

Does One Intubation Attempt Deserve Another?

The Second Look

John K. Griswell, MD, FACEP



The challenge ...

**How do we take care of the
airway needs of our patients
without doing harm?**



Paramedic Intubation Questioned

- San Diego RSI Study
 - Outcomes Worse
- Wang Papers
 - Outcomes Worse

What to do?





What MedStar Did

- **A is for Airway Course**
 - Classroom
 - Cadaver Lab
- **Single Intubation Protocol**
- **Strong CQI Program for Compliance**

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

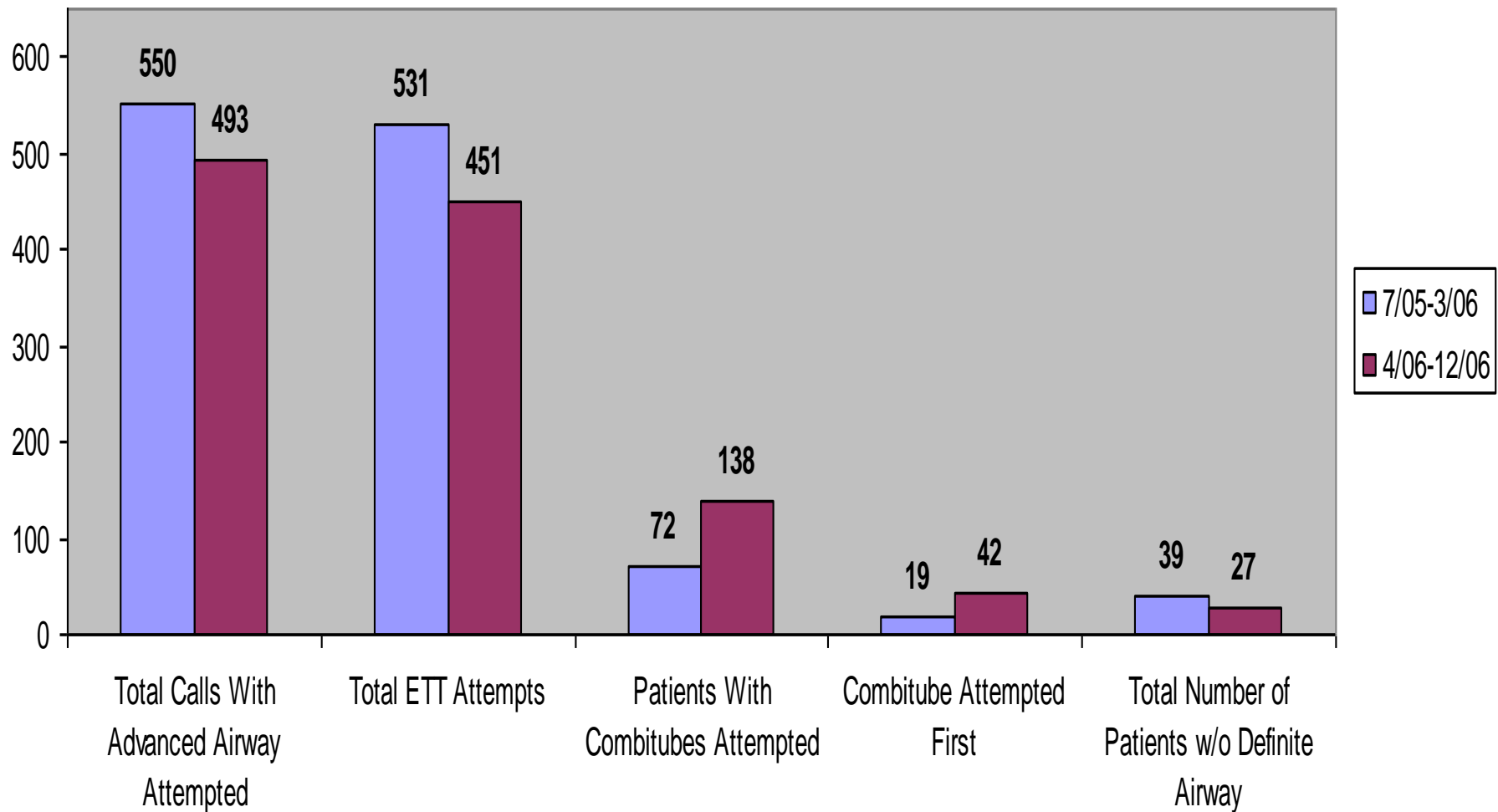
Contraindications:

