

Liberation from intensive care.

The A2F bundle

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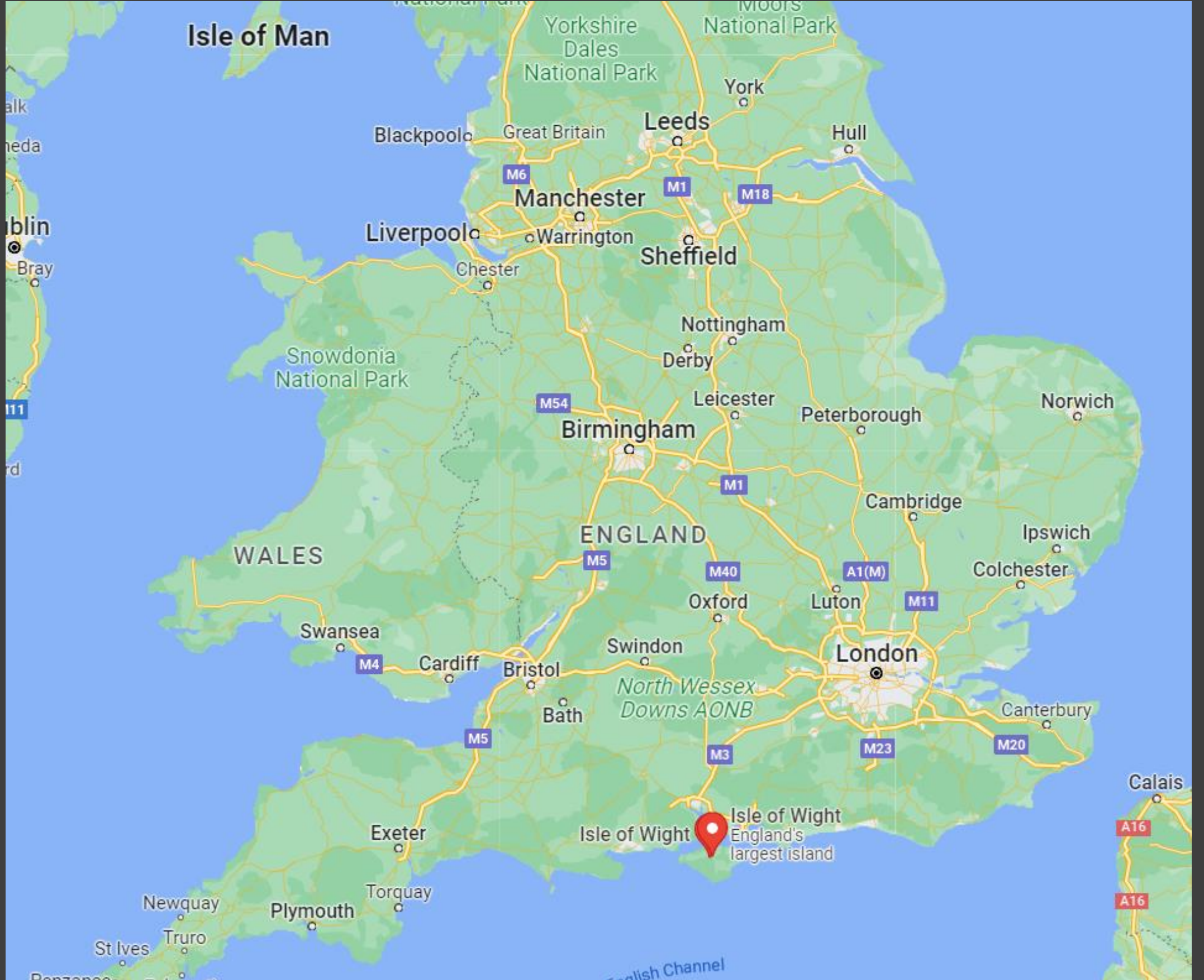


A healthcare team in blue scrubs and masks is in an ICU room. A patient is lying in a bed, and medical equipment is visible. The room has large windows showing a landscape with trees and mountains. The text is overlaid in white on a semi-transparent dark background.

