



The Importance of Selective Recruiting

*Finding the Most
Qualified Applicants*

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and**

**Co-Chair of the Section on
EMS, Disaster Medicine, and Homeland Security
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Dallas, Texas**

**Chief of Operations
The Dallas Metropolitan BioTel System**

**Past-President
National Association of EMS Physicians**

A painting depicting a military parachute drop at sunset. Several large, olive-green parachutes are deployed against a vibrant orange and yellow sky. Silhouetted soldiers are seen descending from the parachutes. The scene is reflected in a calm body of water at the bottom. The entire image is framed by a dark blue border.

www.rayfowler.com

A painting depicting a military parachute drop at sunset. The sky is a deep orange and red, with several large, dark green parachutes deployed. Silhouettes of soldiers are visible against the bright sky, some hanging from their parachutes and others on the ground. The scene is framed by a dark blue border.

www.uts.wv.edu



The Objective Questions:

1. The complexity of EMS and the medical risks of bad hiring practices.
2. What risks are borne by EMS agencies and providers?
3. The growing funding dilemma
4. Give examples of recruitment and retention best practices

The Now Issues

Clinical

- Patient Assessment
- Airway
- ET Intubation
- The "Smart Bag"
- The "rescue airway"
- Capnography
- Avoiding overventilation
- CPAP
- ResQ Pod??
- Intraosseous
- 12 Lead ECG
- ECG Transmission?
- Hypertonic Saline

Administrative

- Finding Staff
- NEMSIS
- Credentialing Online
- ePCR
- Non-transport
- Statewide Protocol Set
- Standard Treatment List
- Holding the wall
- Diversion
- House call?
- Research
- Distributive learning
- Preparedness

The three great risks

Airway Management

Safe Driving

Non-Transport

The acutely ill patient
is a helpless example



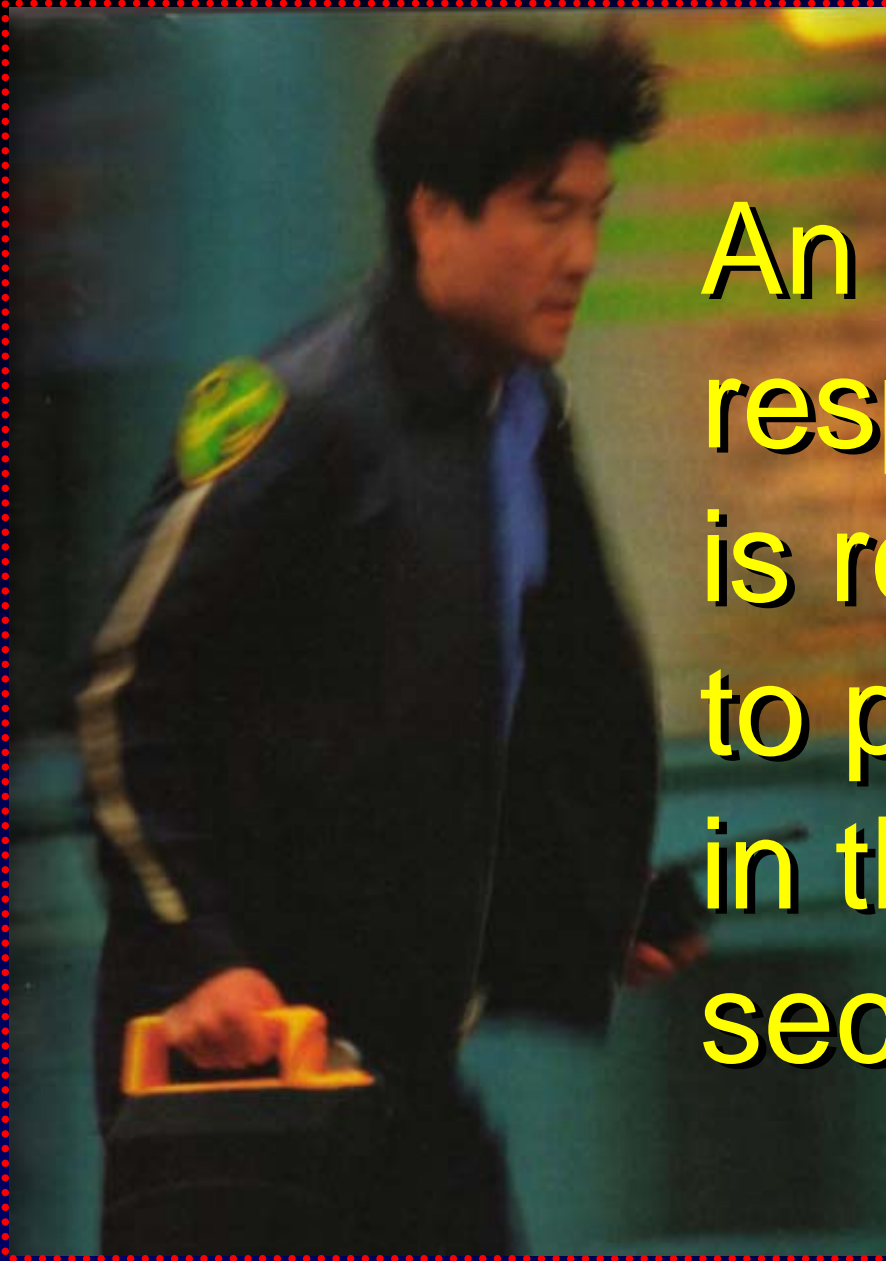
of the lives
that we have
sworn to serve.



...and remember...

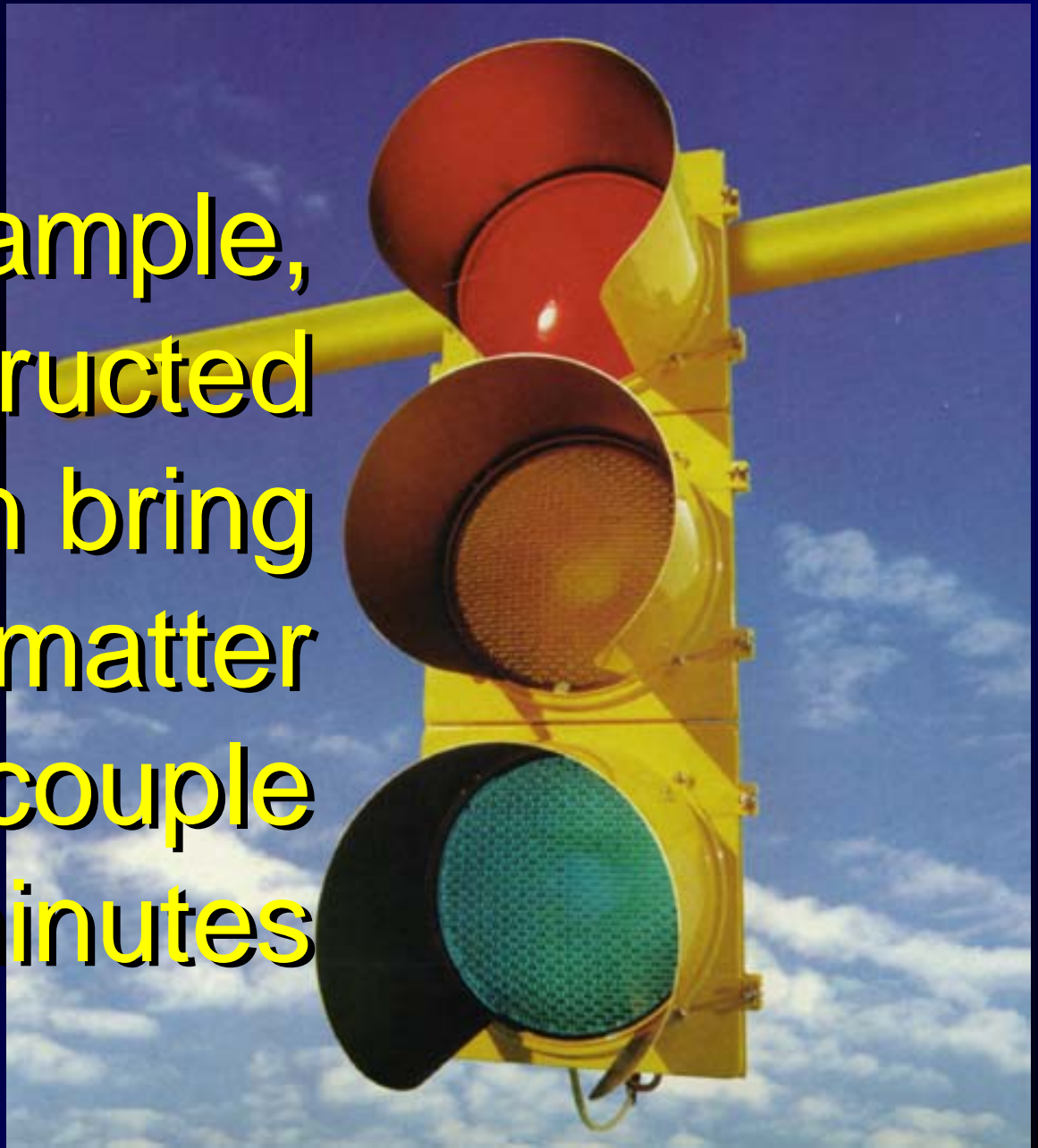


...*medics take an oath,
on their honor...*

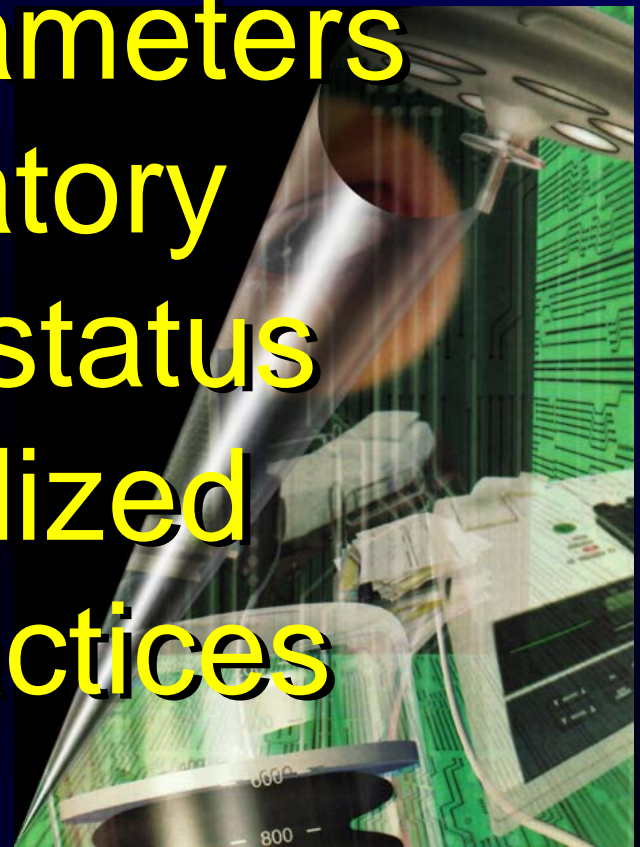


An immediate
response
is required
to problems found
in the primary and
secondary survey

For example,
an obstructed
airway can bring
death in a matter
of a couple
of minutes



As we assess patients,
we must quickly determine
fundamental parameters
of their respiratory
and circulatory status
using standardized
examination practices



**The medical and
ethical performance
of EM professionals
has never been
more important than
it is today**



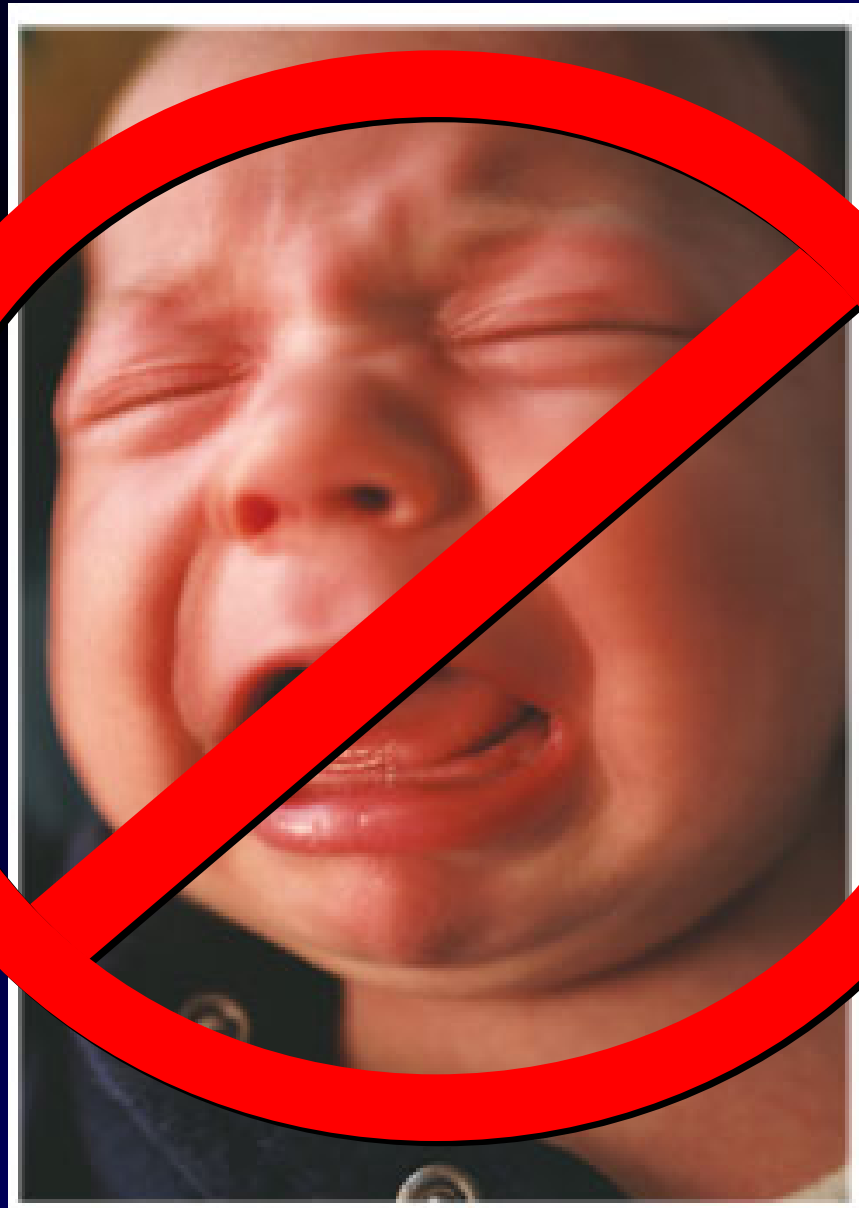
This is a profession
and a specialty:





The End of the Beginning

- Innocence is over
- They are **COMPLETELY** accountable for what they do
- Becoming a professional requires them to always be able to explain their actions
- EMS is **ONLY** and **ALWAYS** about patient care



***Part of professional
excellence
is performing
superior medical
histories and
physical exams***

Approaching the Patient



“See what you see!”

