

MEDICAL MYTH MENACE



New York ACEP Scientific Assembly 2019



**NNT OF
ONE**

**IT ALL
DEPENDS**

**BE A
SKEPTIC**

MYTH #1:



Effect of a Strategy of a Supraglottic Airway Device vs Tracheal Intubation During Out-of-Hospital Cardiac Arrest on Functional Outcome

The AIRWAYS-2 Randomized Clinical Trial

BENGER ET AL AEM 2018



P	• Patient
I	• Intervention
C	• Comparison
O	• Outcome

KEY RESULTS AND LIMITATIONS

n=9,296

73yo

1/3 women



Cluster

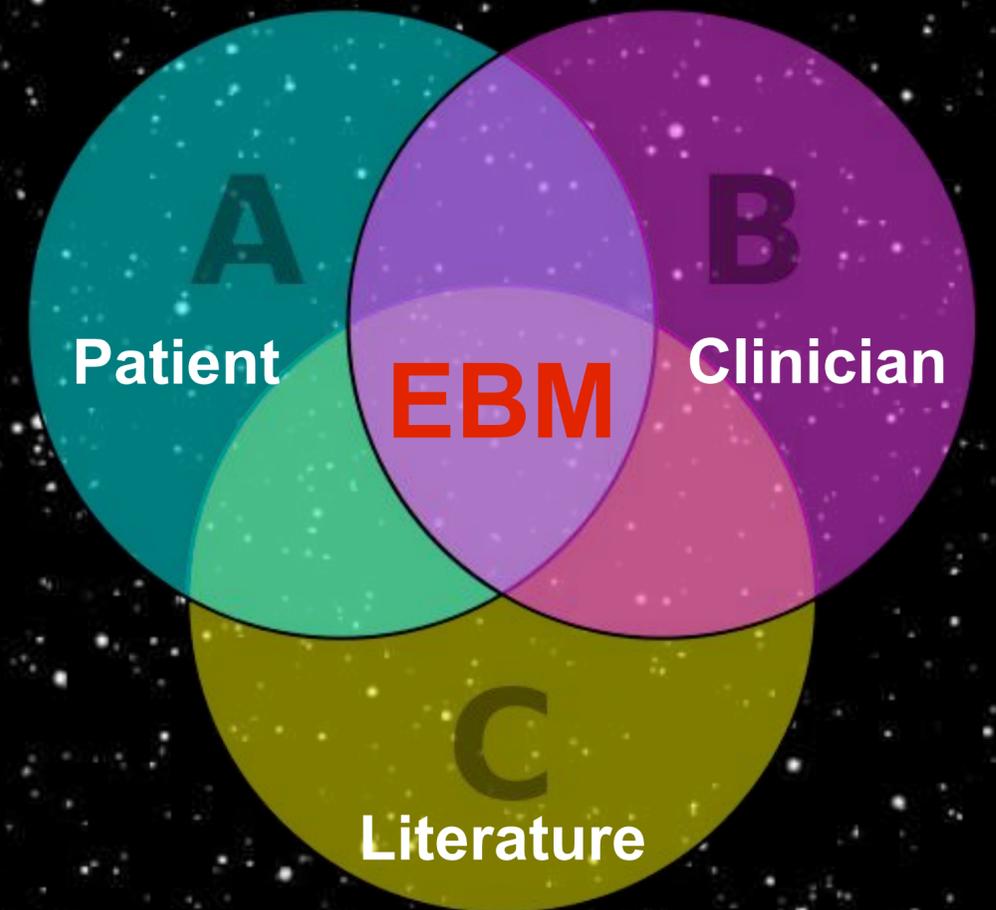
Bias ETI Group

Low 1st Pass

***A SUPRAGLOTTIC AIRWAY
WAS NON-INFERIOR TO ETI***

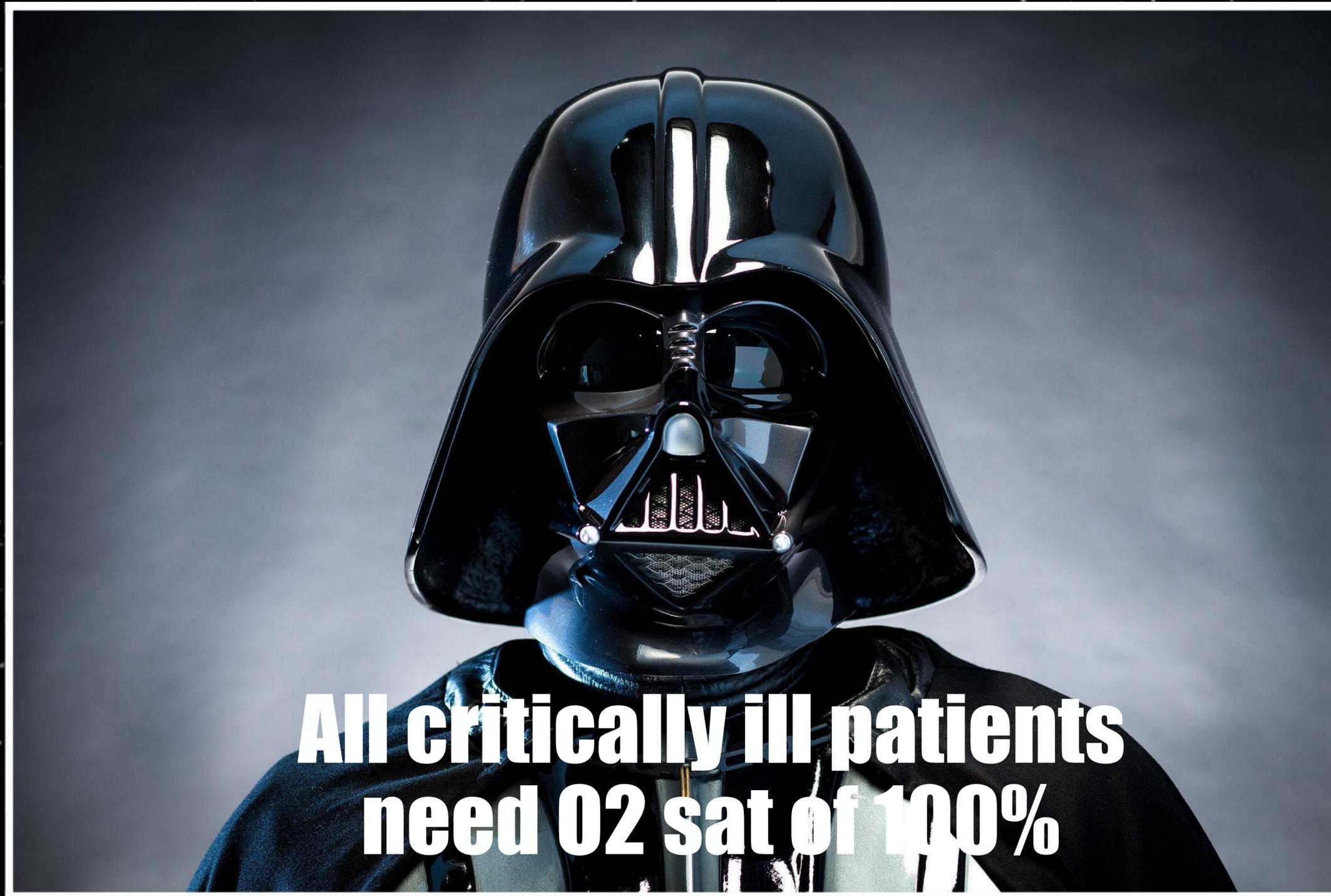
AIRWAYS IN NON-TRAUMATIC OHCA

IN ADULTS WITH OHCA, KEY FACTORS FOR SURVIVAL WITH GOOD NEUROLOGICAL OUTCOME ARE EARLY DEFIBRILLATION AND HIGH-QUALITY CPR. AIRWAY STRATEGIES DO NOT SEEM TO BE AS IMPORTANT.