Liberation from Intensive Care The A2F Standard Operating Procedure 10W

Conflict of Interest

Received travel support and speaker fee from Sedana
Medical



slido



Do you know what Risk Adjusted Mortality Ratio means?

slido

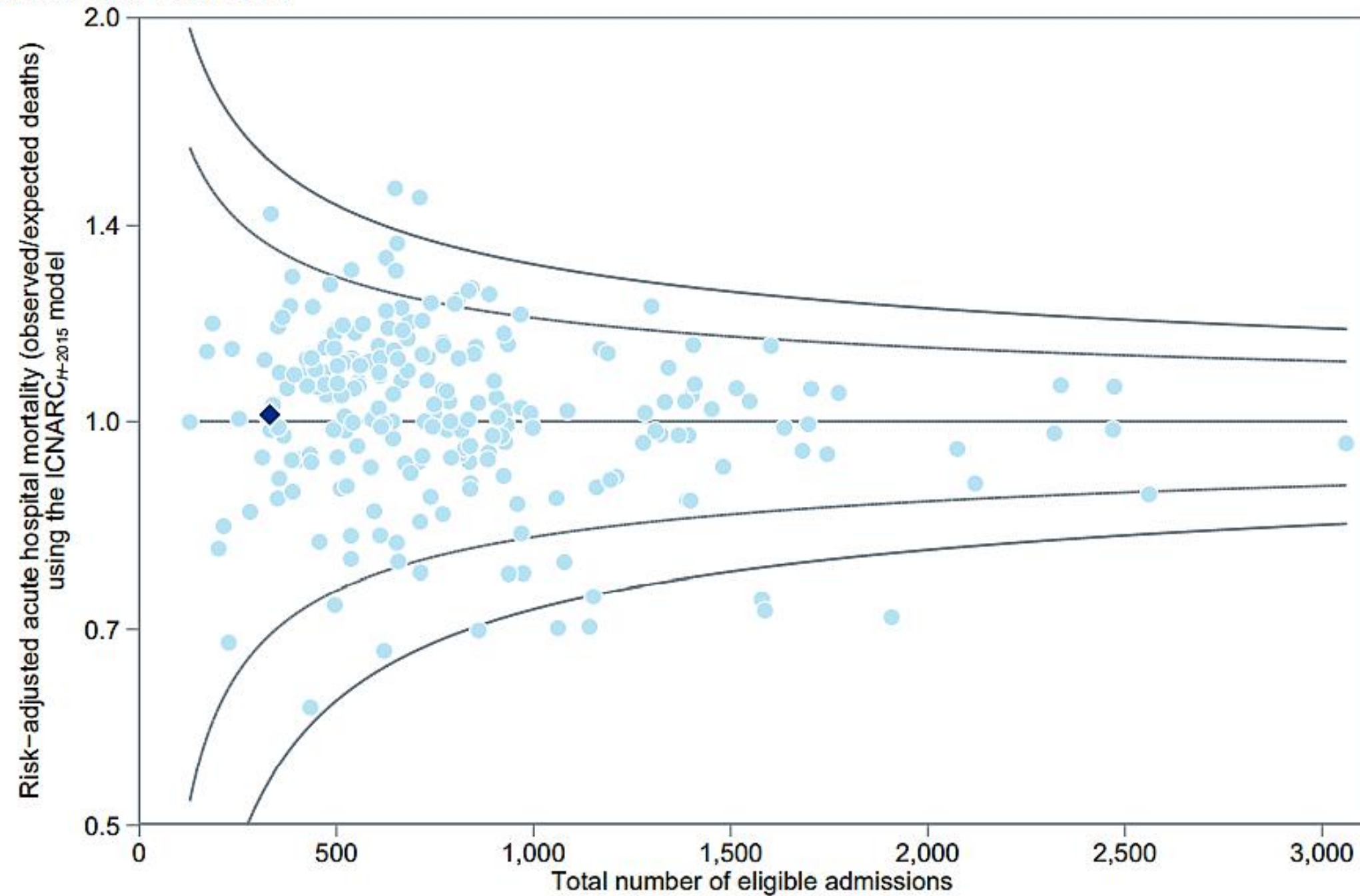


If you answered 'Yes'... do you know your ICUs recent Risk Adjusted Mortality Ratio?



