

# Get Moving!

## Implementing a Mobility Protocol Using ABCDE(FG)



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# Disclosures



- **We have no financial disclosures....  
But I need to disclose....**
- **We are passionate about mobility**
- **We are positive that application of the  
evidence will improve outcomes**
- **We intend on persuading you to join us.....**



# Objective



- State the epidemiology and impact of immobility on critically ill patients.
- Discuss screening and implementation strategies to improve mobility by providing an interprofessional approach to sedation, delirium, and mobility practices across multiple adult hospitals.
- Review of integrating the protocol into the system culture one year post implementation.



# Historically....

- **How long has it been a concern?**  
**Sad but true, authors identified the need in 1967**
  - “Nursing of the future...” must pay greater attention to maintaining the physiologic and psychological mobility and preserve the body’s autoregulatory mechanisms.

Olson, E.V., Johnson, B.J., Thompson, L.F., McCarthy, J.A., Edmonds, R.E., Schroeder, L.M., & Wade, M. (1967). The hazards of immobility. *American Journal of Nursing*, 67,4, 780-797.



# So what do our ICU pts look like?



# Through The Years...

- **Patients in ICU have been sedated, restrained and kept immobile in an attempt to improve their outcomes**
  - Prevent pain, anxiety and cause amnesia to the ICU experience
  - Sedate them so they sleep
  - Restrain them “so they don’t pull anything out”
  - Decrease the metabolic rate to decrease stress to the heart, lungs, and brain
- **Leading to increased length of stay (LOS), mortality, and delirium**

*IHI, 2012*



# Culture



- ICU culture of patient immobility and an often excessive or unnecessary use of sedation.
  - Promote patient comfort, safety and respiratory synchrony while allowing intubation and mechanical ventilatory support for severe respiratory failure.
- Has persisted despite emerging evidence that these practices may, alone or in combination with acute illness that precipitated the ICU admission, have important adverse consequences that may not be remediable over time.



# Disability

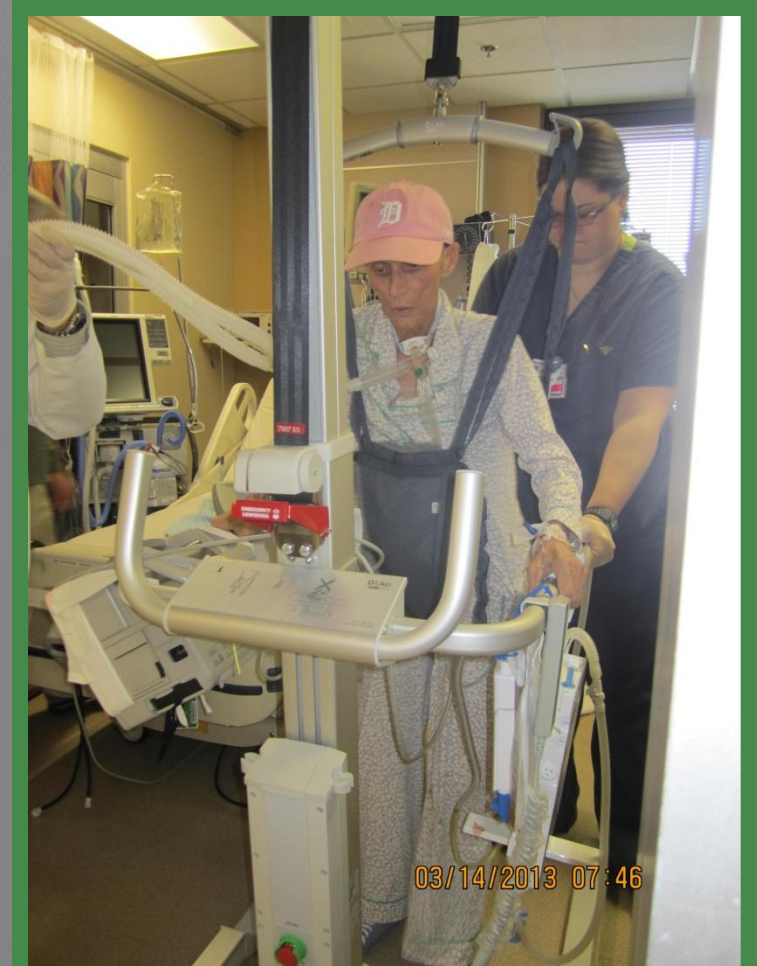
- Cognitive impairment and physical disability are major health burdens, drivers of health care cost
- Onset of disability associated with worsened mortality, substantial increases in medical costs over subsequent years & disproportionate strain on Medicaid and Medicare.
- Both cognitive and physical disability impose further burdens on families & informal caregivers
- Irreversible cognitive and physical impairment following acute illnesses are particularly feared outcomes and weigh heavily on patient decision making