***“People look, but they
don’t see”***

...A. Fowler, Jr.



Alertness?

Level of distress?

Noises?

Respirations?

The pulse rate?

Skin?

Obvious things (bleeding)



**The “art” of medicine
is missing from
so many practitioners....**

**...are they not looking,
or have they lost interest?**

Above

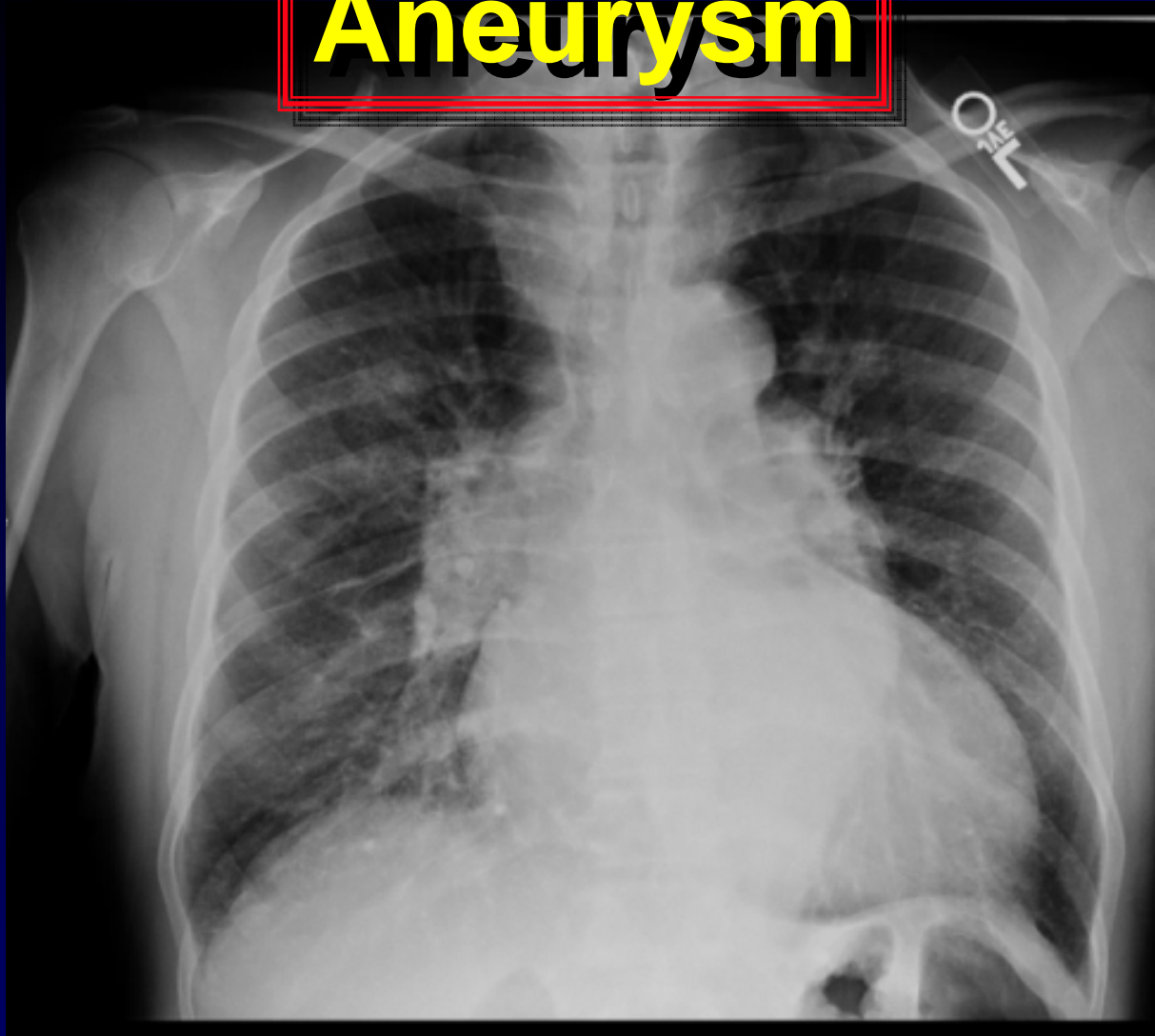
all:

RISK???



Duck!

Thoracic Aneurysm



**They've
never been
sued
before**

Scene Survey/Mechanism/# pts.



LOC/Airway/Cspine



Respiratory Rate and Labor



Pulses R & Q, N & W

Skin CMT/CRT/External Bleeding



Neck appearance, JVD, Trachea



Chest appearance, BS, HT



**Quick survey of abdomen, pelvis,
extremities, and back**

Scene Survey/Mechanism/# pts.

↓
LOC/Airway/Cspine

↓
Respiratory Rate and Labor

↓
Pulses R & Q, N & W
Skin CMT/CRT/External Bleeding

↓
Neck appearance, JVD, Trachea

↓
Chest appearance, BS, HT

↓
Quick survey of abdomen, pelvis,
and extremities

**Reveals threats to
Basic Physiology**

...the vital elements of the Primary Survey

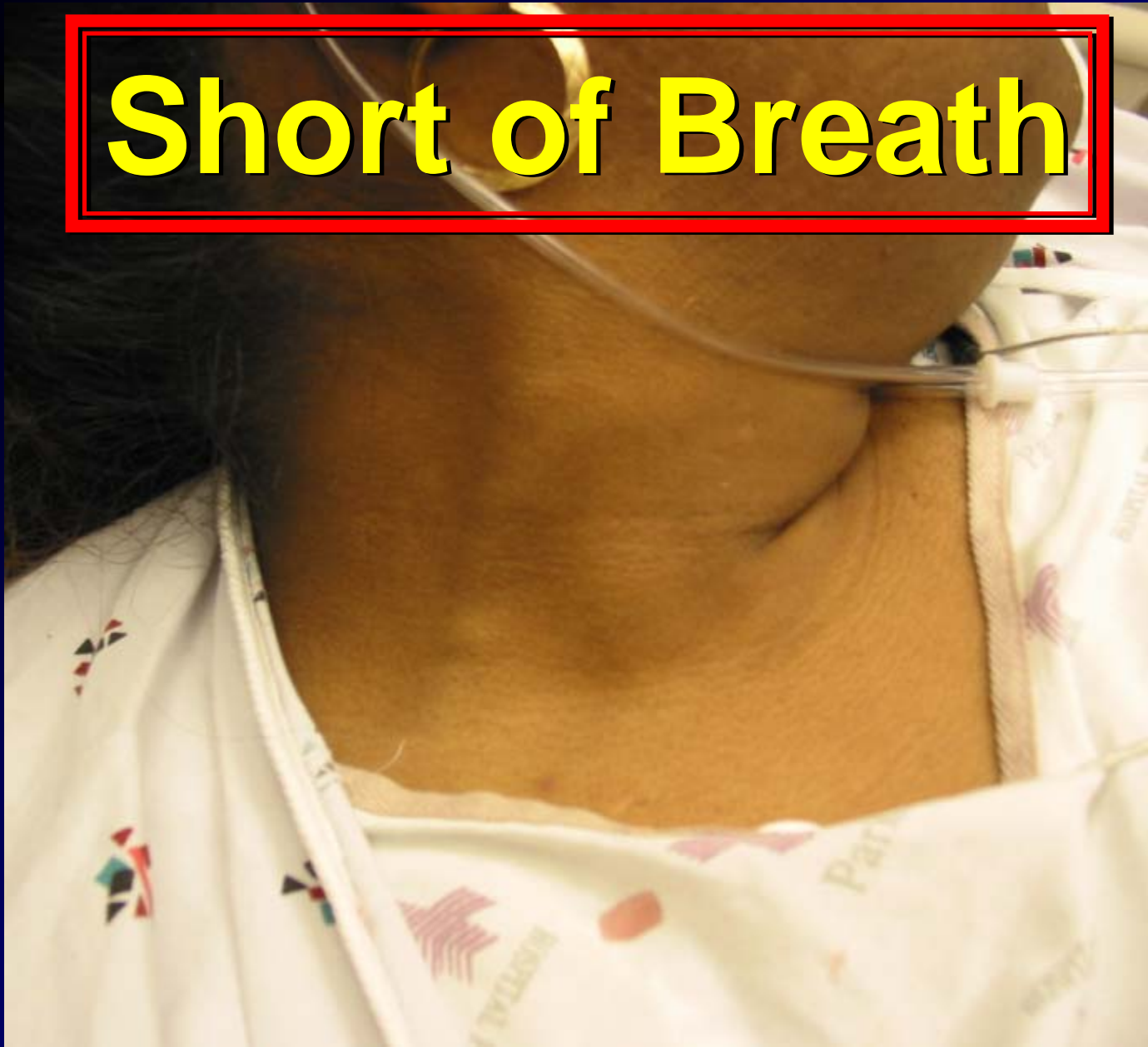
Ouch!



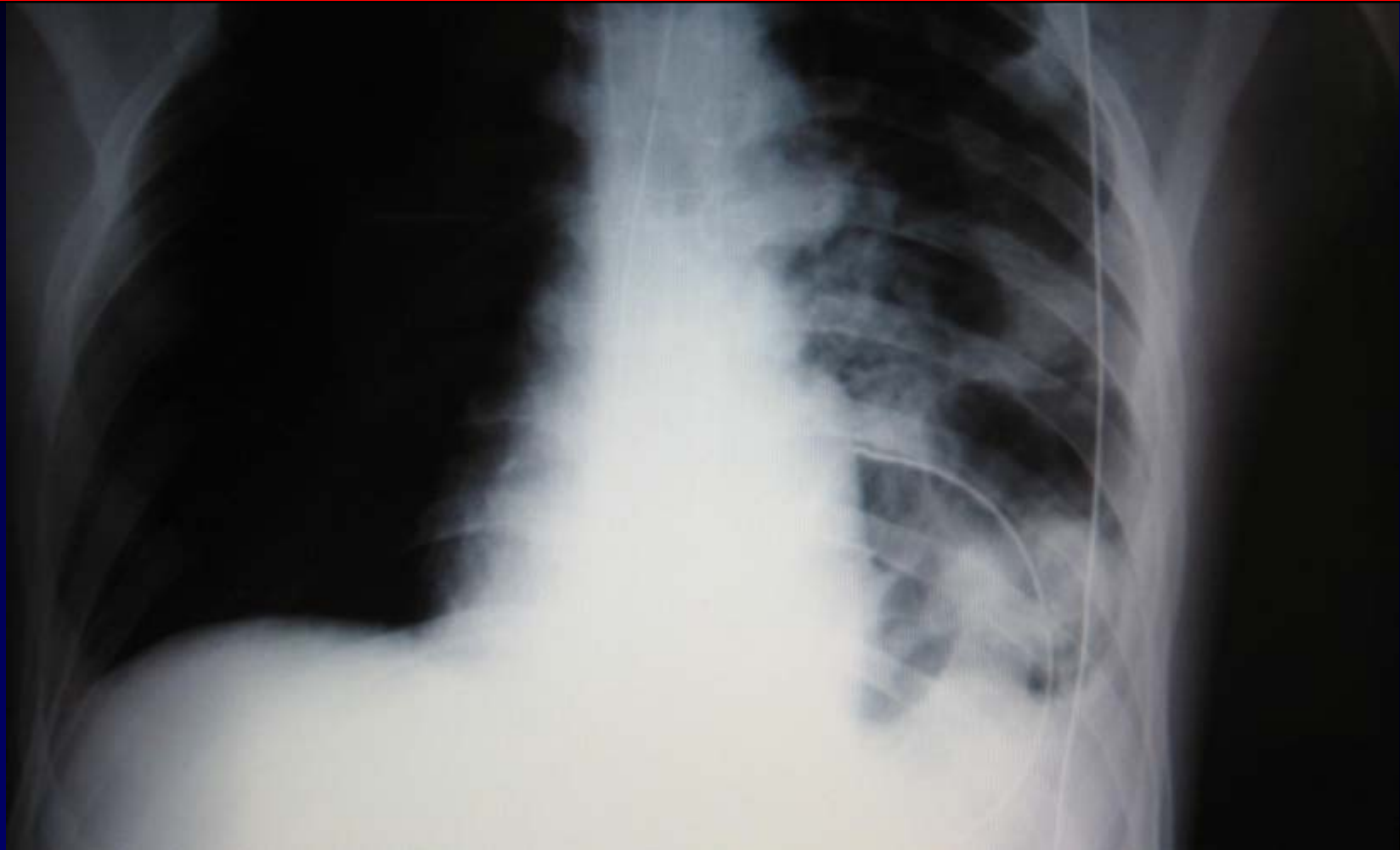
Possible airway problem?



Short of Breath



Ruptured Diaphragm



Shock

Blood pressure =



Cardiac output x
Peripheral resistance

Blood pressure =



Pump x fluids x pipes

What does a low blood pressure mean?

Either...