Risk-adjusted acute hospital mortality for critical care admissions (observed/expected* deaths) using the ICNARC_{H-2015} model

Source: CMP 2016-2017



| Metric | Unit |
|----------|------|
| Observed | 99 |
| Expected | 97.8 |
| Ratio | 1.01 |

* Expected deaths from a logistic regression model fitted to all patients discharged from a critical care unit participating in the CMP to a ward or intermediate care area in the same hospital, adjusted for age, sex, severe conditions in the past medical history, prior dependency, CPR within 24 hours prior to admission, location prior to admission, ICNARC Physiology Score, body system of primary reason for admission and diagnostic groups.

Royal Berkshire Hospital, Intensive Care Unit

Royal Berkshire NHS Foundation Trust

Source: Healthcare Quality Improvement Partnership
[Clinical Audit benchmarks for Royal Berkshire Hospital, Intensive Care Unit - ncab \(hqip.org.uk\)](#)



CSV EXPORT

BACK TO WARD

Performance



Intensive Care Audit

Crude non-clinical transfers

0.0%
2019

0.20%
2018

0%

Within Expected Range

Intensive Care Audit

Crude, non-delayed, out-of hours discharge to ward proportion

2.7%
2019

4.70%
2018

0%

Within Expected Range

Intensive Care Audit

Crude delayed discharge (% bed-days occupied by patients with discharge delayed >8 hours)

3.5%
2019

2.30%
2018

Not in the worst 5% of units

Intensive Care Audit

Risk-adjusted hospital mortality ratio (all patients)

1.1
2019

1.2
2018

0.2

Within Expected Range

Intensive Care Audit

Risk-adjusted hospital mortality ratio for patients with predicted risk of death <20% (lower risk)

1.0
2019

1.4
2018

0.2

Within Expected Range

Showing 1 to 5 of 5 entries

Previous

1

Next

Southampton General Hospital, Intensive Care/High Dependency Unit


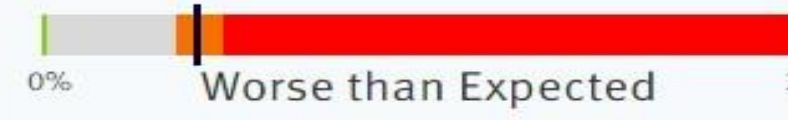
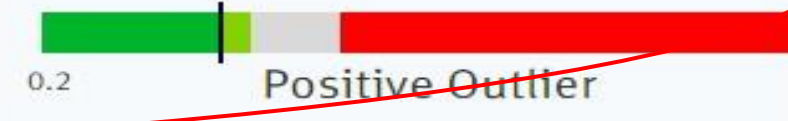

University Hospital Southampton NHS Foundation Trust

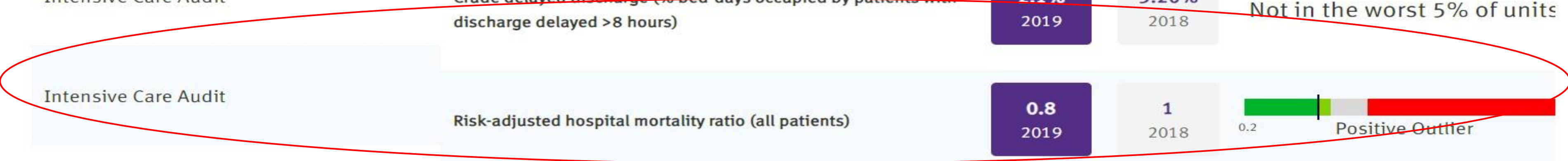
Source: Healthcare Quality Improvement Partnership
[Clinical Audit benchmarks for Southampton General Hospital, Intensive Care Unit - ncab \(hqip.org.uk\)](#)

