Indiana Patient Safety Center
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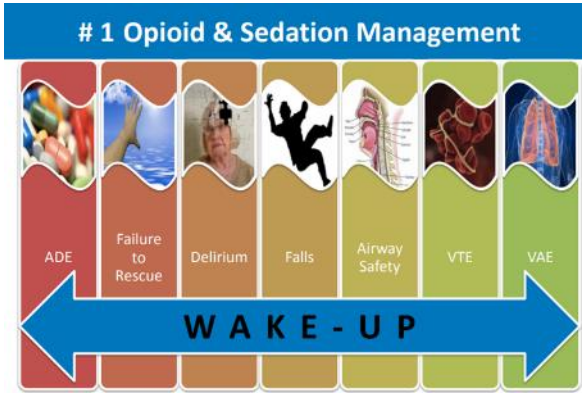

Wake Up & the ABCDEF Bundle

March 6, 2018

IHAconnect.org/Quality-Patient-Safety

Indiana's Bold Aim

Indiana Patient Safety Center
of the Indiana Hospital Association

To make Indiana the safest place to receive health care in the United States…
if not the world

Wake Up Webinars

Indiana Patient Safety Center
of the Indiana Hospital Association

State of the State: State & National Opioid Stats and Emergency Department Point Program	•January 23, 3-4pm ET: Kaitlyn Boller, MHA & Krista Brucker, MD •**Audience**: Emergency Dept personnel, LCSW, pharmacy, discharge planners, care coordinators, quality, educators
Obstructive Sleep Apnea & STOP BANG Assessment	•February 20, 3-4pm ET: Abhinav Singh, MD •**Audience**: Medical Surgical Staff, Respiratory, Educators
Sedation Management and Opioid Practices & the ABCDEF Bundle	•March 6, 3-4pm ET: Opioid & Sedation Management Best Practices & ABCDEF Bundle •Maryanne Whitney, Cynosure Health & Jennifer Hittle, IU Health Arnette •**Audience:** ICU/Medical/Surgical/Procedural Staff & Managers, Pharmacy, Respiratory, Educators
Delirium Assessment, Prevention, & Treatment	•March 20, 3-4pm ET: Malaz Boustani, MD •**Audience**: Quality, ICU/Medical/Surgical Staff & Managers, Pharmacy, Educators

Use the following to join each installment in the series:

Dial in number: (888) 390-3967 **Participant link:** https://join.onstreammedia.com

IHAconnect.org/Quality-Patient-Safety

WAKE UP

Indiana Patient Safety Center
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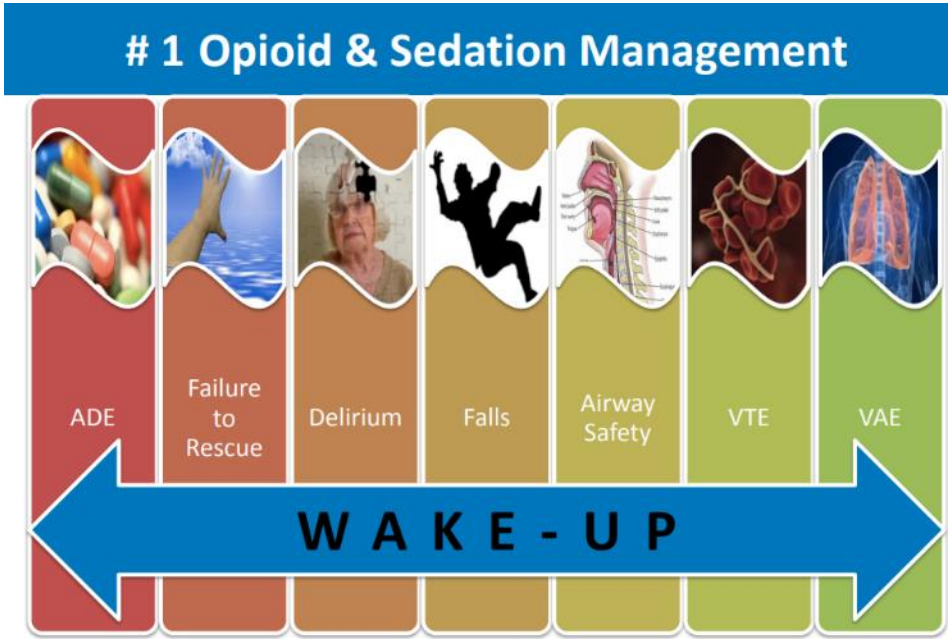
WAKE UP promotes opioid and sedation management to reduce unnecessary sleepiness and sedation.

- Informational State Survey
- Educational Webinars
- Online Resources
  - Webinar recordings, resource sheet, webinar information sheet and pre-written WAKE UP social media are available here on the IHAconnect.org website: https://www.ihaconnect.org/patientsafety/Initiatives/Pages/UP-Campaign.aspx



Wake-Up Resources

Indiana Patient Safety Center
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- *Social Media*
- *Resource Sheet*
- *Webinar Information*
  - (click hyperlink above to access—also accessible on IHA website-Patient Safety Up Campaign)
- *HIIN Wake UP Self-Assessment & Monitoring Tool-*

2018 Patient Safety Awareness Week

Indiana Patient Safety Center
of the Indiana Hospital Association

March 11-17, 2018

Patient Safety Awareness Week

E-mail IHA your plans!

Daily Topics

- Opioid Awareness
- Wake Up: Know Your Meds
- Get Up: Prevention of Falls
- Soap Up: Hand Hygiene
- Safe Antibiotic Usage
- Could it be Sepsis?
- Safe Infant Sleep Practices

Patient Safety Awareness Week Toolkit and IPSCresources.com

IHAconnect.org/Quality-Patient-Safety

Polling Question #1

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- What is your primary role within your organization?
  - Infection Prevention
  - Nursing Professional
  - Laboratory Professional
  - Medical Staff
  - Environment Services / Housekeeping
  - Social Worker
  - Mental Health Professional
  - Other

Polling Question #2

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- *In your job, are you primarily*
  - ICU Staff?
  - Non-ICU Staff?

Objectives

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Following this webinar:

1. *Understand essential elements of Wake-UP*
2. *Identify processes in med surg that can enhance patient safety.*
3. *Identify objectives of ABCDEF Bundle*
4. *Identify processes to implement ABCDEF Bundle*
5. *Identify potential outcome measures for ABCDEF Bundle*

1 Opioid & Sedation Management

Indiana Patient Safety Center

FOUNDATIONAL QUESTIONS for the UP Campaign:

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1. **Is my patient awake enough to get up?**
2. *Have I protected my patient from infections?*
3. *Does my patient need any medication changes?*

Sleep vs Sedation

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Not Just Sedatives and Opioids

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- *Antihistamines/anticholinergics*
- *Antipsychotics*
- *Some antidepressants*
- *Anti-emetics*
- *Muscle relaxants*

American Geriatric Society
Beers Criteria
Meds to watch in ≥ 65 yo

Medications to avoid in those over 65yrs

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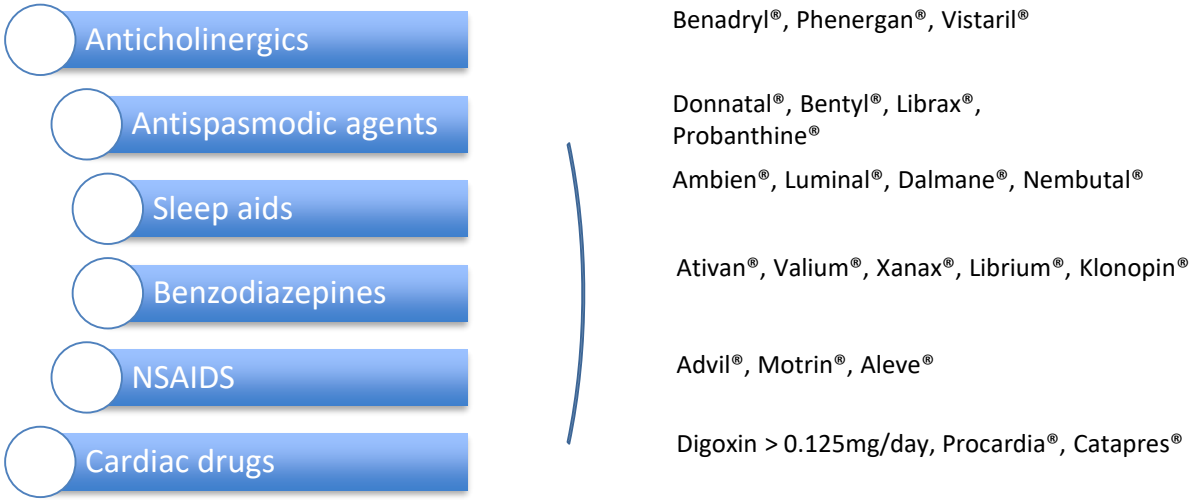
of the Indiana Hospital Association



HIIN Script Up 1/30/18:
http://www.hret-hiin.org/resources/display/hret-hiin-script-up-optimizing-patient-medications-minimizing-adverse-events

ICU Pitfalls of Sedatives and Analgesics

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of the Indiana Hospital Association

Sedatives and analgesics may contribute to:

- *Increased duration of mechanical ventilation*
- *Length of intensive care requirement*
- *Impede neurological examination*
- *May predispose to delirium*

Kollef M, et al. *Chest*. 114:541-548.
Pandharipande et al. *Anesthesiology*. 2006;124:21-26.

Med/Surg Pitfalls of Sedatives and Analgesics

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- *Over sedation*
- *Transfer to ICU*
- *Hypoxic encephalopathy*
- *Death*

MUST DO's

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WAKE-UP MUST DO's

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of the Indiana Hospital Association

1. *Establish Expectations*

2. *Pair POSS & Pain*

3. *Manage with Multiple Modalities*

MUST DO #1
Establish Expectations

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Goals of Pain Management:

- *Relieve suffering*
- *Achieve early mobilization*
- *Reduce hospital length of stay*

THE GOAL IS NOT ZERO PAIN!

MUST DO #2
Pair POSS & Pain

Just Right!

Over Medicated: Hibernating

Under Medicated: Not Happy

☹#@xx!!

POSS AKA “GOLDILOCKS SCALE”

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S- Sleep, easy to arouse

1- awake and alert

2- slightly drowsy

3- frequently drowsy, drifts off to sleep during conversation

4- somnolent, minimal or no response to stimulation

Pasero Opioid-Induced Sedation Scale (POSS) With Interventions*

S = Sleep, easy to arouse

Acceptable; no action necessary; may increase opioid dose if needed

1 = Awake and alert

Acceptable; no action necessary; may increase opioid dose if needed

2 = Slightly drowsy, easily aroused

Acceptable; no action necessary; may increase opioid dose if needed

3 = Frequently drowsy, arousable, drifts off to sleep during conversation

Unacceptable; monitor respiratory status and sedation level closely until sedation level is stable at less than 3 and respiratory status is satisfactory; decrease opioid dose 25% to 50%[1] or notify primary[2] or anesthesia provider for orders; consider administering a non-sedating, opioid-sparing nonopioid, such as acetaminophen or a NSAID, if not contraindicated; ask patient to take deep breaths every 15-30 minutes.

