


Why Paramedics
SHOULD USE
ETI during Arrest

Or, “Crisis is Danger
Mixed With Opportunity”



Who Are
We in EMS
Really?



Paramedic

- Out-of-hospital practitioner
- Part doctor
- Part nurse
- Part rescue
- Hazmat, MCI, disaster

Paramedic



A “fully-arrived”,
fully-partnered,
member of the emergency
medicine and emergency
response community

Prehospital Emergency Care



The newest member of the
House of Medicine

EMS Training vs. Reality


- Not enough OR training time, if at all
- Infrequent use in the field of ETI
- **MUCH MORE** “on-the-job training” needed
- To be able to pass a tube when a tube is really needed

“OJT” is Reality

“Rescuer procedural experience is associated with improved patient survival after out-of-hospital tracheal intubation of cardiac arrest and medical non-arrest patients.”

Out of Hospital Endotracheal Intubation Experience and Patient Outcomes.
Wang, Yealy, et al. *Annals of Emergency Medicine*, 6/2010

Paramedic Quality Care

A photograph of a person with long blonde hair, seen from behind, sitting at a workstation in a control room. The workstation features a large, curved desk with multiple computer monitors displaying various data and maps. The person is using a keyboard and mouse. The background shows other workstations and equipment, suggesting a professional environment like a dispatch center or a hospital's command center.

- Must be a commitment to skills training
- Must include
 - Physical Assessment
 - Pharmacology
 - Advanced Care Technical Skills

Paramedic Ethical Behavior

Is this an oxymoron?

Or....is it not?

Paramedic Ethical Behavior

*Can we depend upon EMS
personnel to act ethically?*

Do all medics have ethics?

What is the Theoretical Maximum?

*Paramedics Must Be Some of the
Best Airway Experts in the World!*

When Do We Intubate?

- Cardiac Arrest
- Low GCS Conditions including trauma
- Compromised airway

What have been the
REAL PROBLEMS
with ETI?

Airway Trauma
Prolonged Hypoxia
Management Problems

So, the Slovis “5”: Reasons to Intubate in C.A. #1

- Since only 30% survive CA, are we going to take away practice on the 70%? HMMMMMMMM???
- Isn't this a better way to measure pulmonary compliance?
- Since “pounding” on the chest seems to be the norm, isn't it better to have a “pre-trauma airway?”

The Slovis “5”: Reasons to Intubate in C.A. #2

- From a family pleaser standpoint, isn't it better to get the tube in **BEFORE** the patient dies?
- We won't have to listen to Corey **BITCH** about using paralytics to intubate!!