 **CSV EXPORT** **BACK TO WARD** Performance ▾

Show entries

Search:

| AUDIT | METRIC | RESULT | PREVIOUS REPORT | COMPARISON |
|----------------------|---|--------------|-----------------|--|
| Intensive Care Audit | Crude non-clinical transfers | 0.2% 2019 | 0.00% 2018 |  Within Expected Range |
| Intensive Care Audit | Crude, non-delayed, out-of hours discharge to ward proportion | 5.0% 2019 | 4.10% 2018 |  Worse than Expected |
| Intensive Care Audit | Crude delayed discharge (% bed days occupied by patients with discharge delayed >8 hours) | 2.1% 2019 | 3.20% 2018 | Not in the worst 5% of units |
| Intensive Care Audit | Risk-adjusted hospital mortality ratio (all patients) | 0.8 2019 | 1 2018 |  Positive Outlier |
| Intensive Care Audit | Risk-adjusted hospital mortality ratio for patients with predicted risk of death <20% (lower risk) | 0.5 2019 | 0.7 2018 |  Better than Expected |



Queen Alexandra Hospital, Intensive Care Unit

Portsmouth Hospitals NHS Trust

Source: Healthcare Quality Improvement Partnership
[Clinical Audit benchmarks for Queen Alexandra Hospital, Intensive Care Unit - ncab \(hqip.org.uk\)](#)

 **CSV EXPORT** **BACK TO WARD** Performance ▾

| | | | | |
|----------------------|--|--------------|---------------|------------------------------|
| Intensive Care Audit | Crude non-clinical transfers | 0.0% 2019 | 0.0% 2018 | 0% Within Expected Range |
| Intensive Care Audit | Crude, non-delayed, out-of hours discharge to ward proportion | 3.6% 2019 | 2.80% 2018 | 0% Within Expected Range |
| Intensive Care Audit | Crude delayed discharge (% bed-days occupied by patients with discharge delayed >8 hours) | 5.4% 2019 | 8.40% 2018 | Not in the worst 5% of units |
| Intensive Care Audit | Risk-adjusted hospital mortality ratio (all patients) | 0.9 2019 | 1 2018 | 0.2 Within Expected Range |
| Intensive Care Audit | Risk-adjusted hospital mortality ratio for patients with predicted risk of death <20% (lower risk) | 0.8 2019 | 1.1 2018 | 0.2 Within Expected Range |

Showing 1 to 5 of 5 entries

St Mary's Hospital, Isle of Wight, Intensive Care Unit

Isle of Wight NHS Trust

Source: Healthcare Quality Improvement Partnership
[Clinical Audit benchmarks for St Mary's Hospital, Isle of Wight, Intensive Care Unit - ncab \(hqip.org.uk\)](#)

[CSV EXPORT](#)
[BACK TO WARD](#)
Performance ▾

| | | | | |
|----------------------|--|--------------|---------------|------------------------------|
| Intensive Care Audit | Crude non-clinical transfers | 0.6% 2019 | 1.80% 2018 | 0% Within Expected Range |
| Intensive Care Audit | Crude, non-delayed, out-of hours discharge to ward proportion | 0.9% 2019 | 0.00% 2018 | 0% Within Expected Range |
| Intensive Care Audit | Crude delayed discharge (% bed-days occupied by patients with discharge delayed >8 hours) | 7.4% 2019 | 6.20% 2018 | Not in the worst 5% of units |
| Intensive Care Audit | Risk-adjusted hospital mortality ratio (all patients) | 0.8 2019 | 1 2018 | 0.2 Within Expected Range |
| Intensive Care Audit | Risk-adjusted hospital mortality ratio for patients with predicted risk of death <20% (lower risk) | 0.6 2019 | 1.2 2018 | 0.2 Within Expected Range |