4 = Somnolent, minimal or no response to verbal and physical stimulation

Unacceptable; stop opioid; consider administering naloxone[3,4]; stay with patient, stimulate, and support respiration as indicated by patient status; call Rapid Response Team (Code Blue) if indicated; notify primary[2] or anesthesia provider; monitor respiratory status and sedation level closely until sedation level is stable at less than 3 and respiratory status is satisfactory.

No discharge from PACU
No additional opioids

***Appropriate action is given in italics at each level of sedation.**

[1] If opioid analgesic orders or hospital protocol do not include the expectation that the opioid dose will be decreased if a patient is excessively sedated, such orders should be promptly obtained.

[2] For example, the physician, nurse practitioner, advanced practice nurse, or physician assistant responsible for the pain management prescription.

[3] For adults experiencing respiratory depression give intravenous naloxone very slowly while observing patient response ("titrate to effect"). If sedation and respiratory depression occurs during administration of transdermal fentanyl, remove the patch; if naloxone is necessary, treatment will be needed for a prolonged period, and the typical approach involves a naloxone infusion. Patient must be monitored closely for at least 24 hours after discontinuation of the transdermal fentanyl.

[4] Hospital protocols should include the expectation that a nurse will administer naloxone to any patient suspected of having life-threatening opioid-induced sedation and respiratory depression.

Two Scales are Better than One for Narcotic and Sedation Administration

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PAIN ALONE

- Risk factors may be absent
- Objective?
- Dosage based on number or range
- Patients and families understand the numeric dosing

PAIN & POSS

- Two scales allow for safer dosing
- High pain scale with high POSS scale – no narcotics
- High pain scale low POSS - med dose

MUST DO #3
Multi-Modal Pain Management

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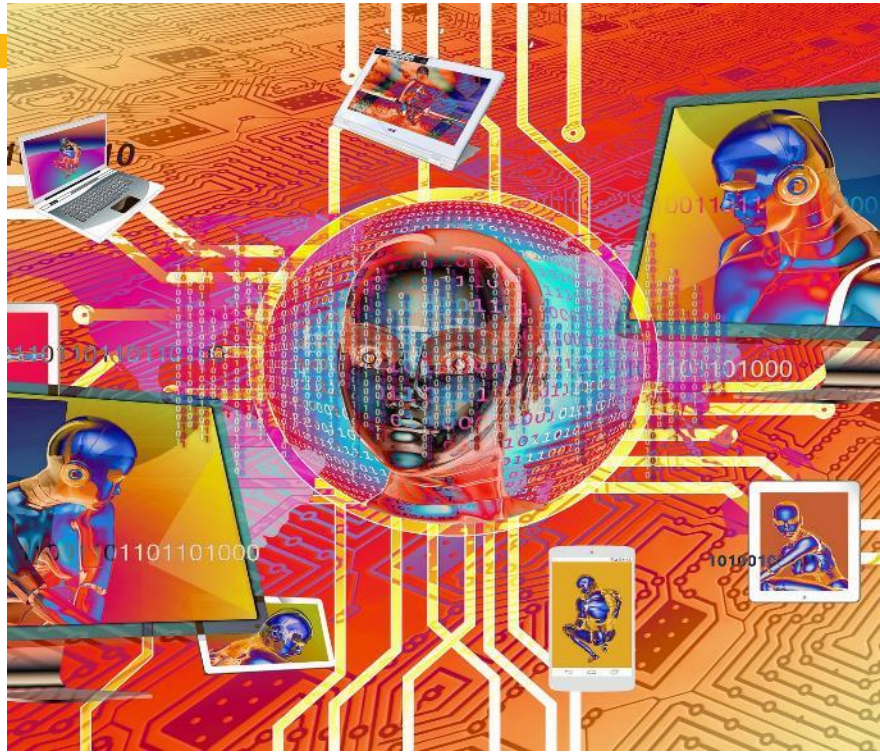
Pharmacological and

Non-pharmacological



MULTIMODAL PAIN MANAGEMENT

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- *Combination of opioid and one or more other drugs*
  - acetaminophen (Tylenol, others)
  - ibuprofen (Advil, Motrin IB, others)
  - celecoxib (Celebrex)
  - ketamine (Ketalar)
  - gabapentin (Gralise, Neurontin)
- *Non-pharmacological interventions*

www.mayoclinic.org/pain-medications/art-20046452

CAN WE MANAGE PAIN WITH NON-PHARMACOLOGIC METHODS?

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What do we do at home?

Comfort measures:

- Aromatherapy
- Massage
- Herbal tea
- Stress ball
- Music
- Pet therapy
- Warm compresses, blankets
- Ice packs
- Extra pillows

DO COMFORT ITEMS HELP?

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- *These modalities can:*
  - Reduce anxiety
  - Reduce pain
- *Reducing anxiety can reduce pain*
- *Non-pharmacologic pain reduction methods reduce the need for pain medications*

DO HOSPITALS OFFER THESE?

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https://www.pvmc.org/patients-visitors/pain-comfort-menu

Platte Valley MEDICAL CENTER | SCL Health

http://www.hopkinsmedicine.org/the_johns_hopkins_hospital/services_amenities/services/pain-control-comfort-menu.html

JOHNS HOPKINS MEDICINE

POSITIVE RESULTS

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- *Pain scores*
- *Nausea scores*
- *Anxiety scores….*

All decreased by more than 50%

NEXT: Looking to see if opioid usage and opioid ADEs are both decreased.

MULTI-MODAL THERAPY

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Emma, age 13, had her 3rd surgery for a congenital foot deformity. Pain management was problematic, so both gabapentin and pet therapy were added to lower opioid doses with excellent results, allowing discharge to home 36 hours later.

CASE STUDY

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Activity: What would you do? Chat in…

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- *You have a post-op patient who has assessed his pain as an 8 on a scale of 1-10.*
- *When you assessed the POSS 30 minutes ago, he scored a 3.*

- *Pair up.*
- *How would you approach this patient and family?*
- *Formulate your plan.*
- *Try it out.*
- *Discuss at the table.*

WAKE UP Checkpoint

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Must Do's

1. Establish Expectations
2. Pair POSS & Pain
3. Manage with Multiple Modalities

Next Steps

- ✓ Are you setting pain management expectations ("0" is not the goal) prior to admission?
- ✓ Are you asking about comfort level in addition to pain score?
- ✓ Are you using the Pasero Opioid-induced Sedation Scale (POSS) prior to and after opioid administration?
- ✓ Do you offer multimodal pain management; both pharmacologic and non-pharmacologic modalities?

Offer Multi-modal Pain Management: 50%

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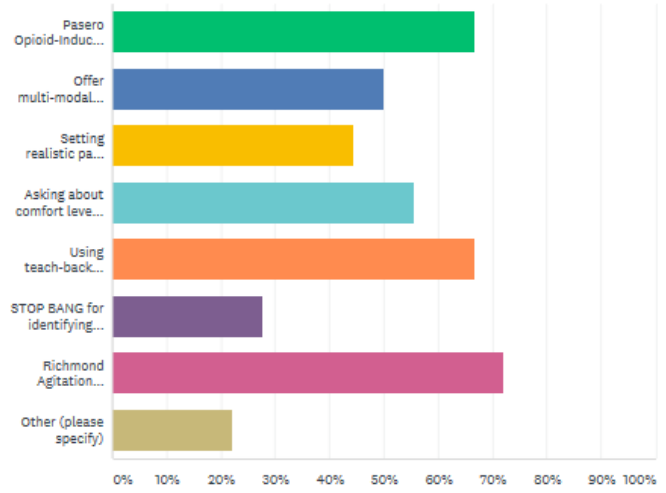
ANSWER CHOICES		RESPONSES	
Pasero Opioid-Induced Sedation Scale (POSS) prior to an after opioid administration		66.67%	12
Offer multi-modal pain management - both pharmacologic and non-pharmacologic modalities		50.00%	9
Setting realistic pain management expectations prior to admission		44.44%	8
Asking about comfort level in addition to pain score		55.56%	10
Using teach-back methods with patients and families to enhance their knowledge and assist in setting pain management expectations		66.67%	12
STOP BANG for identifying Obstructive Sleep Apnea		27.78%	5
Richmond Agitation Sedation Scale (RASS)		72.22%	13
Other (please specify)	Responses	22.22%	4
Total Respondents: 18			

Q9

If yes, do you use or complete the following? (Check all that apply)

Answered: 18 Skipped: 2



ABCDEF Bundle for ICU Liberation, Improved Survival & Reduced Brain Dysfunction

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- *Awakening Trials*
- *Breathing Trials*
- *Choosing the right sedatives & analgesia*
- *Delirium monitoring/management*
- *Early exercise/mobility*
- *Family engagement & empowerment*

ABCDEF Bundle

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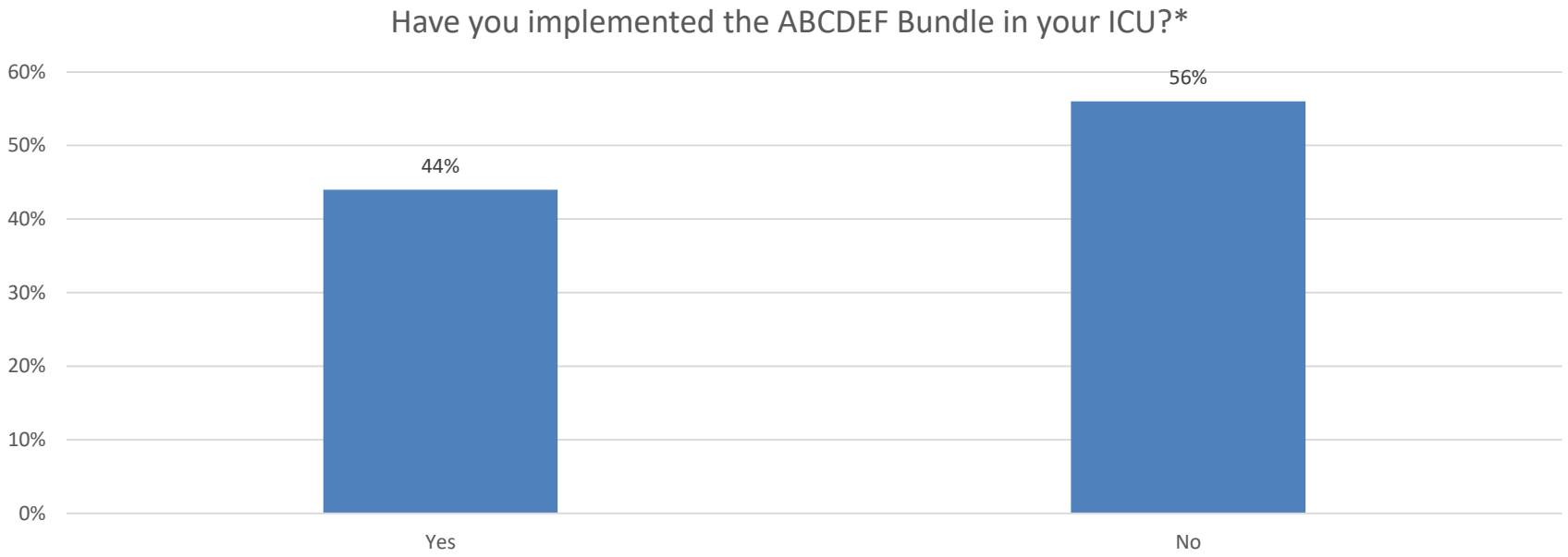