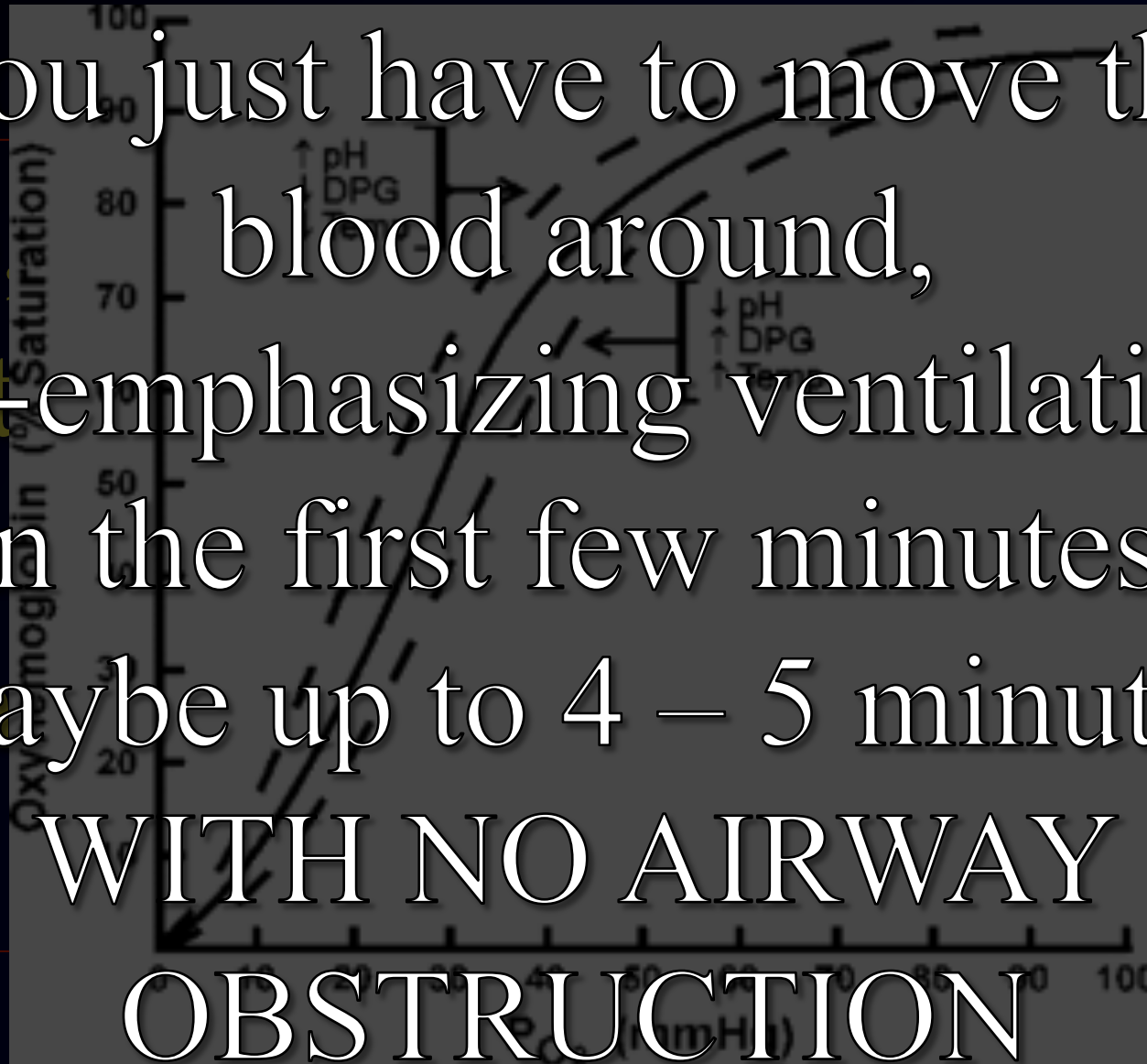
And, Speaking
Physiologically

20 cc O₂ / 100 cc Blood

$$5000 \text{ cc} / 100 \text{ cc} = 50$$

$$20 \text{ cc} \times 50 = \underline{1000 \text{ cc}}$$

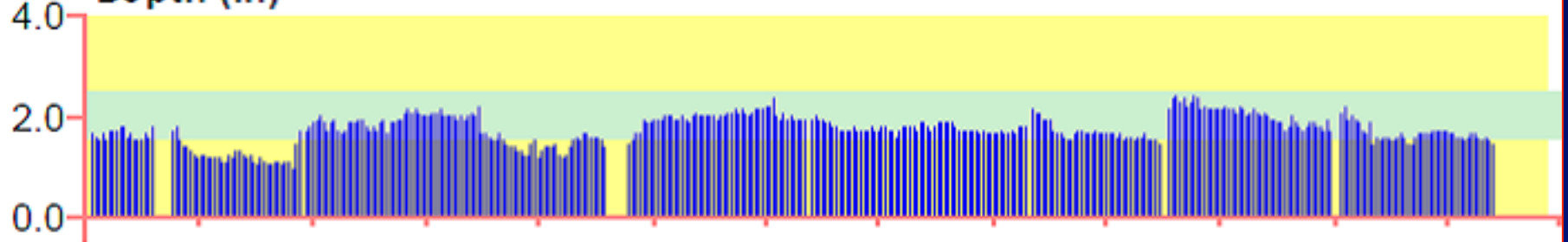
You just have to move the
So blood around, ed
de-emphasizing ventilation, t
in the first few minutes, on
maybe up to 4 – 5 minutes
WITH NO AIRWAY
OBSTRUCTION



Shock Summary



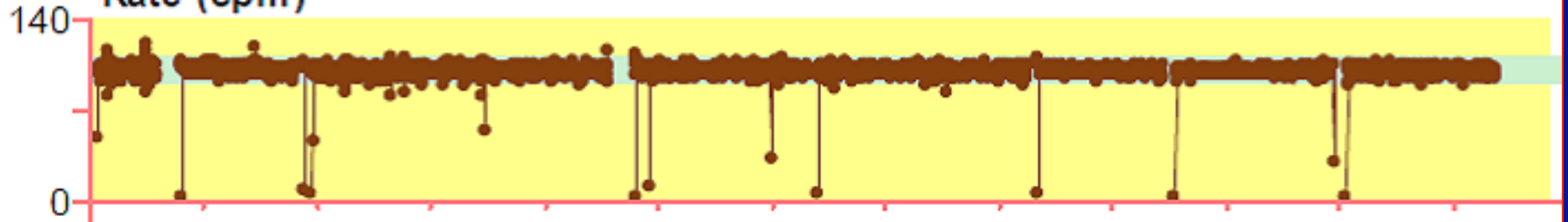
Depth (in)