The ABCDEF Bundle in Critical Care
Annachiara Marra, MD, PhD(c), E.
Wesley Ely, MD, MPH, Pratik P.
Pandharipande, MD, MSCI, FCCM,
and Mayur B. Patel, MD, MPH, FACS

Crit Care Clin. 2017 April ; 33(2):
225–243

Vanderbilt University Medical
Center

Nashville, TN, USA

an intensive-care doctor's
notes on healing

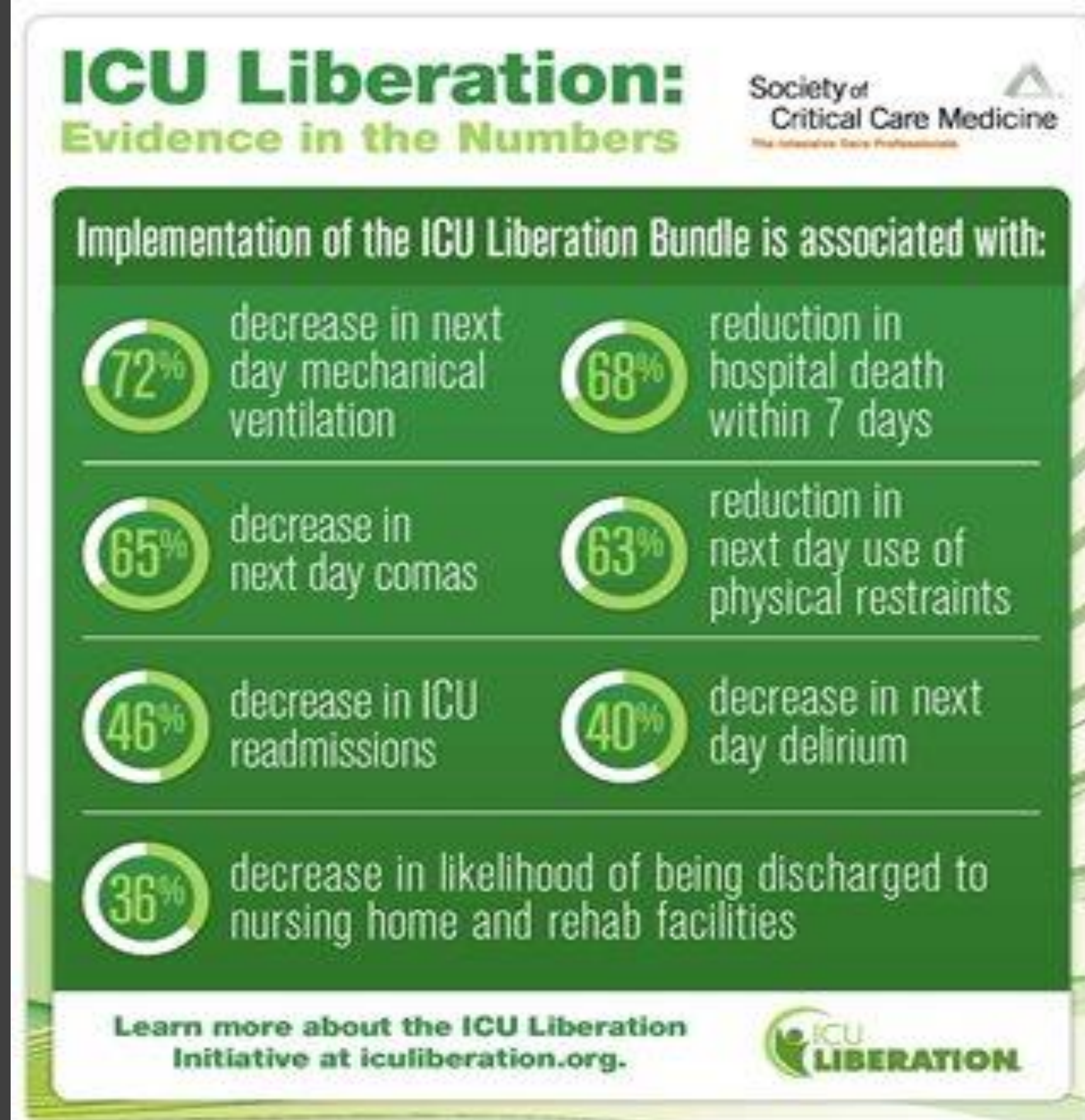
**EVERY
DEEP-
DRAWN
BREATH**

WES ELY

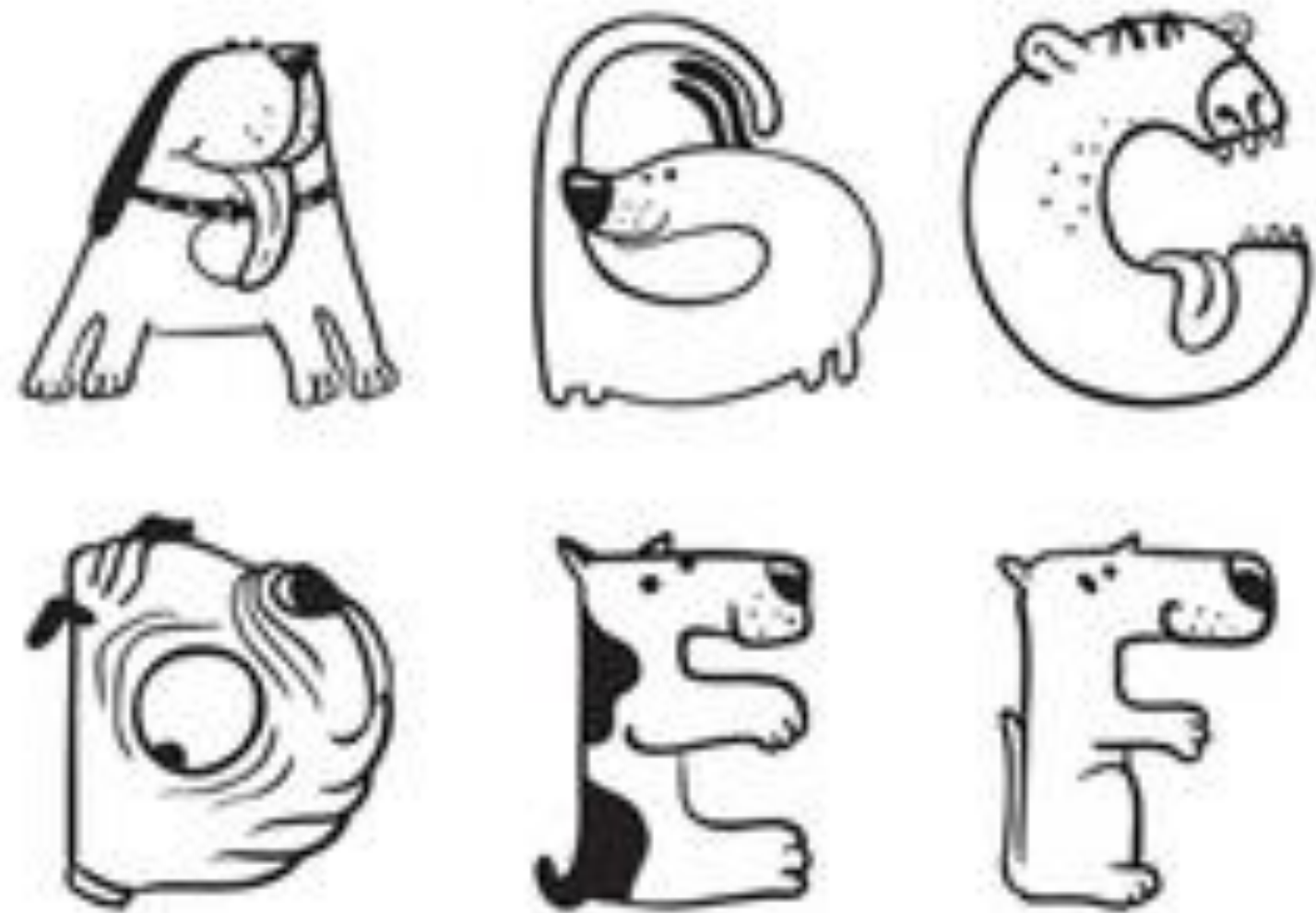
If you liked *When Breath Becomes Air*, you will love this book.
DR ANGELO VOLANDES, author of *The Cornerstone*

