

Tracheal Deviants: The Effect of Airway on Cardiac Arrest Outcomes

Jason McMullan, MD

Cincinnati Fire

University of Cincinnati



100%

Die at least once



80%

Get a prehospital airway



30%

Are left at the scene (still dead)



33%

Get ROSC



25%

Get admitted



10%

Get discharged



6%

Survive “neurologically intact”





Your Choice Matters

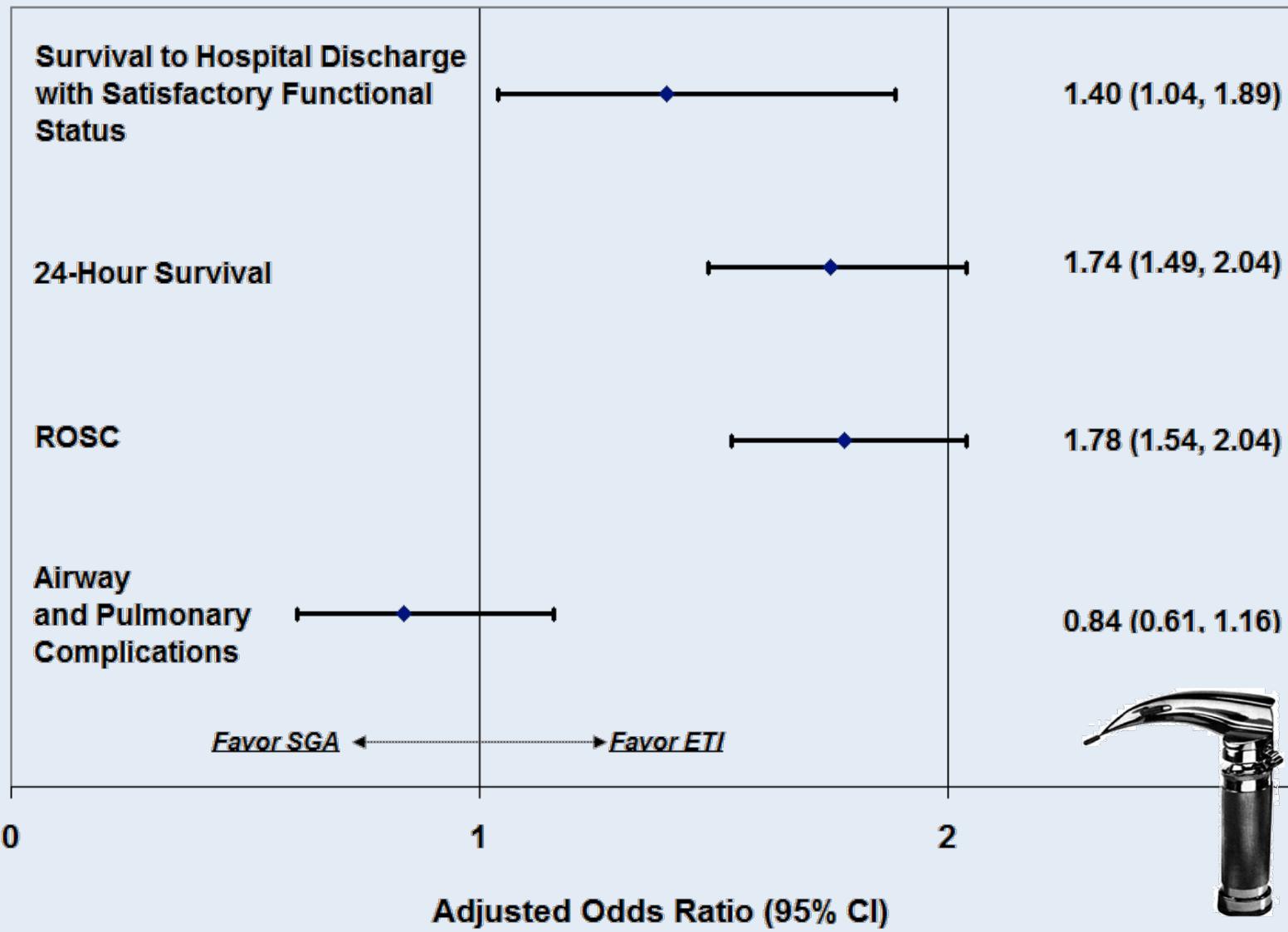






SGA's
ROCK!