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

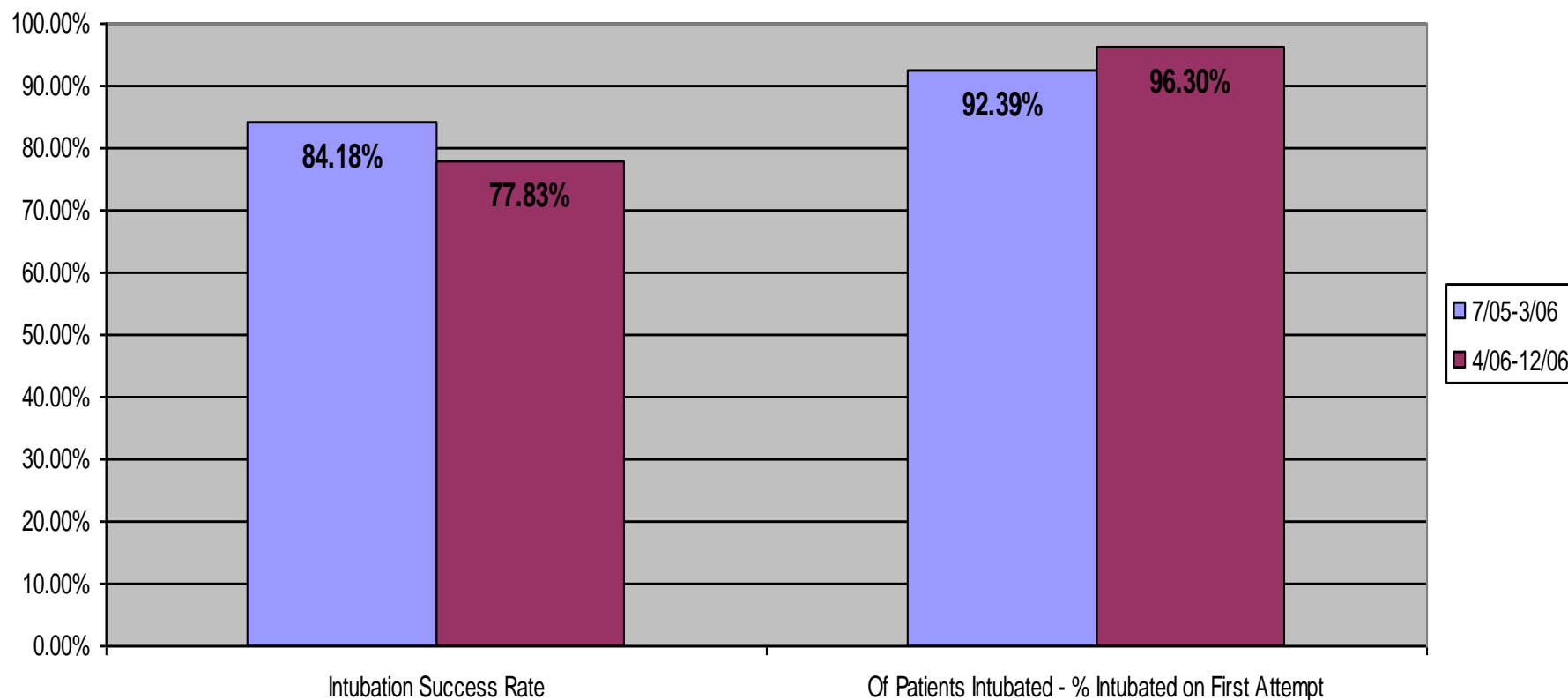
15. IF ETT Intubation is unsuccessful after ONE attempt, insert a Combitube.

- to the left
5. Move the blade toward midline and advance until its distal end is positioned at the base of 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.