Compression Quality



Rate (cpm)



07:53:29

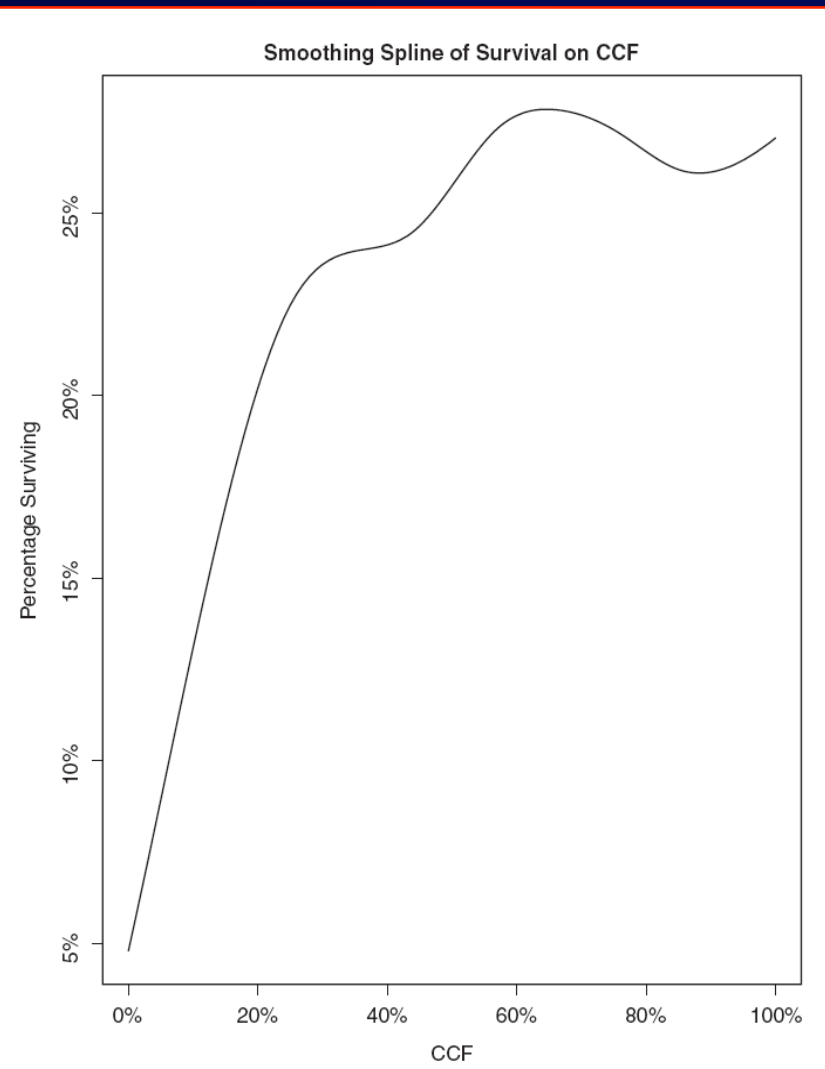