*Or a combination
of any of these*

Signs of Shock

Early



Weak, thirsty, lightheaded
Pale, then sweaty
Tachycardia
Tachypnea
Diminished urinary output

Late



Hypotension
Altered LOC
Cardiac arrest
Death

Shock

Cardiogenic

Rapid pulse
Distended neck veins
Cyanosis

Volume Loss

Rapid pulse
Flat neck veins
Pale

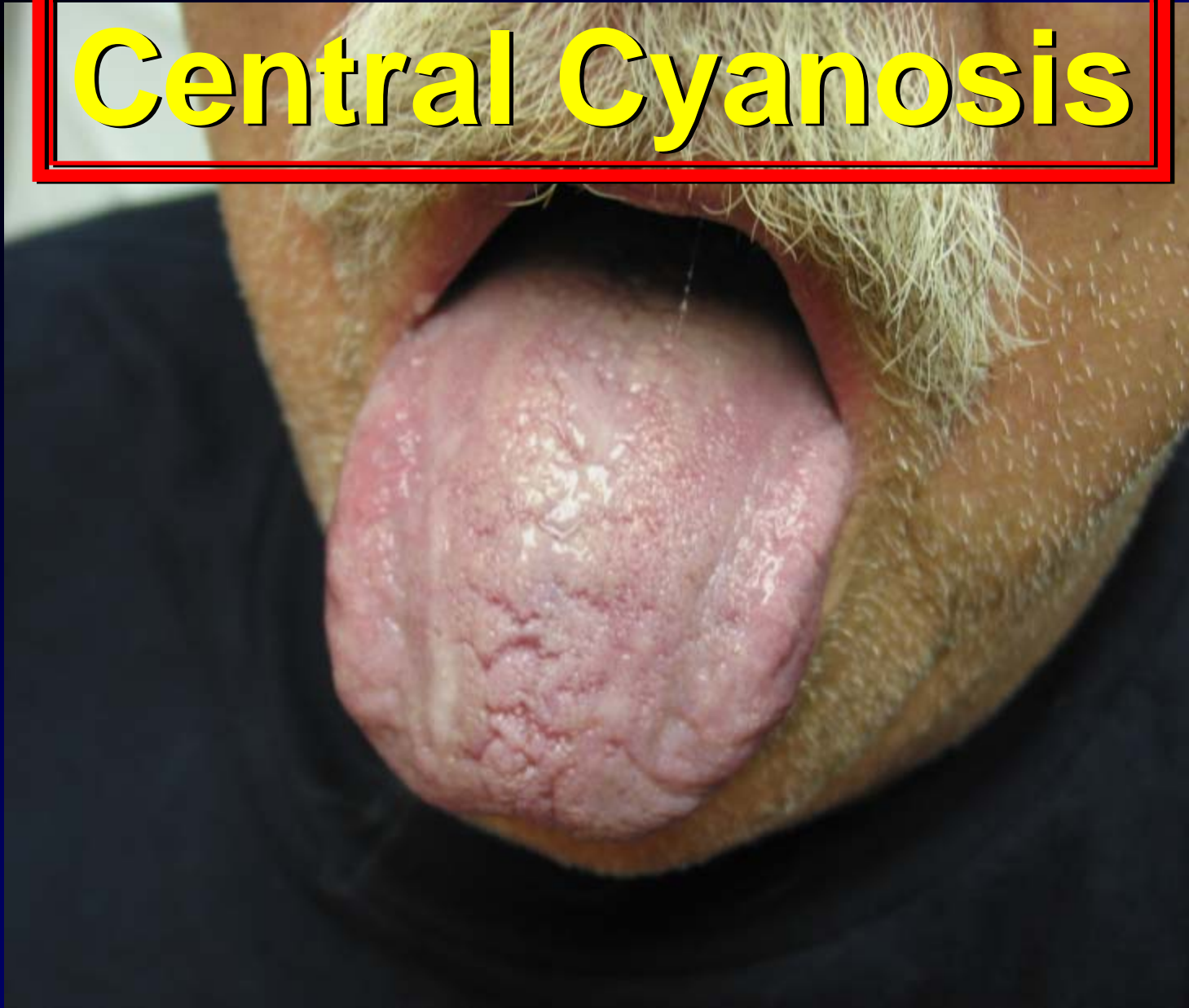
Vasodilatory

Variable pulse
Flat neck veins
Pale or pink





Central Cyanosis

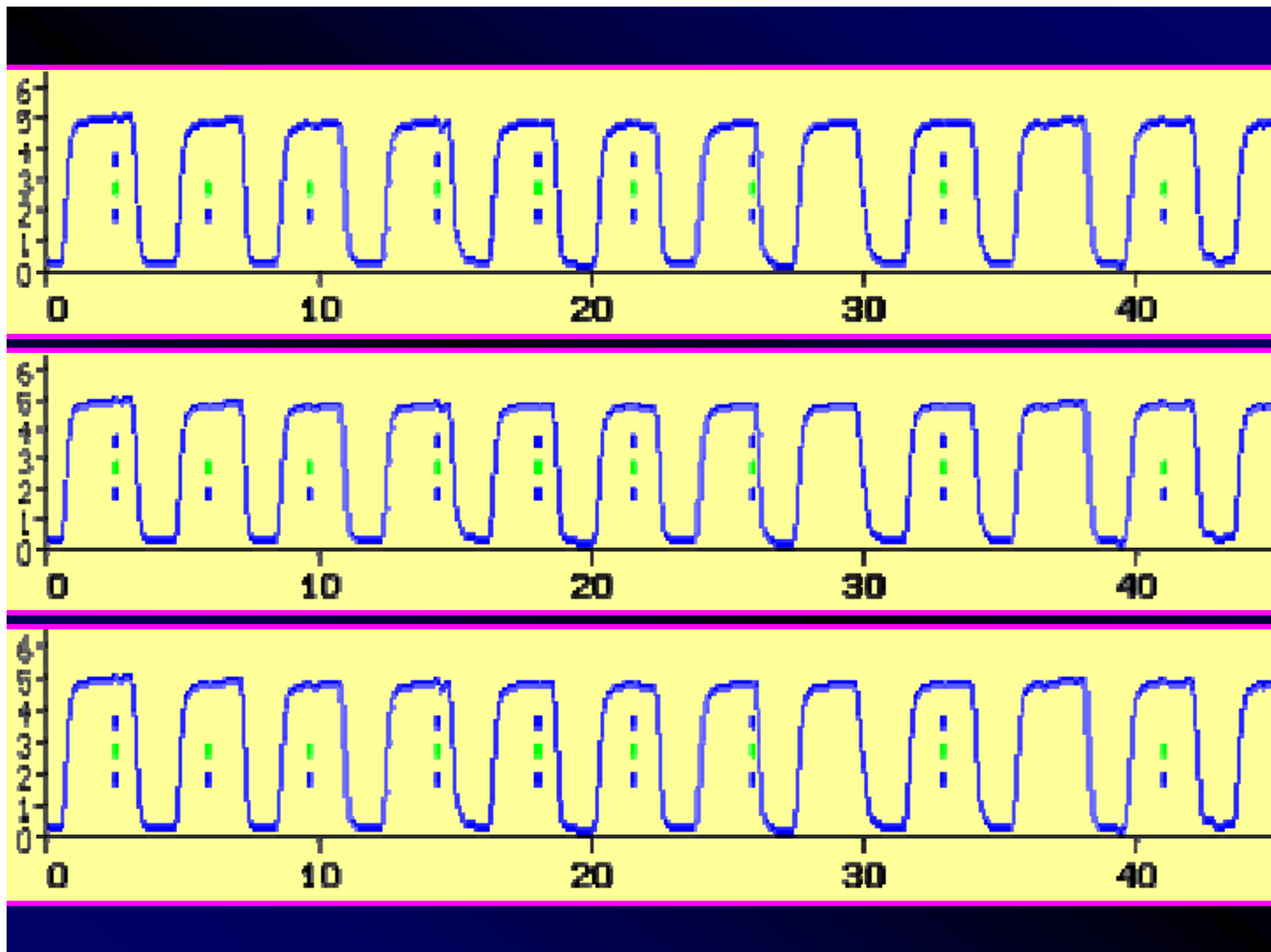


What all could be wrong?