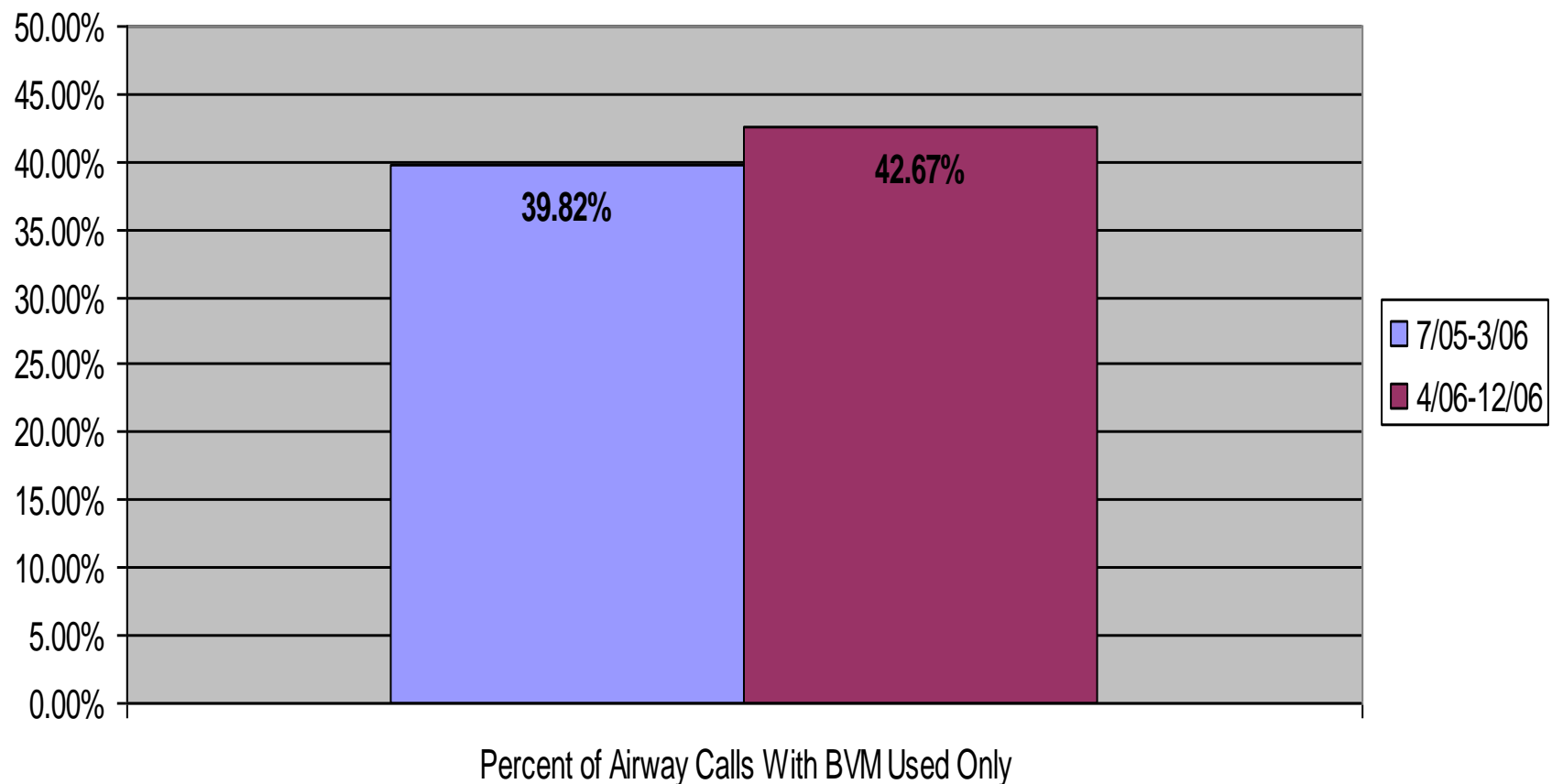
Advanced Airway Attempts First Look



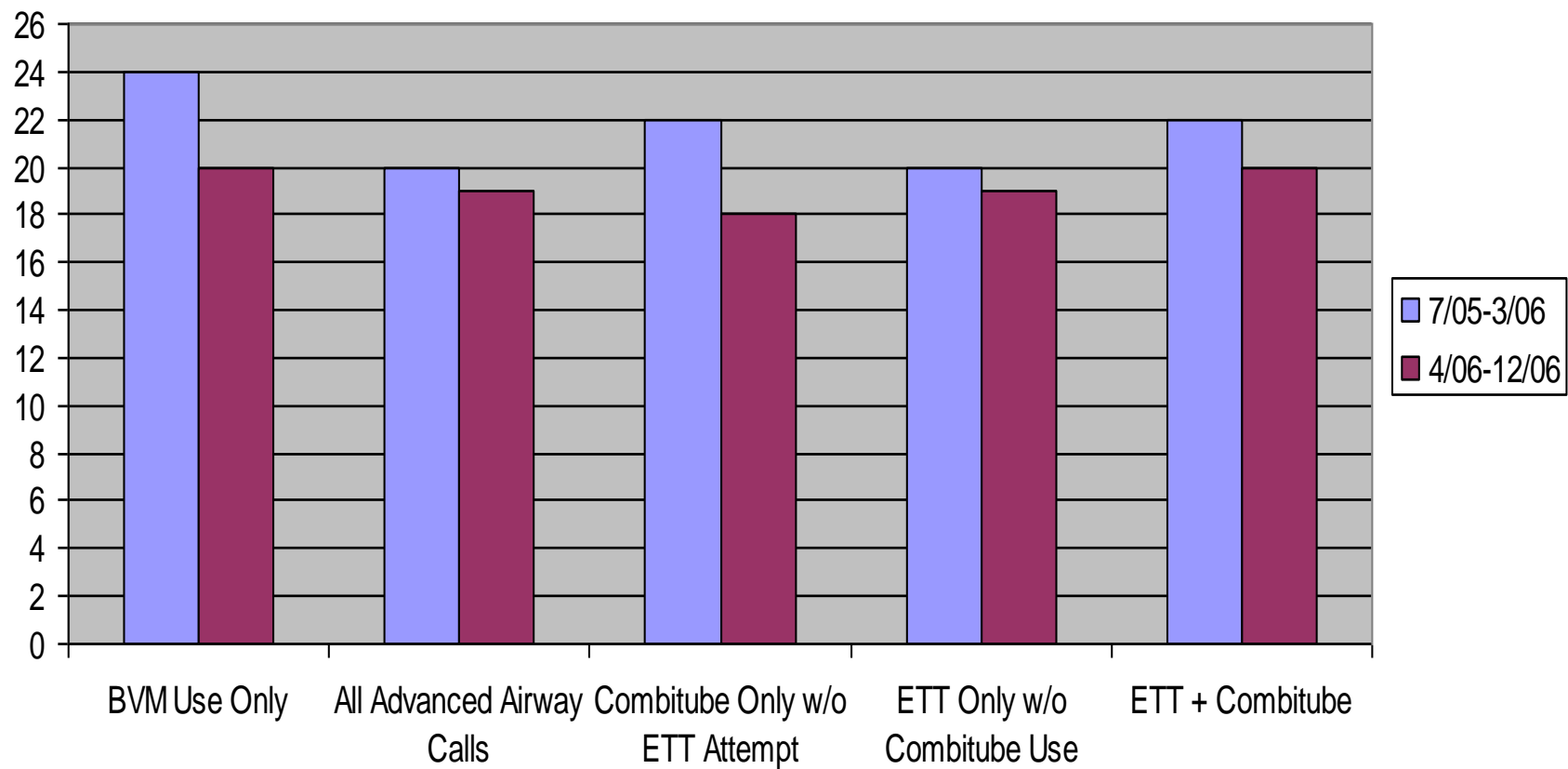