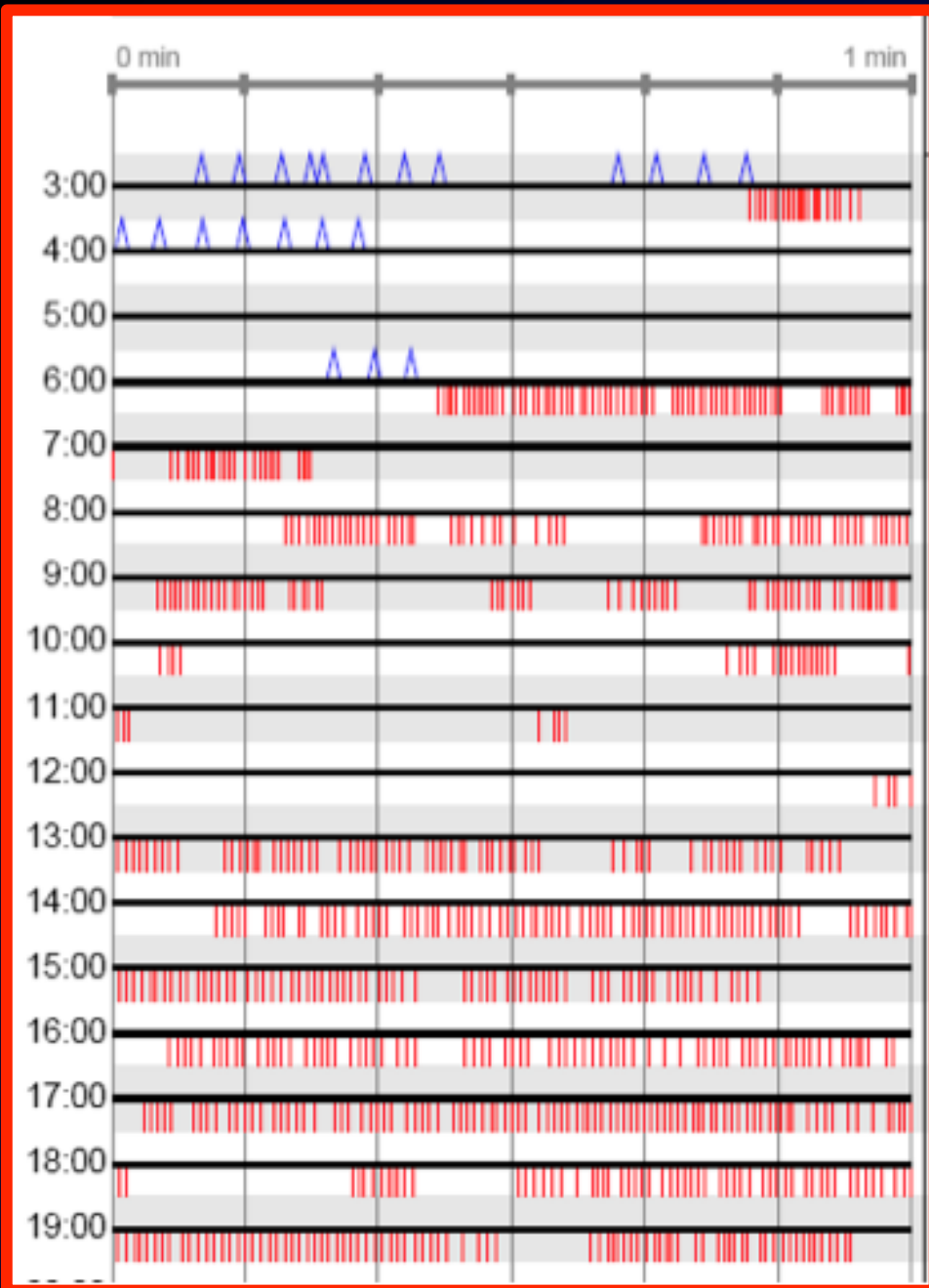
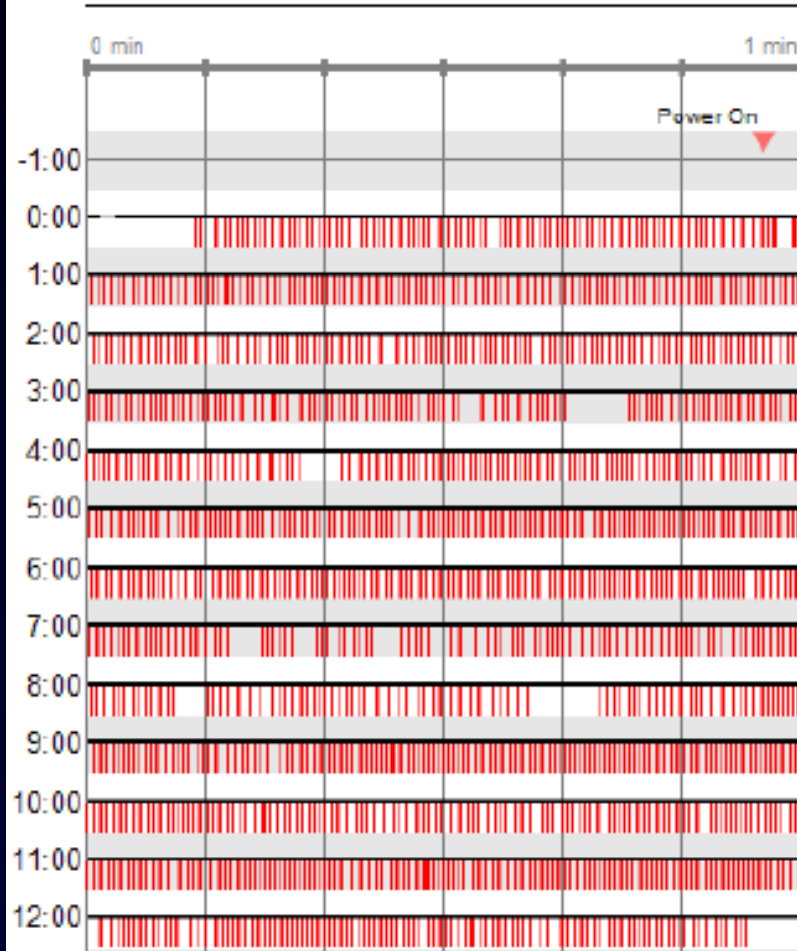