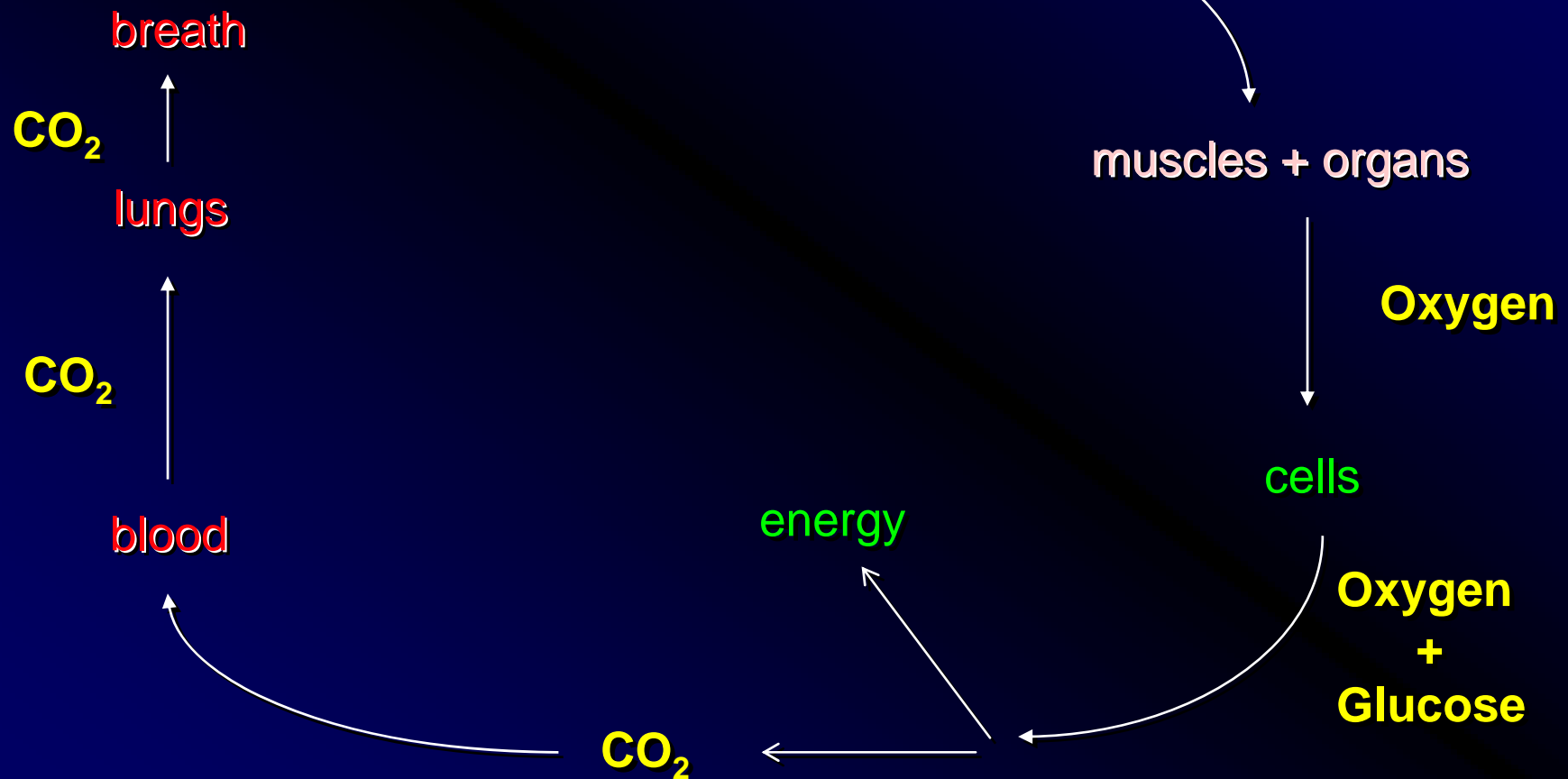


Capnography and EMS



Physiology

Oxygen -> lungs -> alveoli -> blood



**Capnography
is the
window
into
preventing
overventilation**

ID#: 070304165531 3Jul04 16:59:09 HR:59 SpO2:--- EtCO2(mmHg)•RR:26•14

Paddles

SpO2(X2) No Sensor Detected

50

CO2

0

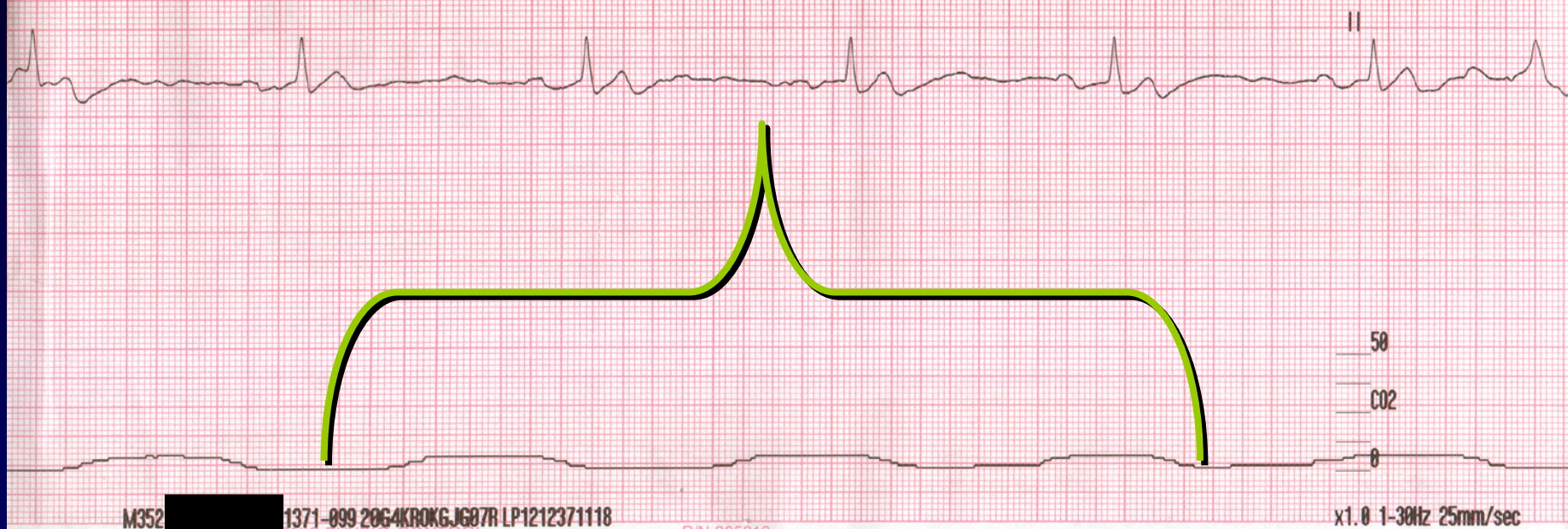
x1.0 2.5-30Hz 25mm/sec

A-1 007 3011371-095 2GG4KR0KG.JSP7R1 P1231255100



ay04 8:57:40 HR:34 SpO2:--- EtCO2(mmHg)*RR:11*4

ID#: 050304084650 3M



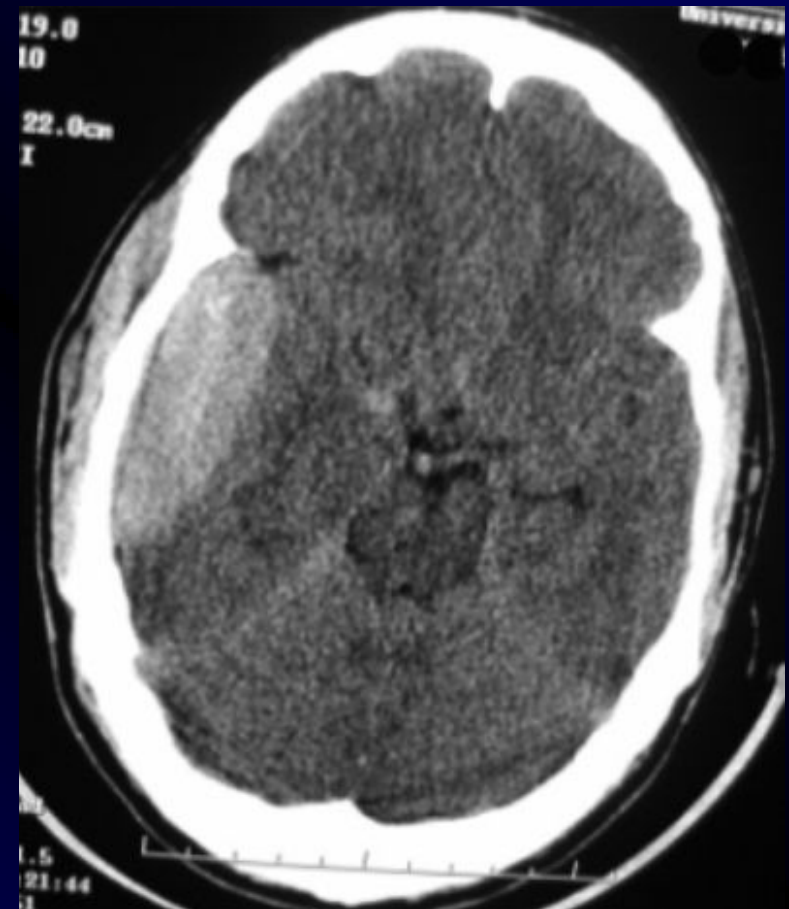
**Do YOUR medics make a
judgment as to how fast
to bag your patients
who are critically ill?**

Non-transport decisions:

*One of the
great risks*

EMIS No Load





Paint Gun



**When the
patient is not
transported,
*all control
is lost***



Seat Belts Save Lives
A public health opportunity

A photograph of a soldier in a combat environment, wearing a helmet and holding a rifle, with the text "The increasing menace of terrorism and the need for continued preparedness" overlaid in yellow.

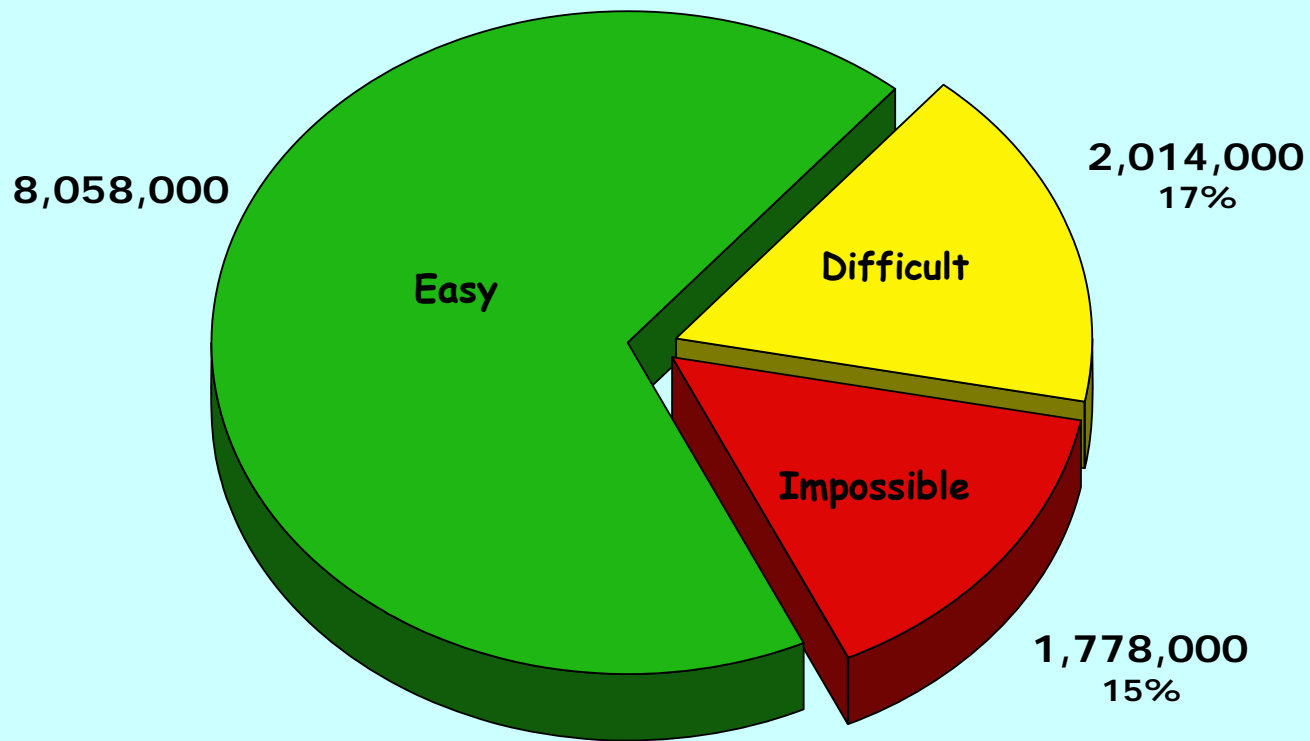
**The increasing
menace of
terrorism and
the need for
continued
preparedness**

**Selection of
personnel
based upon
skill sets**

6.4 Million Patients (USA)

EMS

Patients that need IVs - 11,850,000



IV Problems = 3,792,000 Patients





**So, we can now
get vascular access
on almost anybody
...at a price, though**

Airway Management

*Ruminating on a
tough subject*

**Is
mannequin
training
enough?**

?

What are the problems?

- 1. The Unprepped Airway*
- 2. Never got good initial training*
- 3. Deteriorating Skills*
- 4. Patient Criticality*
- 5. The Physiology of the
Positioning of the Head*

What did Wang find?

Intubation in the hands of many EMS professionals:

- 1. Over-manipulates the airway,**
- 2. Causes aspiration**
- 3. Causes prolonged hypoxia**
- 4. Is a route for overventilation**
- 5. Increases mortality 30%
in TBI Patients**

Multivariate Predictors of Failed Prehospital Endotracheal Intubation

**Henry E. Wang, MD, Douglas F. Kupas, MD, Paul M. Paris, MD, Robyn R. Bates, MS,
Joseph P. Costantino, DrPH and Donald M. Yealy, MD**

From the Department of Emergency Medicine, University of Pittsburgh School of Medicine (HEW, PMP, RRB, DMY), Pittsburgh, PA; the Department of Emergency Medicine, Geisinger Health System (DFK), Danville, PA; and the Department of Biostatistics, Graduate School of Public Health, University of Pittsburgh (JPC), Pittsburgh, PA.

Of 61 factors potentially related to ETI failure, multivariate logistic regression revealed the following significant covariates associated with ETI failure (odds ratio; 95% confidence interval; likelihood ratio p-value):

presence of clenched jaw/trismus

(9.718; 95% CI = 4.594 to 20.558; $p < 0.0001$);

inability to pass the endotracheal tube through the vocal cords

(7.653; 95% CI = 3.561 to 16.447; $p < 0.0001$);

inability to visualize the vocal cords

(7.638; 95% CI = 3.966 to 14.707; $p < 0.0001$);

intact gag reflex

(7.060; 95% CI = 3.552 to 14.033; $p < 0.0001$);

intravenous access established prior to ETI attempt

(3.180; 95% CI = 1.640 to 6.164; $p = 0.0005$);

increased weight (ordinal scale)

(1.555; 95% CI = 1.242 to 1.947; $p = 0.0001$);

electrocardiographic monitoring established prior to ETI attempt

(0.199; 95% CI = 0.084 to 0.469; $p = 0.0003$).

Airway

The King LTS-D



Ultra Assessment Tool



An Odessa (Texas) Fire Dept. EMS crew views an ultrasound image of a fetus while en route to the hospital.

911

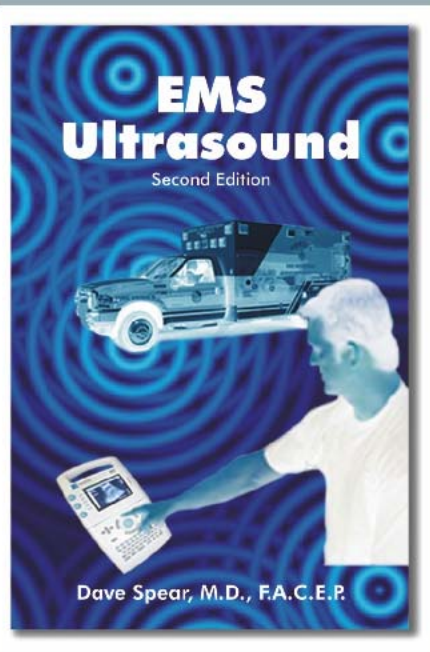
S O N O



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EXPLORING EMS ULTRASOUND

Something New In Prehospital Care



Paramedics and flight nurses have begun using portable ultrasound machines. These machines allow detection of blood in the abdomen of trauma patients, evaluation of cardiac motion in critical patients, and detection of pregnancy.

Learn the basics of ultrasound and find out how these devices can be used in the field and in the emergency room.

[About the Author](#)

**BRINGING
ULTRASOUND
TO EMS**

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EMS Ultrasound
Second Edition
by Dave Spear, M.D., F.A.C.E.P.
ISBN# 0-9707677-2-2





Internal
Jugular
Vein

This is a longitudinal B-mode ultrasound image of a blood vessel. A red arrow points to a dark, anechoic region, which is the internal jugular vein. The surrounding tissue is shown in grayscale, with some hyperechoic (brighter) areas. The text 'Internal Jugular Vein' is overlaid in red and white on the left side of the image.

5.00 = 4.8

▲ 0
▲ 0
▲ 5
▲ 4

14 cm
35.70



HOPITAL COCHIN
99/10/28
15:39:33

VINC MED

7K122

ECG

Ennea. TM pos

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Posted 3/1/2005 10:31 PM Updated 3/2/2005 4:39 PM

Paramedics not always the saviors of cardiac-arrest patients

By Robert Davis, USA TODAY

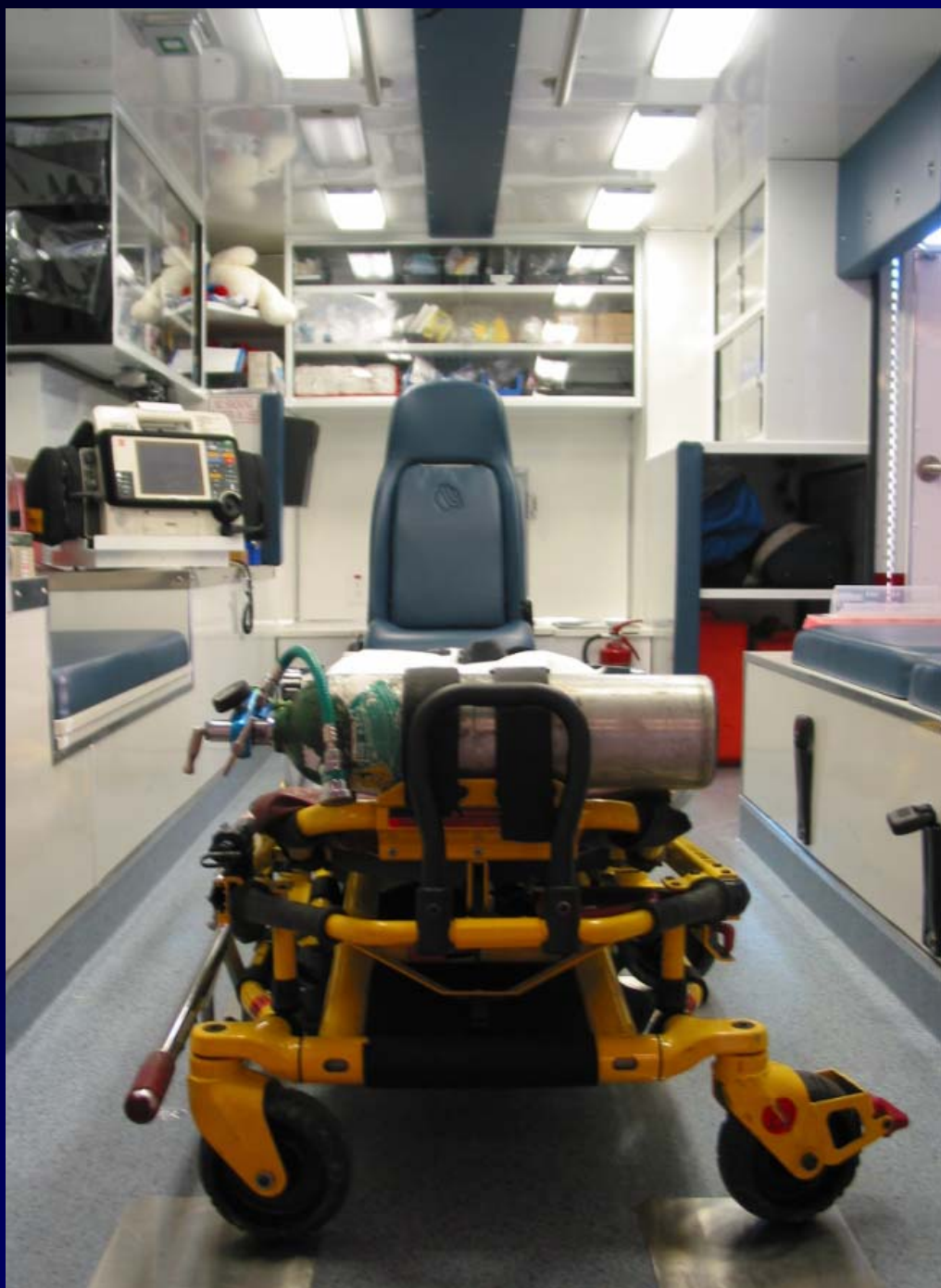
JENKS, Okla. — At first, the regulars in the Homestead Diner thought Bill Twilley was joking when he hit the floor after taking his seat. It was, after all, April Fools Day. And it was, after all, Bill.