*excludes response of not applicable

mwhitney@cynosurehealth.org
Maryanne Whitney, RN, MSN, CNS

Cynosure HEALTH

Improving Patient Outcomes with Bundles

Sarah Roth BSN, RN

Jen Hittle BSN, RN, CNML

Georgia Salazar BSN RN CCRN

Indiana University Health

Indiana University Health Arnett Intensive Care Unit Lafayette, IN

- 14 Bed Closed ICU
- Mixed Patient Population
- Open Heart Surgery Recovery, Trauma, Neurosurgery, Cardiac Medical, IABP, CRRT, Medical ICU patients

ABCDEF Bundle Improvement Collaborative

- 18 months long
- Goal to improve pain control and decrease sedative exposure and time on mechanical ventilation by:
  - Increasing time patients are free of delirium
  - Encouraging early mobilization
  - Engaging families to be involved in family member's care
  - Using an online data collection tool to validate compliance
  - Implementing evidence-based care to boost teamwork

Society of Critical Care Medicine (n.d.) *Abcdef bundle improvement collaborative*. Retrieved from: http://www.iculiberation.org/About/collaborative/Pages/default.aspx

ABCDEF Bundle Improvement Collaborative

- The Collaborative was operating in three regions: the Southeast, the West Coast, and the Midwest
  - Any ICU was able to apply regardless of previous experience with bundle implementation
  - Data was collected and used to identify trends in:
    - Length of stay
    - Hours of mechanical ventilation
    - Improvements in team communication/interaction

Society of Critical Care Medicine (n.d.) *Abcdef bundle improvement collaborative*. Retrieved from: http://www.iculiberation.org/About/collaborative/Pages/default.aspx

PAD Guidelines

- In 2013, The Society of Critical Care Medicine (SCCM) published the *Clinical Practice Guidelines for the Management of Pain, Agitation, and Delirium in Adult Patients in the Intensive Care Unit*
  - *Multidisciplinary approach to managing pain, agitation/sedation, and delirium*
  - *Utilizes assessment tools to target treatment*
  - *Decrease sedation levels to allow active patient participation in ventilator weaning trials*
  - *Implementing prevention strategies to avoid complications*

Society of Critical Care Medicine (2013). *Guidelines*. Retrieved from: http://www.iculiberation.org/Guidelines/Pages/default.aspx

ICU LIBERATION

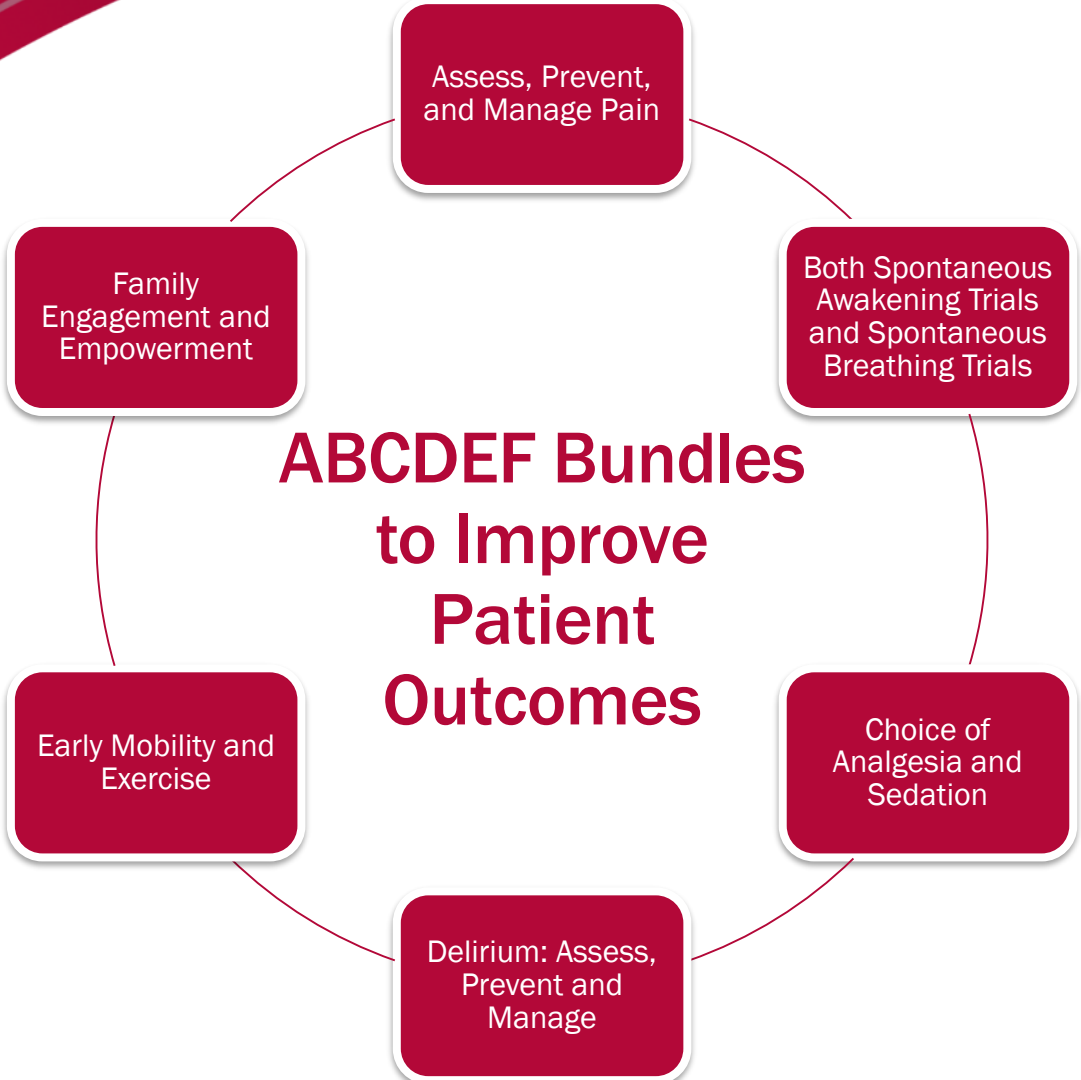
www.iculiberation.org

ICU Pain, Agitation, and Delirium Care Bundle

	PAIN	AGITATION	DELIRIUM
ASSESS	Assess pain ≥4x/shift & prn Preferred pain assessment tools: • Patient able to self-report → NRS (0-10) • Unable to self-report → BPS (3-12) or CPOT (0-8) Patient is in significant pain if NRS ≥ 4, BPS > 5, or CPOT ≥ 3	Assess agitation, sedation ≥4x/shift & prn Preferred sedation assessment tools: • RASS (-5 to +4) or SAS (1 to 7) • NMB → suggest using brain function monitoring Depth of agitation, sedation defined as: • *agitated* if RASS = +1 to +4, or SAS = 5 to 7 • *awake and calm* if RASS = 0, or SAS = 4 • *lightly sedated* if RASS = -1 to -2, or SAS = 3 • *deeply sedated* if RASS = -3 to -5, or SAS = 1 to 2	Assess delirium Q shift & prn Preferred delirium assessment tools: • CAM-ICU (+ or -) • ICDSC (0 to 8) Delirium present if: • CAM-ICU is positive • ICDSC ≥ 4
TREAT	Treat pain within 30' then reassess: • Non-pharmacologic treatment–relaxation therapy • Pharmacologic treatment: – Non-neuropathic pain → IV opioids +/- non-opioid analgesics – Neuropathic pain → gabapentin or carbamazepine, + IV opioids – S/p AAA repair, rib fractures → thoracic epidural	Targeted sedation or DSI (*Goal: patient purposely follows commands without agitation*): RASS = -2 – 0, SAS = 3 - 4 • If *under sedated* (RASS >0, SAS >4) assess/treat pain → treat w/sedatives prn (non-benzodiazepines preferred, unless ETOH or benzodiazepine withdrawal is suspected) • If *over sedated* (RASS <-2, SAS <3) hold sedatives until at target, then restart at 50% of previous dose	• Treat pain as needed • Reorient patients; familiarize surroundings; use patient's eyeglasses, hearing aids if needed • Pharmacologic treatment of delirium: – Avoid benzodiazepines unless ETOH or benzodiazepine withdrawal is suspected – Avoid rivastigmine – Avoid antipsychotics if ↑ risk of Torsades de pointes
PREVENT	• Administer pre-procedural analgesia and/or non-pharmacologic interventions (e.g., relaxation therapy) • Treat pain first, then sedate	• Consider daily SBT, early mobility and exercise when patients are at goal sedation level, unless contraindicated • EEG monitoring if: – at risk for seizures – burst suppression therapy is indicated for ↑ ICP	• Identify delirium risk factors: dementia, HTN, ETOH abuse, high severity of illness, coma, benzodiazepine administration • Avoid benzodiazepine use in those at ↑ risk for delirium • Mobilize and exercise patients early • Promote sleep (control light, noise; cluster patient care activities; decrease nocturnal stimuli) • Restart baseline psychiatric meds, if indicated

Society of Critical Care Medicine (2013). Guidelines. Retrieved from: http://www.iculiberation.org/SiteCollectionDocuments/Guidelines-Pain-Agitation-Delirium-Care-Bundle-Final.pdf

IU HEALTH


Assess, Prevent, and Manage Pain
Both Spontaneous Awakening Trials and Spontaneous Breathing Trials
Choice of Analgesia and Sedation
Delirium: Assess, Prevent and Manage
Early Mobility and Exercise
Family Engagement and Empowerment
ABCDEF Bundles to Improve Patient Outcomes

A: Assess, Prevent, and Manage Pain

Assess
- Assess pain > 4x/ shift & PRN
- Significant pain with NRS >3 or CPOT >2

Prevent
- Administer pre-procedural interventions or analgesia
- **Treat pain first, then sedate**

