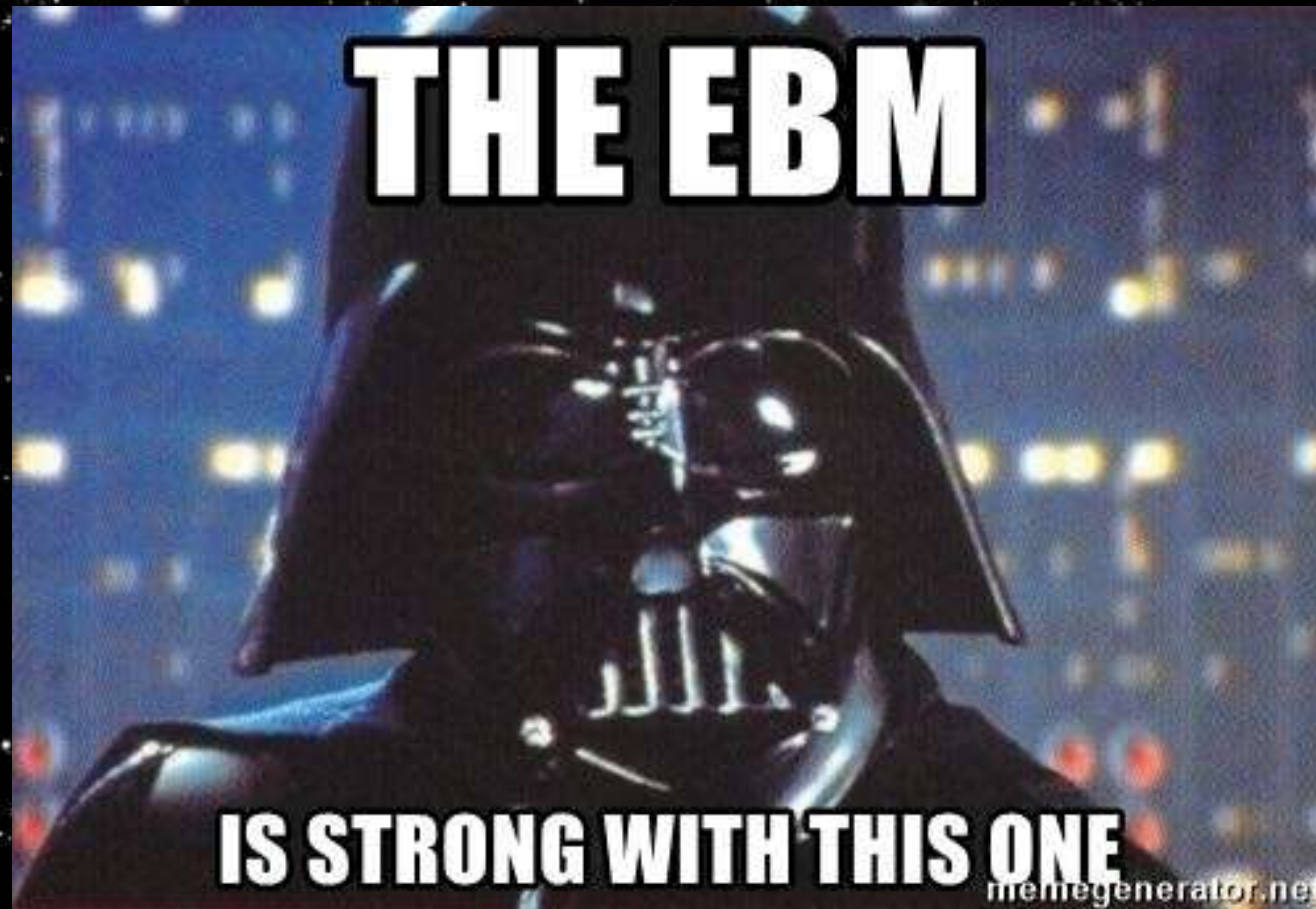


CRITICAL CARE CONTROVERSIES



@THE SGEM



**NNT OF
ONE**

**IT ALL
DEPENDS**

**BE A
SKEPTIC**

#1: SUPRAGLOTTIC AIRWAYS



THIS IS NOT A "SUPER" AIRWAY TECHNIQUE

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 2015



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

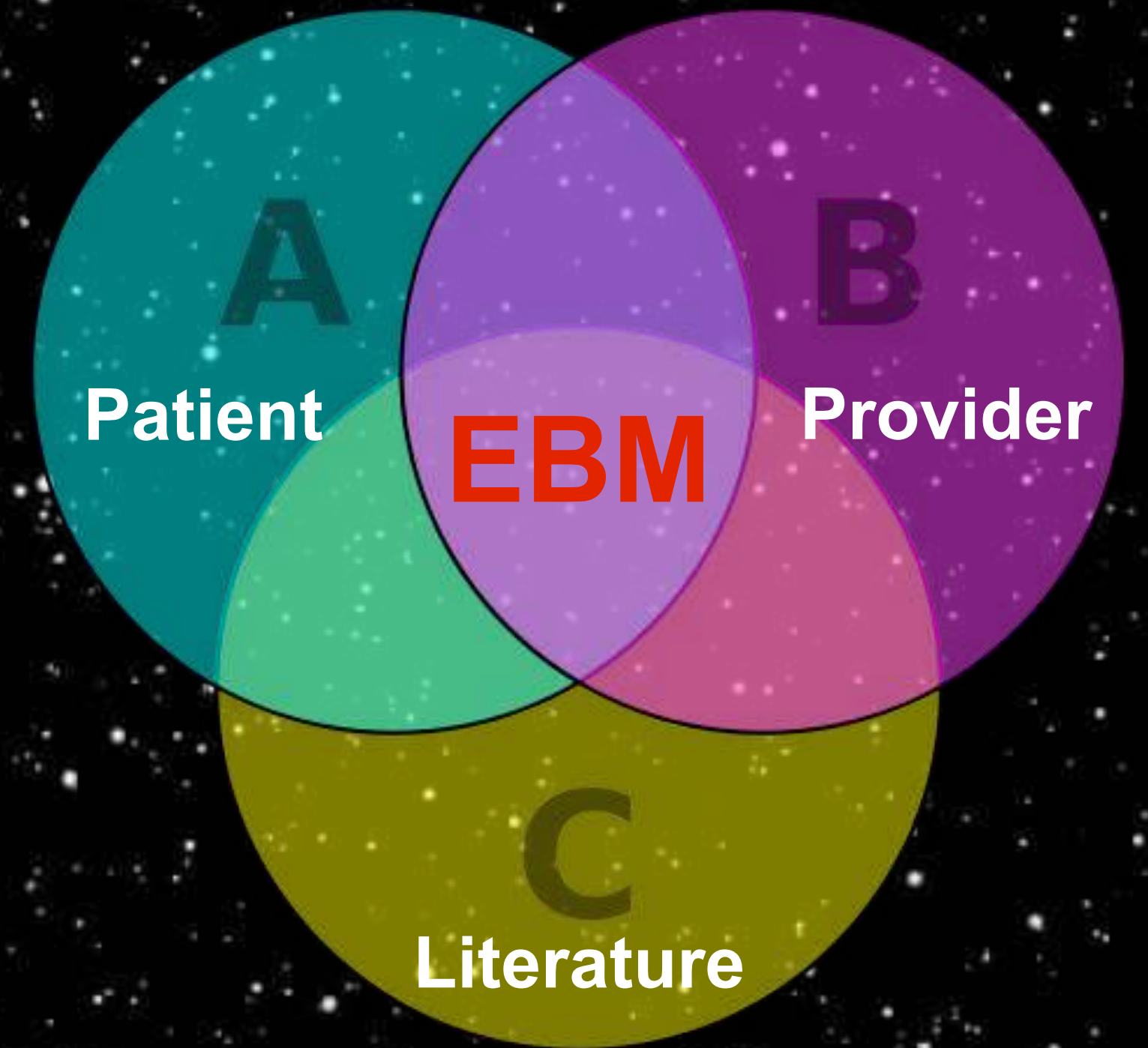
KEY RESULTS AND LIMITATIONS



***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

Effect of a Strategy of Initial Laryngeal Tube Insertion vs Endotracheal Intubation on 72-Hour Survival in Adults With Out-of-Hospital Cardiac Arrest