Figure 3. Smoothing spline representing the incremental probability of survival corresponding to a linear increase in chest compression fraction.

CPR QUIK-VIEW

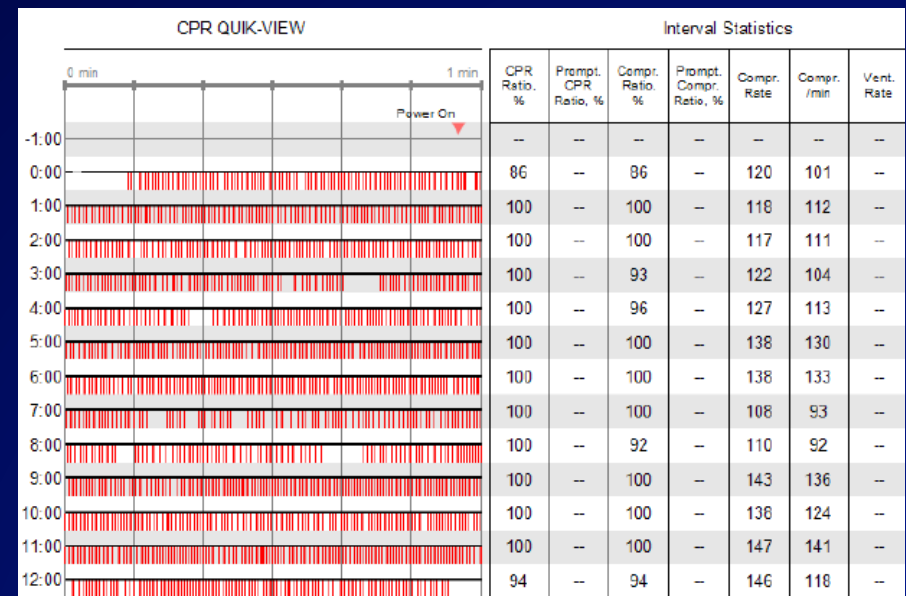
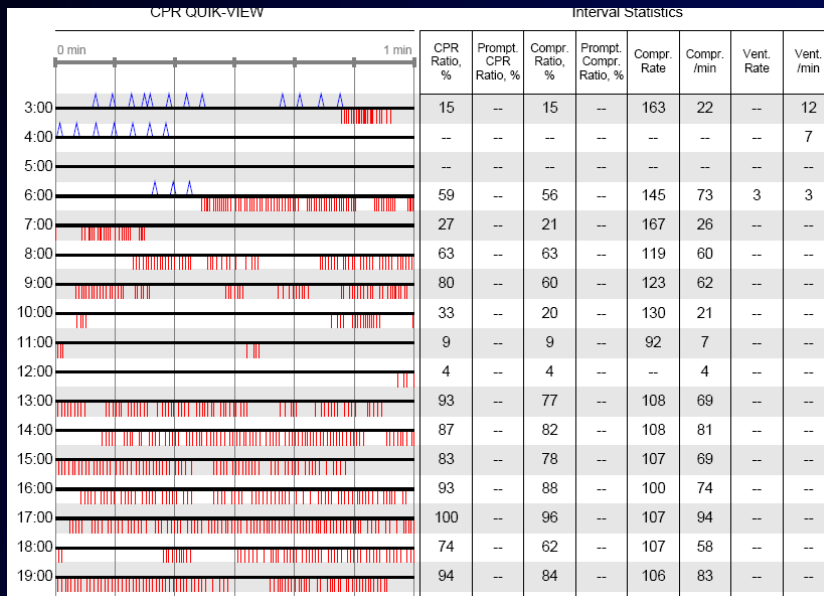