Some EMS systems are finding that more paramedics don't necessarily equate to better survival for cardiac arrest patients.

By Jack Gruber, USA TODAY





What, can't handle a
little head trauma?



SUZUKI



dribbleglass.com

[View](#) [Other Regions](#) [Preferences](#) [Report](#) [Message](#) [Regional Info](#)User: **Parkland** [Log Out](#)[Resource](#) | [Summary](#) | [Custom](#) | [Map](#)**Suspension of Diverts 01:29**

Status as of: 21 Feb 2005 21:41:50

Aeromedical

CareFlite

LifeStar 1-800-568-6806

PHI Air Medical 877-435-9744

East Trauma Centers

Baylor University MC

Children's Medical Center Dallas

Methodist Dallas MC

Parkland

East Region

Baylor Garland

Baylor Irving

Dallas VA Hospital

Doctor's Hospital of Dallas

Las Colinas MC

MC Mesquite

MC Terrell

Medical City Dallas Hospital

Mesquite Community Hospital

Presbyterian Hospital of Dallas

Presbyterian Hospital of Greenville

Presbyterian Hospital of Kaufman

RHD Memorial MC

Saint Paul University Hospital

South Region

Baylor MC of Waxahachie

Ennis Regional Medical Center

Lake Pointe MC

MC Lancaster

MC Plano

Medical Center of McKinney

Methodist Charlton MC

Navarro Regional Hospital

Presbyterian Hospital of Allen

Presbyterian Hospital of Plano

Richardson Regional MC

Emergency Dept Status

Resource Alert

Open

Resource Alert

Resource Alert

Emergency Dept Status

Resource Alert

Open

Open

Resource Alert

Open

Resource Alert

Resource Alert

Open

Resource Alert

Resource Alert

Resource Alert

Resource Alert

Open_Overdue

Open

Last Update

21 Feb 18:16

21 Feb 06:17

21 Feb 10:57

Last Update

21 Feb 18:55 (01:13)

21 Feb 06:50

21 Feb 18:24 (00:42)

21 Feb 19:15 (01:34)

Last Update

21 Feb 17:55 (00:13)

21 Feb 06:23

21 Feb 06:38

21 Feb 20:55 (03:13)

21 Feb 06:05

21 Feb 20:15 (02:33)

21 Feb 10:13

21 Feb 19:01 (01:19)

21 Feb 20:44 (03:02)

21 Feb 20:25 (02:44)

17 Feb 16:51

21 Feb 06:41

21 Feb 08:58

20 Feb 08:00

Last Update

21 Feb 06:52

21 Feb 09:31

21 Feb 18:34 (00:52)

21 Feb 20:09 (02:27)

21 Feb 06:07

21 Feb 19:32 (01:50)

21 Feb 21:26 (03:44)

21 Feb 06:41

21 Feb 21:27

21 Feb 08:01

21 Feb 20:02 (02:20)

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U.S.

Train hits ambulance, killing 3 paramedics

Sunday, February 20, 2005 Posted: 7:45 AM EST (1245 GMT)

LITTLE ROCK, Arkansas (AP) -- A train slammed into an ambulance that apparently tried to get out of its path, but stopped at a rail crossing, killing all three paramedics on board. The patient in the vehicle survived, officials said.

Paramedics Jeff Ferrand, 37, and John Rook, 23, died at the scene Saturday after the Union Pacific train hit the front end of the ambulance, spinning it around and ejecting the emergency workers.

A third paramedic, Christopher Klingan, also 23, was taken to a hospital but later died, officials said.

"Perhaps the driver saw the train coming and tried to get back, because a matter of two or three feet and there would not be an accident," Arkansas State Police Cpl. Darren Neal said.

Neal said the driver apparently decided he couldn't make it across the county road crossing in rural Fulton, backed up and came only a few feet from getting out of the train's path.

The ambulance was carrying a woman, Charlene Gayton, who had suffered a heart attack or a stroke. She was not hurt in the wreck, and remained in stable condition into Saturday.

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U.S.

Ex-husband suspect in killing of emergency crew

Paramedic's former husband committed suicide

Sunday, April 4, 2004 Posted: 10:40 AM EDT (1440 GMT)

Story
Tools


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EDWARDSVILLE, Kansas (AP) - - An emergency medical technician and a paramedic were shot to death early Saturday in an apparent ambush, authorities said. The paramedic's ex-husband, who was a suspect in the murders, apparently committed suicide later, authorities said.

Authorities found the two medics -- Tye Brown, 31, and Katherine Malone, 30 -- dead at a fire station shortly after midnight, said Eric Dooley, a spokesman for Metropolitan Ambulance Service Trust, an ambulance service for the two-state Kansas City area.

The pair, who lived together, had been shot multiple times, said Kansas City, Kansas, police Capt. John Cosgrove said.

YOUR E-MAIL ALERTS

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☐ Crime, Law and Justice

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www.StrangeCosmos.com

Though the modern EMS system was instituted and funded in large part by the federal government through the Highway Safety Act of 1966 and the EMS Act of 1973, federal support for EMS agencies declined precipitously in the early 1980s.

Since that time, states and localities have taken more prominent roles in financing and designing EMS programs. The result has been considerable fragmentation of EMS care and wide variability in the type of care that is offered from state to state and region to region.

Institute of Medicine Report on EMS 2007

The Now Issues

Clinical

- Patient Assessment
- Airway
- ET Intubation
- The "Smart Bag"
- The "rescue airway"
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- Avoiding overventilation
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- Non-transport
- Statewide Protocol Set
- Standard Treatment List
- Holding the wall
- Diversion
- House call?
- Research
- Distributive learning
- Preparedness

News

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02/25/2004 - Updated 01:30 PM ET

Six minutes to live or die

Only strong leaders can overhaul EMS

By Robert Davis, USA TODAY



By Jack Gruber, USA TODAY
Seattle's EMS system, where every second of a paramedic's run is chronicled and analyzed, is the benchmark other cities like Boston strive to duplicate.

BOSTON — When Bobby Lie's heart stopped and he fell to the floor of his downtown high-rise office, Mayor Thomas Menino saved his life.

The mayor didn't rush to his side; a security guard did that. But emergency medical officials say Menino's leadership and his efforts to involve the community in saving lives changed the way Boston responds to such situations. Those changes saved Lie (pronounced LEE) and about 200 others over the past decade.

Powerful, proactive city leadership can turn a sluggish emergency medical system into a highly effective one, a USA TODAY study shows. The 18-month investigation, which included a survey of medical directors in the nation's 50 biggest cities, database analyses and extensive interviews and site visits, shows most big-city EMS systems are fragmented and slow, and as a result they lose about 1,000 lives a year that could be saved.

(Related graphic: [How 50 cities stack up](#)):

But even an old city with complex problems can have a top-performing emergency medical system if city officials are forceful and committed. Boston is a case in point.

BEYOND WORDS

Quick response, CPR and AED save lives



- [See how CPR and defibrillation save lives](#)
- [National Center for Early Defibrillation](#)

Video



- [Security camera captures an AED saving a sudden cardiac arrest victim](#)
- [Bicyclists talks about using CPR to revive a stranger](#)
- [In some cities, there are problems even before an ambulance hits the road](#)

State of emergency medical services across the USA



- [How 50 major cities stack up](#)
- [The method: Measure how many victims leave the hospital alive](#)

Chat

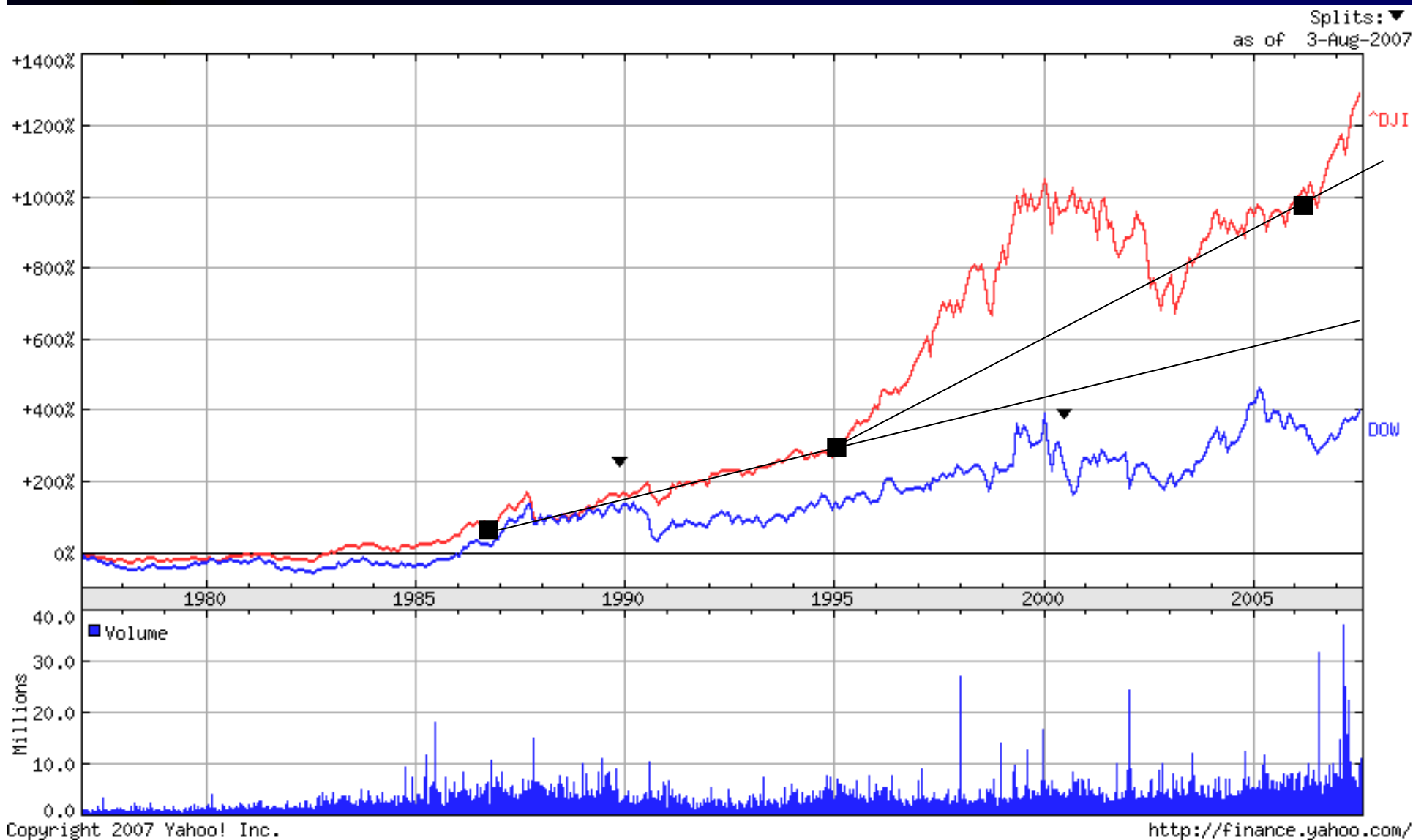


- [Chat transcript: USA TODAY's Robert Davis discusses the EMS crisis](#)

Ambulance service funding comes from five major sources:

- **Medicare reimbursement**
- **Insurance coverage**
- **Private- or self-pay**
- **Medical Assistance**
- **Contract services.**

*Medicare is the largest of these,
representing about forty percent
of ambulance service revenue.*



Medicare has since its creation in 1965 been the American government's second-largest social program – trailing closely behind Social Security.

The origin of the system can be traced back to the 1960s, when President Lyndon B. Johnson declared the nation's "War on Poverty".

<http://www.janhoo.com/skole/university/medicare.html>

“In 1965, Medicare was predicted to cost \$26 billion in 2003; the actual cost that year was \$245 billion. Medicare’s unfunded liability currently hovers around \$40 trillion.”

The trustees estimate the fund for hospital bills in the Medicare program will run dry by 2019, seven years sooner than predicted last year, largely thanks to the new Medicare bill.

Medicare has begun dipping into its trust fund for the first time

<http://www.janhoo.com/skole/university/medicare.html>

**"Medicare's own trustees
have confirmed what
taxpayer advocates warned
about all along."**

John Berthoud, President, National Taxpayers Union

"A 35 percent increase in the drug plan's 10-year cost estimate, mounting evidence that employers will dump seniors' private coverage, and now [the] trustees' report all add up to an economic doomsday scenario that thoughtful policymakers can't ignore any longer."