A Randomized Clinical Trial

Henry E. Wang, MD, MS^{1,2}; Robert H. Schmicker, MS³; Mohamud R. Daya, MD, MS⁴; [et al](#)

SURVIVAL AT 72 HOURS

	LT	ETI	% Difference (95%CI)
ROSC	27.9%	24.3%	3.6% (0.3 to 6.8) p=0.03
Hospital Survival	10.8%	8.1%	2.7% (0.6 to 4.8) p=0.01
Good Neruo	7.1%	5.0%	2.1% (0.3 to 3.8) p=0.02

SGEM#247

#2: APNEIC OXYGENATION

I FIND YOU LACK OF OXYGEN



DISTURBING

Original Contribution | [Free Access](#)

Emergency Department use of Apneic Oxygenation Versus Usual Care During Rapid Sequence Intubation: A Randomized Controlled Trial (The ENDAO Trial)

CAPUTO ET AL AEM 2017



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

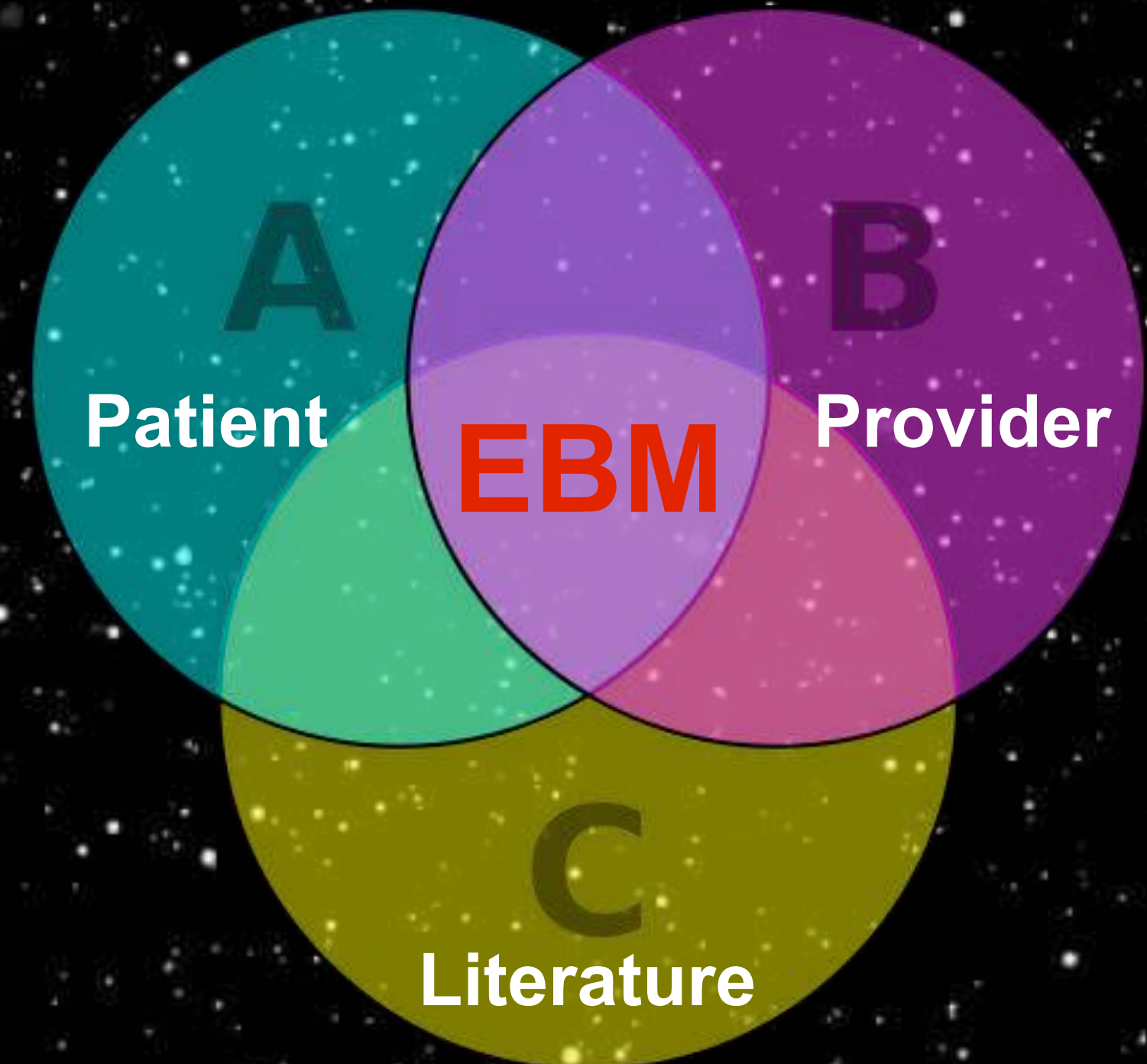
KEY RESULTS AND LIMITATIONS



NO STATISTICAL DIFFERENCE

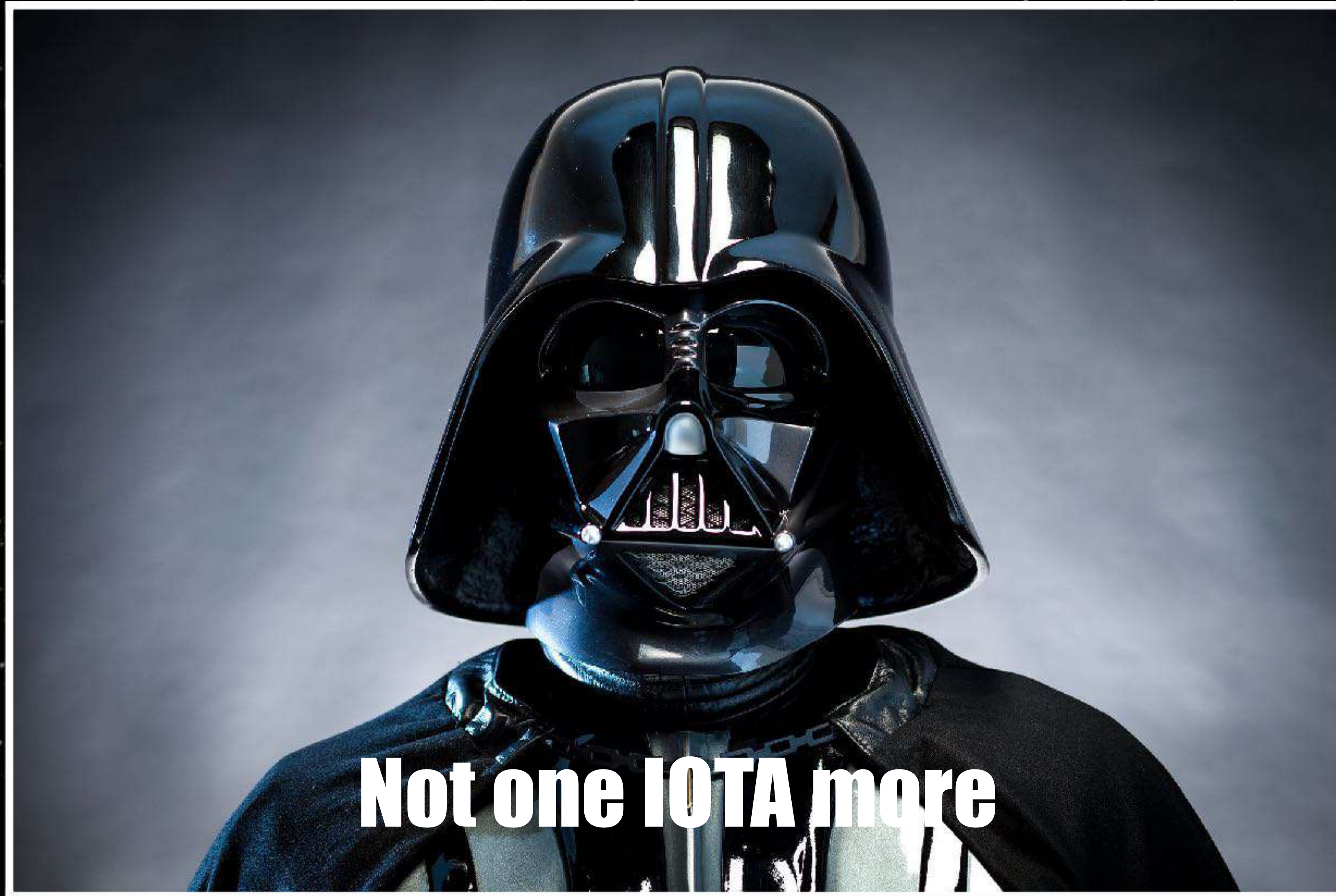
APNEIC OXYGENATION

**APNEIC OXYGENATION
MAY (**NOT**) STILL HAVE A
ROLE DURING RSI OF ED
PATIENTS BUT IT LIKELY
ADDS LITTLE WHEN
PROPER PRE-
OXYGENATION
STRATEGIES ARE USED.**



SGEM#186

#3: HOW MUCH OXYGEN?