Treat
- Treat pain within 30 minutes of detecting and reassess
- Incorporate both non-pharmacological and pharmacological treatments

Society of Critical Care Medicine. (n.d.) Implementing the a component of the abcdef bundle. Retrieved form: http://www.iculiberation.org/SiteCollectionDocuments/ICU-Liberation-ABCDEF-Bundle-Implementation-Assess-Prevent-Manage-Pain.pdf

CPOT - Critical Care Pain Observation Tool

INDICATOR	SCORE	
FACIAL EXPRESSION	Relaxed, neutral	0
	Tense	1
	Grimacing	2
BODY MOVEMENTS	Absence of movements	0
	Protection	1
	Restlessness	2
MUSCLE TENSION (evaluate by passive flexion and extension of upper extremities)	Relaxed	0
	Tense, rigid	1
	Very tense or rigid	2
COMPLIANCE WITH VENTILATOR (intubated patients)	Alarms not activated; easy ventilation	0
	Coughing but tolerating	1
	Fighting ventilator	2
OR		
VOCALIZATION (extubated patients)	Talking in normal tone or no sound	0
	Sighing, moaning	1
	Crying out, sobbing	2

CPOT range = 0 – 8; CPOT >2 is significant

Indian

Society of Critical Care Medicine. (n.d.) Implementing the a component of the abcdef bundle. Retrieved form: http://www.iculiberation.org/SiteCollectionDocuments/ICU-Liberation-ABCDEF-Bundle-Implementation-Assess-Prevent-Manage-Pain.pdf

B: Both Spontaneous Awakening Trials & Spontaneous Breathing Trials

- Daily spontaneous awakening trails (SAT) showed a decrease in the duration of mechanical ventilation
  - Pause sedation infusion until patient is awake
  - Restart at 50% prior dose

Society of Critical Care Medicine. (n.d.) Implementing the b component of the abcdef bundle. Retrieved form: http://www.iculiberation.org/SiteCollectionDocuments/ICU-Liberation-ABCDEF-Bundle-Implementation-Both-Spontaneous-Awakening-Breathing-Trials-SBT-SAT.pdf

SAT Safety Screen

- No active seizures
- No alcohol withdrawal
- No agitation
- No paralytics
- No myocardial ischemia
- Normal intracranial pressure

SAT Failure

- Anxiety, agitation, or pain
- Respiratory rate > 35/min
- Oxygen saturation <88%
- Respiratory distress
- Acute cardiac arrhythmia

Society of Critical Care Medicine. (n.d.) Implementing the b component of the abcdef bundle. Retrieved form: http://www.iculiberation.org/SiteCollectionDocuments/ICU-Liberation-ABCDEF-Bundle-Implementation-Both-Spontaneous-Awakening-Breathing-Trials-SBT-SAT.pdf

B: Both Spontaneous Awakening Trials & Spontaneous Breathing Trials

- Spontaneous breathing trials (SBT) Increases opportunity for effecting independent breathing
  - Duration a minimum of 30 minutes
- Requires communication and coordination between RN, RT, and MD

Society of Critical Care Medicine. (n.d.) Implementing the b component of the abcdef bundle. Retrieved form: http://www.iculiberation.org/SiteCollectionDocuments/ICU-Liberation-ABCDEF-Bundle-Implementation-Both-Spontaneous-Awakening-Breathing-Trials-SBT-SAT.pdf

SBT Safety Screen

- No agitation
- Oxygen saturation ≥ 88%
- FiO2 ≤ 50%
- PEEP ≤ 7.5 cm H20
- No myocardial ischemia
- No vasopressor use
- Inspiratory efforts

SBT Failure

- Respiratory rate > 35/min
- Respiratory rate < 8/min
- Oxygen saturation < 88%
- Respiratory distress
- Mental status change
- Acute cardiac arrhythmia

Society of Critical Care Medicine. (n.d.) Implementing the b component of the abcdef bundle. Retrieved form: http://www.iculiberation.org/SiteCollectionDocuments/ICU-Liberation-ABCDEF-Bundle-Implementation-Both-Spontaneous-Awakening-Breathing-Trials-SBT-SAT.pdf

C: Choice of Analgesia and Sedation

- Assess often with goal of:
  - Pain: 3 or less (NRS) or 2 or less (CPOT)
  - Sedation: RASS = +1 to -2
  - Delirium: CAM-ICU Negative
- Treat pain FIRST then sedate
- Not all mechanically ventilated patients need to be started on IV opioids and/or sedation infusions following intubation
- Non-benzodiazepine sedative are associated with better ICU outcomes

Society of Critical Care Medicine. (n.d.) Implementing the c component of the abcdef bundle. Retrieved form: http://www.iculiberation.org/SiteCollectionDocuments/ICU-Liberation-ABCDEF-Bundle-Implementation-Choice-Analgesia-Sedation.pdf

Richmond Agitation-Sedation Scale (RASS)

Score	Term	Description	
+4	Combative	Overtly combative, violent, immediate danger to staff	
+3	Very agitated	Pulls or removes tube(s) or catheter(s), aggressive	
+2	Agitated	Frequent nonpurposeful movement, fights ventilator	
+1	Restless	Anxious but movements not aggressively vigorous	
0	Alert and calm		
-1	Drowsy	Not fully alert but has sustained awakening (eye opening/eye contact) to *voice* (≥10 seconds)	Verbal Stimulation
-2	Light sedation	Briefly awakens to *voice* with eye contact (<10 seconds)	
-3	Moderate sedation	Movement or eye opening to *voice* (but no eye contact)	
-4	Deep sedation	No response to voice but movement or eye opening to *physical* stimulation	Physical Stimulation
-5	Unarousable	No response to *voice* or *physical* stimulation	

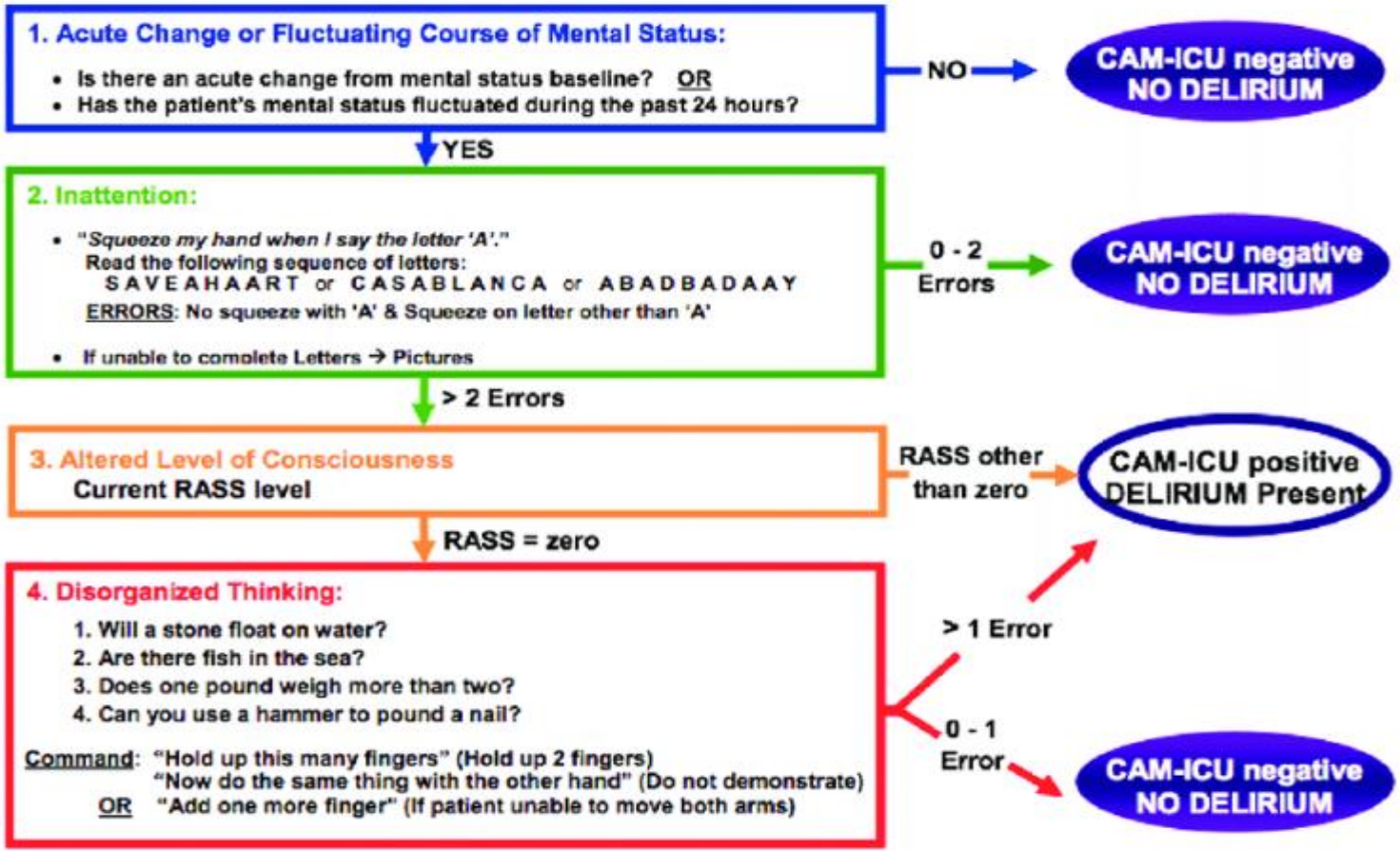
https://www.researchgate.net/figure/51078510_fig1_Figure-1-Richmond-Agitation-Sedation-Scale-RASS

D: Delirium: Assess, Prevent, and Manage

- Utilize Confusion Assessment Method for ICU (CAM-ICU)
- When delirium is present look for reversible causes
- Intervene per nursing protocol
  - Consult pharmacy for medication adjustments
  - Immobility
  - Visual and hearing impairments
  - Nutrition and dehydration
  - Pain

Society of Critical Care Medicine. (n.d.) Implementing the d component of the abcdef bundle. Retrieved form: http://www.iculiberation.org/SiteCollectionDocuments/ICU-Liberation-ABCDEF-Delirium-Bundle-Implementation-Assess-Prevent-Manage.pdf