*Iwashyna, Ely, Smith, Langa, 2010*



# Today...

- Implementing an interprofessional approach to early, progressive, and **aggressive** mobility protocol combats the effects of bedrest in the critically ill patient



# Why is Therapy Important in ICU?



➤ Advancements in medical care have led to an increase in survival

- ICUs have approximately 5,000,000 survivors annually
- 540,000 deaths annually

➤ Surviving patients suffer from long-term complications

- Neuromuscular weakness
- Neuropsychiatric, cognitive dysfunction
  - Especially seen in patients with respiratory failure

or mechanical ventilation

# Epidemiology- Delirium

- Affects > 2.3 million elderly annually
  - Up to 65% of Acute Care patients & 80% in Critical Care patients
- 17.5 million additional hospital days in U.S./yr
- Costs from \$38 to \$152 billion/yr
- An independent predictor of ↑ hospital LOS, ↑ discharge to extended care facilities, ↑ long-term cognitive dysfunction, and ↑ death six months after discharge

*Rice, Bennett, Gomez,. Theall, Knight, & Foreman, 2011*



# Results of Deconditioning

- **Cardiac:** Orthostatic hypotension, thrombi, increased workload for the heart
- **Respiratory:** Compression atelectasis, stasis and pooling of secretions, deficient ventilation → acidosis → death
- **Gastrointestinal:** Anorexia, stress → dyspepsia, gastric stasis, distention, diarrhea, constipation, loss defecation reflex
- **Integumentary:** Increase pressure ulcers, ↓ wound healing
- **Motor function:** Lack of weight bearing movement → osteoporosis, muscle atrophy
- **Urinary function:** Bladder distention, incontinence (overflow), urinary calculi
- **Metabolic function:** Reduced anabolism, and increased catabolism, fluid & electrolyte imbalance, circadian rhythm, hormone imbalance → diabetes
- **Psychosocial function:** Isolation, decreased sensory stimulation → decreased problem solving/ motivation to learn