SGEM#247

ED MYTH #2:



**All critically ill patients
need O2 sat of 100%**

Mortality and morbidity in acutely ill adults treated with liberal versus conservative oxygen therapy (IOTA): a systematic review and meta-analysis

CHU ET AL THE LANCET 2018



P	• Patient
I	• Intervention
C	• Comparison
O	• Outcome

KEY RESULTS AND LIMITATIONS

25 RCTs
n=16,037

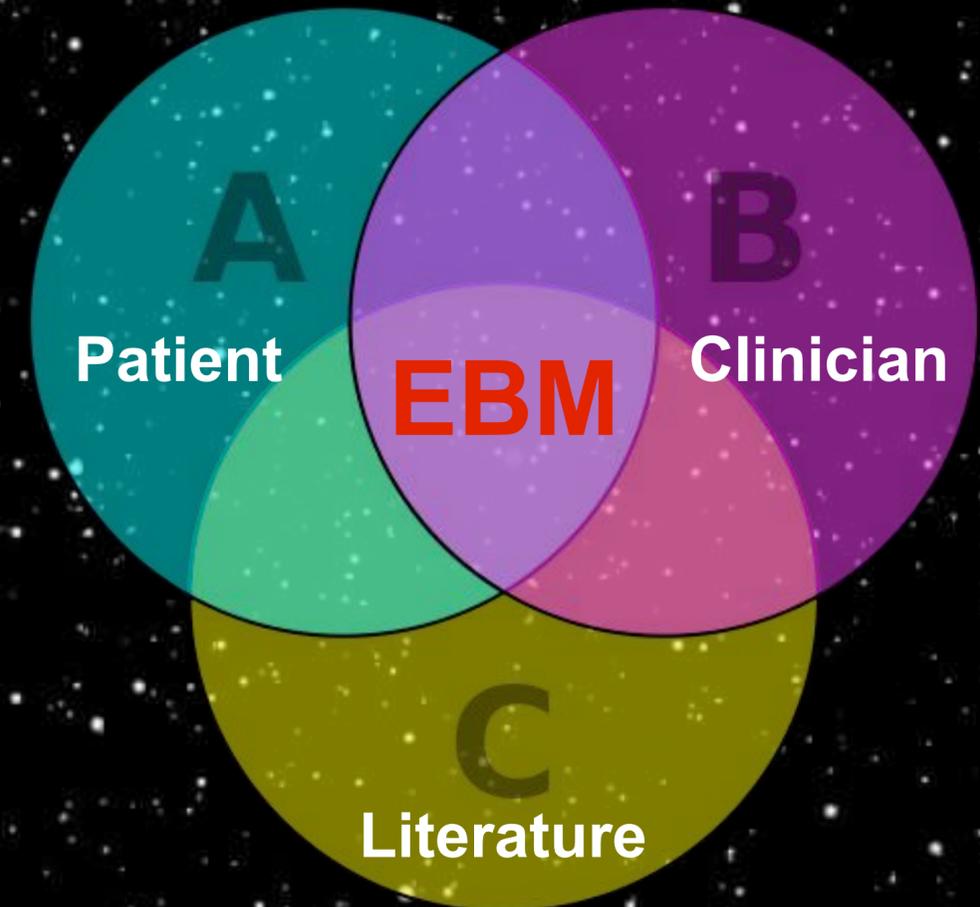


4 RCTs 3/4 of deaths
All were negative
Wide 95% CI

***LIBERAL O₂ INCREASED RISK OF DEATH.
MORBIDITY WAS SIMILAR BETWEEN GROUPS.***

LIBERAL VS. CONSERVATIVE O2

THE GOAL OF OXYGEN THERAPY SHOULD NOT USUALLY BE 100% IN CRITICALLY ILL PATIENTS BUT RATHER AIM FOR THE MID 90'S%.