ETT Intubations First Look



BVM Usage Only First Look



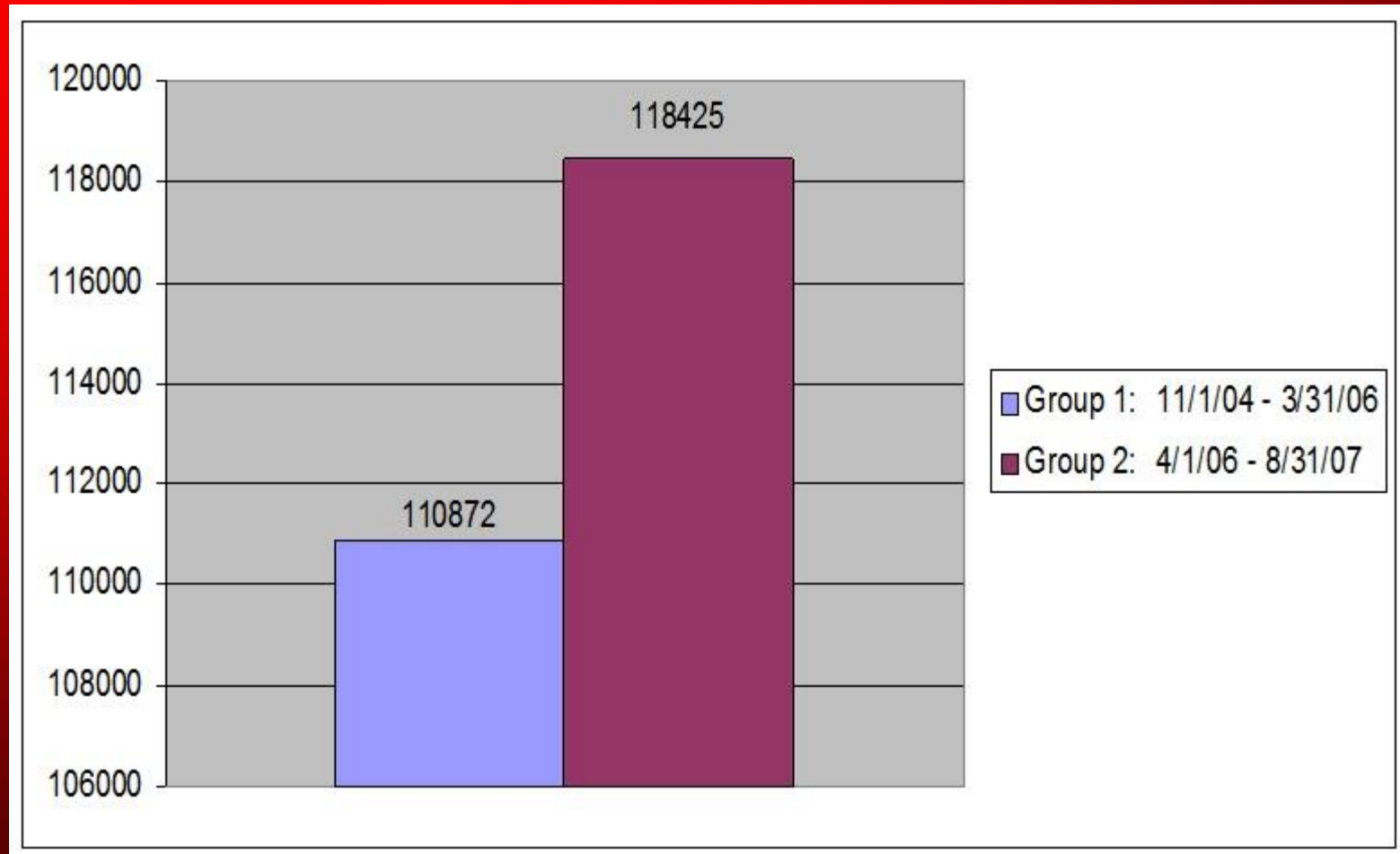
Scene Times First Look