Wang, *Resuscitation* 2012



Model
Total

Odds Ratio
(95% CI)^a

Favors
Bag-Valve-Mask
Ventilation

Favors
Endotracheal
Intubation

Return of spontaneous circulation

Unadjusted

0.76 (0.71-0.81)



Adjusted for selected variables^b

0.66 (0.61-0.72)



Adjusted for all variables^c

0.64 (0.58-0.70)



1-month survival

Unadjusted

0.70 (0.65-0.76)



Adjusted for selected variables^b

0.87 (0.79-0.97)



Adjusted for all variables^c

0.88 (0.79-0.98)



Neurologically favorable survival

Unadjusted

0.31 (0.27-0.35)



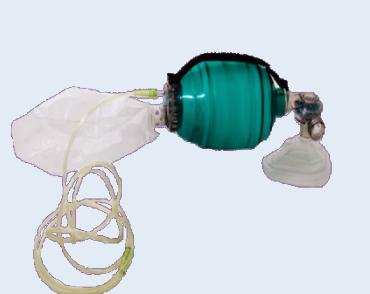
Adjusted for selected variables^b

0.45 (0.37-0.55)



Adjusted for all variables^c

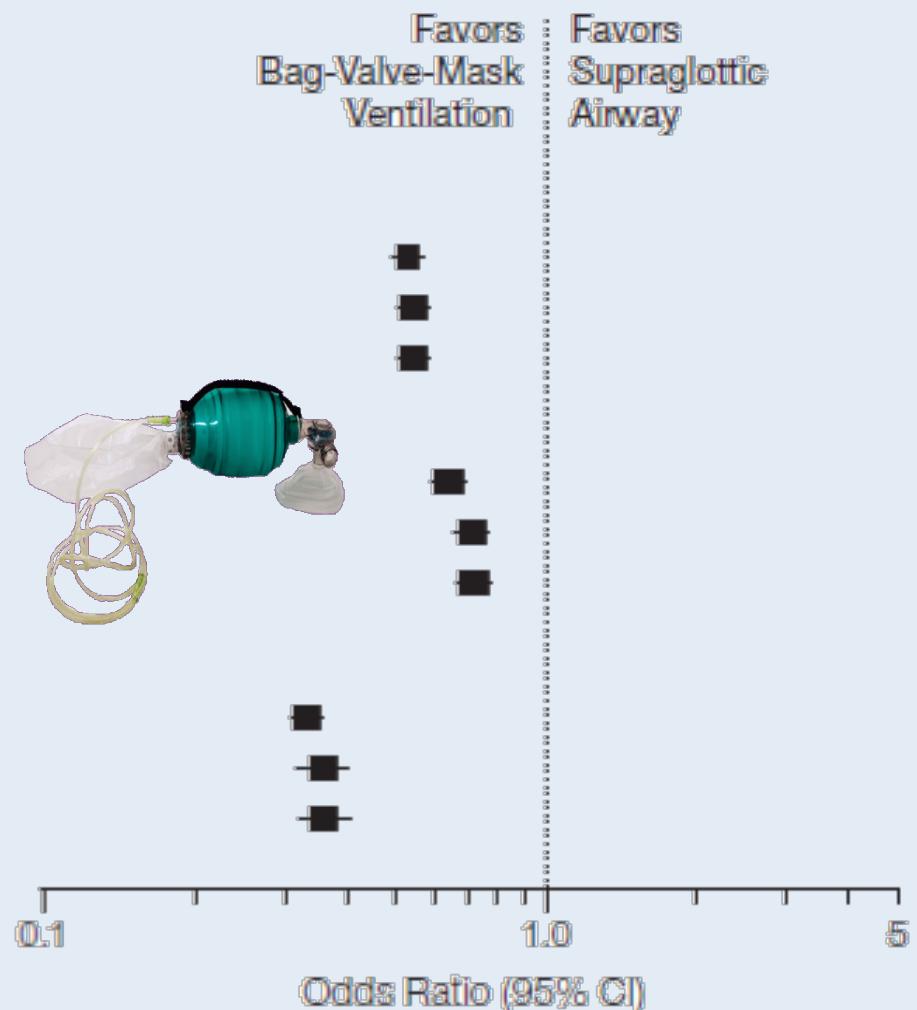
0.42 (0.34-0.53)