John Berthoud, President, National Taxpayers Union

**“Medicare's finances have
‘taken a major turn for the worse,’
according to the (Medicare)
trustees' report (2004).**

**The seven-year adjustment
is the largest lurch toward
projected insolvency
in the program's 39-year history. “**

*Schatz T. Taxpayer Groups Sound Alarm in Wake of
Trustees' Report on Medicare. Budget & Tax News,
May 1, 2004, The Heartland Institute.*

“Congressional efforts to reduce health care costs are failing miserably, meaning higher premiums for Medicare patients in the near future.”

Schatz T. Taxpayer Groups Sound Alarm in Wake of Trustees' Report on Medicare. Budget & Tax News, May 1, 2004, The Heartland Institute.

Moreover:

Most experts agree that there appears to be a national trend toward decreasing volunteerism and an increase in EMS personnel seeking paid careers.



Emergency Medical Services (EMS) companies throughout Pennsylvania are severely understaffed, some dangerously close to not being able to quickly respond to 9-1-1 calls!!!

to make a direct appeal to Pennsylvanians, asking them to consider EMS as a career choice.

The Minnesota Study

<http://www.health.state.mn.us/divs/chs/rhpc/cah/rasstudy.htm>

Minnesota
Protecting, maintaining and

Workforce
Ambulance personnel
this number, 59 percent
time paid staff. The
median of 19. But
have a much larger
areas are more likely
who have more experience

The **characteristics**
service personnel
in urban areas (20 percent
(67 percent female)
through 70+ years
to be over the age of 50
to have fewer years of
more years than rural

59% volunteers
25% are full-time paid
BLS avg 20, mostly volunteer
ALS avg 39, ¾ paid
Rural 77% volunteer
Urban 54% paid

2/3 medics male
41% female in rural EMS
20% female in urban #MS
18 – 70+ years
Most 20 – 50
Rural more likely >40 yo
Paid staff less time on job
Rural staff more time on job

MINNESOTA
MDH
DEPARTMENT OF HEALTH

total 6,983. Of
percent are part-
el, with a
vices generally
ctably, rural
n counterparts,

ambulance
41 percent) than
l are volunteers
goes from 18
el are more likely
Paid staff tends
en on the job

Recruitment and Retention of Personnel:

State of Minnesota, 2001 to present

EMTs and paramedics were asked why they volunteer, how they view their work, as well as future involvement

- * 36 percent wanted to help people or their community*
- * 32 percent expressed a previous or current interest in medicine.*
- * A sense of community pride and civic responsibility were clear.*
- * Ninety-one percent of case study respondents agreed that being on the ambulance service was a good use of their time.*

Recruitment and Retention of Personnel:

State of Minnesota, 2001 to present

Barriers to Recruitment and Retention

- * Nature of the work*
- * Changing demographics*
- * Selective volunteerism*
- * “Invisibility” (the effects of HIPAA)*
- * Time and training demands (Initial and CE)*
- * Ongoing training (“too much”)*
- * High stress and menial tasks*
- * Fear of errors*
- * The need for high quality Medical Direction*
- * Employment concerns*
- * Compensation (no pay to \$20/run to \$12/hour)*
- * Retirement*

Recruitment and Retention of Personnel:
State of Minnesota, 2001 to present

Quality of Ambulances / Facilities

- * *Air Quality*
- * *Training facilities*
- * *Sleeping quarters*
- * *Hazards*

Recruitment and Retention of Personnel:

State of Minnesota, 2001 to present

Hazards

- * Methamphetamine labs*
- * Blood borne pathogens*
- * Lack of protective clothing and equipment*
- * “Antique” PPE*
- * Chemicals carried by trucks and trains*

3. *August 07, Monterey County-Herald (CA)* — **Gas line puncture forces evacuation.** A construction crew trying to replace a power pole Monday, August 6, in Salinas, CA, instead struck a gas line that forced the evacuation of residents from a nearby apartment complex. A three-person crew from Baron Construction of Atascadero punctured the three-inch gas line when a worker tried to drill a hole to replace the pole near 16 Natividad Road. Officers knocked on the doors of about 15 apartments to evacuate the residents while the gas spewed. Homes on Natividad between Bernal and Sorentini drives were also evacuated. Traffic in the area of Natividad Road was diverted to other streets while PG&E fixed the leak.
Source: http://www.montereyherald.com/local/ci_6562074?nclick_check=1

4. *August 06, KULR-8 TV (MT)* — **Chemical fire causes evacuations.** A truck carrying hazardous material prompted an evacuation Monday, August 6, in downtown Billings, MT. The Billings Fire Department says a truck carrying the highly flammable chemical xylene caught fire. That fire was put out, but not before many residents were forced to leave their homes. The evacuation was done by using a reverse 911 method. Any structure within a quarter mile of the blaze was alerted of the threat and told to quickly evacuate.
Source: <http://www.kulr8.com/news/local/8957112.html>



www.StrangeCosmos.com

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U.S.

Four people die in medical helicopter crash

Sunday, March 21, 2004 Posted: 6:42 PM EST (2342 GMT)

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PYOTE, Texas (AP) -- A medical helicopter crashed early Sunday en route to a hospital and killed four people, including the 3-month-old patient and his mother, both of whom were Mexican.

A nurse was critically injured in the crash near Pyote, said CeCe Wilmes, head of emergency services at Medical Center Hospital in Odessa, where the helicopter was based. The crash site is about 40 miles (64 kilometers) southwest of Odessa.

The baby was having trouble breathing and was being taken from a hospital in Alpine in southwest Texas to University Medical Center in Lubbock, Wilmes said.

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U.S.

Ambulance crew members shot dead in Kansas

Saturday, April 3, 2004 Posted: 12:03 PM EST (1703 GMT)

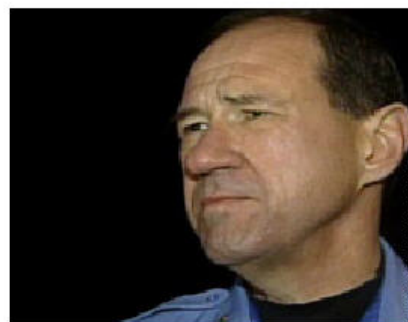
(CNN) -- An emergency medical technician and paramedic were shot dead early Saturday in Kansas, just outside of Kansas City, police said.

"We did have a double homicide in Edwardsville, male and female," said Angela Carrillo, a dispatcher for the Kansas City Police Department. She said the two were shot at 12:20 a.m. as they were sitting at their staging post at the fire station in Edwardsville, awaiting calls.

A suspect has been identified but is not in custody, police said.

The victims, a 30-year-old woman and a 33-year-old man, were employees of the Metropolitan Ambulance Services Trust and lived in Shawnee, Kansas.

Their identities have not been released.



Kansas City Police Capt. Michael Kobe said the crime was discovered after the workers did not respond to a call.

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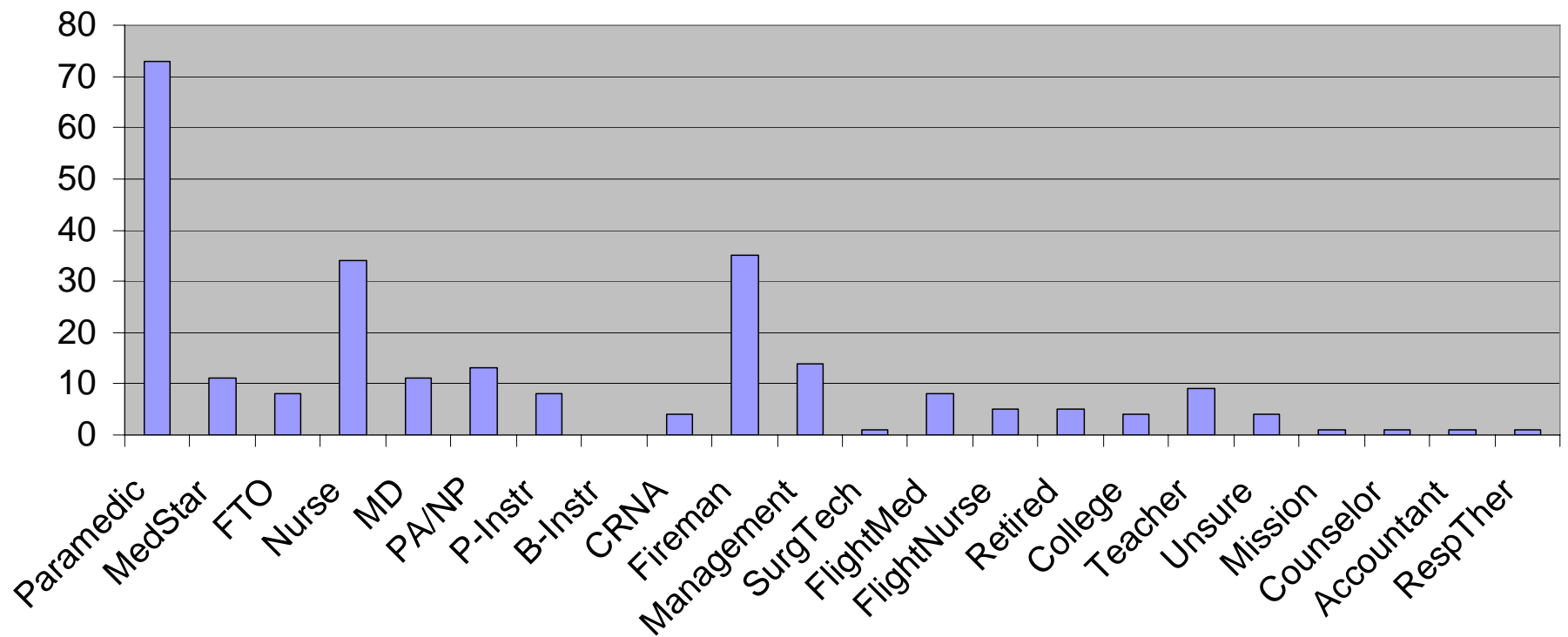
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5 Year Future Plans for MedStar Interviewees (N = 189)



**We have to face the fact
that medics in many cases,
perhaps most cases,
will be “passing through”
the field enroute to
other careers,
or parallel careers**

**Our planning,
as recruiters and staffers,
is to realize that this fact
must not be treated
as a weakness but
rather as a strength**

“I think we should create a whole career track where after five years, the paramedic is guaranteed a slot in medical school, followed by a residency program in emergency medicine. It's career progression.”

***Bruce Dubin, DO, JD
Associate Dean for Academic Affairs
University of North Texas
Health Science Center***

**Where
will
we
find
them?**



High Schools

Churches

Volunteer groups

Colleges

Vocational Technical Schools

Public call to service

Fire agencies

Other municipal firms

The Entry Level Process

Aptitude

Question:
Should someone be
recruited to EMS
in the absence of
aptitude?



**EMS is,
after all,
a great deal about
critical care
medicine**

**Given the topics
discussed, how
indeed do we
determine
aptitude?**

**...given a
high school
education,
and a modest
number of
additional hours?**

**Just how much
professionalism
can we expect
from a
minimum wage or
volunteer provider?**

Not honor....

PROFESSIONALISM





McKinney firefighter charged in morphine theft

12:11 AM CST on Thursday, January 12, 2006

By [STEVE STOLER](#) / WFAA-TV

A McKinney firefighter accused of stealing morphine and a sedative out of ambulances and replacing them with water was placed under arrest and fired Wednesday after police said he confessed to the crime.

Fire administrators sent vials and syringes to a lab to be tested after they found 49 had their tampered proof seals broken into. Initial results showed that nine out of ten of the vials and syringes tested had had their medicinal contents exchanged with saline or water.

"They realized immediately they had a problem," said Randy Roland, with the McKinney Police Department.

The McKinney Police Department was contacted after the discovery and the Federal Drug Enforcement Agency and Texas Rangers helped investigate the case.



Mark Hemphill

Police said Mark Hemphill, a firefighter paramedic, confessed to the theft and his own personal use of drugs.

"He indeed replaced the morphine...with water and had used the morphine on himself," Roland said.

Authorities said there is no evidence that patients received water instead of medicine.

"If a patient was to receive water instead of morphine that could certainly enhance the crime," Roland said.

