



Memphis Fire Department

Stemi System Tweaks

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Feb , 2013

Eagles Consortium



Memphis Fire Department

- ✱ **Approximately 1,900 personnel**
 - ✱ **350+ Medics**
 - ✱ **1500+ EMTs**
- ✱ **62 Stations**
- ✱ **60 Engines**
- ✱ **27 Truck Companies**
- ✱ **36 ALS Ambulances**
- ✱ **3 Heavy Squads**
- ✱ **Sponsoring Agency for USAR Tennessee Task Force 1**



Demographics

- ✱ **Annual Call Volume 120,000 runs**
- ✱ **Stemis 2600**
- ✱ **CVA/TIA 1000**
- ✱ **Cardiac Arrests 750**



Tweaking the STEMI System

- ✱ Changes to both Pre- and In-hospital systems to obtain maximum patient benefit**
- ✱ Nov 2009....met 90 minute window for D-B**
 - ✱ Consistently met since that time**



Prehospital Tweaks

Pre-Hospital

**Activation of STEMI Call Team
(Cardiology and Cath Lab Staff) from
EMS ECG**

**12 Lead Obtained before Other
interventions**

**Utilization of Pit Crew Concept for
STEMI**



Hospital Tweaks

Arrival in CPC: (rolling stop only)

Paramedic gives report to *all* receiving team members (ERMD, CPC RN, CATH Lab) to prevent need for repetitive handoff

EMT-IV gives Patient Information to Admissions/Registration, as paramedic gives report



✱ No support testing done in the CPC - defer to cath lab (Lab work, no CXR unless Dissection suspected)

Cardiology/Cath Lab:

Lab drawn with sheath placement and handed off for ISTAT lab results

✱ Cath altered with intervention to indicated vessel initially, then completion of remainder of cath



Results

✱ 911 activation to Balloon	64 minutes
✱ EMS FMC to Balloon	54 minutes
✱ Door to Balloon	38 minutes

✱ *Dec 2011-present



Widespread Implementation of Automated CPR

- ✱ Moved from all Manual CPR to automated over 6 month period
- ✱ Compared ROSC rates
- ✱ No other changes during study period
- ✱ Preliminary data



Widespread Implementation of Automated CPR

✱ Phased Implementation of Lucas Device

✱ All Manual CPR	13.8%	ROSC
✱ 50% penetration with Lucas	23.9%	ROSC



Questions?

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