SGEM#243

MYTH #3:



RAPID A.FIB NEEDS TO BE SHOCKED EARLY

The NEW ENGLAND
JOURNAL *of* MEDICINE

ESTABLISHED IN 1812

APRIL 18, 2019

VOL. 380 NO. 16

Early or Delayed Cardioversion in Recent-Onset Atrial Fibrillation

PLUYMAEKER ET AL NEJM 2019



P	• Patient
I	• Intervention
C	• Comparison
O	• Outcome

KEY RESULTS AND LIMITATIONS

n=437

65yo

40% women



Selection Bias

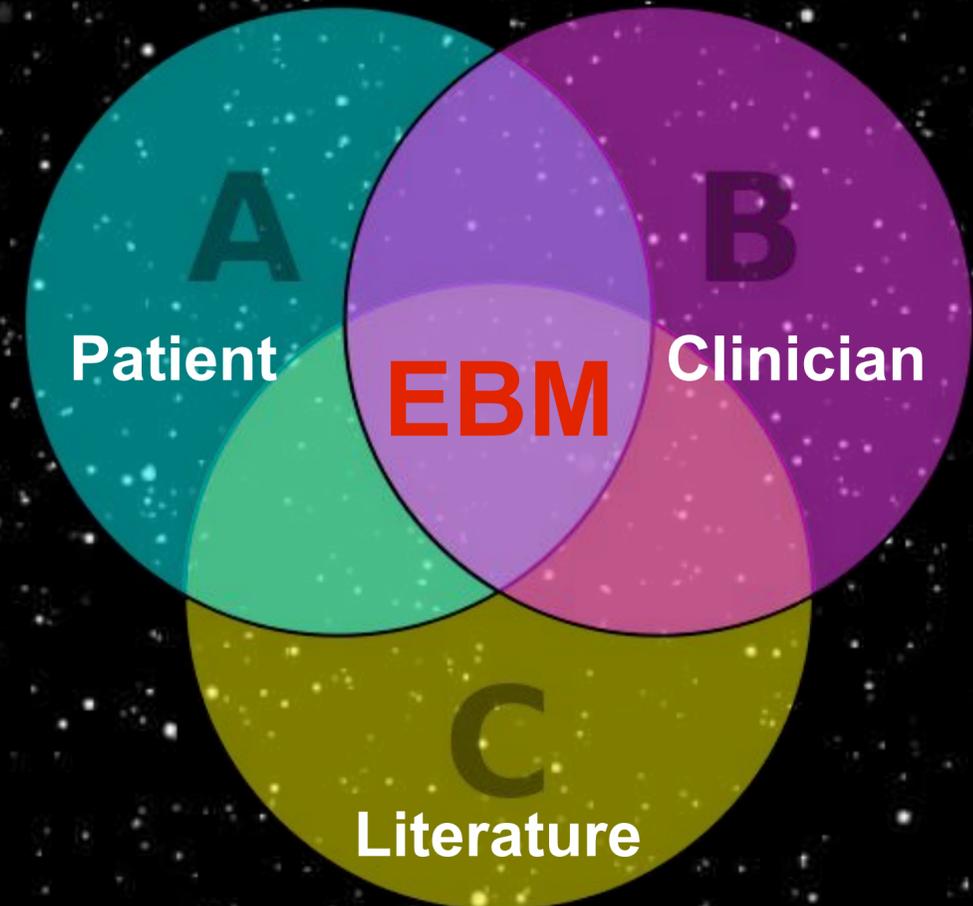
Unbalanced

ITT not PP

NON-INFERIOR: 91% VS. 94%

EARLY VS. DELAYED CARDIOVERSION

**BOTH DELAYED AND
EARLY CARDIOVERSION OF
ACUTE ONSET A. FIB
ACHIEVE HIGH RATES OF
SINUS RHYTHM IN THEIR
PATIENTS AT THE TIME OF
A 4-WEEK FOLLOW UP.**



SGEM#260

MYTH #4:



**PROBIOTICS CAN HELP IN
PEDIATRIC GASTROENTERITIS**

ORIGINAL ARTICLE

Lactobacillus rhamnosus GG versus Placebo for Acute Gastroenteritis in Children

SCHNODOWER ET AL NEJM 2018



P	• Patient
I	• Intervention
C	• Comparison
O	• Outcome

KEY RESULTS AND LIMITATIONS

n=971

1.4yo

5% Admitted

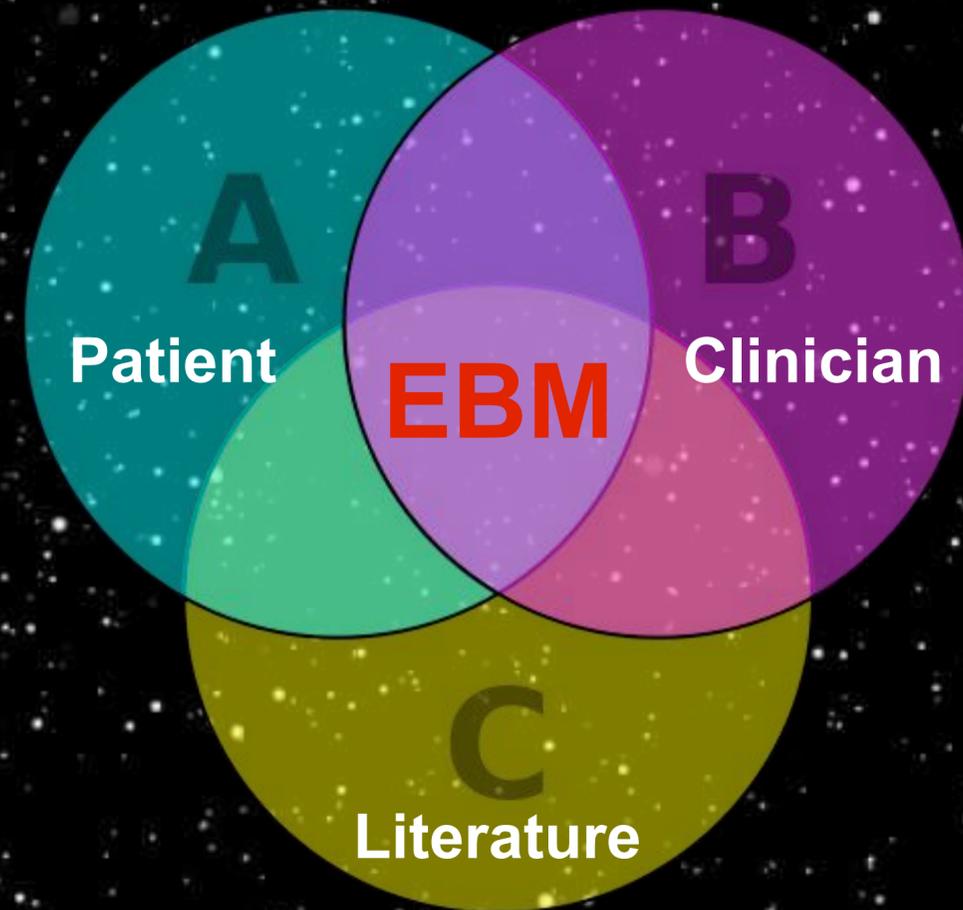


Not all the same
Only *L. rhamnosus*
Abx gastroenteritis

***NO STATISTICAL DIFFERENCE
BETWEEN GROUPS***

PROBIOTICS FOR PEDIATRIC GASTROENTERITIS

***PRESCRIBING L
RHAMNOSUS TO
CHILDREN WITH ACUTE
GASTROENTERITIS
CANNOT BE
RECOMMENDED AT
THIS TIME.***



SGEM#254

ORIGINAL ARTICLE

Multicenter Trial of a Combination Probiotic for Children with Gastroenteritis

Stephen B. Freedman, M.D.C.M., Sarah Williamson-Urquhart, B.Sc.Kin.,

NO STATISTICAL DIFFERENCE

Probiotics for the prevention of pediatric antibiotic-associated
diarrhea (Review)

Guo Q, Goldenberg JZ, Humphrey C, El Dib R, Johnston BC

MODERATE BENEFIT NNT 9

MYTH #5:



REBOA IS PROVEN TO SAVE LIVES

JAMA Surgery | **Original Investigation**

Nationwide Analysis of Resuscitative Endovascular Balloon Occlusion of the Aorta in Civilian Trauma