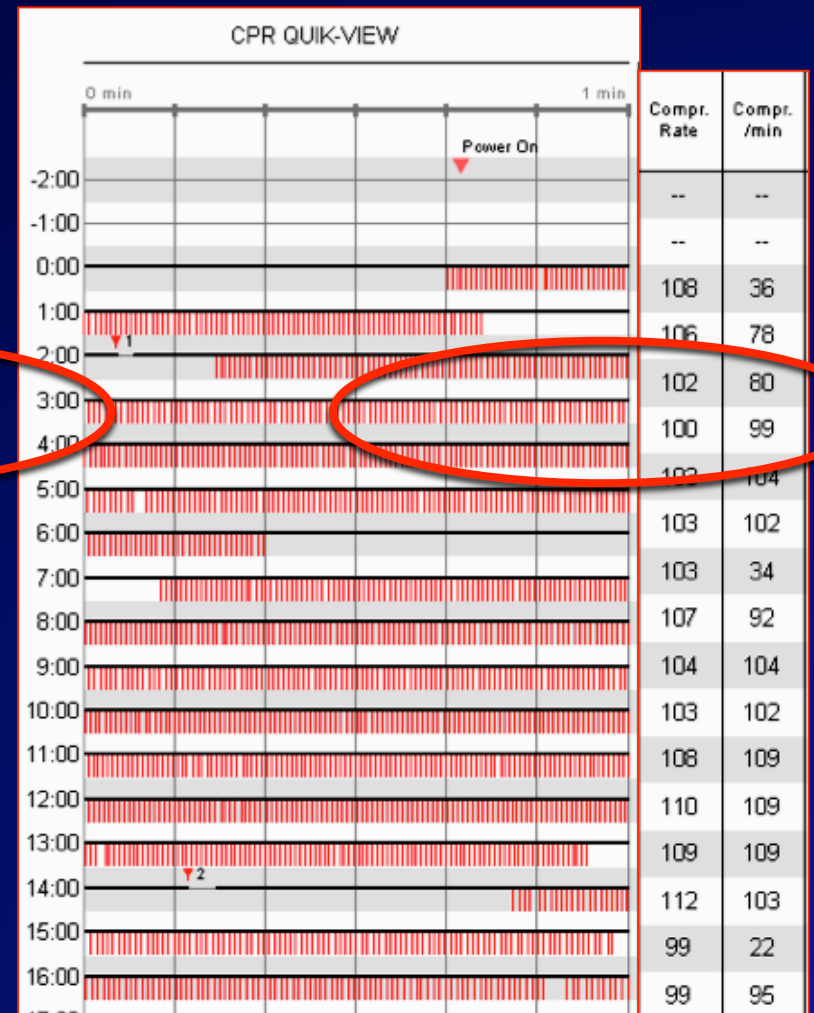
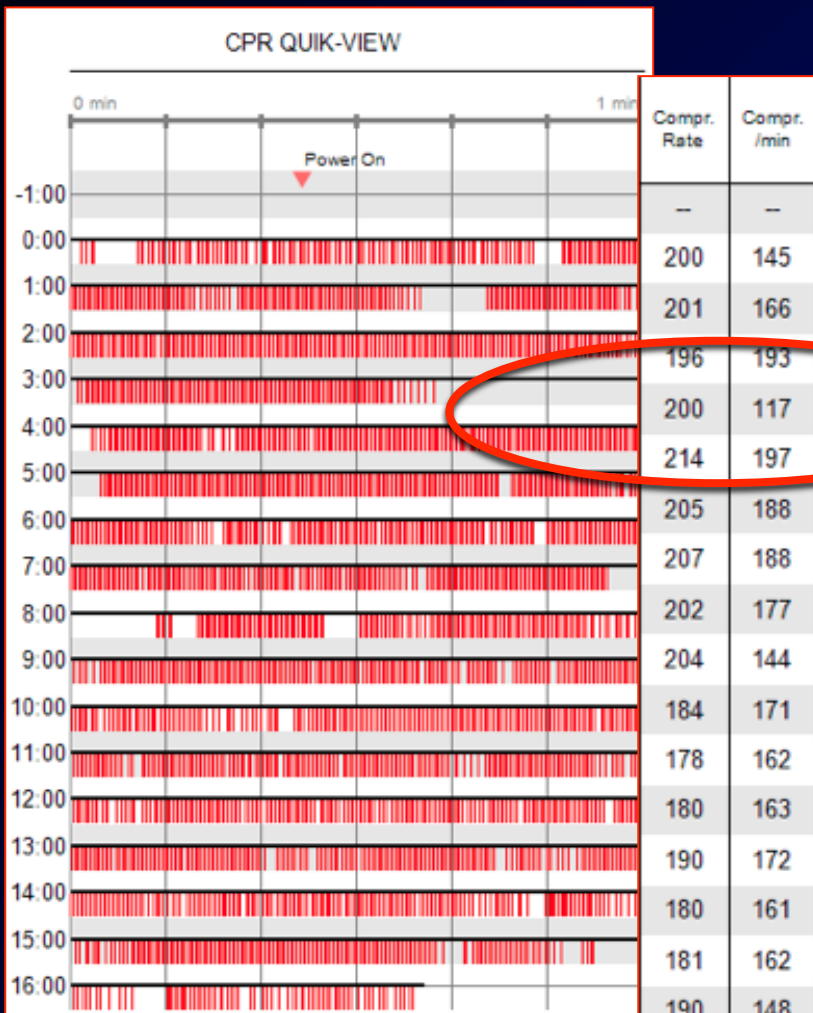
Interval Statistics