Not one IOTA more

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

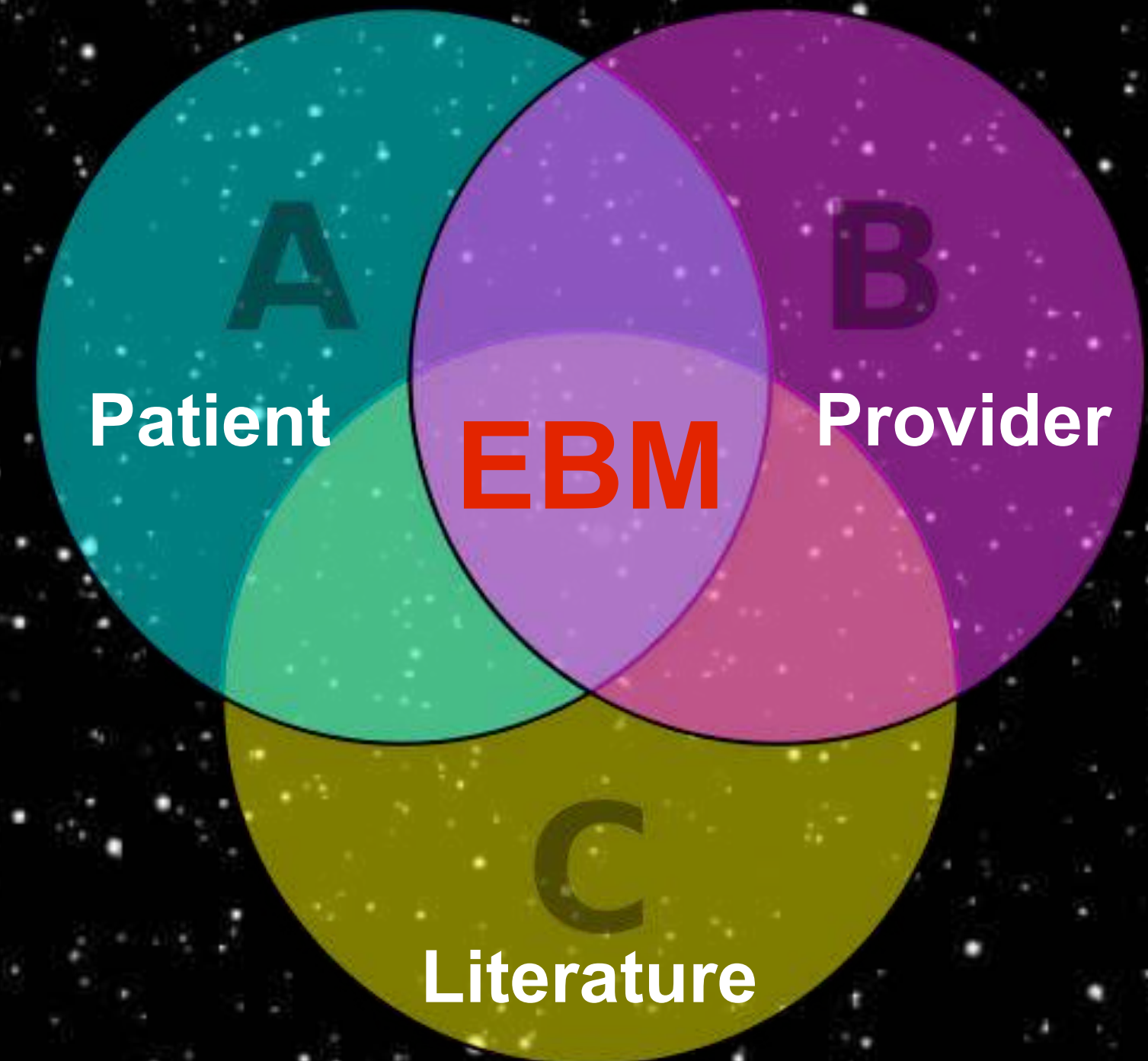
KEY RESULTS AND LIMITATIONS



LIBERAL O2 INCREASED RISK OF DEATH. MORBIDITY FINDING WERE 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

ZDOGGMD: DOC VADER



#4: PRE-HOSPITAL IV FLUIDS IN SEPTIC PATIENTS



PALPATINE LOOKS A LITTLE DRY

Original Investigation | Emergency Medicine

Association Between Early Intravenous Fluids Provided by Paramedics and Subsequent In-Hospital Mortality Among Patients With Sepsis

LANE ET AL JAMA 2018



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

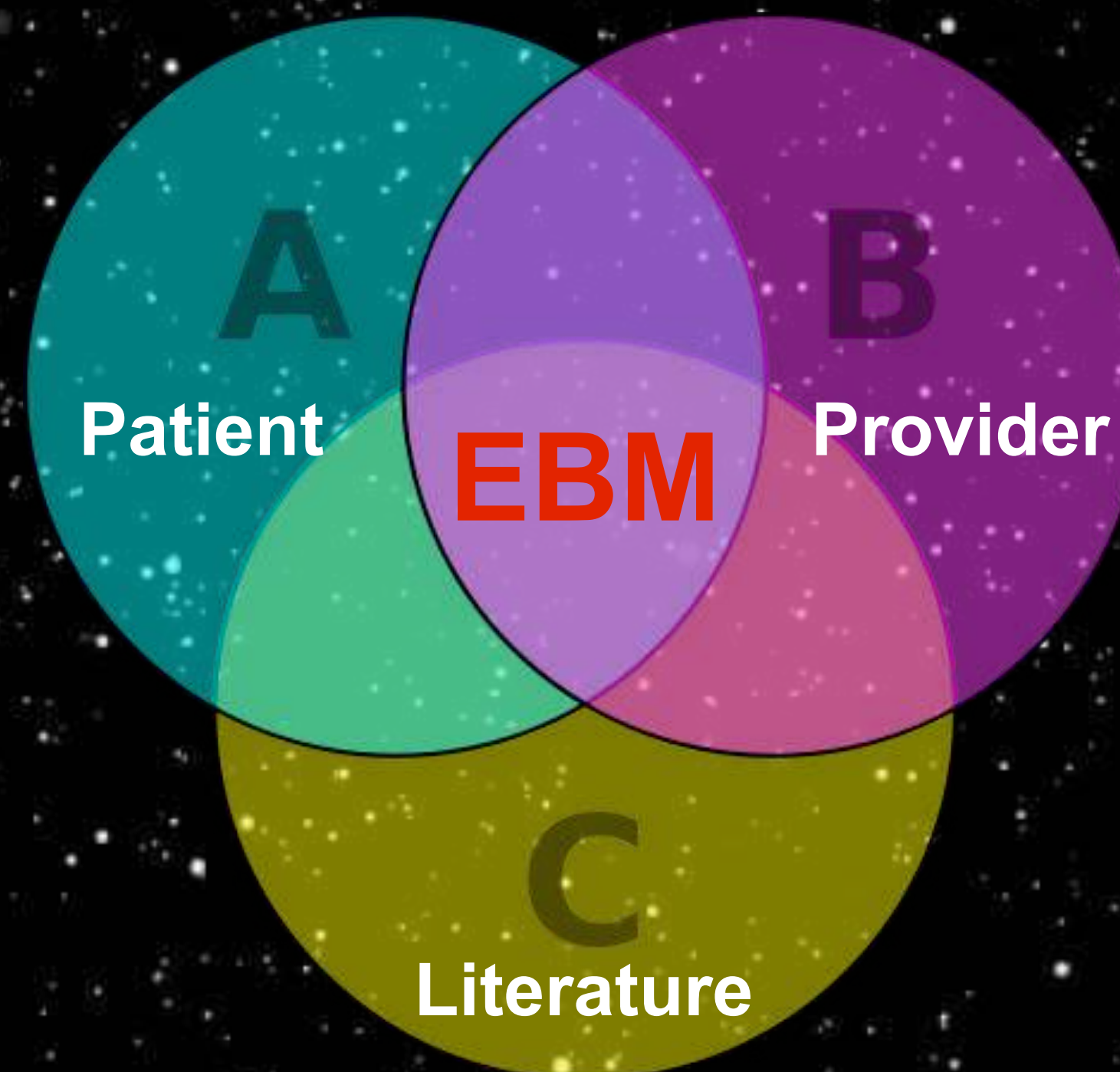
KEY RESULTS AND LIMITATIONS



***HIGHER MORTALITY IN
IV FLUID GROUP***

PRE-HOSPITAL IV FLUIDS IN SEPTIC PATIENTS

***IN PATIENTS SUSPECTED
OF SEPSIS, WE DON'T
KNOW IF PRE-HOSPITAL IV
FLUIDS WILL RESULT IN A
PATIENT-ORIENTED
BENEFIT.***