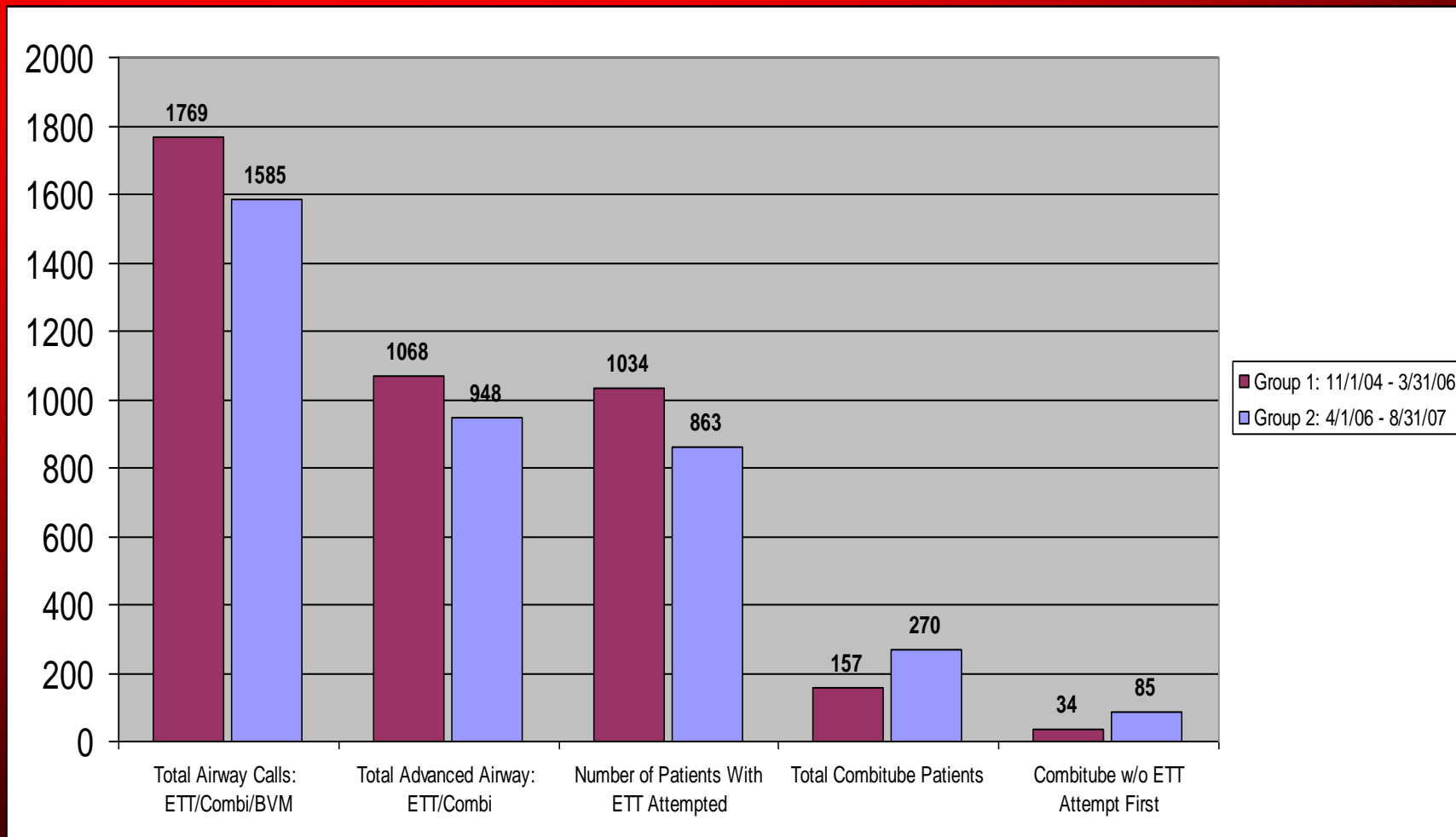
Second Look

- 34 months of data after change
 - 17 before/after
- Were the initial outcomes consistent?

