



Memphis Fire Department

Bundles of Joy

Joe Holley, MD FACEP
Medical Director

Feb , 2012

Eagles Consortium



Memphis Fire Department

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



Demographics

✱ **Annual Call Volume 110,000 runs**

✱ **Stemis 2600**

✱ **CVA/TIA 1000**

✱ **Cardiac Arrests 650**



What is Bundling?!?!

- ✱ It's a cohesive group of steps that must *all* be completed to succeed.
- ✱ All accepted best practices.
- ✱ Focused on *how* to deliver the best care — not *what* the care should be.
- ✱ *all-or-nothing!*
- ✱ All the Time!



✱ **Ain't it just a protocol?**

✱ **Often its several protocols**

✱ **Protocols often leave room for judgment**

✱ **May give the impression that things are done at the end of the protocol.**



Just a checklist?

- ✱ Combination of desired actions and evidence based actions**
- ✱ Usually many elements.**
- ✱ No identified accountability, or everybody's!**



A Bundle is....

- ✱ A bundle is a small but critical set of processes that *cannot* be missed.
- ✱ When an element is missed, the patient is at much greater risk for serious complications.
- ✱ A bundle is a person or a team's responsibility — period.
- ✱ It has a specific time frame.



Sample Bundle

❖ Cardiac Arrest

- ❖ Continuous, High quality CPR
- ❖ Early Defibrillation
- ❖ Waveform Capnography
- ❖ Induced Hypothermia (intra-arrest)
- ❖ Post ROSC 12 lead



CVA / TIA

- ✱ **Stroke Scale**
- ✱ **Time of Onset**
- ✱ **Delivery to Stroke Center**
- ✱ **Tight Glucose control**
- ✱ **Appropriate Oxygen Use**





STEMI

- ✱ **12 lead EKG..transmitted**
- ✱ **Aspirin**
- ✱ **STEMI center delivery..to cath lab**
- ✱ **Activation to balloon <90 minutes**



Implementation

Laminated cards for each bundle

Lieutenants real-time oversight

Qi review and feedback

“If all the bundle isn't done before arrival, you're not finished!!”



So....

❖ **Implementation just beginning with Cardiac Arrest, but have seen increased use of capnography, Hypothermia, and**

❖ **Last 5 months...**

❖ **100% STEMI**

❖ **A to B time 74 minutes!**



Questions?

Joe.Holley@MemphisTN.gov

Feb, 2012

Thanks to Institute for HealthCare
Improvement

www.code3visualdesigns.com