Brenda T Pun et al

Caring for Critically Ill Patients with the ABCDEF Bundle: Results of the ICU Liberation Collaborative in Over 15,000 Adults Crit Care Med. 2019 January ; 47(1): 3–14



Source: Caring for Critically Ill Patients with the ABCDEF Bundle: Results of the ICU Liberation Collaborative in Over 15,000 Adults. Pun, Crit Care Med. 2019;47:3-14.



The A2F Bundle

A Assess, Prevent and Manage Pain

B Both Spontaneous Awakening Trials and Spontaneous Breathing Trials

C Choice and Assessment of Sedation

D Delirium: Assess, Prevent, and Manage

E Early Mobility

F Family Engagement and Empowerment



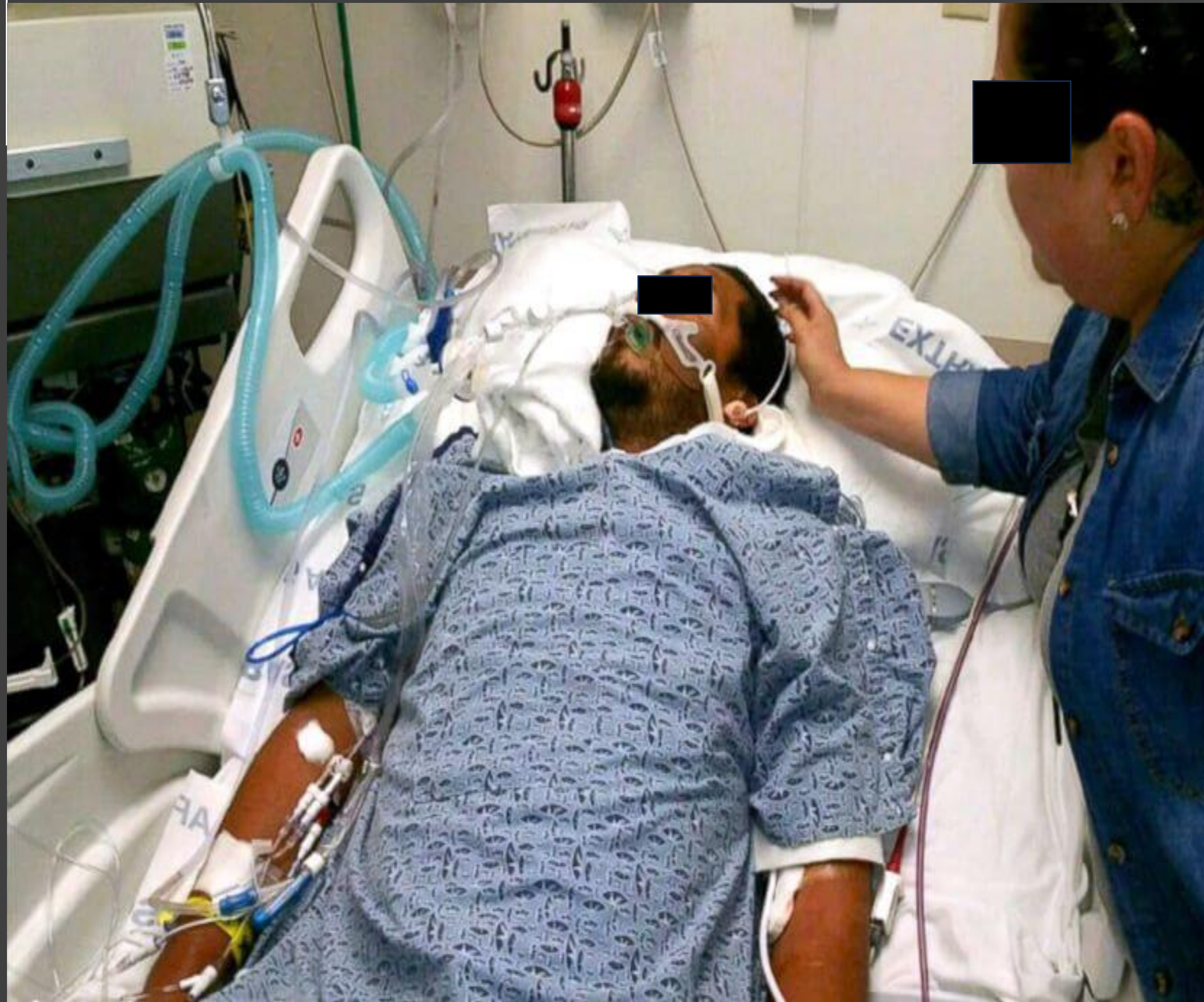


Pain, sedation, delirium and spontaneous awakening trial safety assessments should be done by the nursing staff before the ward round

A for Assess, Prevent, and Manage Pain



VAS OR CPOT



**B for Both
Spontaneous
Awakening
Trials (SAT) and
Spontaneous
Breathing Trials
(SBT)
For intubated
patients**



- **SAT safety checklist**
- No effect of muscle relaxant
- No active seizure
- No alcohol withdrawal
- No agitation
- No sign of myocardial ischemia
- No increased intracranial pressure
- No end-of-life care or expected therapy withdrawal



- **SBT safety checklist**
- No agitation
- $SpO_2 > 88\%$
- $FiO_2 \leq 0.5$
- $PEEP \leq 5$ cmH₂O
- No sign of myocardial ischemia
- Off vasopressors
- P_{0.1} is -2 to -3 mbar
- Patient is not using accessory muscles for breathing

C for Choice and
assessment of
sedation

RASS





48h

Early goal directed sedation feasibility checklist

- Patient is within 48 hours of intubation
- No increased intracranial pressure
- No need of ongoing muscle relaxant use
- No plan for therapy withdrawal, organ donation or end of life care