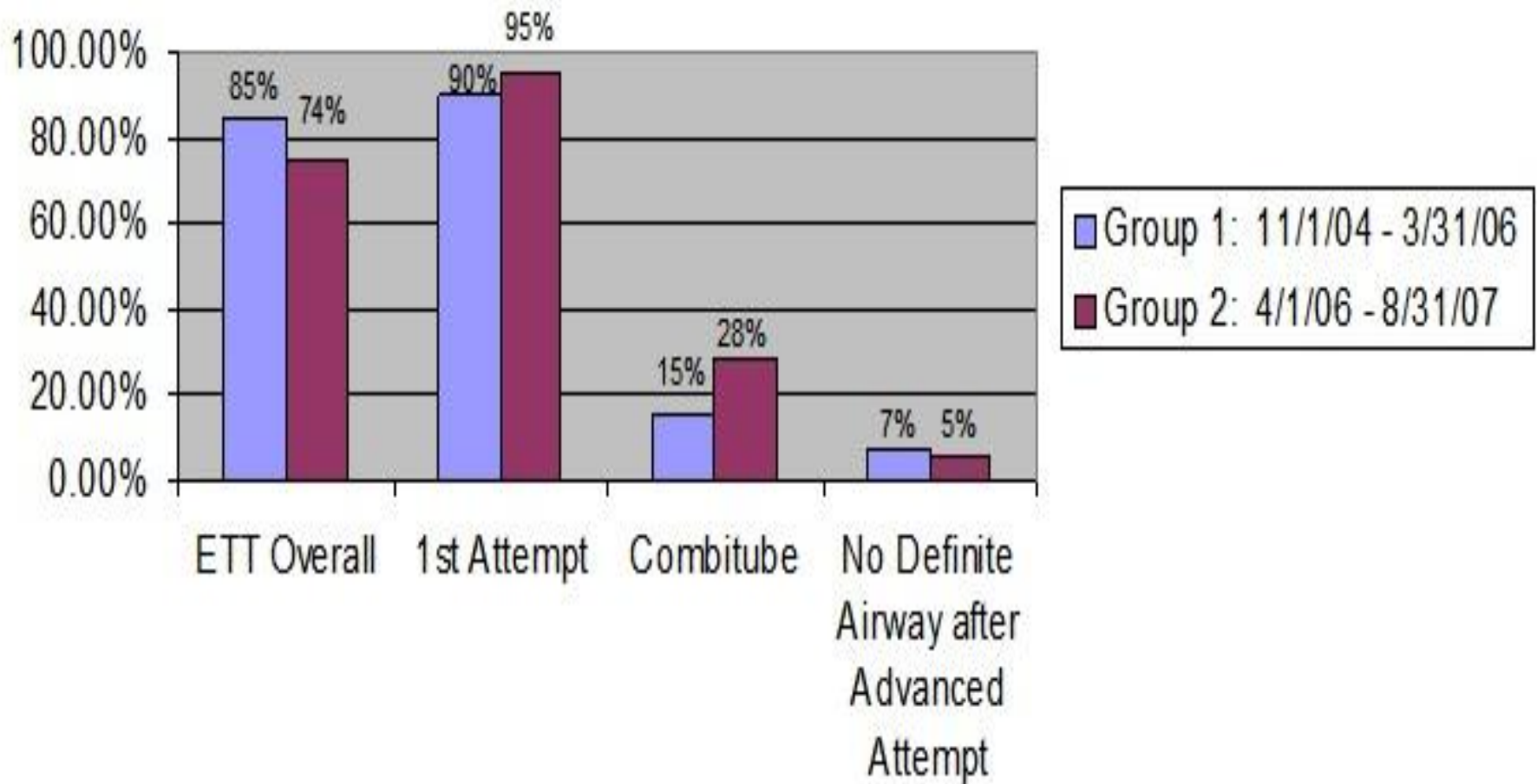
Total Patient Contacts Second Look November 2004 – August 2007