Confusion Assessment Method for the ICU (CAM-ICU) Flowsheet

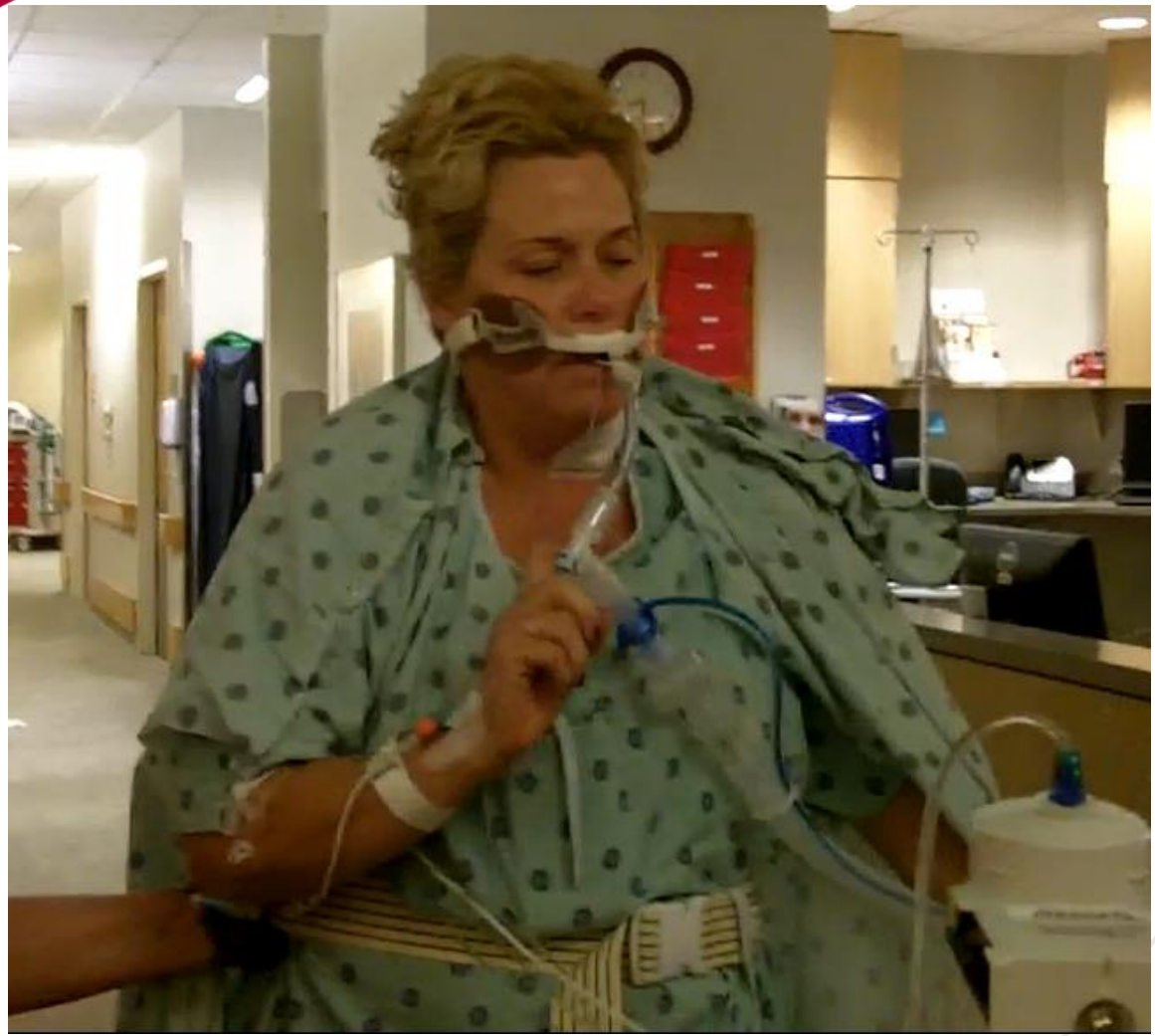


https://www.researchgate.net/figure/303790119_fig1_Figure-1-Confusion-assessment-method-for-the-ICU-CAM-ICU-Flow-sheet

E: Early Mobility and Exercise

- Treatment based on patients prior activity and goals
- Coordination between PT, RN, and RT to encourage patients to perform active movements if possible
- New study suggest that in the ICU there is a 3%-11% strength loss every day in bed
- Early mobility has shown:
  - Decrease in ICU and hospital length of stay
  - Improved overall physical function
  - Decreased during of MV
  - Decrease incidence of delirium

Society of Critical Care Medicine. (n.d.) Implementing the e component of the abcdef bundle. Retrieved form: http://www.iculiberation.org/SiteCollectionDocuments/ICU-Liberation-ABCDEF-Bundle-Implementation-Early-Mobility-Exercise.pdf



F: Family Engagement and Empowerment

- Keep ICU families informed and involved in decision making by allowing them to participate in rounds and allowing them to be involved in patient care
- Patient benefits:
  - Decrease in anxiety confusion, agitation
  - Decrease in CV complications and ICU LOS
  - Increase in feelings of security and patient satisfaction
  - Increase in quality and safety

Society of Critical Care Medicine. (n.d.) Implementing the f component of the abcdef bundle. Retrieved form: http://www.iculiberation.org/SiteCollectionDocuments/ICU-Liberation-ABCDEF-Bundle-Implementation-Family-Engagement-Empowerment.pdf

Nursing Led Rounds

- Multidisciplinary Daily Rounding in the ICU
  - Patient primary nurse
  - ICU physician
  - Charge nurse
  - Pharmacist
  - Respiratory therapist
  - Dietician
  - Chaplain
  - Patient's family members

Implementation for the Study

- Our ICU has always had multidisciplinary rounds which were intermittently nurse led
  - Completed daily at 1000
- Allowed for easier implementation of “F” bundle since family participation was already encouraged
  - Staff is extremely engaged in this process and encourage/educate families to attend rounds
  - Allows family time to come with questions/concerns/suggestions

Roll Out

- Bundle champions
  - Staff felt a sense of ownership
- Nursing staff education of bundles
  - Establish knowledge base
  - Why are bundles important?

Barriers to Bundle Implementation

- Resistance to change
  - Getting staff on board
- Lack of communication between nursing staff and physicians
  - Rolling out bundles individually vs all at once
- Multidisciplinary coordination
  - All staff needed to implement the bundles on the same page
- Patient resistance
  - Unaware of benefits to bundles (ex. Mobility)

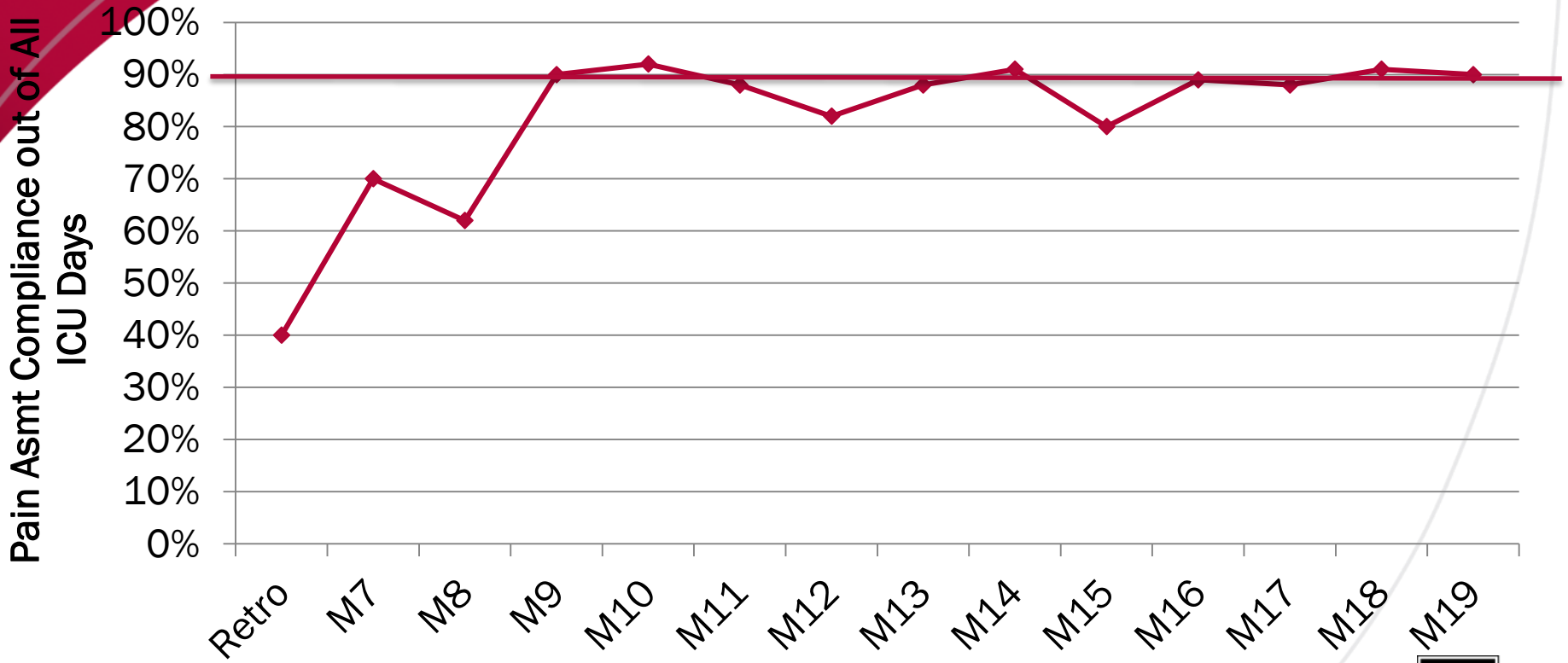
Ways to Improve

- Nursing education
  - Education about the bundles prior to initiation of study
    - Allowing nursing staff to feel confident with implementation
- Patient education
  - Why the bundles are implemented and how the patient can/will benefit
- Communication between all team members, patient, and family
  - Allows for all involved to understand the plan of care
    - Coordination between all disciplines involved in care
- Communication with other units involved in the study
  - Allows for optimal bundle implementation and results