Also Online

 **VIDEO** [Steve Stoler reports](#)

A Plea for Background Checks

**Medics
can't just
start
working!**

**The credentialing
process is
very similar to that
in hospitals**

A Model of Hiring Excellence

MedStar Ambulance Service

Fort Worth, TX

MedStar Ambulance Service

A Novel Service

Staffing:

- *Basic EMT*
 - *EMT-I*
- *Secondary Medic*
- *Lead Secondary Medic*
- *Primary Medic*

- **Initial Examination**
- **Passes off to Interviews**
 - **Orientation**
- **Clearing for Medical Director**
 - **Medical Director Test**
 - **Field Internship**

MedStar Problems

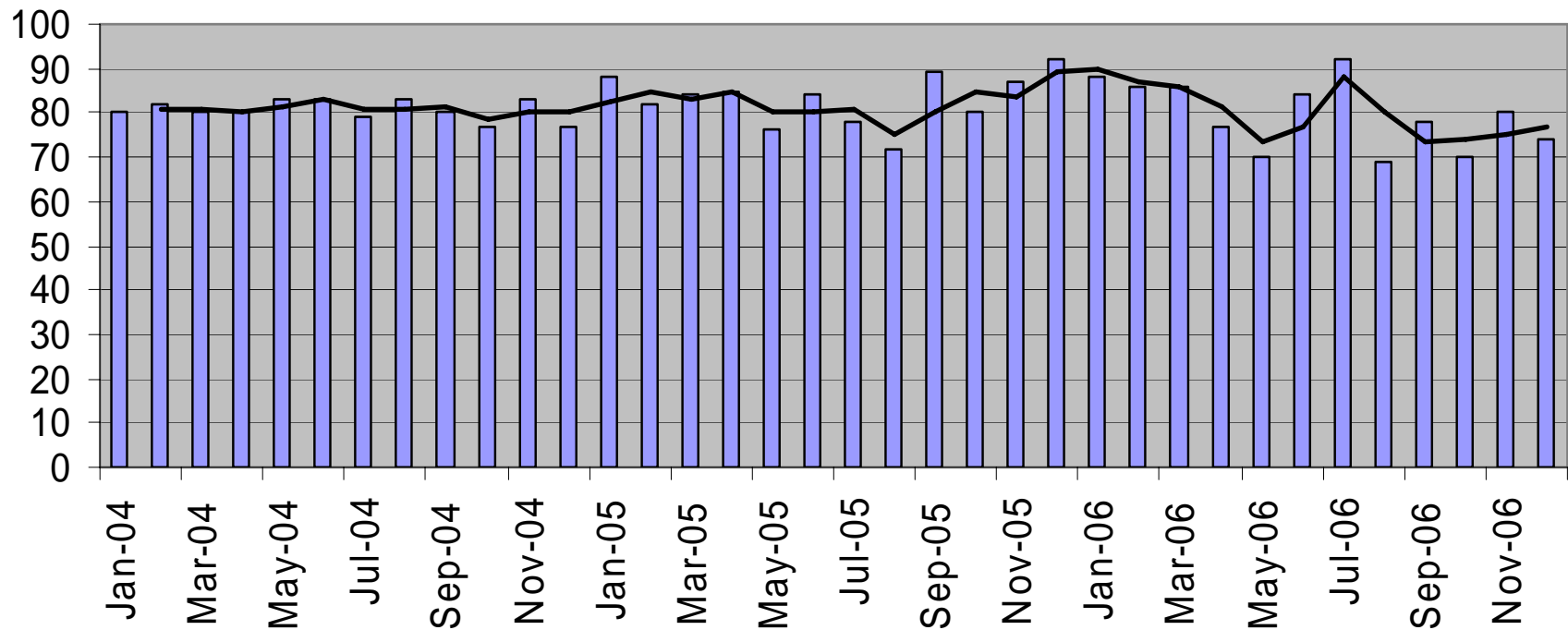
- *QA still not perfect*
- *Errors still happen*
 - *Human nature*
- *20% below full staffing*

MedStar

ET Intubation Success Rates

2004 - 2006

Intubation Success Rate



■ % of Patients Successfully Intubated — 2 per. Mov. Avg. (% of Patients Successfully Intubated)

ORAL ENDOTRACHEAL INTUBATION

Indications:

1. Respiratory or cardiac arrest
2. Unconsciousness without a gag reflex
3. Decreased minute volume, due to decreased respiratory rate or volume
4. Possible airway obstruction
5. GCS ≤ 8

Contraindications:

1. None in the presence of hypoxia, unresponsive to ventilation, need for advanced airway or cardiopulmonary arrest

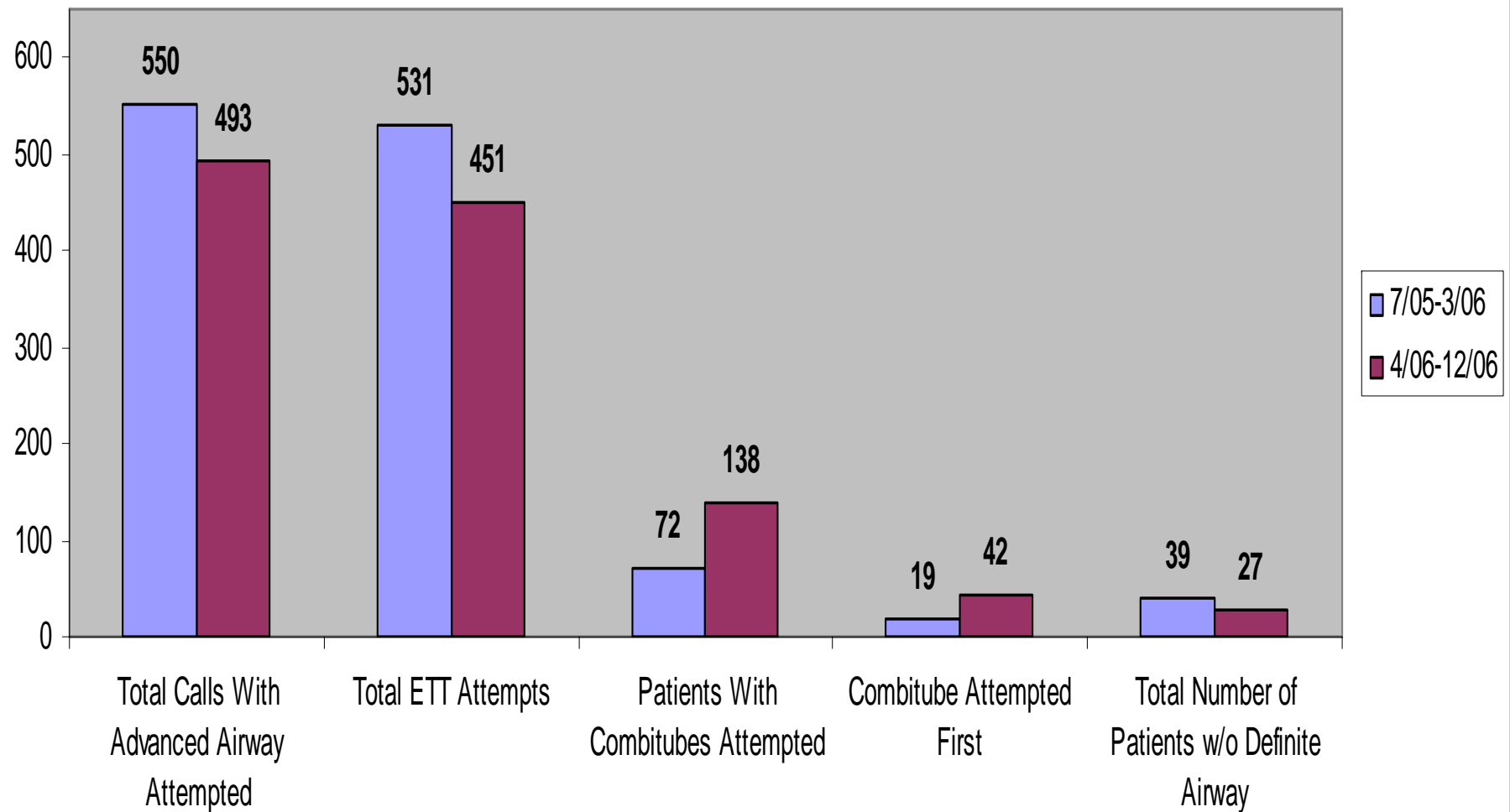
Procedure:

1. Preoxygenate the patient, if possible
2. Assemble and check equipment

15. IF ETT Intubation is unsuccessful after ONE attempt, insert a Combitube.

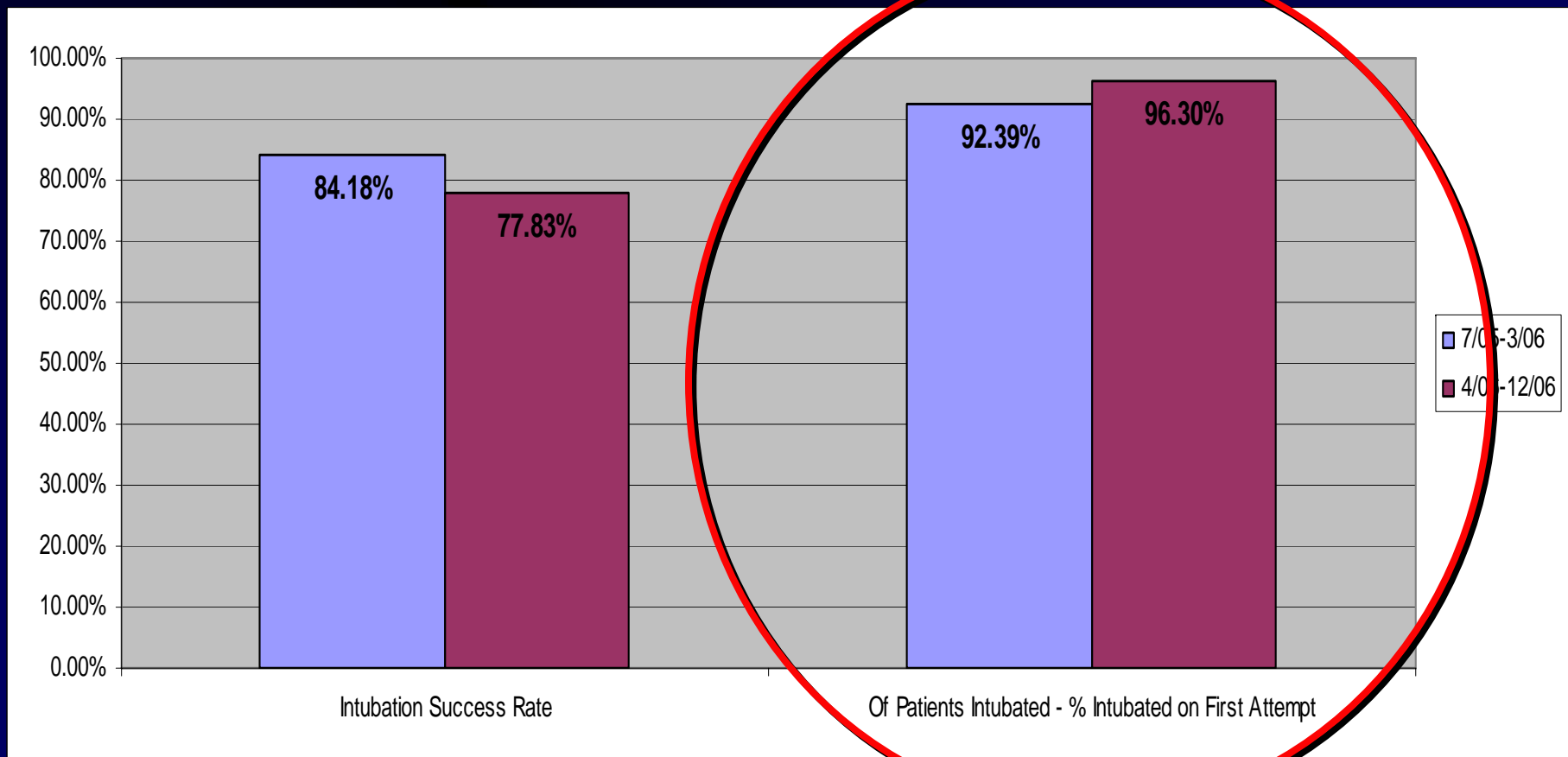
3. Depress the tongue
6. The tip of curved blades should be placed in the vallecula while the tip of straight blades should be extended beyond the epiglottis.
7. Lift the epiglottis either directly or indirectly, visualizing the vocal cords.
8. Slip the endotracheal tube and stylet past the vocal cords about $\frac{1}{2}$ to 1 inch. Gentle, downward pressure on the cricoid cartilage (Sellick's maneuver) may assist.
9. While holding onto the tube, attempt and assess ventilations
10. If the chest rises and breath sounds are present, inflate the distal cuff with 5 to 10 ml of air
11. Confirm proper airway placement and assesses the quality of ventilations
12. Record capnographic change, breath sound locations and chest rise and fall
13. Secure tube with an endolock device
14. Continuously reassess breath sounds
15. If ETT intubation is unsuccessful after **one** attempt, insert a Combitube.

Advanced Airway Attempts July 2005 – December 2006



ETT Intubations

July 2005 – December 2006



Results

- 10% decrease in calls with advanced airway attempted
- 15% decrease in ETT attempts
- 113% increase in number of patients with Combitube attempted
- 146% increase in number of patients with Combitube attempt first



National Registry of Emergency Medical Technicians*

THE NATION'S EMS CERTIFICATION

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NHTSA releases report on national re-registration

By Gregg Margolis, PhD. - Associate Director
Posted 07/18/2006

Continuing its commitment to EMS, NHTSA funded a project to study the role of national re-registration in the continued competence of paramedics. The lead author for the project is Keith Holtermann, Dr.P.H. from George Washington University. Participants in the study received a criterion referenced competency exam and an achievement exam at two year intervals following initial certification. There was no significant difference in the performance of individuals who re-registered compared to those who did not re-register two years after initial certification; however, there was a difference at four and six year intervals. The report concluded that "there was a statistically significant difference in the pass rate on the comprehensive cognitive exam between re-registered and non-re-registered groups" four and six years after initial certification. Also, at four and six years post initial certification, "the re-registered groups were approximately two times more likely to pass [the competency exam] than the non-re-registered group." The entire report is available at http://www.nhtsa.dot.gov/people/injury/ems/EMT_NatlRegistry/index.htm. or contact the NREMT for an electronic or hard copy.



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National Registry of Emergency Medical Technicians (NREMT) holds Standard Setting meeting for New Test Bank Items

By Heidi Erb

Community Relations Coordinator

Posted 04/10/2006

The National Registry of Emergency Medical Technicians recently hosted Standard Setting Meetings on March 26-27, 2006 for the Basic and Paramedic levels, following the EMS Today conference in Baltimore, MD.