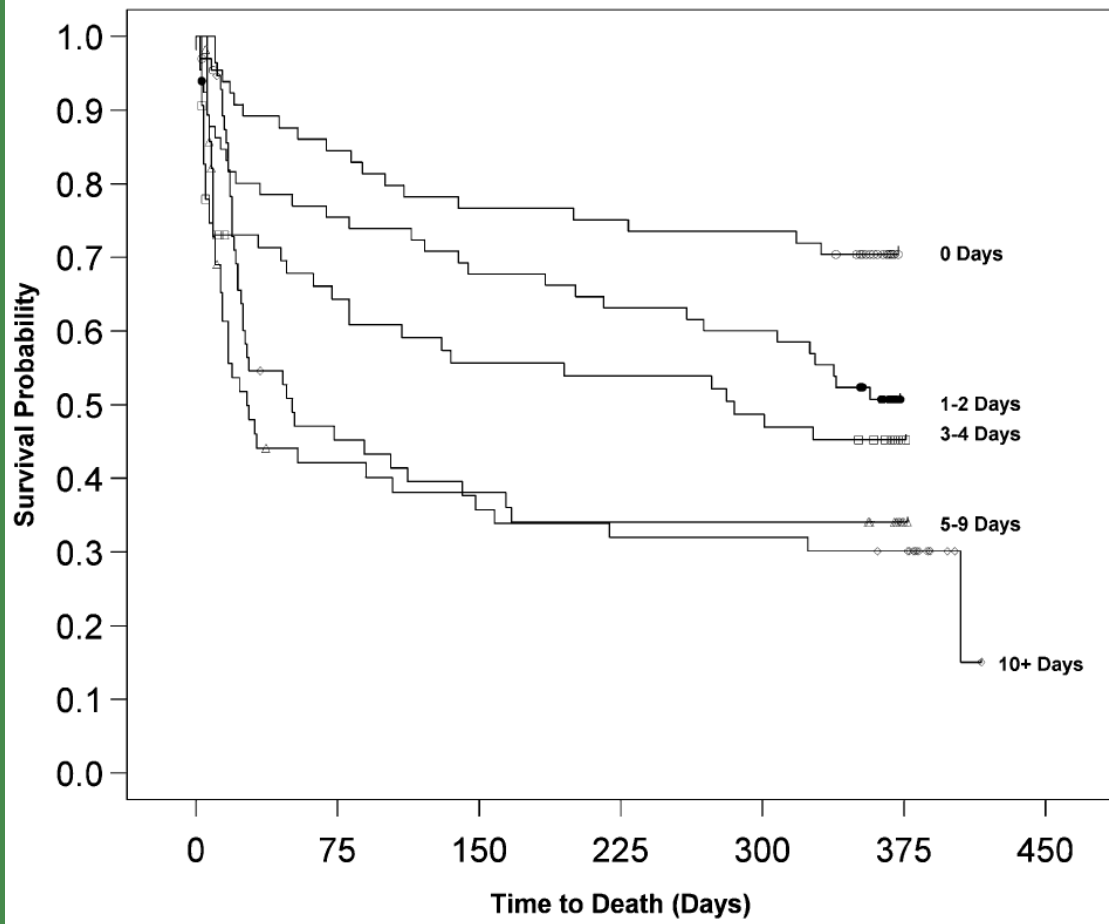
# Goals of Early Mobility



- Decreased amounts of physical disability after discharge
- Prevents additional neuromuscular complications
- Promotes positive psychological outlook
- Patients who do not achieve early mobility show no improvement in their physical dependence up to one year after discharge from the ICU
- Reduce ICU and Hospital LOS
- Reduce delirium



# Days of Delirium Are Associated with 1-Year Mortality in an Older Intensive Care Unit Population



“For each day of delirium, 1-yr mortality increased by 10%”

*Pisani MA et al. 2009, AJRCCM 180: 1092*



# Demonstrated Improved Outcomes

## Research

- Sedative-sparing strategies show positive results