SGEM#246

#5: PRE-HOSPITAL ANTIBIOTICS IN SEPTIC PATIENTS



HE COULD BE SEPTIC?

ARTICLES | VOLUME 6, ISSUE 1, P40-50, JANUARY 01, 2018

Prehospital antibiotics in the ambulance for sepsis: a multicentre, open label, randomised trial

ALAM ET AL THE LANCET 2017



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

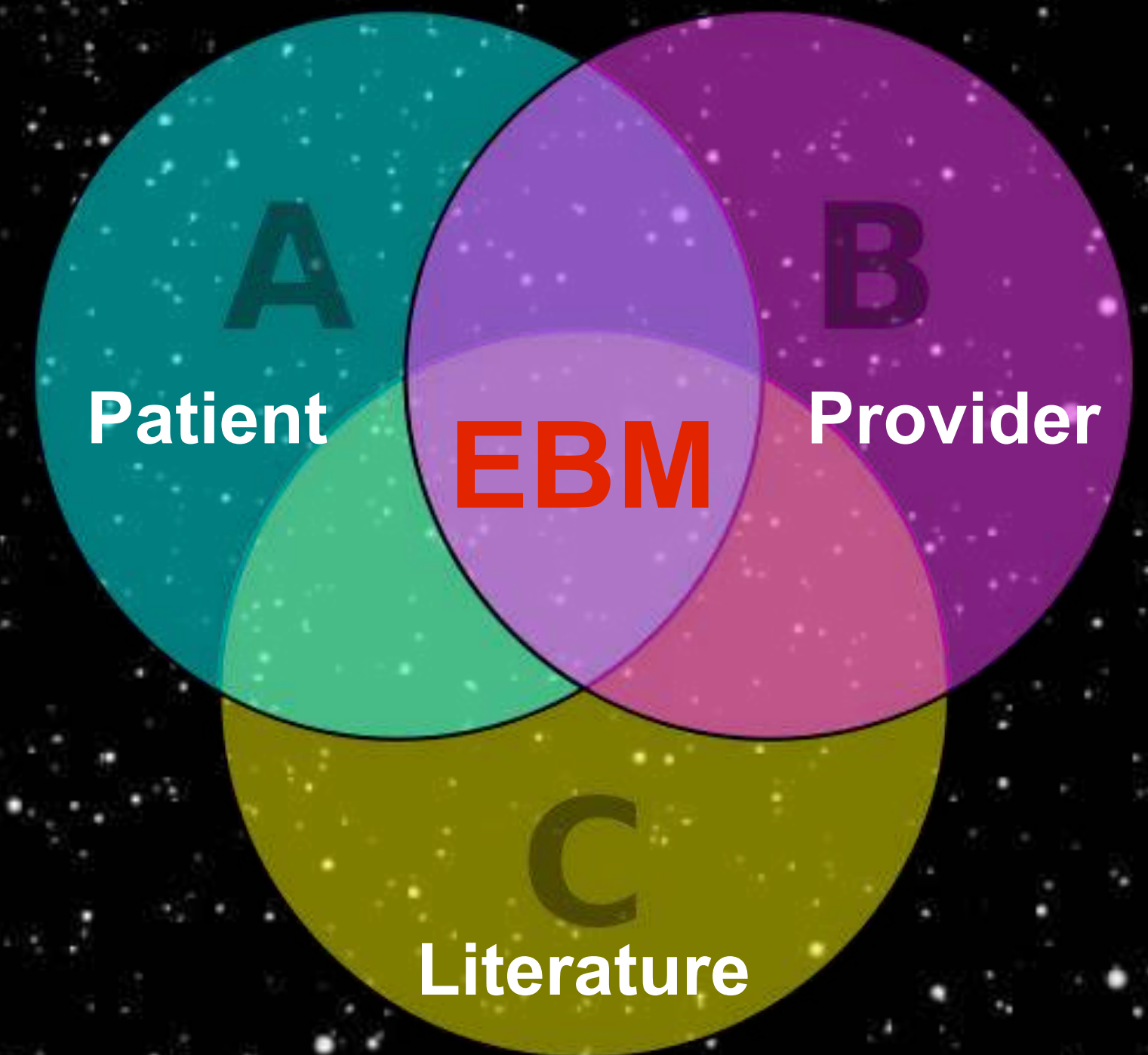
KEY RESULTS AND LIMITATIONS



***NO STATISTICAL DIFFERENCE IN
MORTALITY AT 28 DAYS***

PRE-HOSPITAL ANTIBIOTICS FOR PATIENTS WITH SUSPECTED SEPSIS

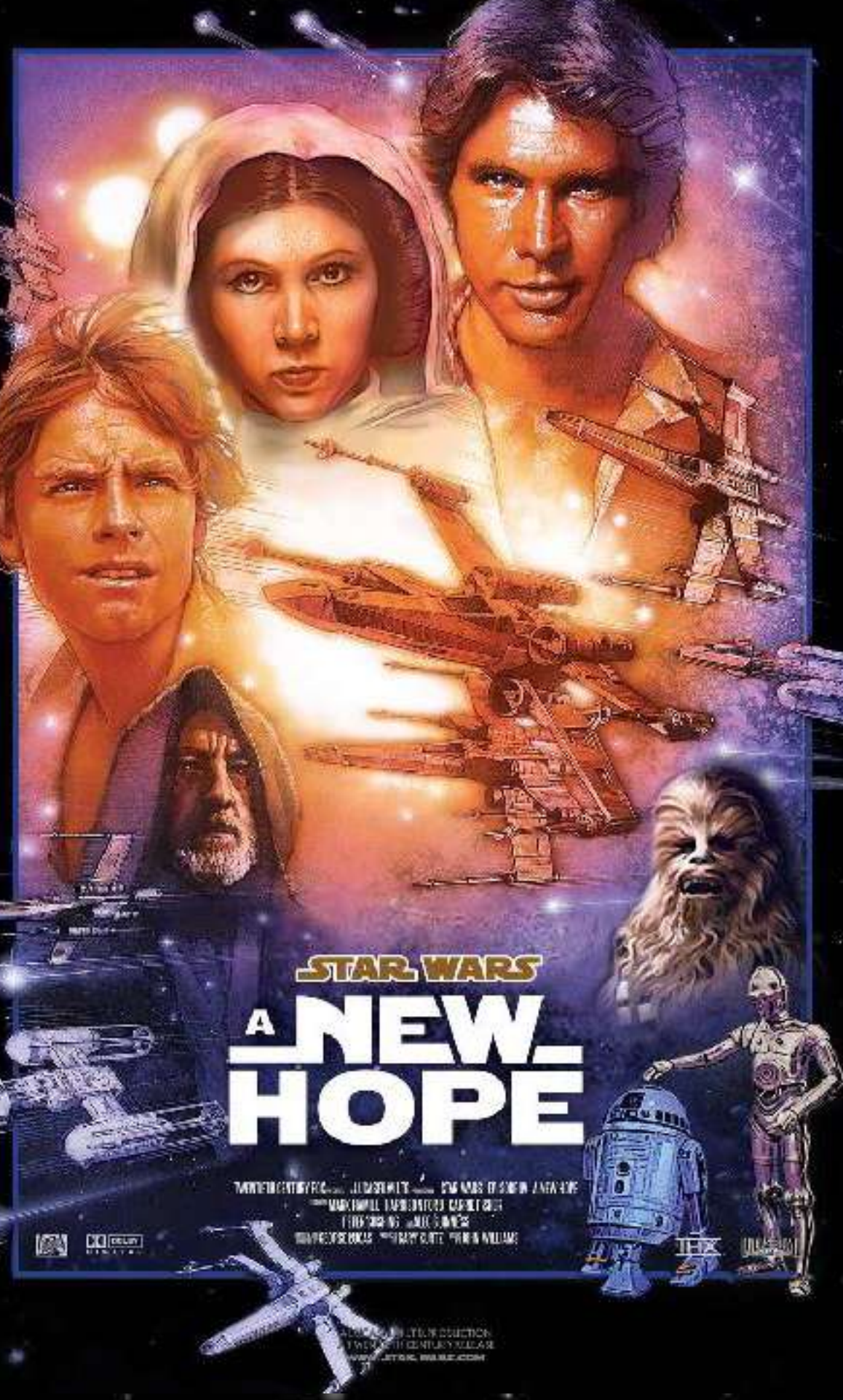
PRE-HOSPITAL ANTIBIOTICS IN THE AMBULANCE DO NOT APPEAR TO HAVE A MORTALITY BENEFIT IN PATIENTS WITH VARYING DEGREES OF SEPSIS IN AN OPTIMIZED EMS SYSTEM.