Hasegawa, JAMA 2012



| Model | Odds Ratio (95% CI) ^a |
|--|-------------------------------------|
| Total | |
| Return of spontaneous circulation | |
| Unadjusted | 0.53 (0.51-0.54) |
| Adjusted for selected variables ^b | 0.54 (0.52-0.56) |
| Adjusted for all variables ^c | 0.54 (0.52-0.56) |
| 1-month survival | |
| Unadjusted | 0.63 (0.61-0.65) |
| Adjusted for selected variables ^b | 0.71 (0.68-0.74) |
| Adjusted for all variables ^c | 0.72 (0.68-0.75) |
| Neurologically favorable survival | |
| Unadjusted | 0.33 (0.32-0.35) |
| Adjusted for selected variables ^b | 0.36 (0.33-0.39) |
| Adjusted for all variables ^c | 0.36 (0.33-0.40) |



Hasegawa, JAMA 2012



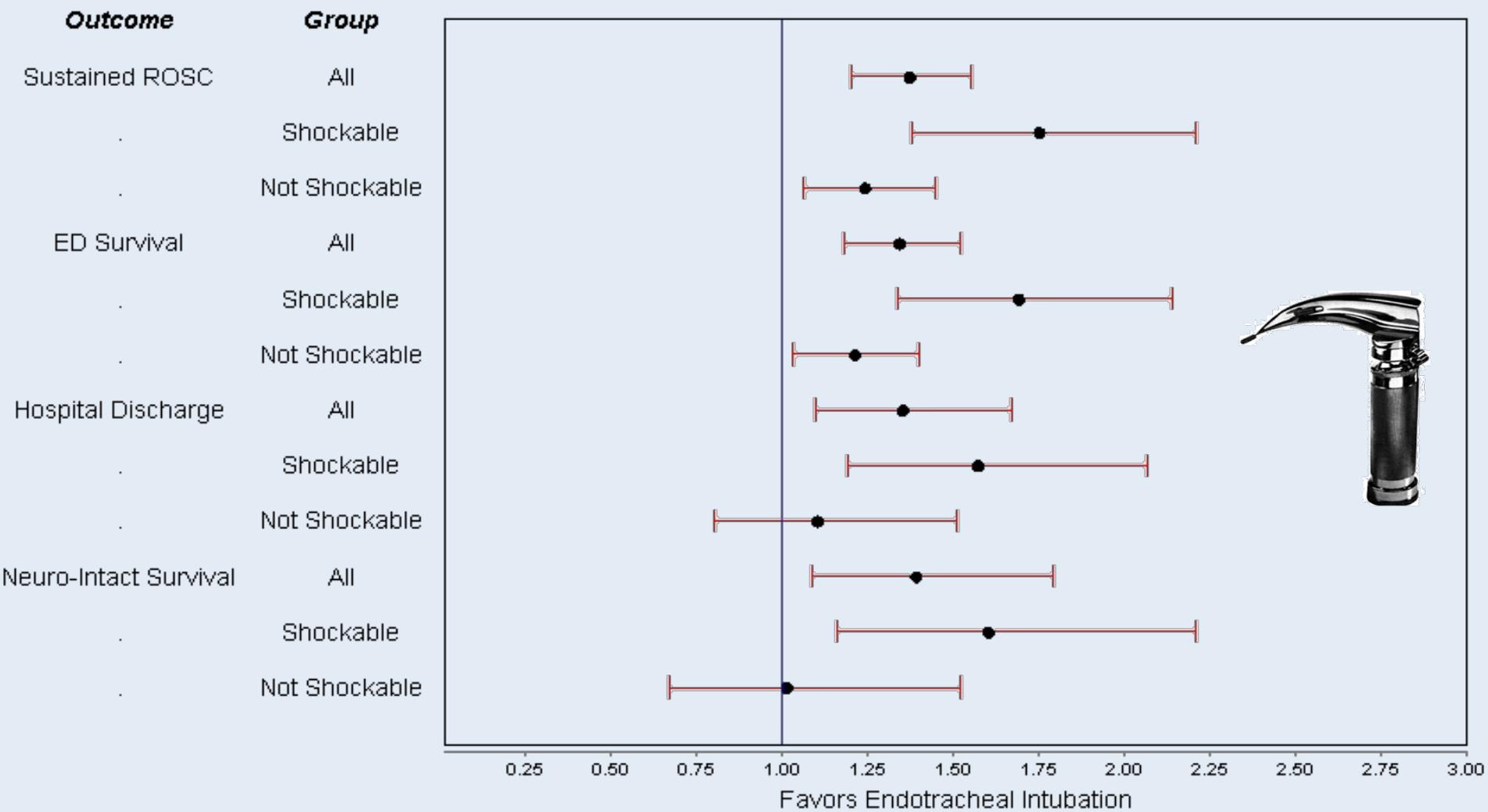
Advanced Airway Management

| Model | Overall | | Endotracheal Intubation | | Supraglottic Airway | |
|--|-------------------|---|-------------------------|---|---------------------|---|
| | No. (%) | OR (95% CI) vs Bag-Valve-Mask ^a | No. (%) | OR (95% CI) vs Bag-Valve-Mask ^a | No. (%) | OR (95% CI) vs Bag-Valve-Mask ^a |
| Total | 281 522 (43.4) | | 41 972 (6.5) | | 239 550 (36.9) | |
| Neurologically favorable survival | | | | | | |
| Unadjusted | 3156 (1.1) | 0.38 (0.36-0.39) | 432 (1.0) | 0.35 (0.31-0.38) | 2724 (1.1) | 0.38 (0.37-0.40) |
| Adjusted for selected variables ^b | | 0.38 (0.37-0.40) | | 0.41 (0.37-0.45) | | 0.38 (0.36-0.40) |
| Adjusted for all variables ^c | | 0.32 (0.30-0.33) | | 0.32 (0.29-0.36) | | 0.32 (0.30-0.33) |