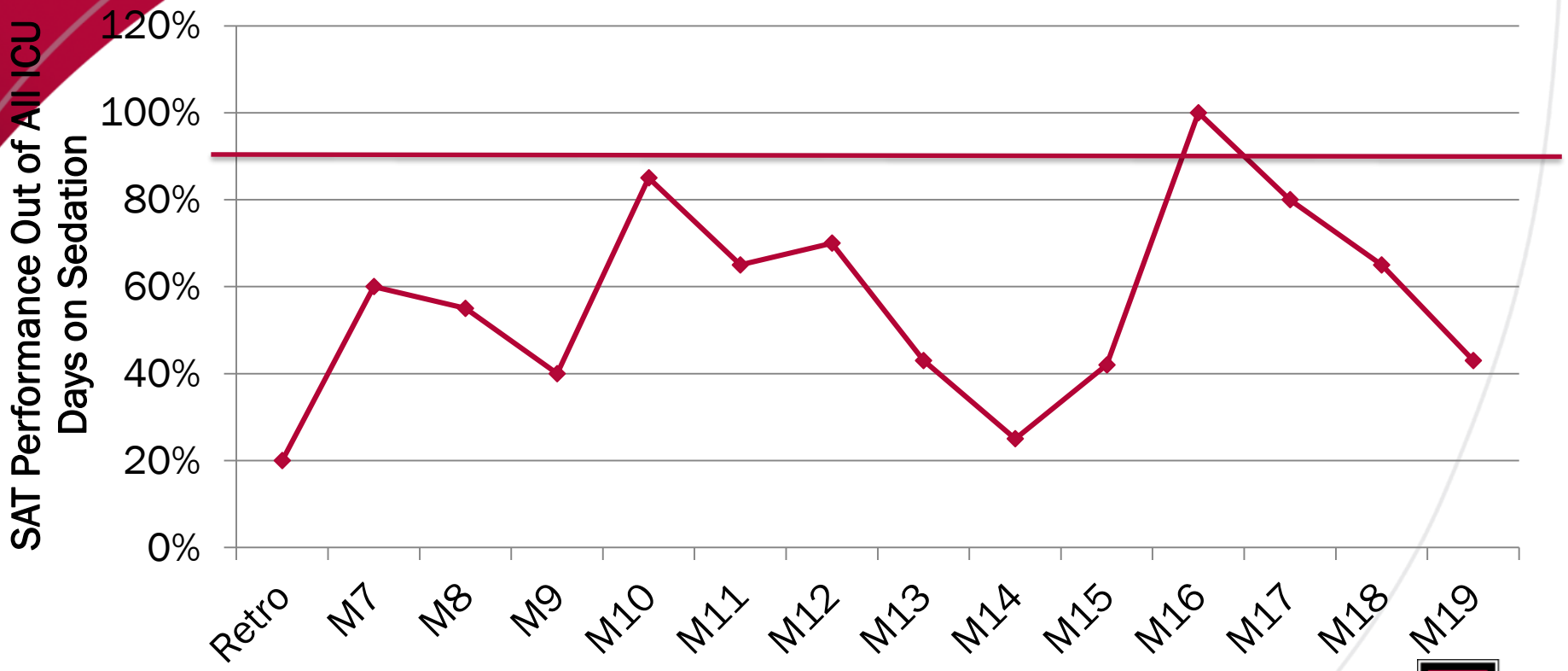
Bundle Implementation Wins

- Decreased length of stay = 0.5 days
- Decreased ventilator days by 50%
- Increased early mobility by 18%
- Decreased delirium in patients by 20%
- Decreased mortality rate
- Increased rate of patients discharged alive
- Post AACN HWE scores increased

A: Assess, Prevent, and Manage Pain



B: Both SAT + SBT



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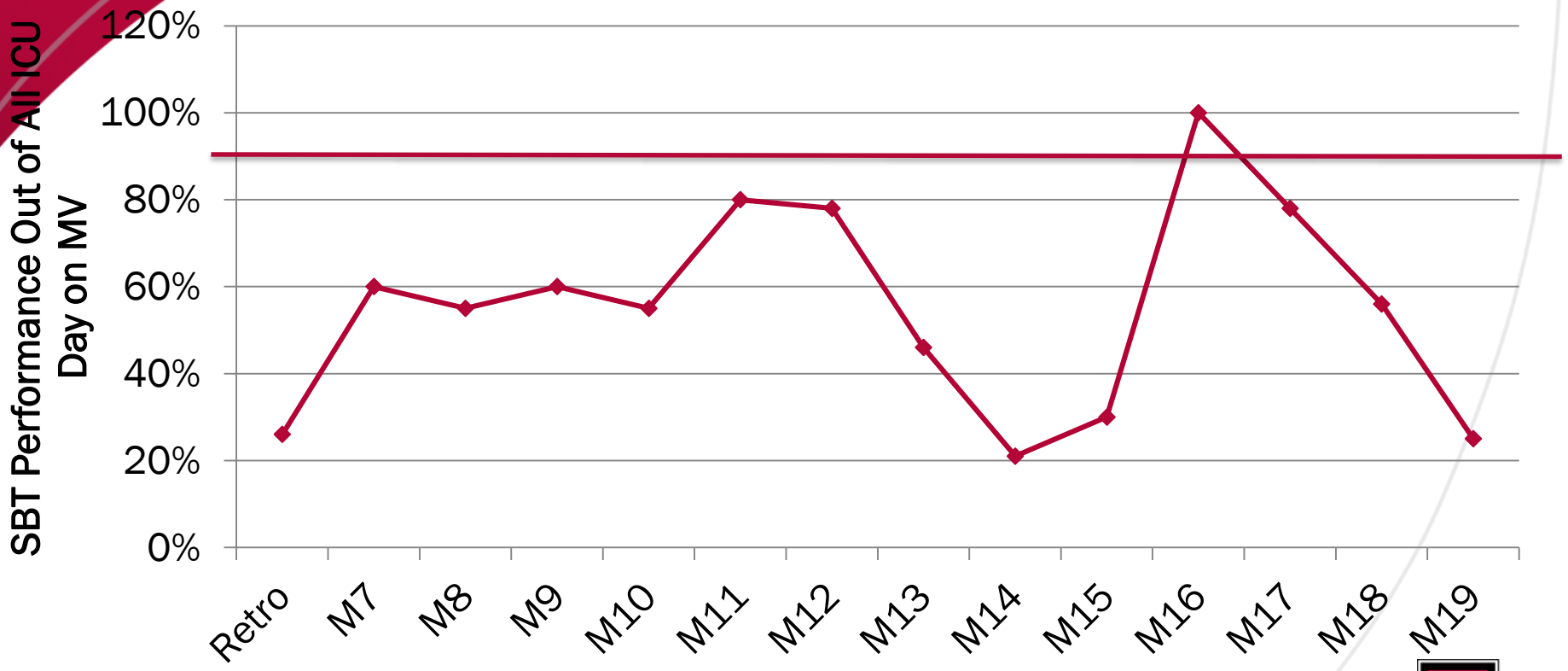