*Schweickert, Kress. Crit Care, 2008 & Girard. Lancet, 2008.*

- Increased attention to types of medications used

- Benzodiazepines have a positive correlation with delirium

*Pandharipande et al. Anesthesiology, 2006*

*Pisani et al, Crit Care, 2009*

- Early activity is feasible & safe

*Bailey et al. Crit Care, 2007.*



# Key Features

- **DSM-IV-TR defines Delirium as an acute reversible disturbance of**
  - Consciousness
  - Attention
  - Cognition
  - Perception
- **Develops over a short period of time & fluctuates during the course of the day**

*American Psychiatric Association, 2000*





# Hyperactive Delirium

## Characterized by:

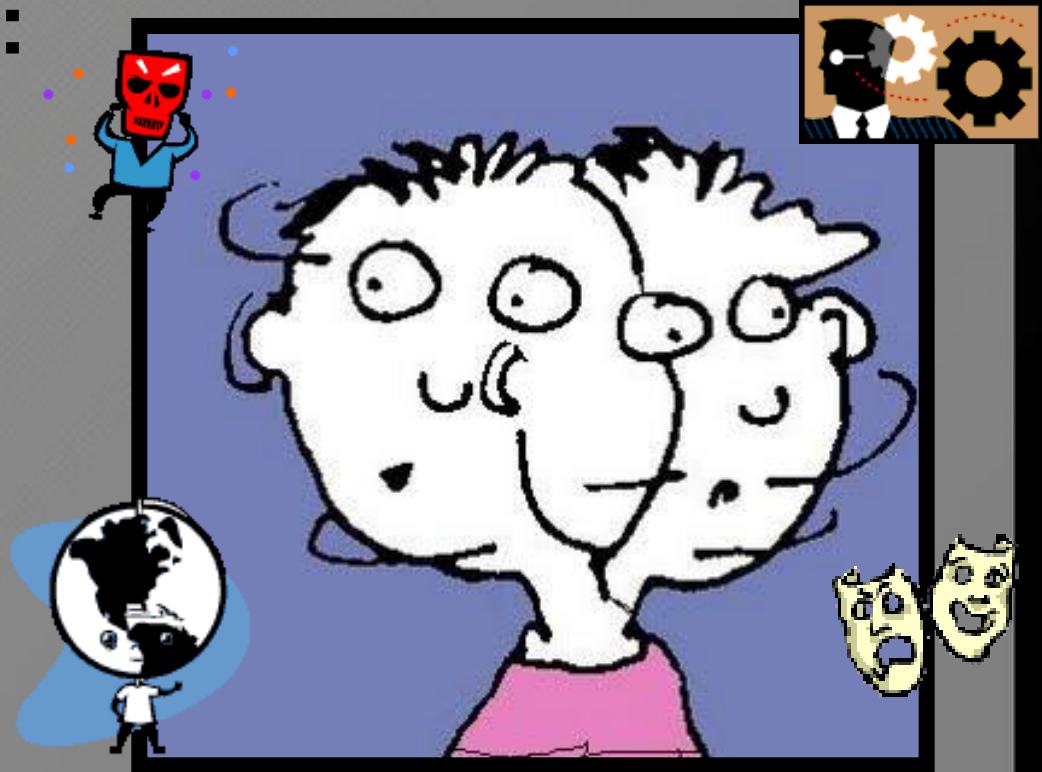
- Agitation
- Restlessness
- Hyper-vigilance