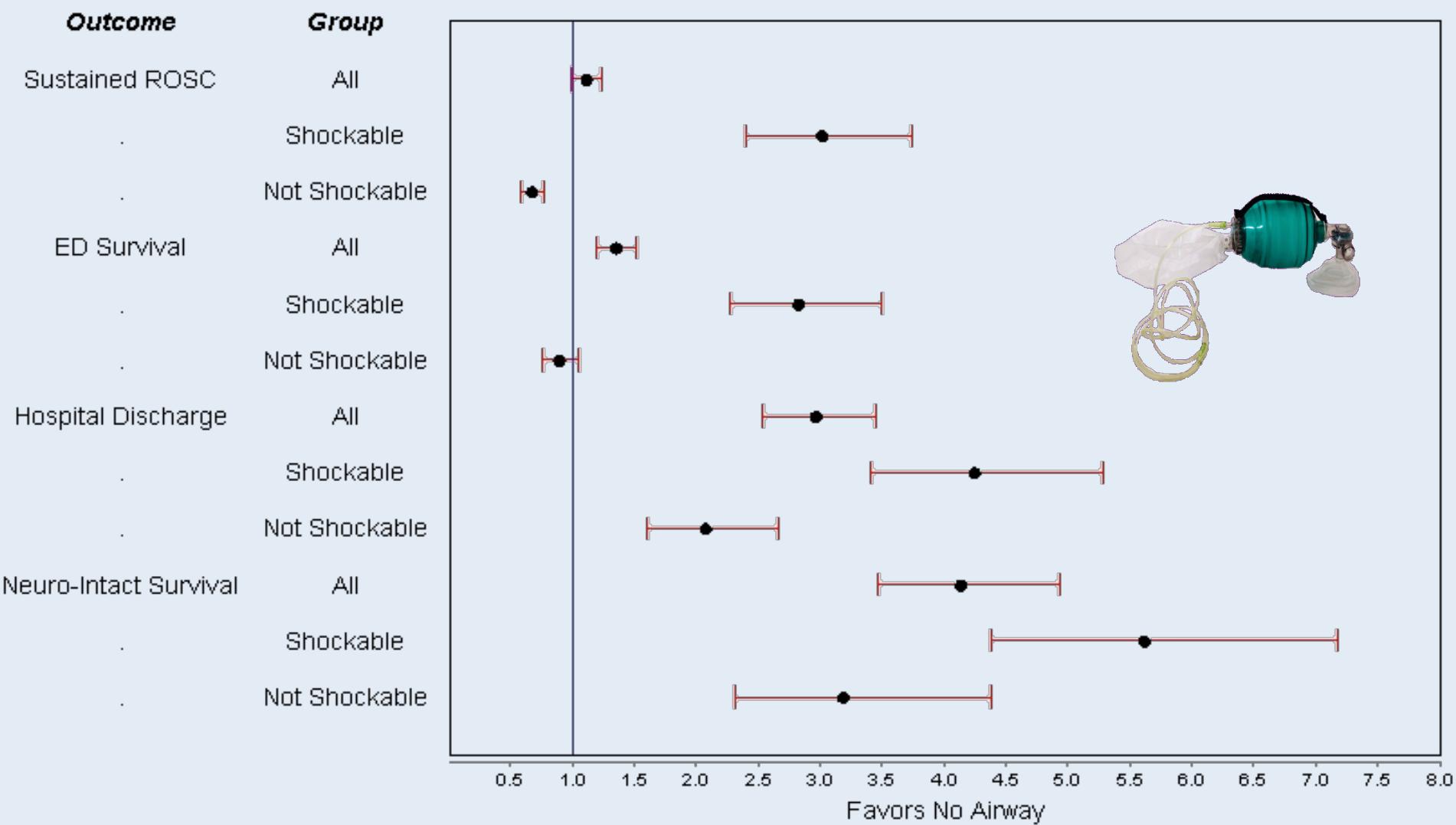
Hasegawa, JAMA 2012

Endotracheal vs. Supraglottic

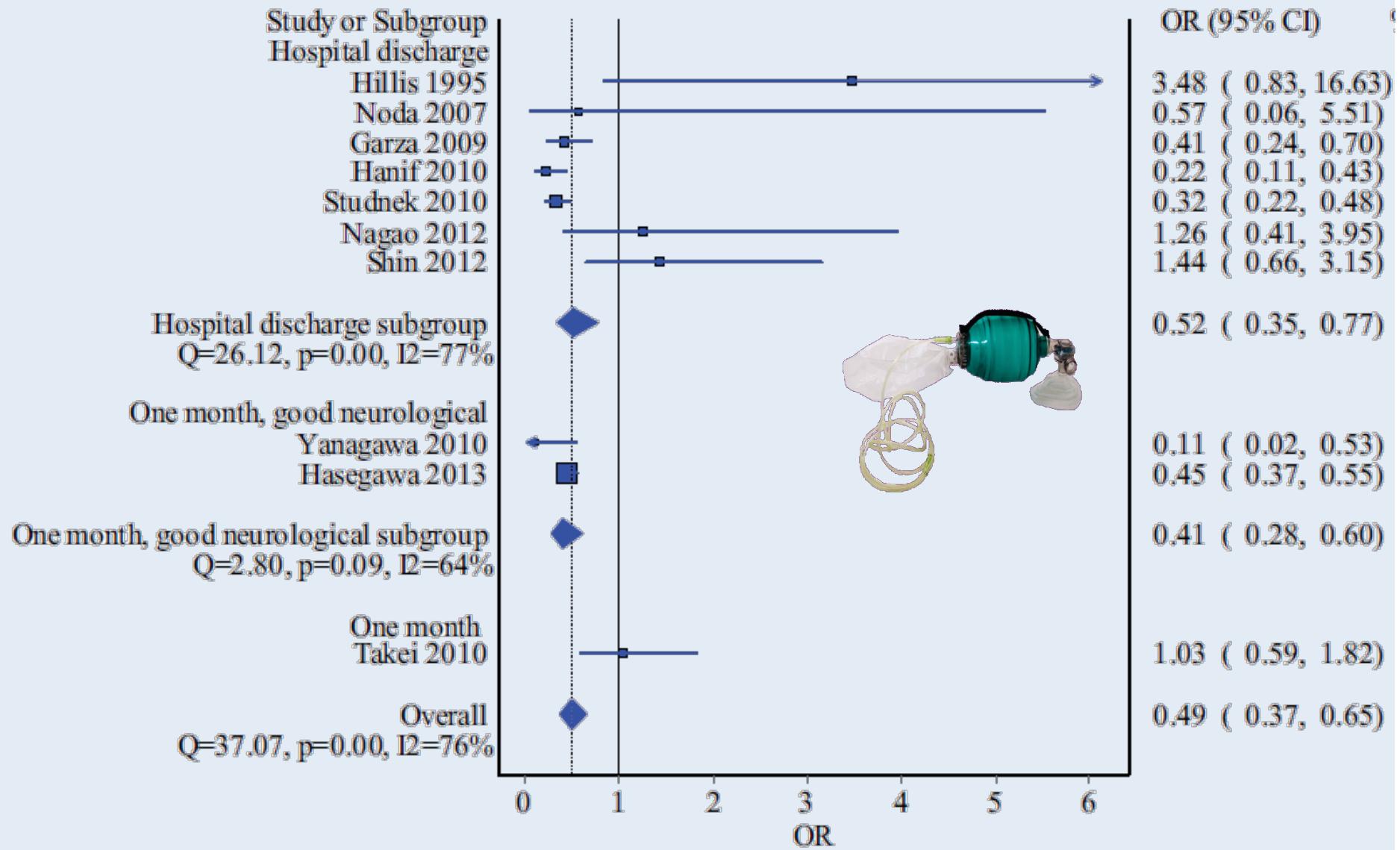


McMullan, *Resuscitation* 2014

No Airway vs. Either Advanced Airway



McMullan, *Resuscitation* 2014



Fouche, *Prehosp Emerg Care* 2014



What?