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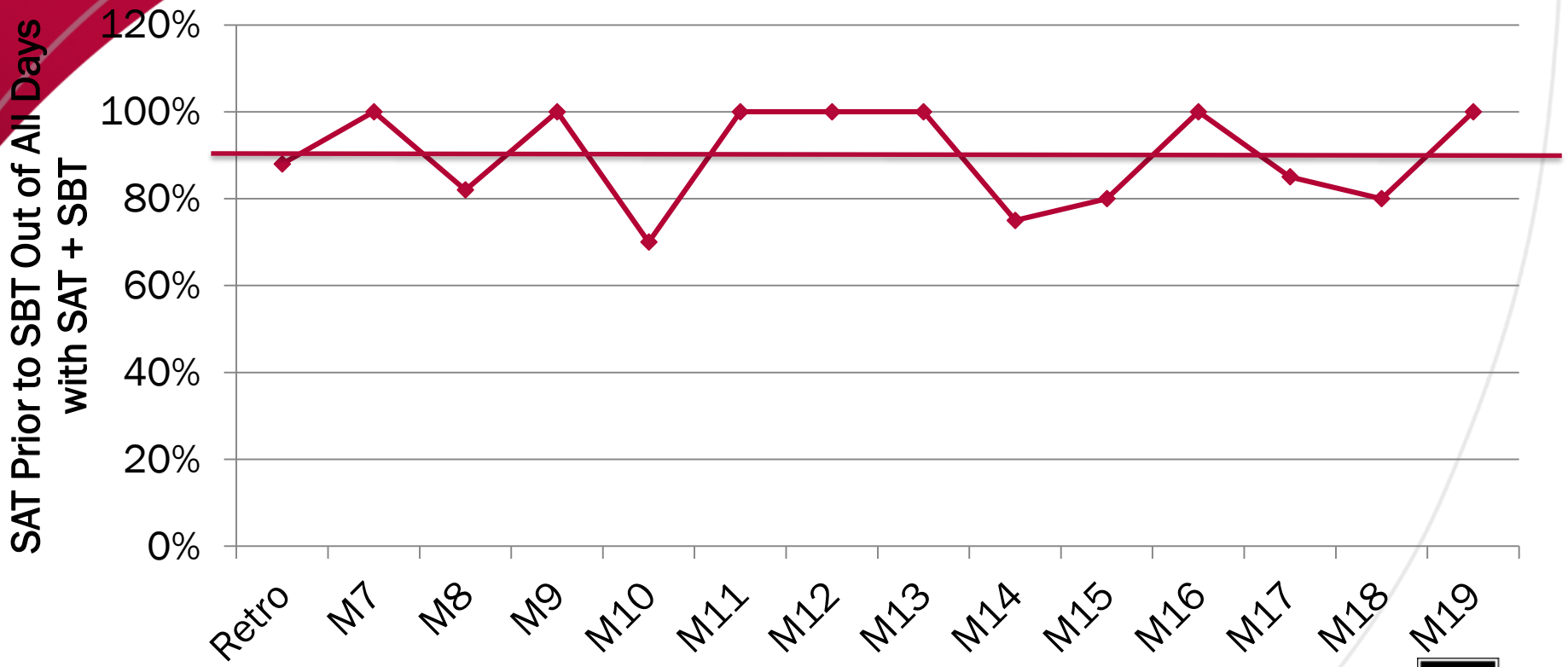
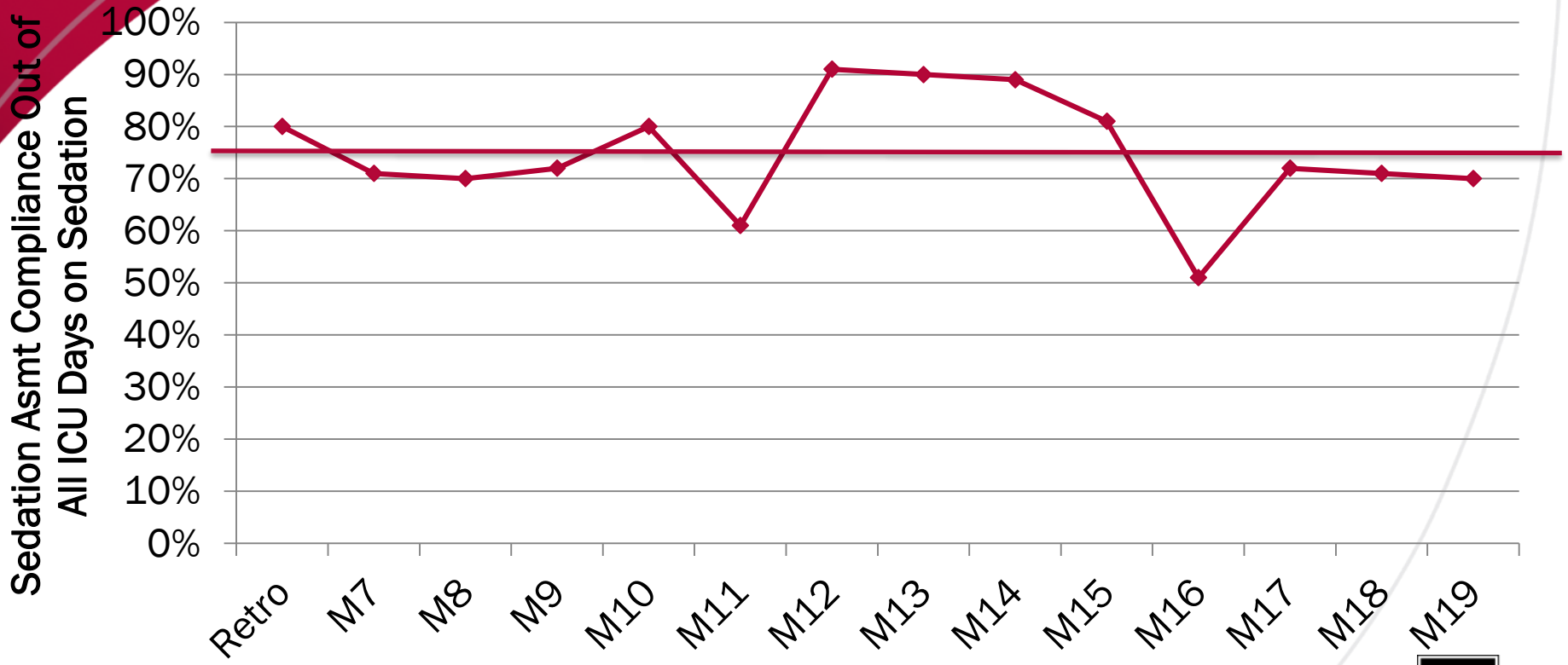
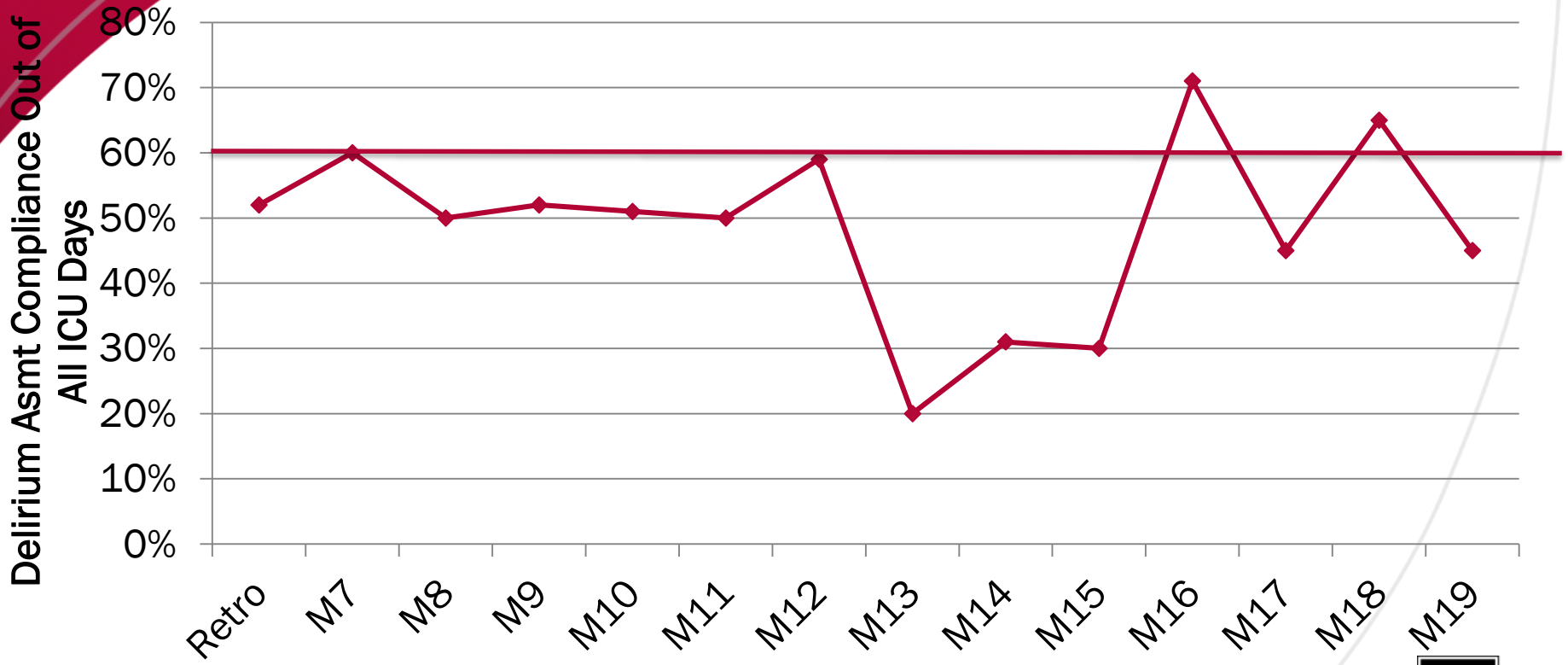


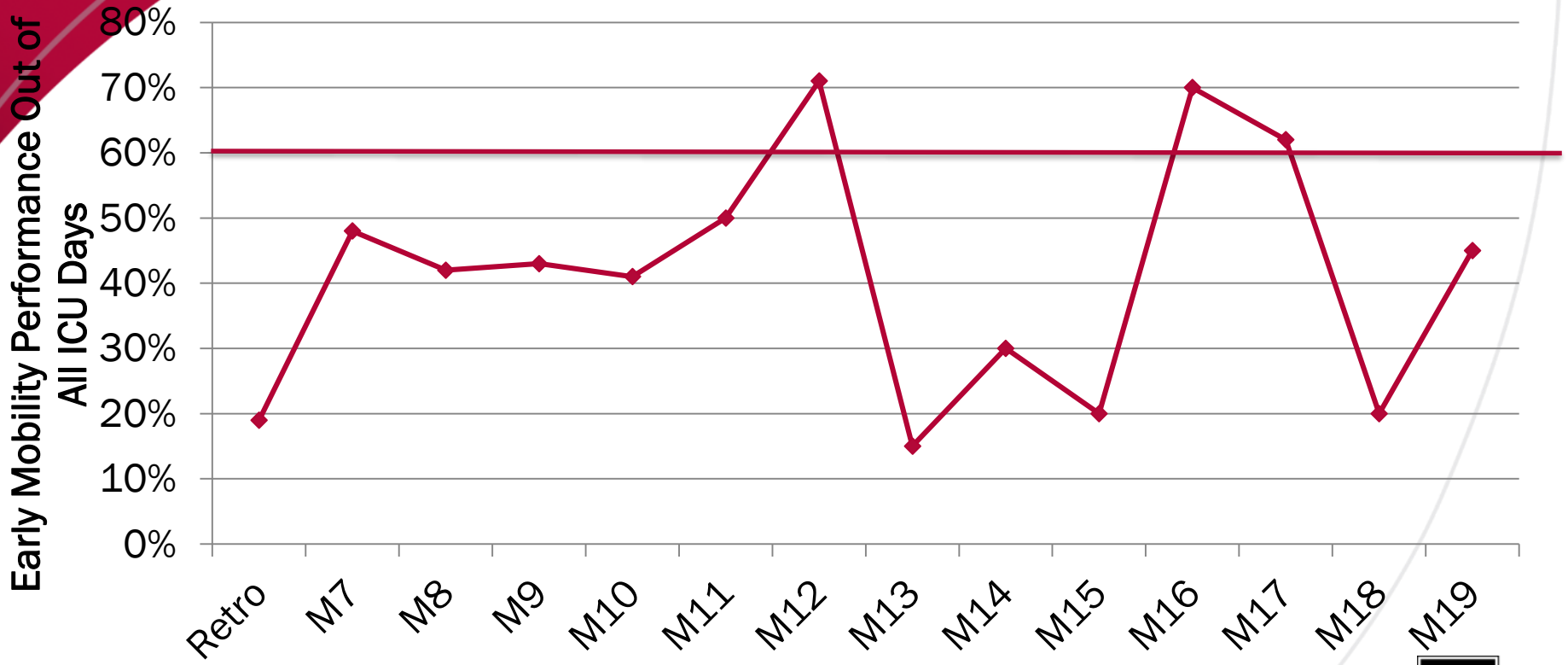
C: Choice of Analgesia and Sedation



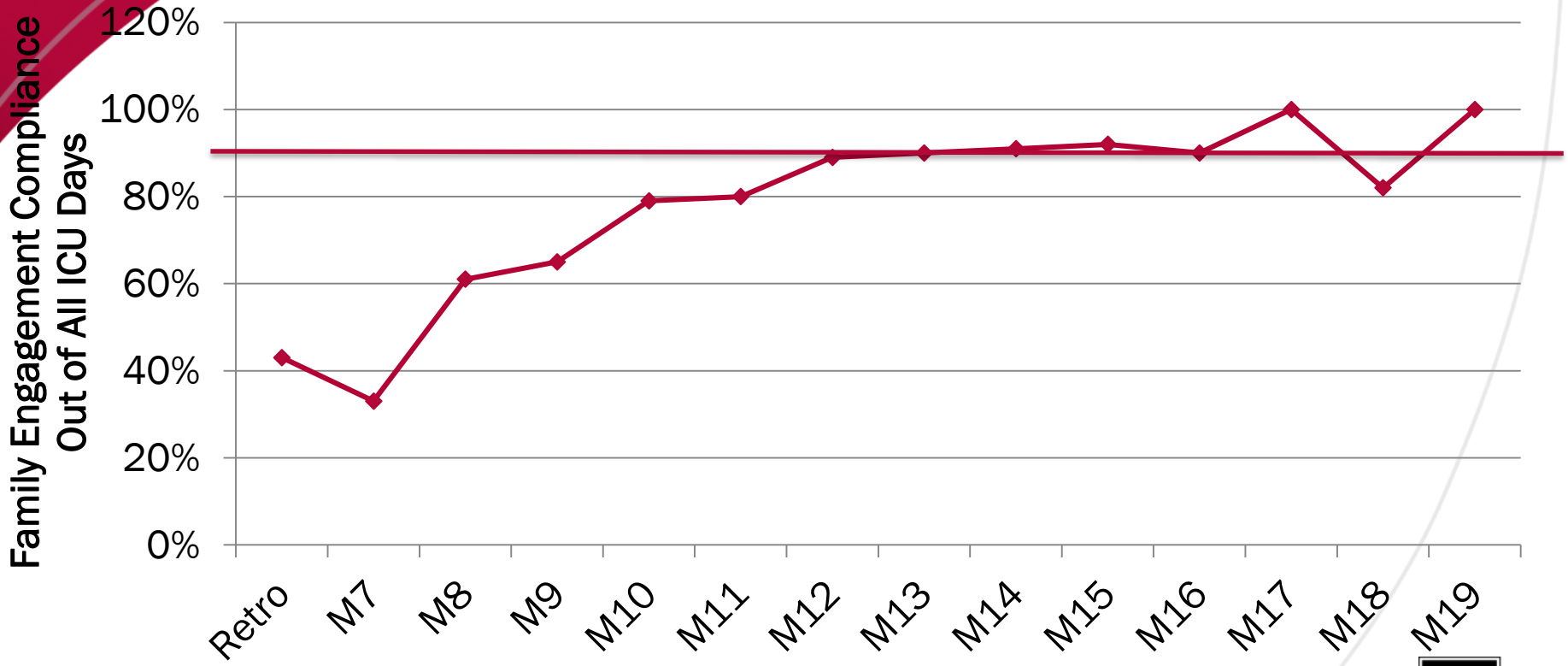
D: Delirium: Assess, Prevent, and Manage

