

EMS: Current Trends and Issues

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Dumb Ass of the Day



SOME OF THE CURRENT ISSUES

- Intubation by Paramedics
- 12 Lead ECG's
- Fragmented service
- Cardiac Arrest

ALS INTUBATION

- Some now questioning if Paramedics can safely intubate!!
- Some programs have data which shows successful intubations as low as 57%
- Data which shows intubation may be harmful in head injured patients- rise in ICP during procedure.
- Children seem to do better with BLS airways

Intubation Cause Analysis

- Poor initial training
- No OR experience
- Fred the Head training only.
- Not enough field tubes to go around
- Poor airway rescue procedures
- Inadequate continuing ED Requirements

Saving ALS Intubation

- Become active in the school which does initial Paramedic training. Should have 10 live intubations before graduation.
- Aggressive airway rescue protocol for failed intubations.
- Mandatory yearly re-cert requirements-live
- Airway obstacle courses

Intubation-Last Word

- Paramedics must continue to intubate and can do it well.
- Complacency setting in
- Training and Med Control Issue
- If we lose expertise in airway management, ALS loses significant value.

You know it's a bad day



Pre-hospital 12 Lead

- Is recommended by AHA
- May be extremely useful, but often a complete waste of time and money
- Significant system approach necessary to make this a helpful tool

We have done it again

- Widely Accepted an new methodology without significant evidence that this really makes a difference
- HUGE COSTS

It all depends what you do with the 12 lead info

- Walk in with 12 lead for immediate review?
- Transmit strip, hospital has cath lab ready?
- 12 lead finding determine which hospital receives patient.

EMS ALONE

- Providers spend the time and money
- Hospitals not prepared to do anything meaningful with the info

12 Lead Goal

- Rapid detection of STEMI
- Door to cath lab <90 minutes
- If 90 minutes unobtainable, early lysis

Other important stuff

- Aggressive pain control with nitro and morphine
- Fentanyl a better option if available
- Aspirin of course
- Beta Blockade with IV Lopressor

Boat Saves Drivers Life



Institute of Medicine EMS Report

- Lack of appropriate funding
- Lack of Disaster Preparedness
- Insufficient coordination
- Disparity in response times
- Uncertain Quality of Care
- Limited evidence base

Status of EMS

- Funding is an issue all it's own. Many solutions will cost money. Reimbursement must improve.
- Solution is to educate policy makers.

Unco-ordinated

- We must get over the idea that each little town or place needs it's own EMS System. This is expensive and care generally is not provided to an acceptable level.

Regional Systems

- County wide probably makes sense. Huge cost savings over time.
- Higher levels of service equally distributed
- Fewer Medical Directors needed- more qualified available

Regional Systems

- Hospitals must play too
- Transport to most appropriate when possible.
- The big player in the county can not be seen as the King-pin or take over guy.
- The small players must give way to a broader system with more options and higher service levels.

Back to the National Scope of Care

- Report recommends universal responder levels nation wide
- Level of care the same for all
- Report states local rule has been a failure

Home rule is good to a degree

- Good to promote local issues.
- What providers need in one area is not always necessary in others.
- Allows strong services to excel.

Solutions to EMS Success

- Service leaders and Medical Directors must act together: strength in numbers
 - Must demand:
 - training certification
 - improved and fair funding
 - maintain some home - rule while accepting general National Standards

Solutions to Success of EMS

- We must collectively demand that a meaningful regional approach immediately occur. This is hard and political but mandatory.
- Consolidate services and improve coverage, lessen costs, improve care. Expand ALS coverage.

CHILD ABUSE



Cardiac Arrest 2006

FACTS

- Survival is not pharmacology driven
- Ongoing compression mandatory 100/minute
- Positive pressure breaths are bad
- Negative pressure in the chest is good.
- AED's after 4 minutes are bad.
- AHA Guidelines are not good enough.
- Bystander Compression only CPR is a must.

Wisconsin Led Research

- Journal of Medicine April 2006- Kellum, 48% survival of Witnessed v-Fib using compression only CPR
- Critical Care Medicine 2005- Pirrallo & Aufderheide- Use of Impedence Threshold Device more than doubled short term survival rates in all cardiac arrest patients.

What should you do?

- Get aggressive with bystander compression only CPR- includes dispatch instruction
- No ventilations for first minutes of witnessed v-fib
- Continuous chest compressions at 100 minute
- intubate immediately and use ResQpod

What should you do?

- Ventilate Asystole and all PEA at 8 minute.
- Do not ventilate V-fib for first 6 minutes.
- Maximum energy single shock after 200 compressions. No more than 3 second delay in compressions.
- IV Epi, Vasopressin all arrests. Amiodarone for V-fib.

What else?

- Insure all defib units are manual. AED's take over 15 seconds to analyze, charge and shock. This is deadly.
- Await further data before using mechanical CPR devices.
- Understand that AHA provides guidelines, not standards. They can not possibly keep up with the science currently underway>

Gratitude

- Physician leaders and Paramedics willing to look beyond current guidelines. The reward has been and will continue to be HUGE>

Exciting!!

- Negative pressure in chest proven to make CPR more effective---increased human survival
- Continuous compressions, limiting breathing gave a 48% neuro-intact survival rate
- Let's now use both together!! Suspect even better numbers.

Questions or Comments