CPR Ratio, %	Prompt. CPR Ratio, %	Compr. Ratio, %	Prompt. Compr. Ratio, %	Compr. Rate	Compr. /min	Vent. Rate	Vent. /min
--	--	--	--	--	--	--	--
86	--	96	--	120	101	--	--
100	--	100	--	118	112	--	--
100	--	100	--	117	111	--	--
100	--	93	--	122	104	--	--
100	--	96	--	127	113	--	--
100	--	100	--	138	130	--	--
100	--	100	--	138	133	--	--
100	--	100	--	108	93	--	--
100	--	92	--	110	92	--	--
100	--	100	--	143	136	--	--
100	--	100	--	138	124	--	--
100	--	100	--	147	141	--	--
94	--	94	--	146	118	--	--

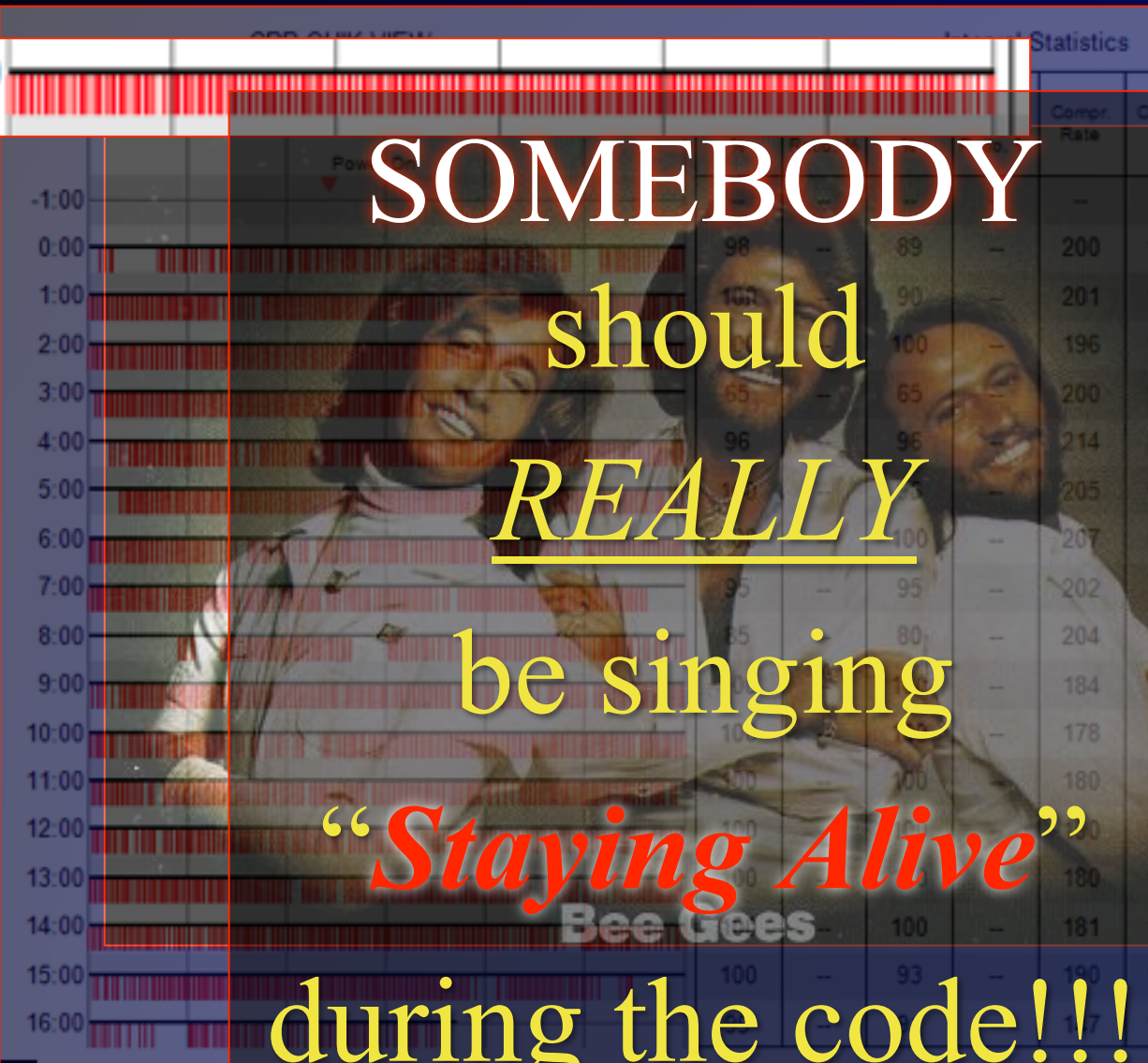
2006

2009





2.00



SOMEBODY
should
REALLY
be singing
“Staying Alive”
during the code!!!

Compr. Rate	Compr. /min
--	--
200	145
201	166
196	193
200	117
214	197
205	188
207	188
202	177
204	144
184	171
178	162
180	163
190	172
180	161
181	162
190	148
147	112

100 BPM Tunes

History is made at night: 100 bpm - songs to save your life

http://history-is-made-at-night.blogspot.com/2008/10/100-bpm-songs-to-save-your-life.html

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History is made at night
The politics of dancing and musicking

Tuesday, October 21, 2008

100 bpm - songs to save your life

A [research study](#) at the University of Illinois suggests that people were more effective at [Cardiopulmonary Resuscitation](#) (CPR) if they were listening to the Bee Gees 'Staying Alive' while performing it. The reason is apparently that the song's tempo, 103 beats per minute, is close to the optimum number of 100 compressions per minute to help jump start a heart during a cardiac arrest.