SGEM#207

SUMMARY: A NEW HOPE

A LONG TIME AGO IN A GALAXY FAR FAR AWAY...



- 1. SUPRAGLOTTIC AIRWAY - OK***
- 2. APNEIC OXYGENATION - NOT NECESSARY***
- 3. TARGET O₂ SAT - MID 90'S***
- 4. PRE-HOSPITAL IV FLUIDS - NOT NECESSARY***
- 5. PRE-HOSPITAL ANTIBIOTICS - NOT NECESSARY***

#6: CHEST TUBES



Does chest tube location matter? An analysis of chest tube position and the need for secondary interventions

BEANS ET AL J TRAUMA ACUTE CARE SURG 2015



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

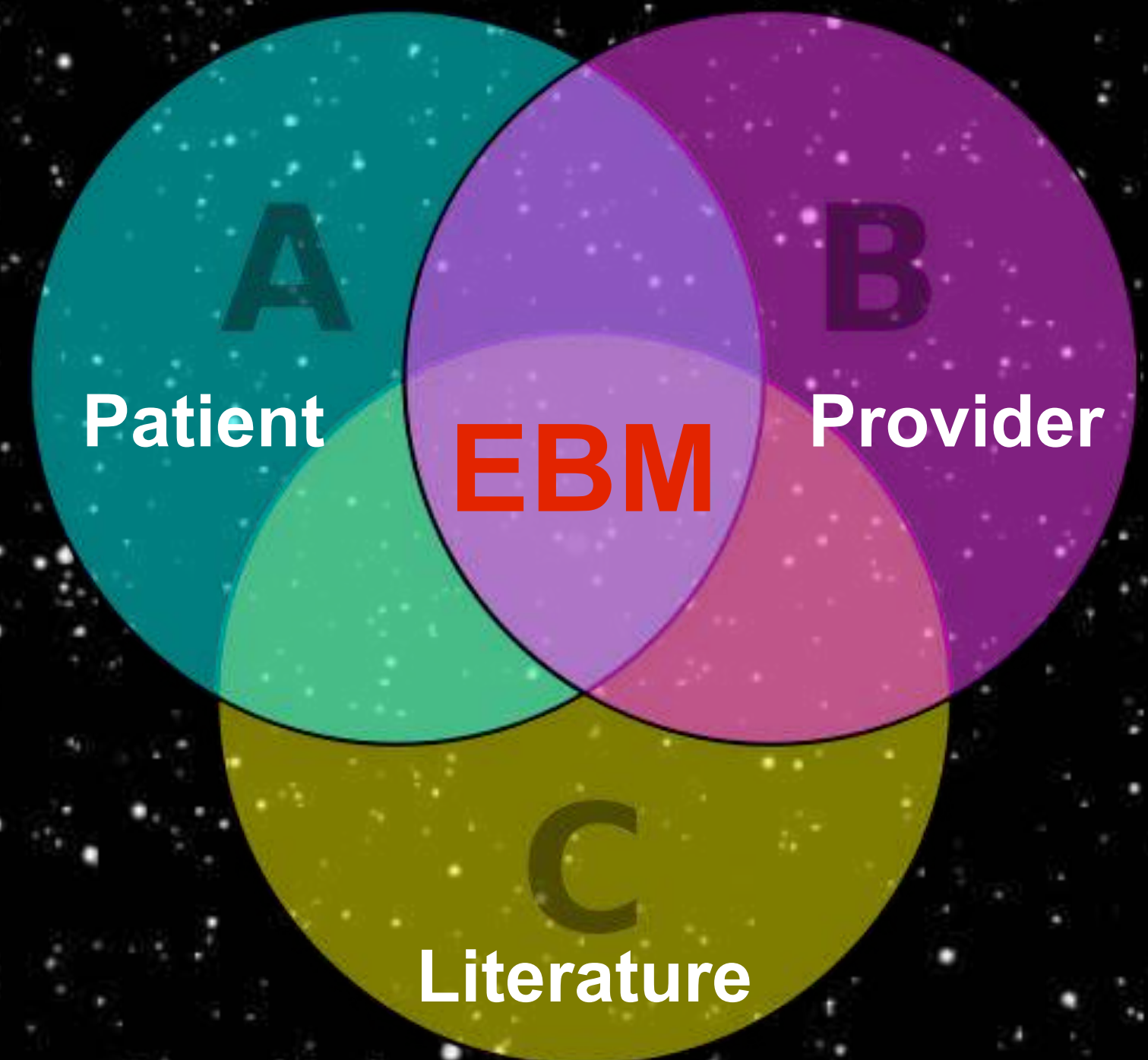
KEY RESULTS AND LIMITATIONS



LOCATION DID NOT MATTER

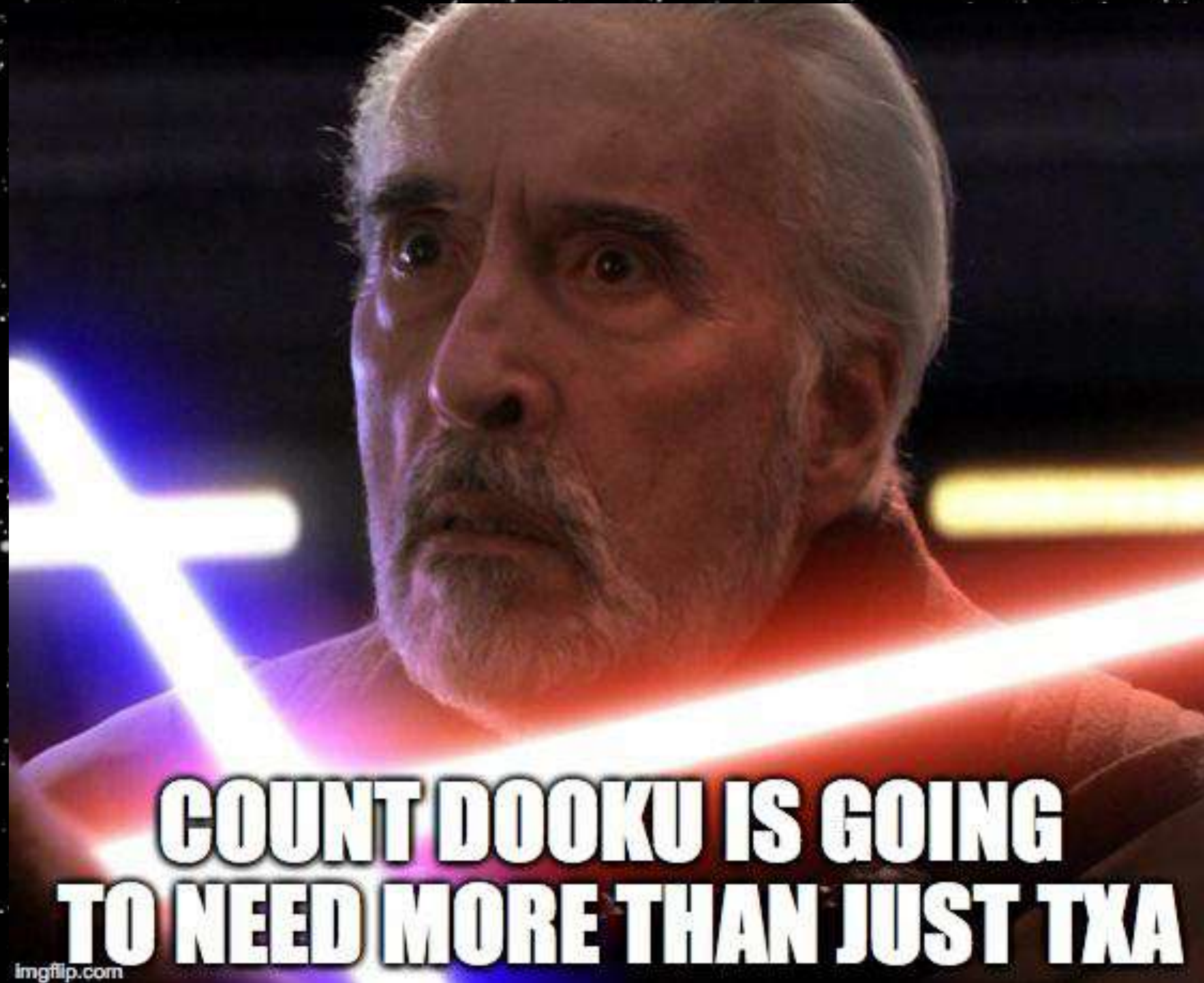
CHEST TUBE PLACEMENT

***SAFELY PUT THE CHEST
TUBE IN THE TRIANGLE OF
SAFETY AND IN THE
PLEURAL SPACE.***



SGEM#129

#7: TXA FOR SPONTANEOUS ICH



Tranexamic acid for hyperacute primary IntraCerebral Haemorrhage (TICH-2): an international randomised, placebo-controlled, phase 3 superiority trial

