STEMI Systems of Care
Rural IL Challenges

- Illinois Critical Access Hospital Network
- 53 Rural Hospitals
- Served by over 300 EMS agencies
Primary Receiving Hospitals

• Springfield Prairie Heart STAT
• Belleville Prairie Heart STAT
• Carbondale Prairie Heart STAT
• OSF St Francis Peoria
• OSF Bloomington & Advocate Normal
• Carle Foundation Hosp, Champaign
• Blessing Hosp in Quincy
• Good Samaritan Mt Vernon
• Out of State:
  • Iowa
  • Indiana: Vincennes, Terre Haute, and Evansville
• Missouri
• Kentucky
Belleville- PHI
Red Bud
Sparta
Highland
WHAT WE KNOW:

- Interhospital transfer of STEMI patients from a STEMI referral hospital to a STEMI Receiving center, is superior compared with on site lytics.

- IL rural hospitals transfer of STEMI patients to a networked PCI hospital can result in a timely reperfusion using a strict protocol for rapid transfer.

- (Circulation AHA journal 2008;117:1145-1152)
Transfer Times from CAH door to PCI Center

• 2015 to October 2016: IL CAH handled 392 STEMIs
• Times Door in to Door out: 8 min to 398 minutes
• Median time overall was 115 minutes!
• Once out the door, these patients still had a distance to travel before arriving at the PCI Receiving Center:
• 60% of CAH transfers are over 50 miles away
Challenges to Improve Time to Transfer

Securing an ambulance for transfer

Finding an open bed at the receiving center

Weather
Rural Realities create a challenge

- Some rural communities have only 1 ambulance so it cannot leave the community unprotected during transfer
- Others are not allowed to leave the community according to the law of the Fire/City ownership
- Are staffed by volunteers only who often are not available to do a transfer
Limitations: Lytics becomes the only choice since it must be given if anticipated time to Angiography is going to be more than 120 min

Not all rural ambulances have 12 leads with transmission
This eliminates the idea of bypass if the ECG indicates STEMI

Transport by air is often unavailable due to weather and stats show a transfer by air from request to delivery is often slower than ground

The nearest PCI Center may not have a bed available
Multiple phones calls are made to find a bed and an ambulance
Current ICAHN Initiative

- Provide Opportunities to EMS and Hospitals to update training on STEMI Systems of Care
- Provide at no charge the **AHA STEMI Provider Manual with ECG Ruler** to any **rural** EMS system requesting a supply of the manual for their employees
- Review STEMI protocols and support standardized state protocols
Initiative Goals con’t.

• Strengthen our regional systems to create stronger network relationships between CAH, PCI Center and EMS
• Improve method of measuring our outcomes
• Create reliable, sustainable, programs with Mission Lifeline recognition for excellence for EMS and CAH
The REALLY BIG CHALLENGES

- Grants for more 12 leads for rural EMS
- Increase availability of ambulances for transferring STEMI patients
- Use comprehensive, reliable data to identify areas where more beds may be needed.
Conclusion: Improving Cardiac Systems of Care in the Rural Areas

Just as all 53 CAH have achieved Acute Stroke Readiness Designation, we can also improve our role in working with our PCI partners. However, our state will need to invest in the right solutions for saving more lives and the quality of those lives. ICAHN is willing to advocate at the state and national level, talk to our representatives, and write grants.
IL Critical Access Hospital Network

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