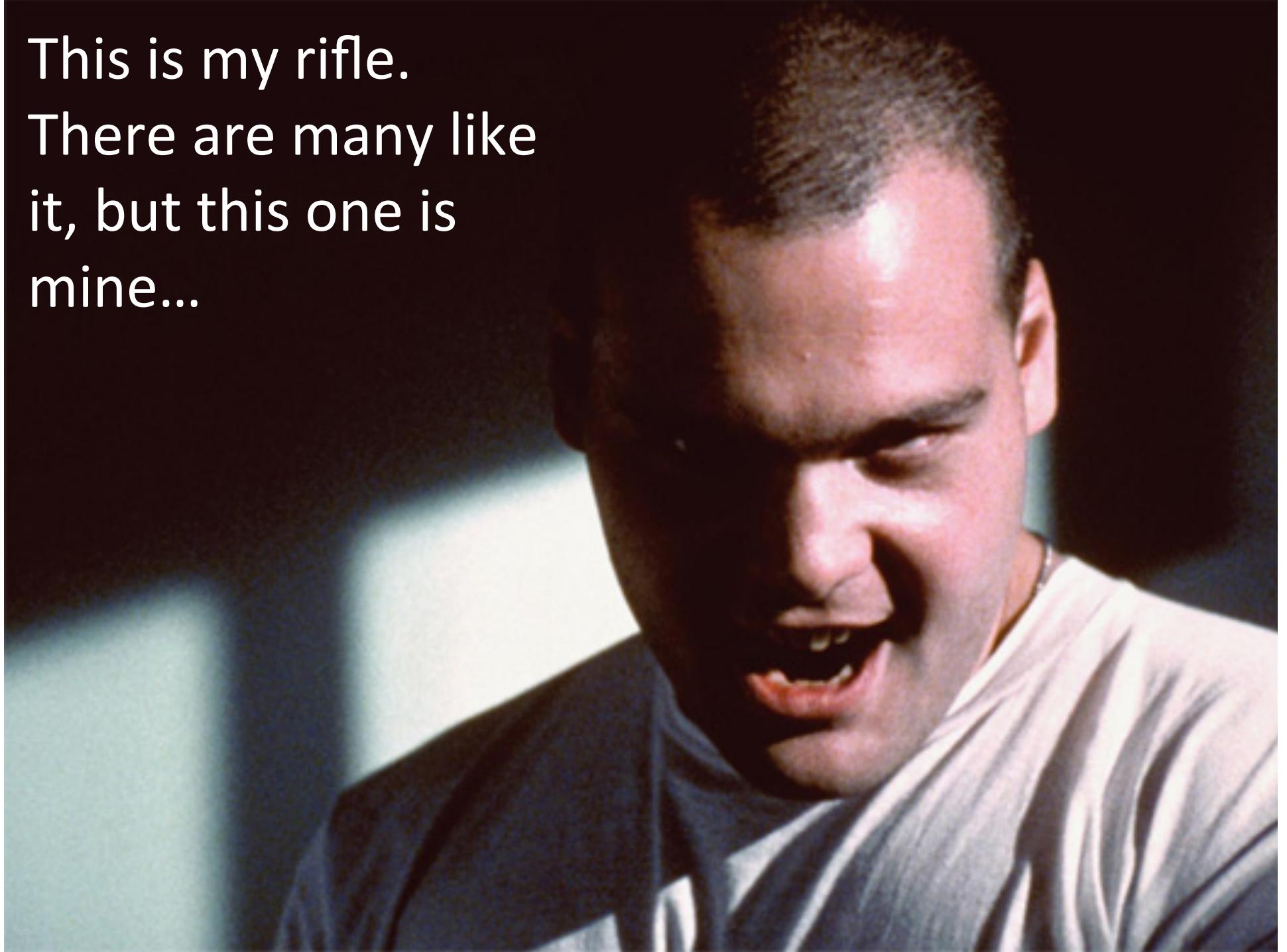


Trust. Professionalism. Perfection.

*There is a divine “contract” between the patient
and provider when we take an airway*



This is my rifle.
There are many like
it, but this one is
mine...

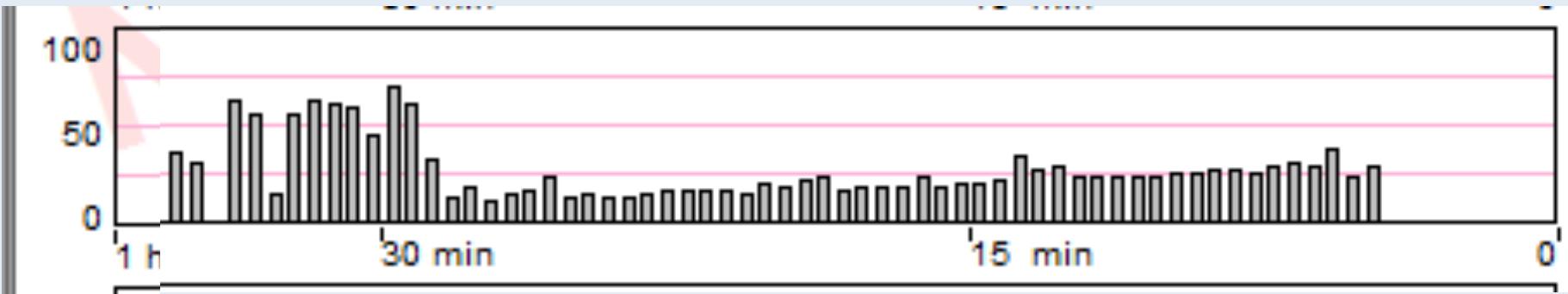


PPV and
Hyperventilation
is the Devil











Knowing is half the battle



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Jason.McMullan@uc.edu