SPRIGG ET AL THE LANCET 2018



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

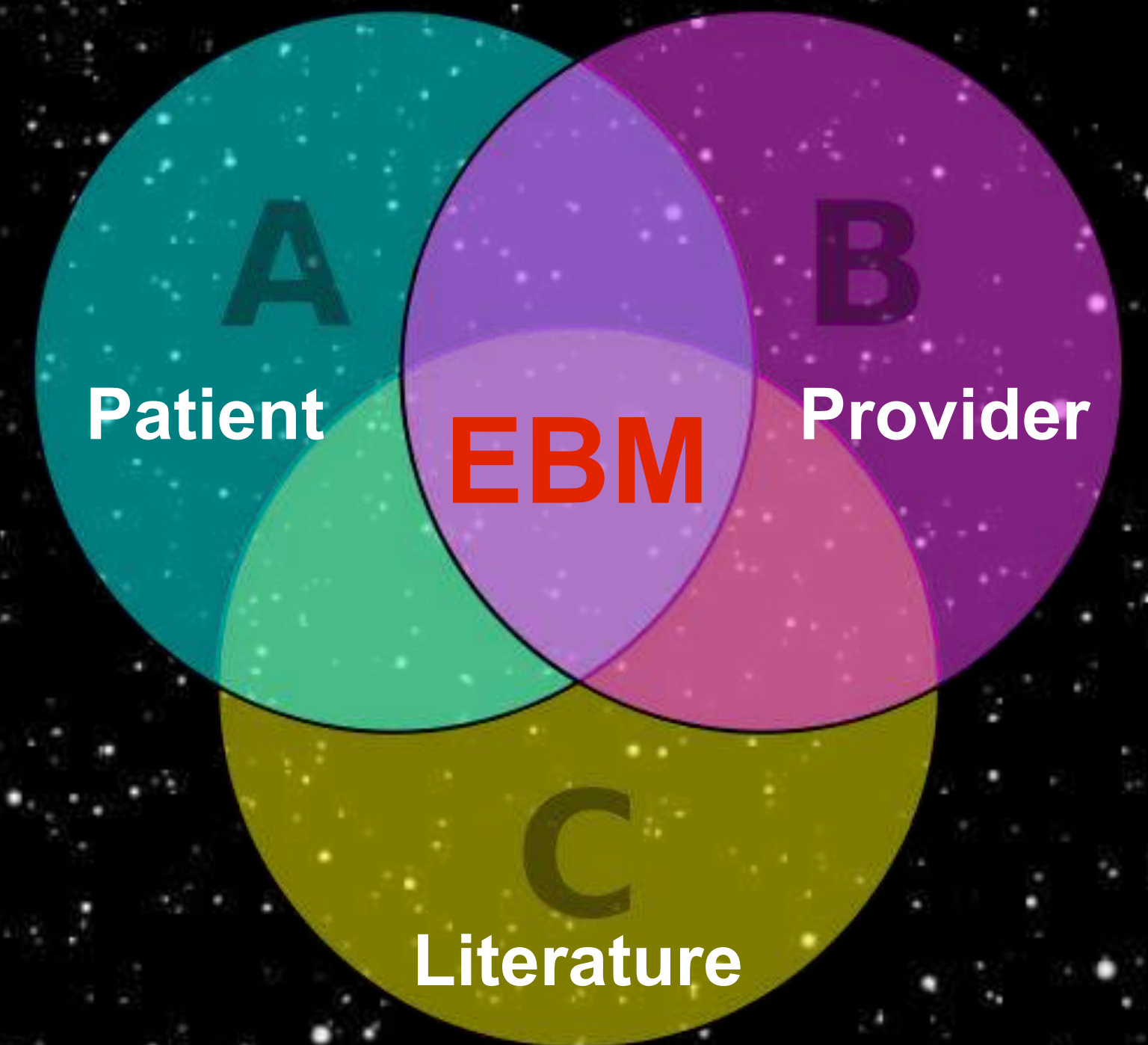
KEY RESULTS AND LIMITATIONS



***NO STATISTICAL DIFFERENCE IN
MRS AT 90 DAYS***

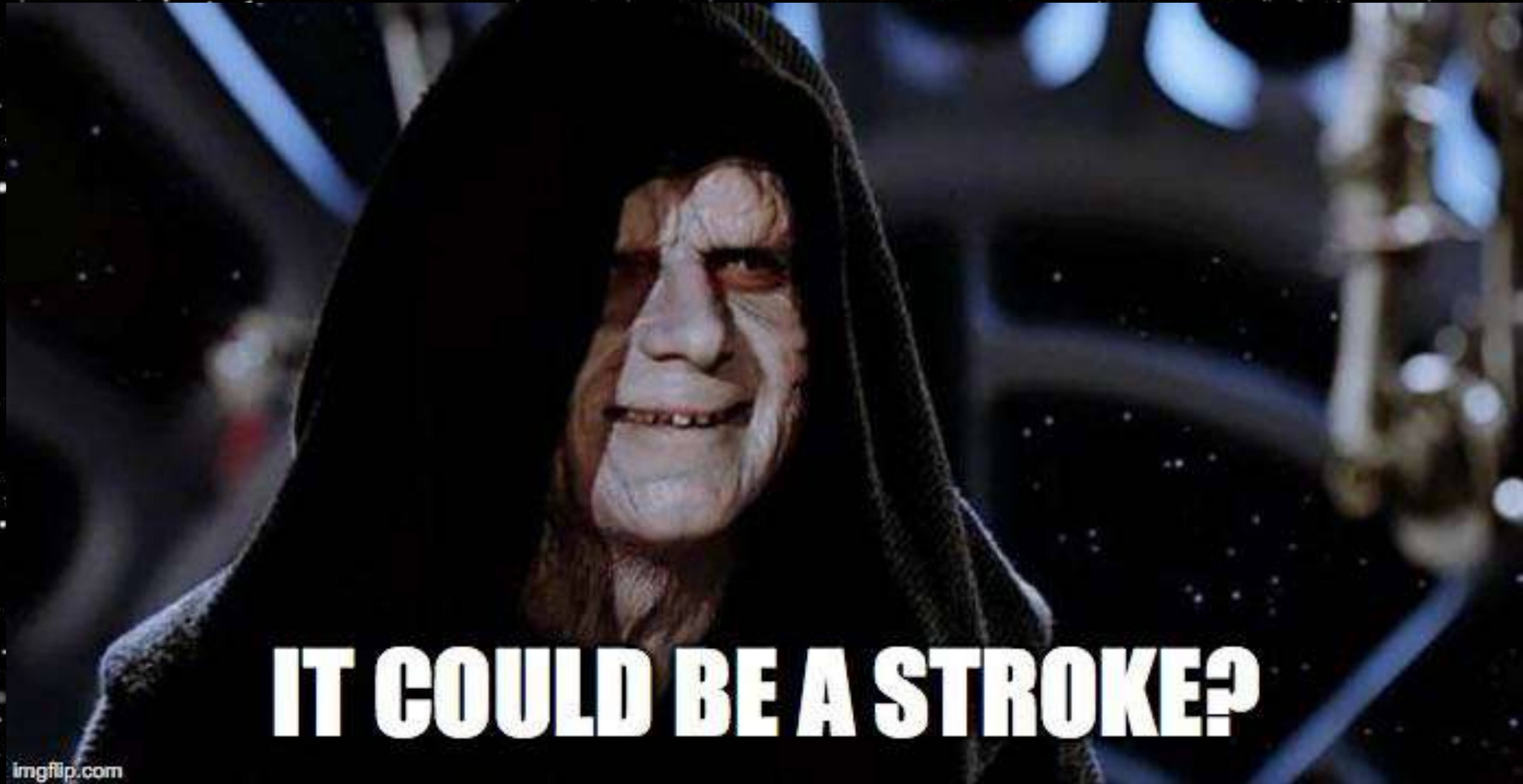
TRANEXAMIC ACID FOR ICH

**TXA DOES NOT CURRENTLY
HAVE EVIDENCE OF IMPROVING
OUTCOMES IN HEMORRHAGIC
STROKE AND ROUTINE
ADMINISTRATION CANNOT BE
RECOMMENDED AT THIS TIME.**



SGEM#236

**#8: PRE-HOSPITAL NITRO FOR
SUSPECTED STROKE**