JOSEPH ET AL JAMA SURGERY 2019



P	• Patient
I	• Intervention
C	• Comparison
O	• Outcome

KEY RESULTS AND LIMITATIONS

n=140

43yo, 3/4 male

ISS of 28

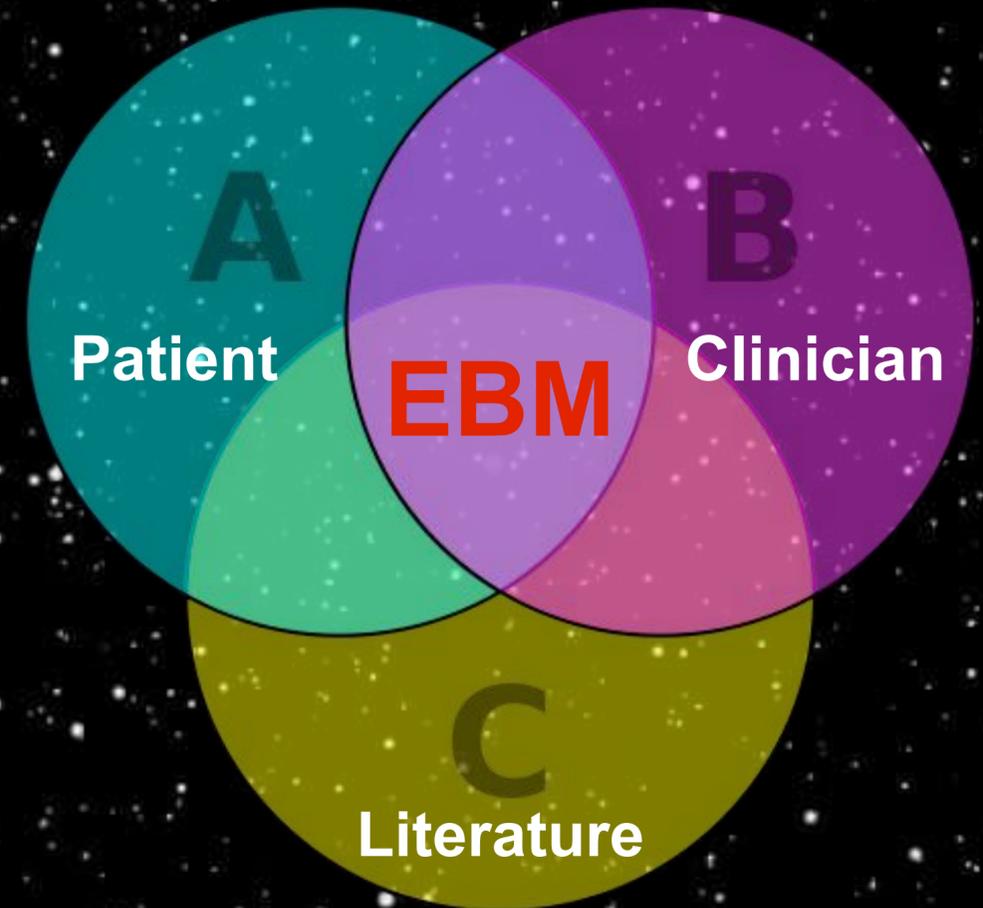


Observational
Propensity Matched
Burden of Proof

MORTALITY HIGHER IN REBOA GROUP

REBOA

**THERE MAY BE
SUBSTANTIAL BENEFIT IN
SELECT GROUPS OF TRAUMA
PATIENTS, BUT THESE
GROUPS ARE NOT YET
KNOWN.**

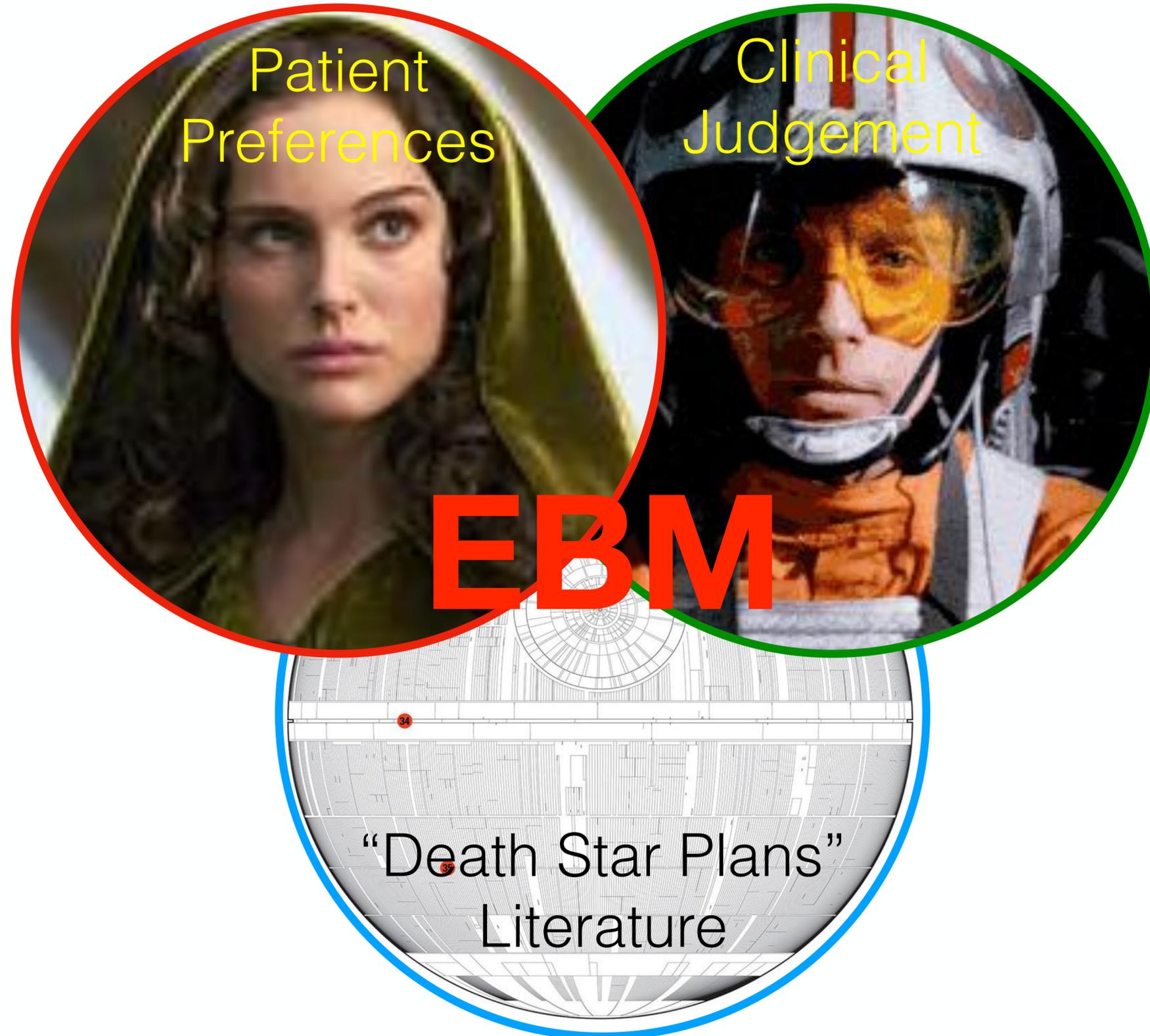


SGEM#258

SUMMARY: A MEDICAL MYTH MENACE

- 1. ET FOR ALL OHCA - *SUPRAGLOTTIC OK***
- 2. TARGET O2 SAT 100% - *MID 90'S OK***
- 3. CARDIOVERT EARLY - *DELAYED OK***
- 4. PROBIOTICS - *NOT FOR PEDS GASTRO***
- 5. REBOA SAVES LIVES - *UNSURE***





Sackett et al BMJ 1996



**NNT OF
ONE**

**IT ALL
DEPENDS**

**BE A
SKEPTIC**

THE EBM WILL BE WITH YOU



ALWAYS

imgflip.com

Ken Milne www.TheSGEM.com