Advanced Airway Attempts Second Look

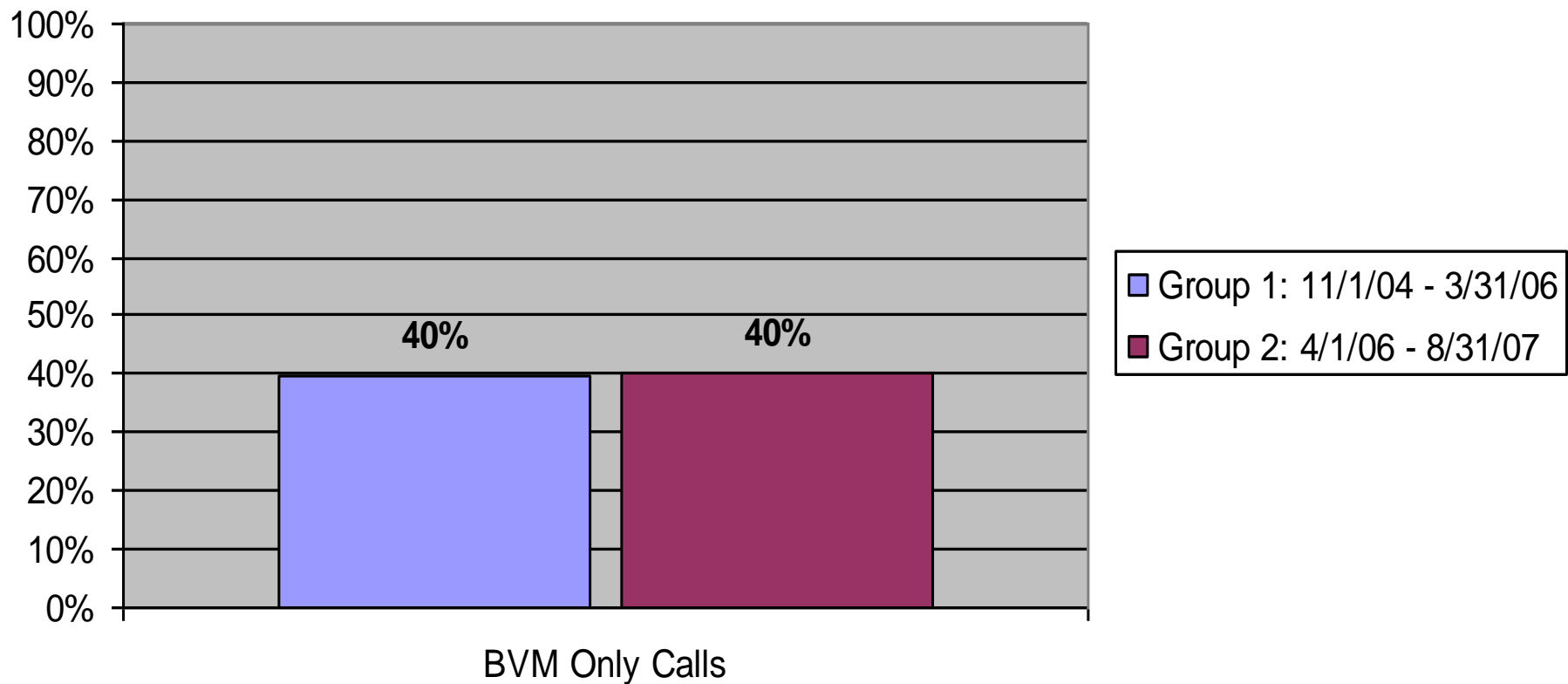


Second Look Success

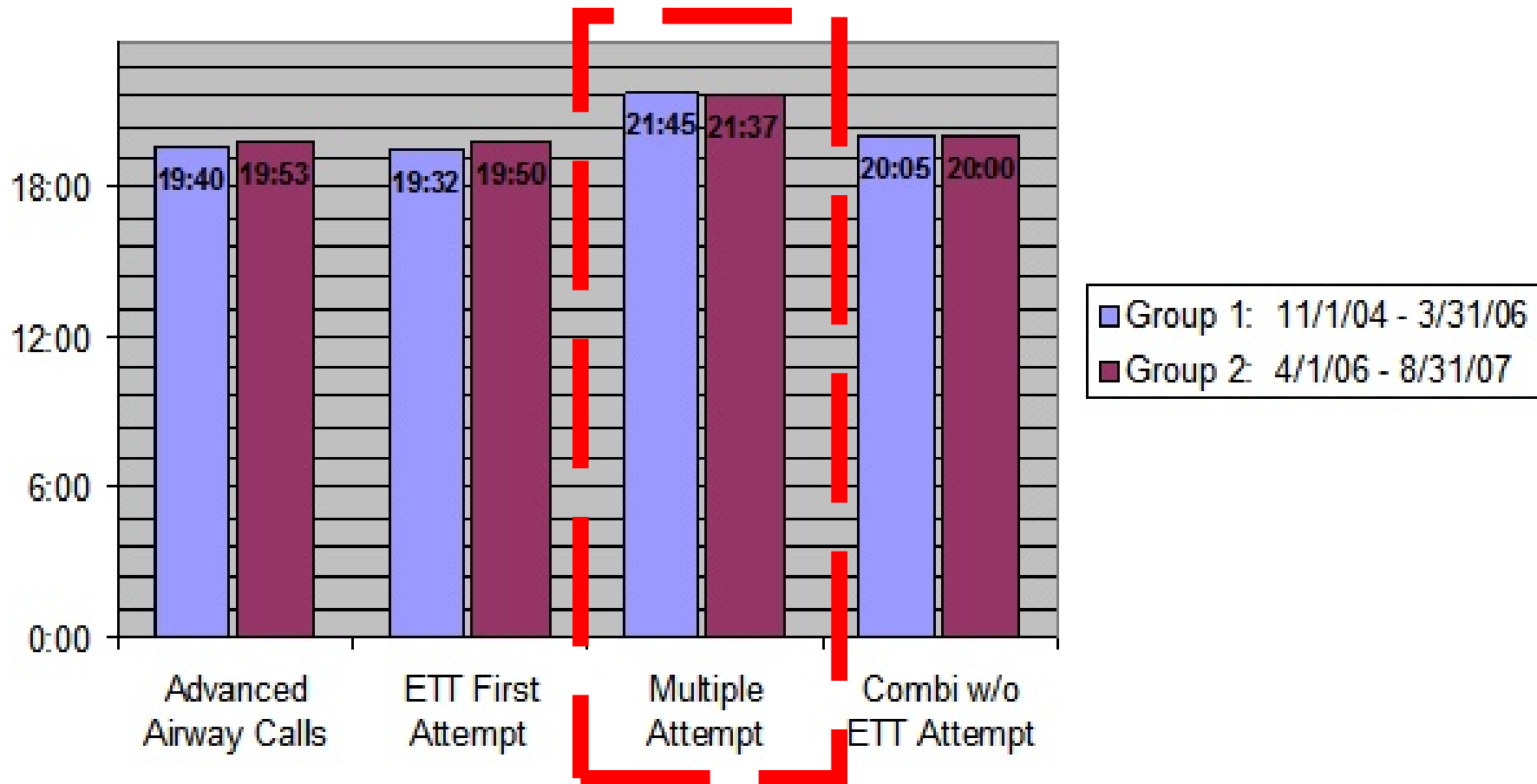




BVM Only Second Look



Scene Times Second Look





Advanced Airway Calls Second Look

- 1 in 63 first group
- 1 in 74 second group

Results: Second Look

- 7% Increase in total patient contacts
- 16% Decrease in Airway Calls
- 7% Decrease in Patients with ETT Attempts

Results: Second Look

- 12% decrease in intubation success
- 6% increase in First Attempt Success
- 19% decrease in patients with unsuccessful airway attempts

Results: Second Look

- 94% Increase in Combitube use
- 182% Increase in Combitube use as Initial Airway

Stu's Views

© 2003 Stu All Rights Reserved www.STUS.com



"I'm stumped.
We'll have to wait for
the autopsy."

Our Conclusions

Conclusions: *Our Experience*

- First attempt success improvement may suggest inadequate preparation
- Combitube use increased overall and may reflect a future trend

Conclusions: *Our Experience*

Intubation attempts can be limited to one without affecting overall airway success rates and improves scene times.