Prehospital transdermal glyceryl trinitrate in patients with ultra-acute presumed stroke (RIGHT-2): an ambulance-based, randomised, sham-controlled, blinded, phase 3 trial

RIGHT-2 INVESTIGATORS THE LANCET 2019



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

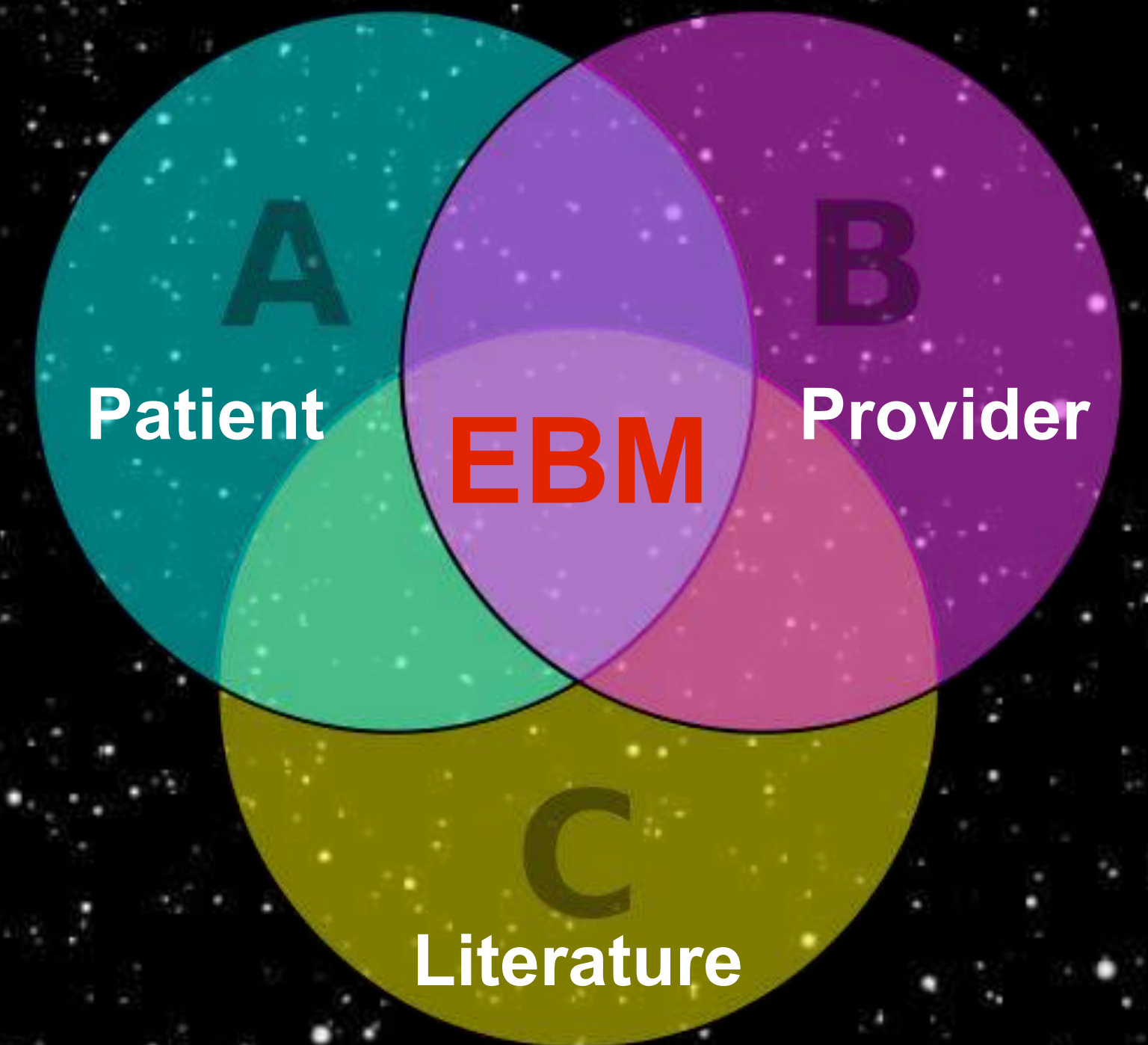
KEY RESULTS AND LIMITATIONS



***NO STATISTICAL DIFFERENCE IN
MRS AT 90 DAYS***

PRE-HOSPITAL TRANSDERMAL NITROGLYCERINE FOR STROKE

***THE EVIDENCE DOES NOT
SUPPORT THE USE OF
TRANSDERMAL NITROGLYCERINE
PATCHES TO LOWER THE BLOOD
PRESSURE IN PATIENTS
SUSPECTED OF HAVING A
STROKE.***