## With frequent

- Non-purposeful movement

or

- Attempts to discontinue treatment



# Hypoactive Delirium

- Most prevalent subtype, characterized by withdrawal, flat affect, & decreased responsiveness
- More likely to go unrecognized - subtle presentation, pt does not interrupt treatment
- Misdiagnosed as dementia or depression 75% pt without use of valid/reliable screening tool
- Associated ↑ incidence of negative outcomes: PE, pressure ulcers, aspiration, longer length of stay & higher rate of mortality



# Mixed Delirium

## ➤ Fluctuation between both subtypes

- Common after receiving benzodiazepine for hyperactive delirium
- Patient may awake in a hypoactive state



# Delirium in the Elderly

➤ More than  $\frac{1}{2}$  of all ICU days are incurred by those  $\geq 65$  yr of age (Angus et al., 2006)



➤ Associated with poor outcomes ( $\uparrow$  LOS, higher costs,  $\uparrow$  mortality,  $\uparrow$  use of continuous sedation,  $\uparrow$  restraint use, new cognitive impairment and new institutionalization)



## **ICU Delirium:** *The Canary in the Coal Mine*



Underrecognized form of  
**organ dysfunction**

**60-80%** of mechanically  
ventilated patients

**3-fold increase in mortality** at  
6 months

Each **DAY** a patients is  
delirious = **10% INCREASE** in  
risk of death

*IHI, 2012*



# Screening

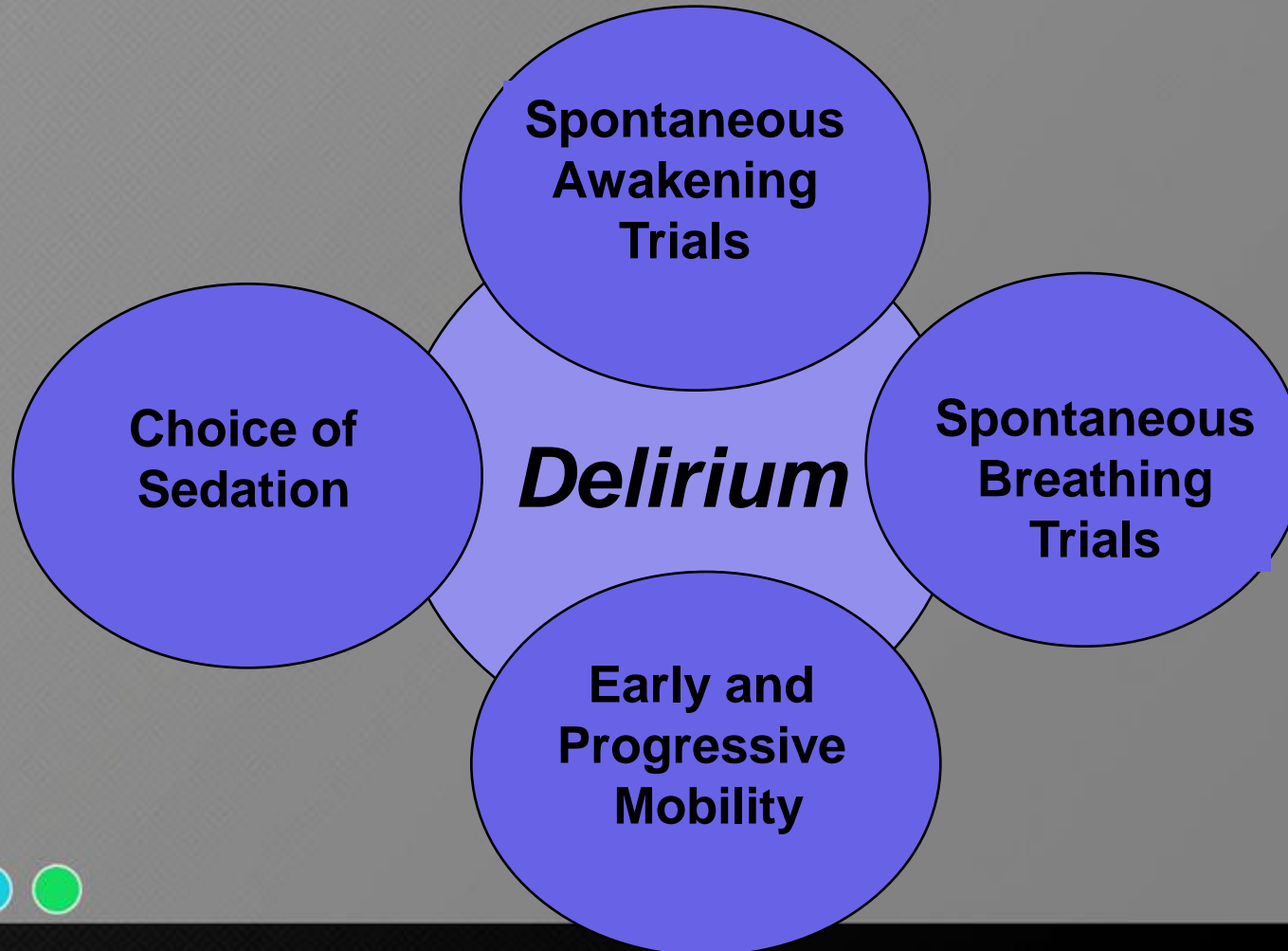
- Despite the high risk of delirium and ↑ negative outcomes, delirium often goes undetected
- NO screening = NO prevention or treatment
- All pts benefit from being screened
- Risks of screening < potential negative effects associated with missed opportunities