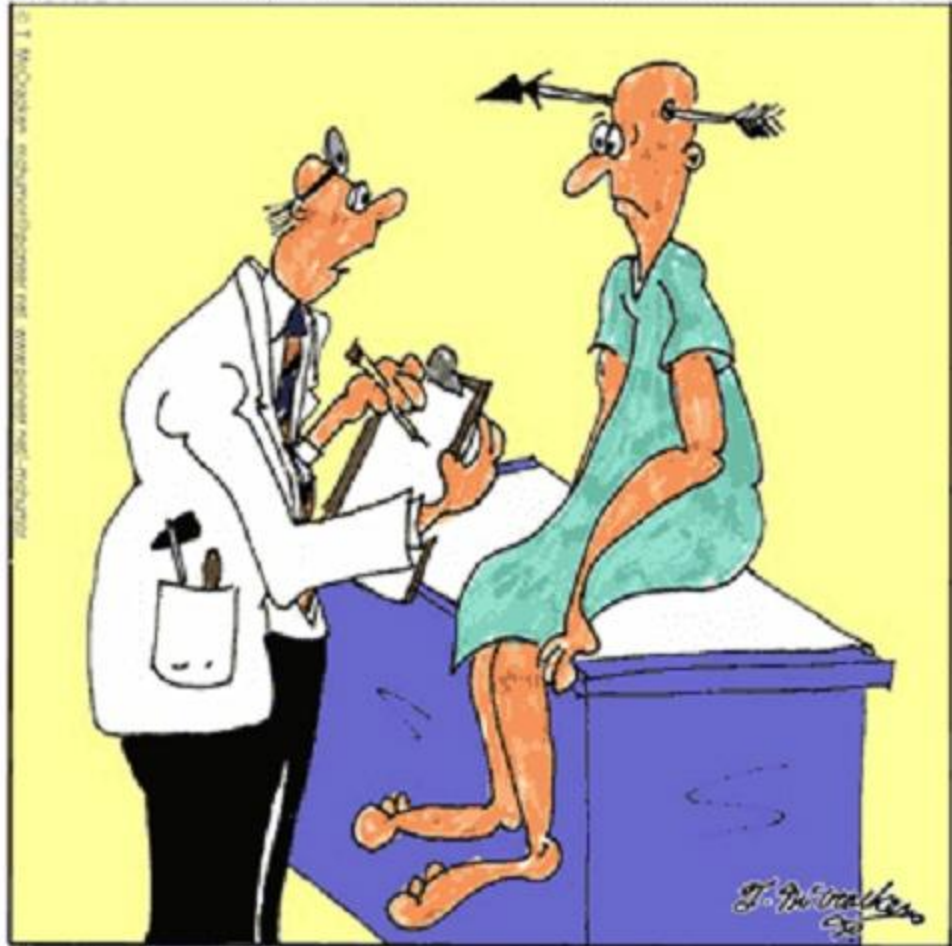
Conclusions: *Our Experience*

Further study is needed to assess if more accurate ETT use AND increased Combitube use decreases the adverse clinical outcomes reported elsewhere

Treatment
is just not
that simple!

MCHUMOR

by T. McCracken

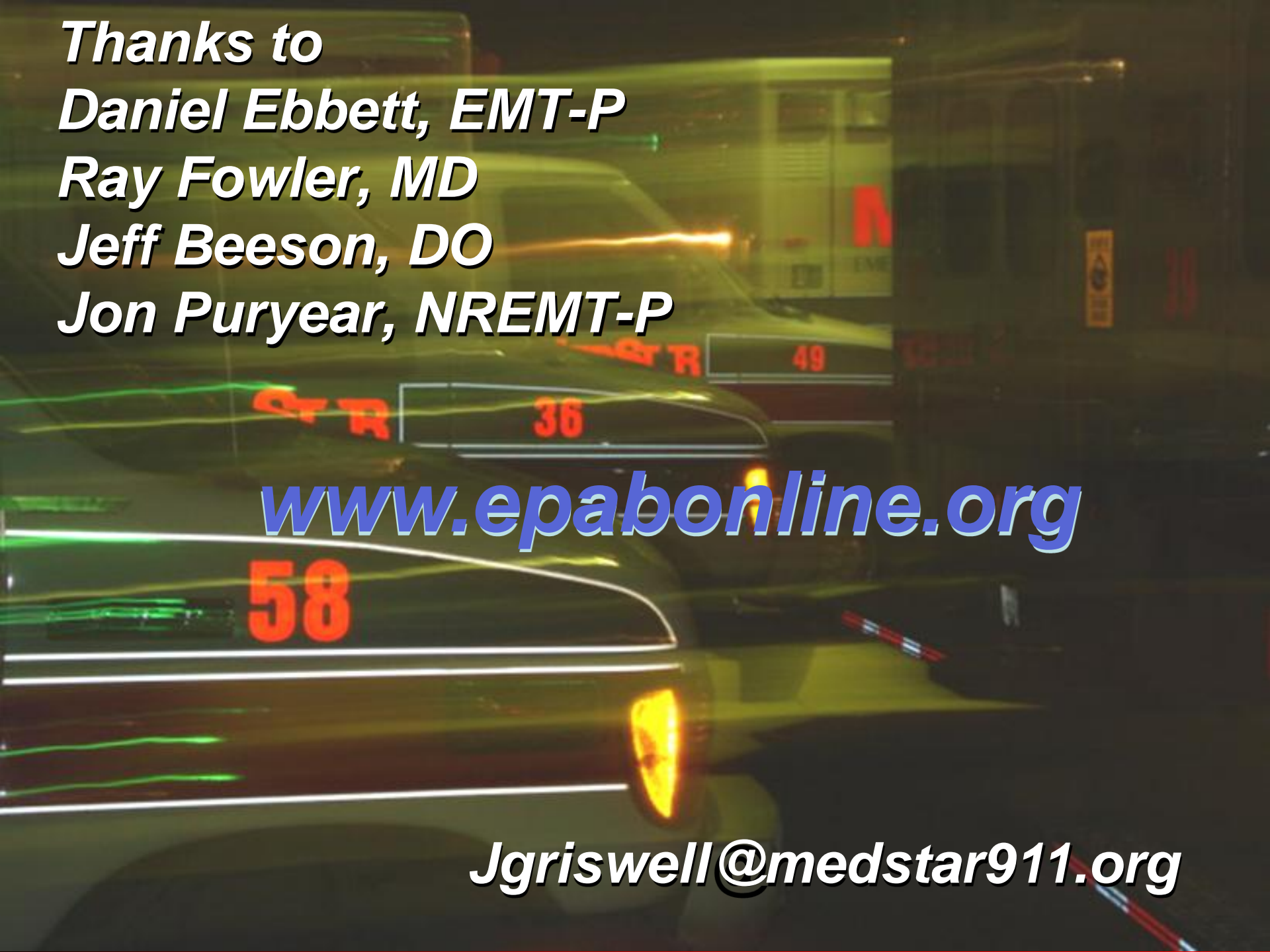


"Off hand, I'd say you're suffering from an arrow through your head, but just to play it safe, I'm ordering a bunch of tests."

Our Guiding Principle...

**What is the least invasive
way to oxygenate and
ventilate the patient?**

Less is More!



***Thanks to
Daniel Ebbett, EMT-P
Ray Fowler, MD
Jeff Beeson, DO
Jon Puryear, NREMT-P***

www.epabonline.org

Jgriswell@medstar911.org