I don't mind this song, but if you're working in the health service it might be an idea to get a bit of variety and check out other tracks with a similar tempo. [DJ BPM Studio](#) - which specialises in just this kind of thing - has a whole list of 100 BPM tracks including Madonna 'La Isla Bonita' and Bjork 'Isobel'; pretty close too is Lily Allen 'LDN' (100.01 BPM), Pink 'Stupid Girl' (100.02), ABBA 'Dancing Queen' (100.47), The Clash 'Hitsville UK' (100.69) and Blondie 'In the Flesh' (100.8).

Posted by Transpontine at [9:02 PM](#)

Labels: [2000s](#)

<http://history-is-made-at-night.blogspot.com/2008/10/100-bpm-songs-to-save-your-life.html>

100 BPM Tunes

Life's Been Good (to me so far) - *Joe Walsh*

Sittin' on the Dock of the Bay - *Otis Redding*

Oh What a Night - *4 Seasons*

Mother's Little Helper – *Stones*

50 Ways to Leave Your Lover - *Paul Simon*

Sunday Bloody Sunday – *U2*

Cecilia - *Simon & Garfunkel*

Duke of Earl - *Four Tops*

100 BPM Tunes

One little, two little, three little....Texans

Row Row Row Your Boat....

CPR ESSENTIALS 2011

- VENTILATIONS: 0 in 1st 5
- COMPRESSION DEPTH
- COMPRESSION
FRACTION: Just DO IT
- RATE: 100 – 120
- PAUSES: < 10 seconds

Faster is NOT Better!!

“It’s my dream every cab would have an AED AND give a \$50 bonus to the first person on the chest in a cardiac arrest.”

A.J Heightman

Write
Your
Congressman
TODAY!!

Summary Thoughts

“In most cardiac arrests, the airway isn’t the problem.”

“In cardiac arrests where airway is the problem, the patient will die unless you fix it.”

“However you manage the airway, do it well, do it quick, and don’t make a mess out of it!”