A man in a white shirt is shown in profile, holding his head with both hands, indicating severe pain or distress. The background is a grey wall covered in dense, chaotic black scribbles and lines, symbolizing mental confusion or delirium. The text 'D for Delirium: Assess, Prevent, and Manage' is overlaid in white on the left side of the image.

D for Delirium: Assess, Prevent, and Manage

CAM-ICU



EVERYTHING
IS OK

AVOID DRUGS



Environment
Reassurance
Explanation
Avoid careless
discussions
Consider irritants



E for Early mobility

“movement is much more than just locomotion and physical action. It has deeper roots acting as the primary driver of human existence and the way we currently interact as physical, emotional, and psychological beings.”

**Caitlin Tobin
Sweatnet.com**

An illustration of a family gathered around a patient in a hospital bed. The patient is an elderly man with white hair and a mustache, wearing a purple shirt, lying in a hospital bed with a green blanket. A young girl in a yellow shirt is holding his hand. A woman in a green dress stands behind him, and a man in a red shirt stands next to her, looking at the patient. A woman in a purple dress stands to the left, looking concerned. In the background, another person is visible near a table with a vase of flowers and a drink. The scene is set in a hospital room with a window and a door.

F for Family engagement and empowerment

eBulletin



Friendly competition to support ICU policy implementation a success



slido



Would you consider using the A2F bundle in your ICU?

A Assess, Prevent
and Manage Pain

B Both Spontaneous
Awakening Trials
and Spontaneous
Breathing Trials

C Choice and
Assessment of
Sedation

D Delirium: Assess,
Prevent, and
Manage

E Early Mobility

F Family
Engagement and
Empowerment

Pain, sedation, delirium and spontaneous awakening trial
safety assessments should be done by the nursing staff
before the ward round

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