SGEM#2XX



SGEM#172: DON'T BRING MY BLOOD
PRESSURE DOWN (INTENSIVELY) – THE
ATACH2 TRIAL

***INTENSIVE BP REDUCTION DOES NOT PROVIDE BENEFIT OVER
STANDARD BP REDUCTION IN PATIENTS WITH ACUTE ICH***

DOC VADER



ON PARENTS WHO DON'T VAX

#9: CROWD SOURCING CPR



ORIGINAL ARTICLE

Mobile-Phone Dispatch of Laypersons for CPR in Out-of-Hospital Cardiac Arrest

RINGH ET AL NEJM 2015



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

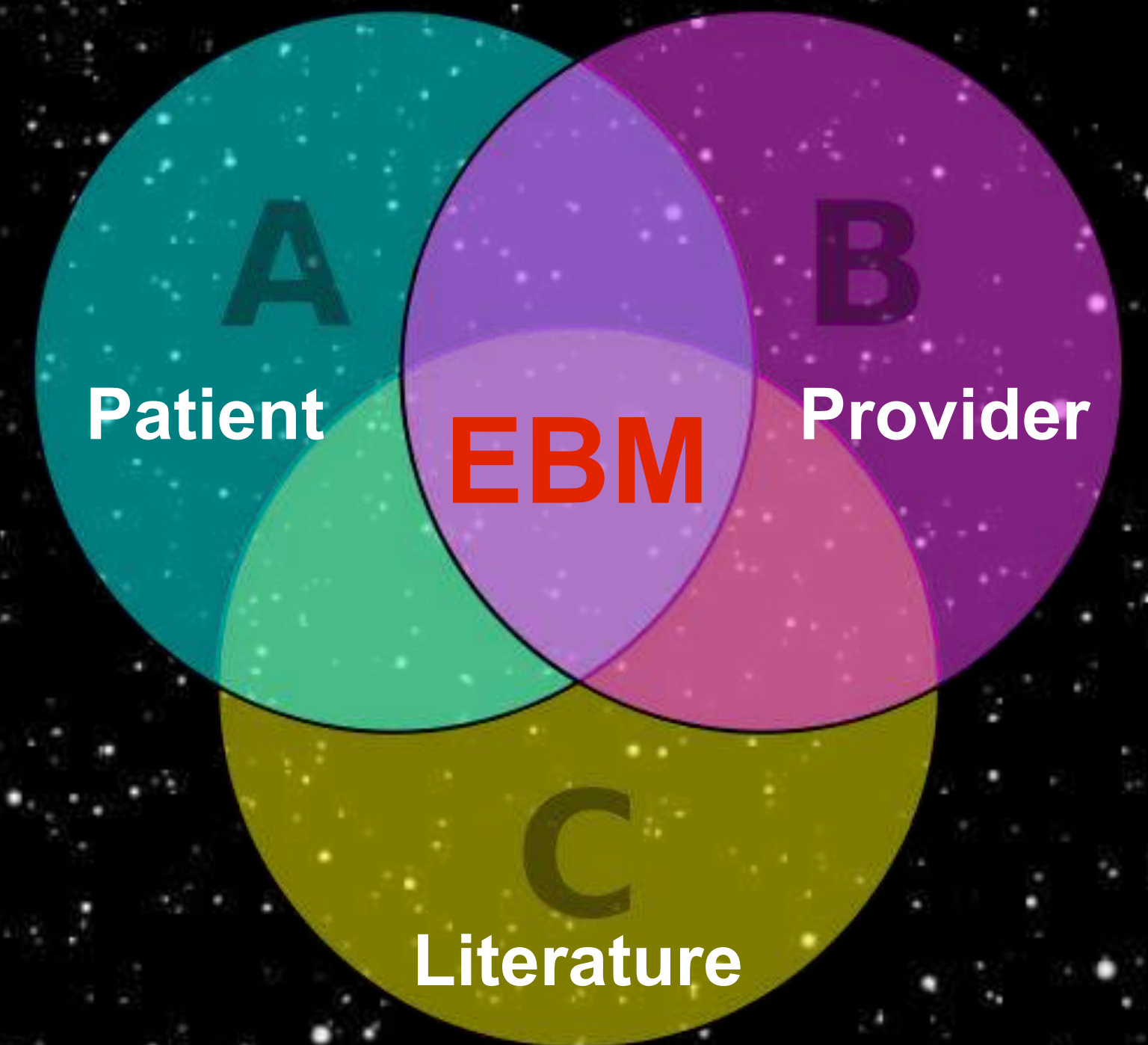
KEY RESULTS AND LIMITATIONS



MORE BYSTANDER CPR (NNT 7)

CROWD SOURCING CPR USING MOBILE PHONES

***USING MOBILE PHONES TO
INCREASE BYSTANDER CPR FOR
OHCA IS A COOL USE OF
TECHNOLOGY BUT WE WOULD
WANT TO SEE IT EXTERNALLY
VALIDATED AND DEMONSTRATE
SURVIVAL WITH GOOD
NEUROLOGIC OUTCOME.***



SGEM#143

DRONE DELIVERED DEFIBRILLATOR



#10: CHANGES IN ATLS



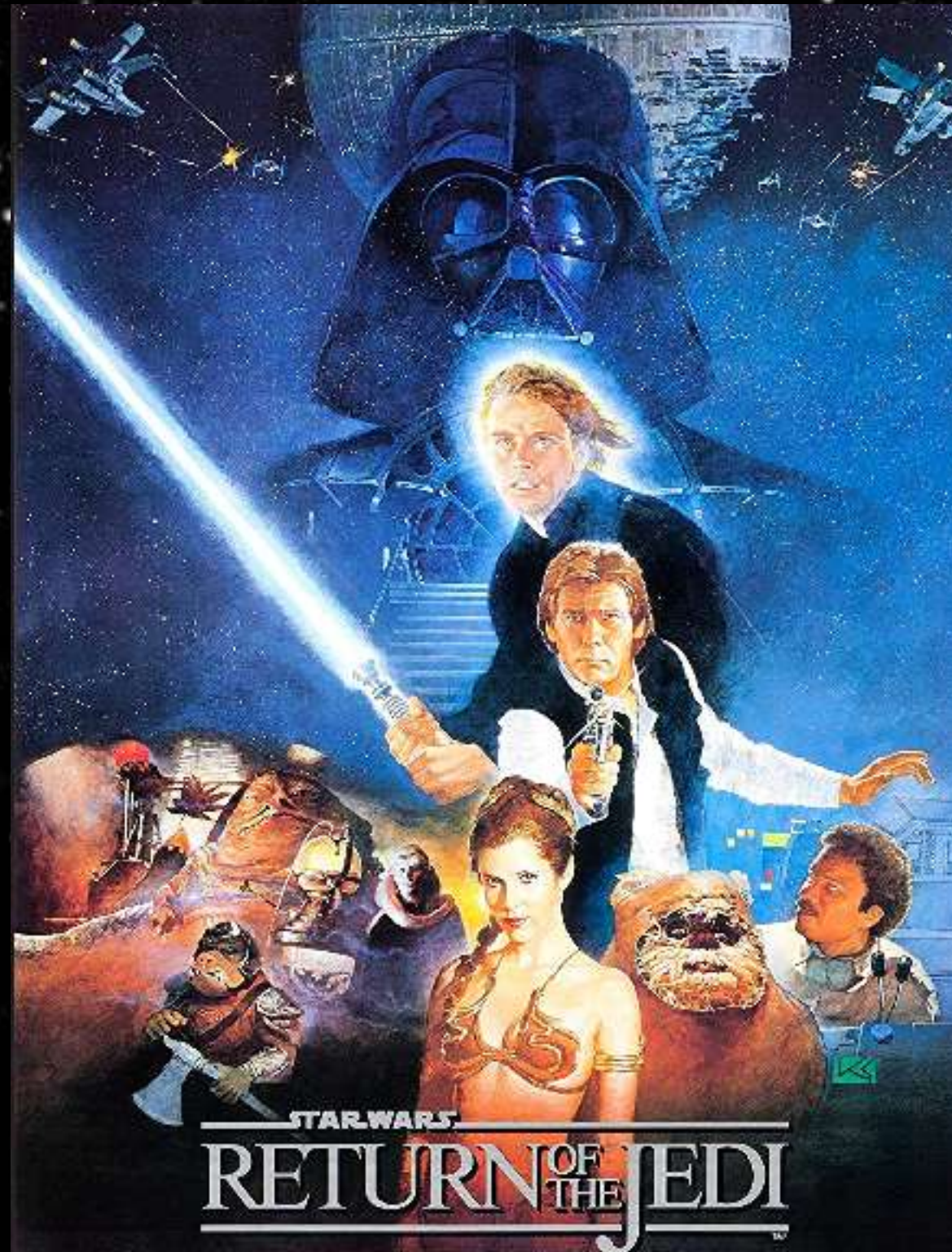
KEY CHANGES



- **GIVE 1 LITRE OF CRYSTALLOID**
- **EARLY ADMIN OF BALANCED BLOOD PRODUCTS**
- **NEEDLE DECOMPRESSION 5TH ICS IN ADULTS**
- **SMALLER CHEST TUBES ARE FINE**
- **PARKLAND IS 2ML RL x KG x %TBSA FOR ADULT BURNS (EXCEPT ELECTRICAL)**

SGEM XTRA: CHANGES TO ATLS

SUMMARY: RETURN TO ORNAGE



- 6. CHEST TUBES - TRIANGLE OF SAFETY**
- 7. TXA FOR ICH - NO BENEFIT**
- 8. NITRO FOR STROKE - NO BENEFIT**
- 9. CROWD SOURCE CPR - MAY BENEFIT**
- 10. ATLS - 10TH EDITION HAS CHANGED**



**NNT OF
ONE**

**IT ALL
DEPENDS**

**BE A
SKEPTIC**

THE EBM WILL BE WITH YOU



ALWAYS

imgflip.com

Ken Milne www.TheSGEM.com