One of the most important elements of item development is the Standard Setting process. After new questions have been developed for item banks, they are processed through a Standard Setting Committee. The Standard Setting Committee reviews the items for accuracy and rates their difficulty to establish the criterion for passing based on the Angoff Standard Setting Process



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The NREMT Announces Plan to Incorporate the Revised AHA Guidelines on NREMT Exams

By Gregg S Margolis, PhD.
Posted 02/22/2006

The NREMT recognizes that the EMS community is in a transition period as medical directors, EMS agencies, EMS educational programs, and States implement the 2005 American Heart Association Guidelines for CPR and Emergency Cardiovascular Care. In conjunction with this transition, the NREMT will be revising examinations as follows:

- After June 1, 2006 the NREMT will publish interim pencil-and-paper EMT-Basic and First Responder Exams. After September 1, 2006 the NREMT will publish interim Paramedic, EMT-Intermediate (85 and 99) Exams. The interim examinations will be constructed so that candidates will not be penalized for being trained over *either* 2000 or 2005 AHA Guidelines for CPR and Emergency



Specific Recommendations

- **Tax credits or exemptions for ambulance volunteers**
- **Avoid training for “training’s sake”
Used skills-based testing and training
(see Texas CCMP Program)**
- **Seek more efficient training methods
such as Internet and incorporate
specialized training into basic
refresher courses**

- **Build in longevity awards, especially for volunteer services**
- **Build in incentives for retaining paid personnel**
- **Pay an hourly training stipend**

**Strengthen involvement of
medical directors through all
appropriate groups:**

- * *NAEMSP***
- * *ACEP***
- * *Family Physicians***
- * *Surgeons***

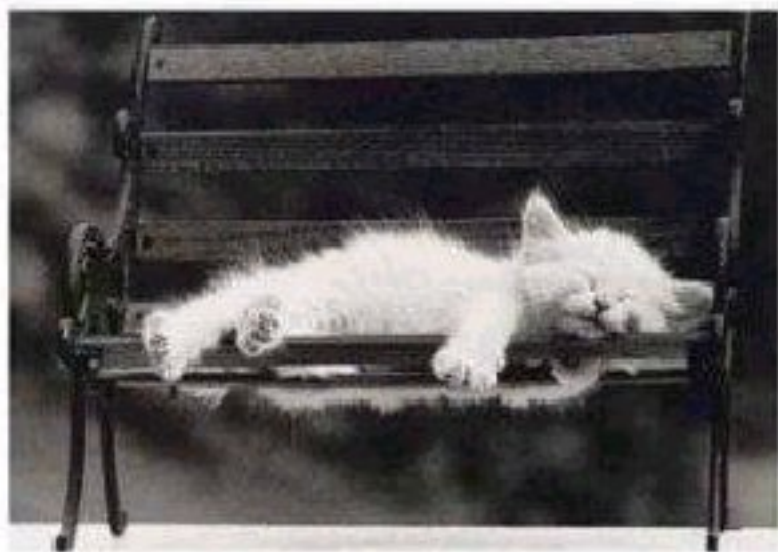
- **Make exceptions (variances) for staff members with children, such as assisting with day care issues**
- **Include ambulance personnel in health legislation analysis**
- **Support Federal EMS Legislation**
- **Support grant and loan programs especially for rural EMS agencies**

Consider Fee and Tax-related strategies to assist EMS agencies in need, especially to cover salaries:

Lottery or tax refund monies, for example

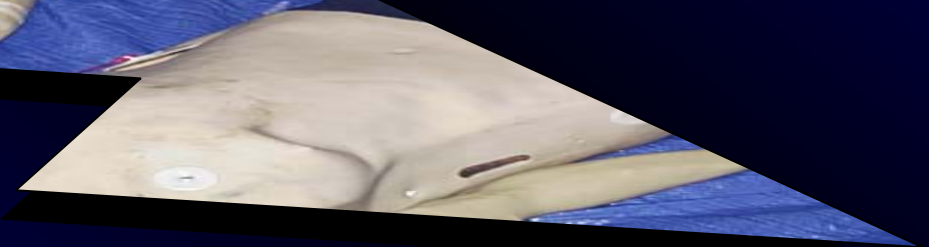
Regional and State agencies should:

- *Help standardize accounting*
- *Help with training*
- *Help support struggling agencies*
- *Help support health care facilities
to support EMS agencies*
- *Work with regional communications*
- *Centralized ambulance repair support*

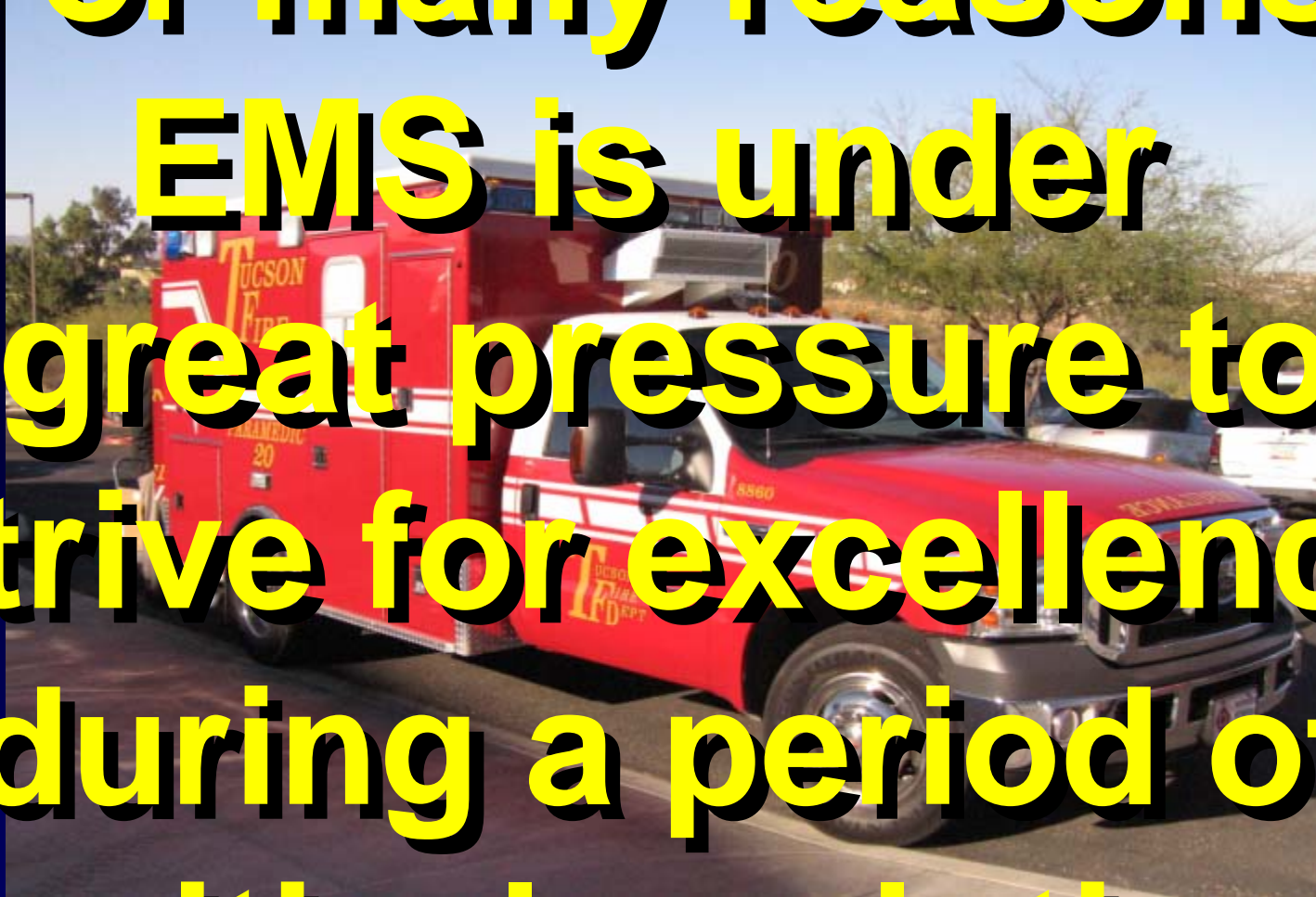


What a week this has been...

Synthesis



**For many reasons,
EMS is under
great pressure to
strive for excellence
during a period of
critical evolution**



The potential for public health disasters has never been worse



Terrorism

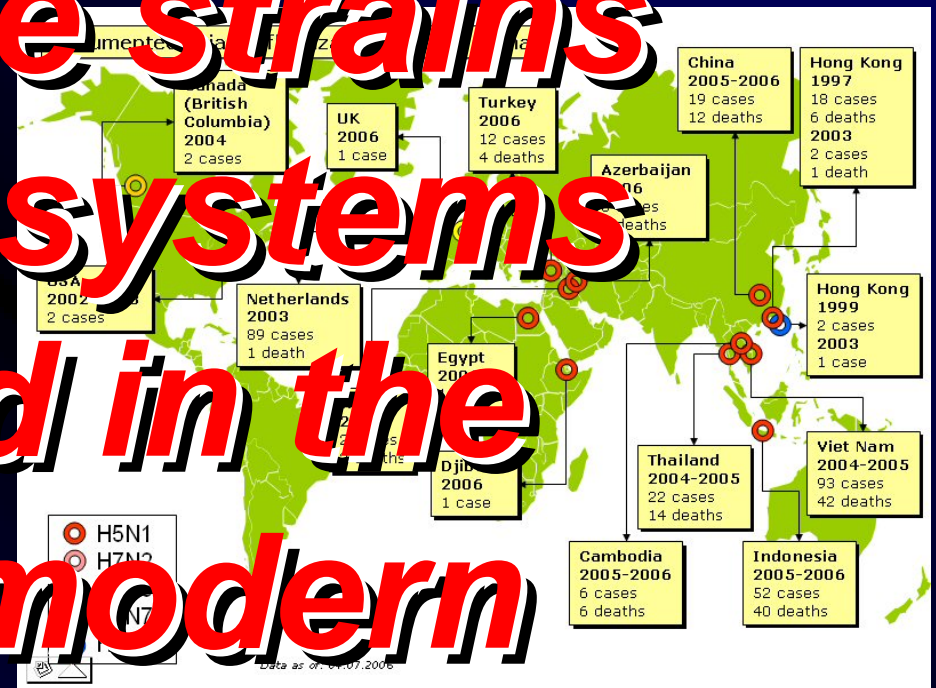


Pandemics



Natural disasters

***An influenza pandemic
would place strains
upon EMS systems
never faced in the
history of modern
prehospital medicine***



**The aging of the
population will
only increase the
demand for in-home
evaluation and
transport**



House

Call

EMS is the
LAST
available emergency
house call

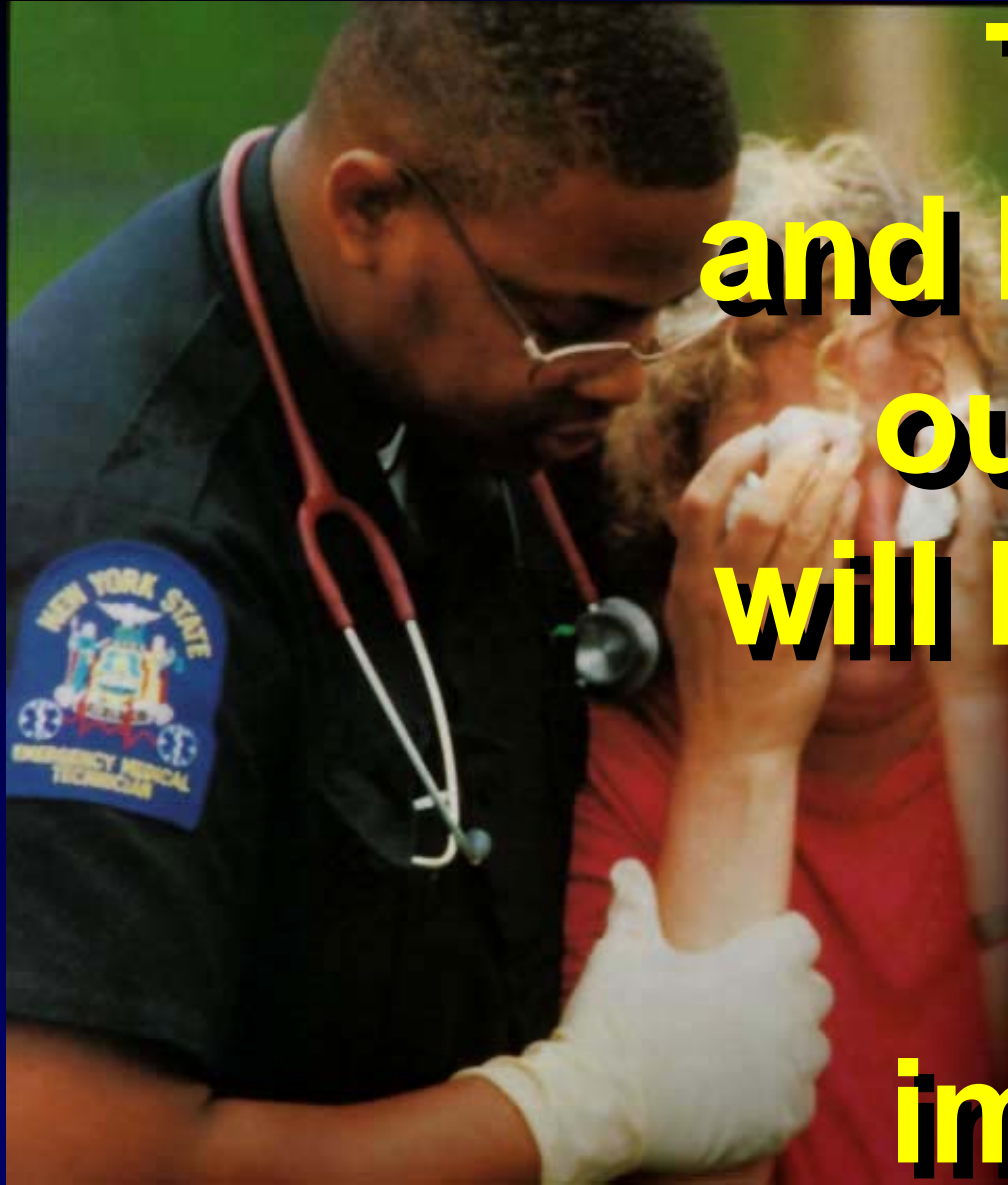


A photograph of an emergency medical scene. In the foreground, a patient is lying on a red gurney, secured with straps. The gurney has "EMS" written on it in yellow. Several paramedics in blue uniforms are attending to the patient. One paramedic is on the left, another is in the center, and a third is on the right. Medical equipment, including an IV stand with a bag and a monitor, is visible in the background. The scene is set in a hospital or emergency room.

*The ability to
get help when
it is needed*

A large red cross is centered on a dark blue background. The cross has a gradient, appearing brighter in the center and darker towards the edges. Overlaid on the cross is the text "The professionalism of Emergency Medical Services Continues to Grow" in a bold, yellow, sans-serif font. The text is arranged in four lines, centered horizontally.

The professionalism of Emergency Medical Services Continues to Grow



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and breadth of
our practice
will be limited
only by
our
imagination**

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