavix
- 012: Lipitor
- 013: Metoprolol
- 016: Zofran and Fentanyl
- 026: Fentanyl
- 031: O2 per NC
- 049: Pt transfer to Air EMS
- 058: Heli departure to PCI-H
- 066: Heparin
- 075: In PCI-H ED
- 089: In Cardiac Cath Lab
- 102: Device

Notes to Consider

- FMCtoEKG: 6min
- Moving to PCI-H in < 8min
- Expedited Transfer
- Give Heparin earlier if able
- To PCI-H door in 75min
- PCI-H D2B: 27min
- FMCtoDEVICE: 102min

Questions….