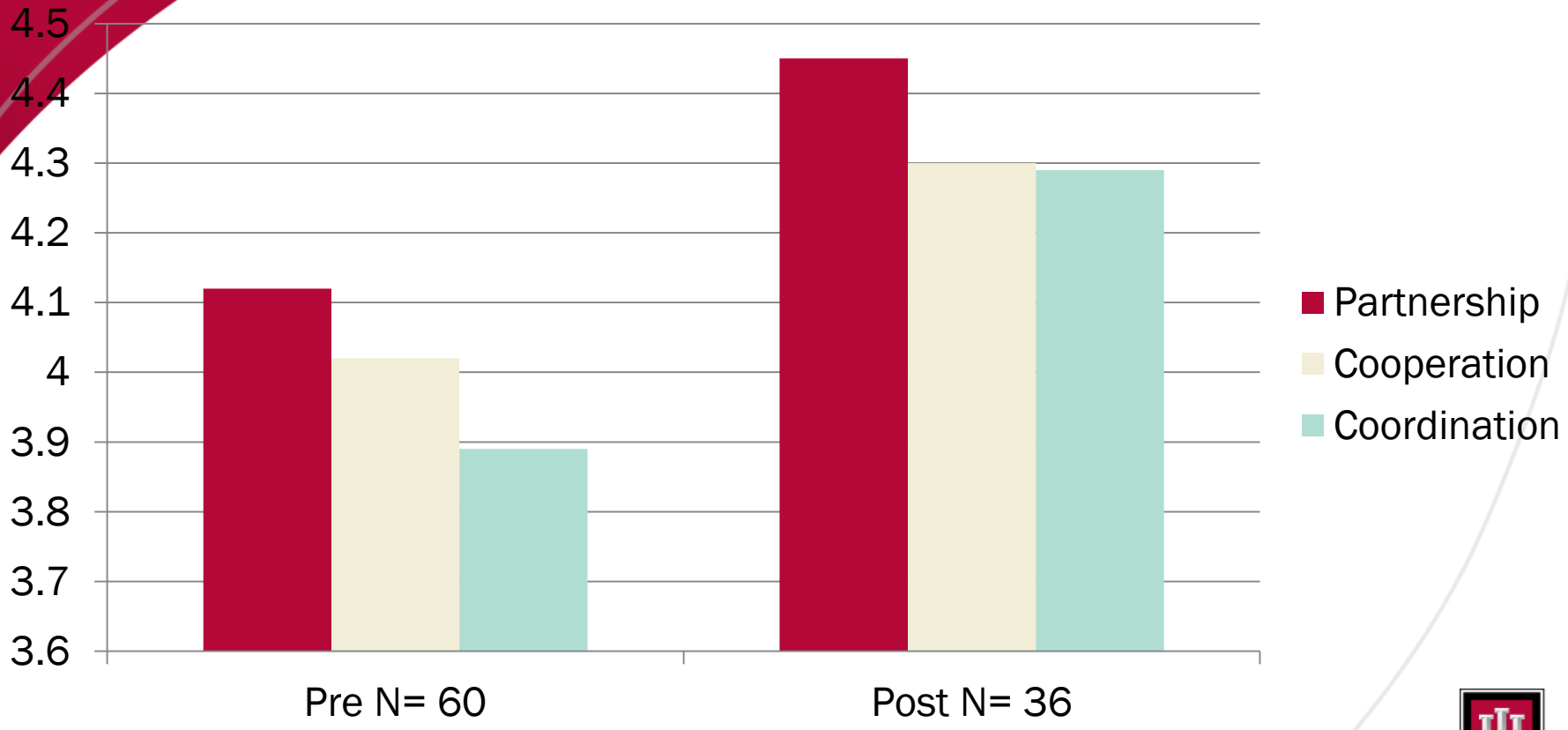


E: Early Mobility and Exercise

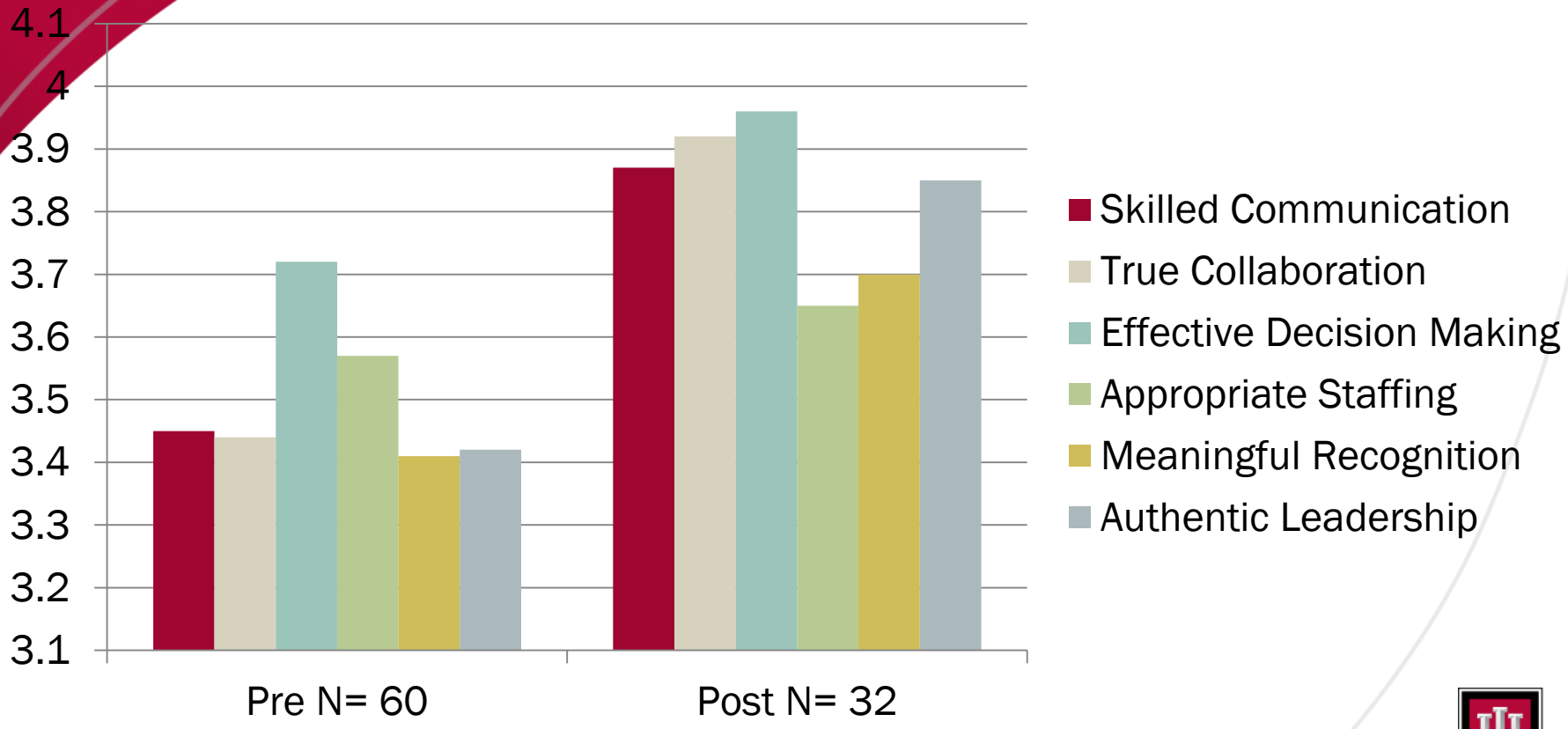


F: Family Engagement





AITCS Scores



AACN Healthy Work Environment Scores

Team Awards

- Society of Critical Care Medicine- Top Team Performance Awards for:
  - Midwest Region Overall ABCDEF Bundle Compliance/ Performance
  - “F” Bundle Element
  - “B” Bundle Element
- Society of Critical Care Medicine- Certificate of Achievement for Completion of the ICU Liberation ABCDEF Bundle Improvement Collaborative

References

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Questions?

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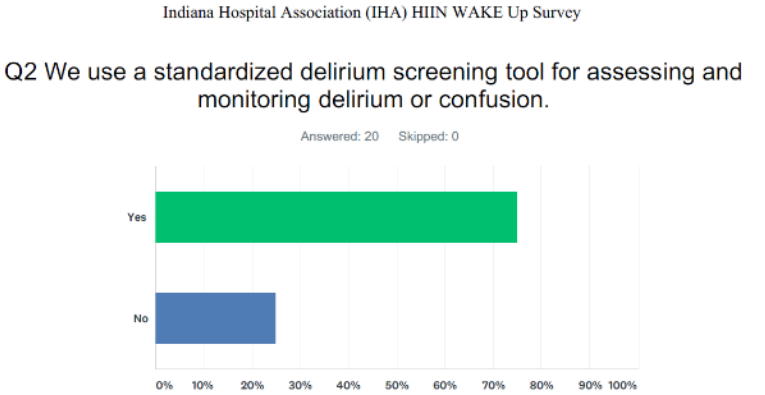
Indiana University Health

Next: Delirium

Indiana Patient Safety Center
of the Indiana Hospital Association



Delirium Assessment, Prevention, & Treatment

- March 20, 3-4pm ET: Malaz Boustani, MD
- **Audience**: Quality, ICU/Medical/Surgical Staff & Managers, Pharmacy, Educators

Use the following to join each installment in the series:

Dial in number: (888) 390-3967 **Participant link:** https://join.onstreammedia.com

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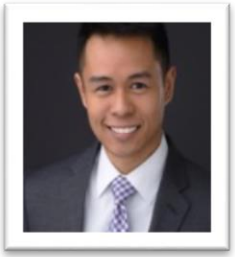

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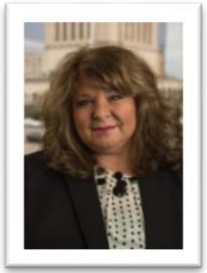

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