ICU Delirium: The Cana



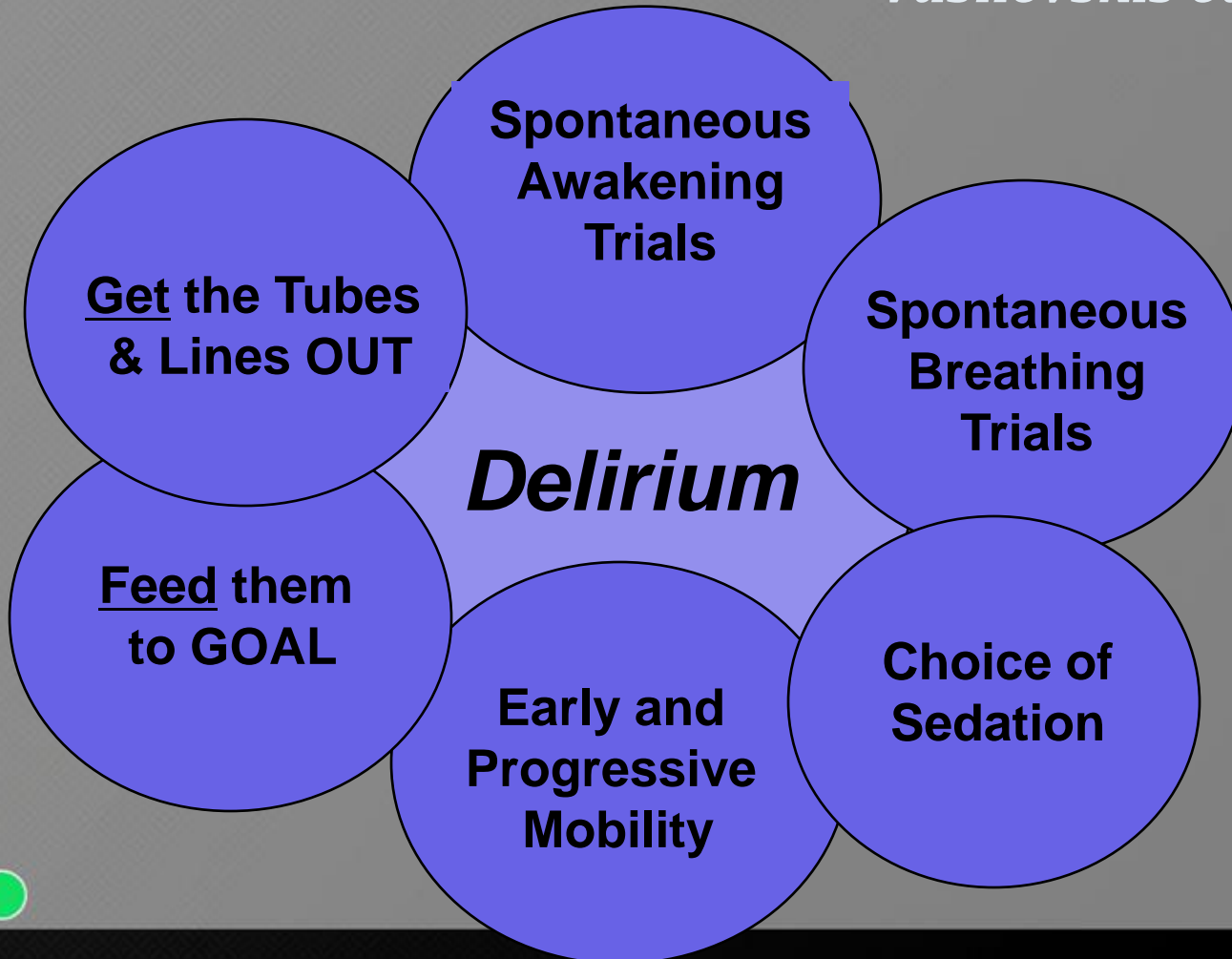
# It's As Easy As ABCDE

*Vasilevskis et al., 2010*



# Let's Not Forget -FG

*Vasilevskis et al., 2010*





# Sedation /Agitation Screening Tools

- Richmond Agitation-Sedation Scale (RASS)\*
- Ramsay Scale
- Riker Sedation –Agitation Scale (SAS)
- Motor Activity Assessment Scale (MAAS)
- Minnesota Sedation Assessment Tool (MSAT)
- Vancouver Interaction and Calmness Scale (VICS)

\*Currently used at Vanguard facilities

# Richmond Agitation Sedation Scale (RASS)

**Table 2**  
**The Richmond Agitation-Sedation Scale<sup>6,39,40</sup>**

<u>Score</u>	<u>Behavior</u>	<u>Description</u>
4	Combative	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, apprehensive, but movements not aggressive or vigorous
0	Alert and calm	Alert, calm
-1	Drowsy	Not fully alert, but has sustained awakening to voice (eye opening and contact >10 seconds)
-2	Light sedation	Briefly awakens to voice (eye opening and 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
-5	Unarousable	No response to voice or physical stimulation

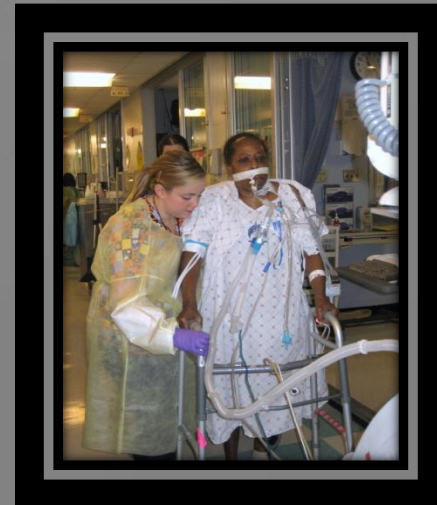
Pun BT, Ely EW. *Primary Psychiatry*. Vol 11, No 11. 2004.



# Goals

## Light sedation versus deep sedation

- Frequent assessment and tight titration, actively reduce dose to meet goal RASS -1.
- Administer minimal dose required to meet RASS goal
- Avoid oversedation



# Achieving the Right Balance



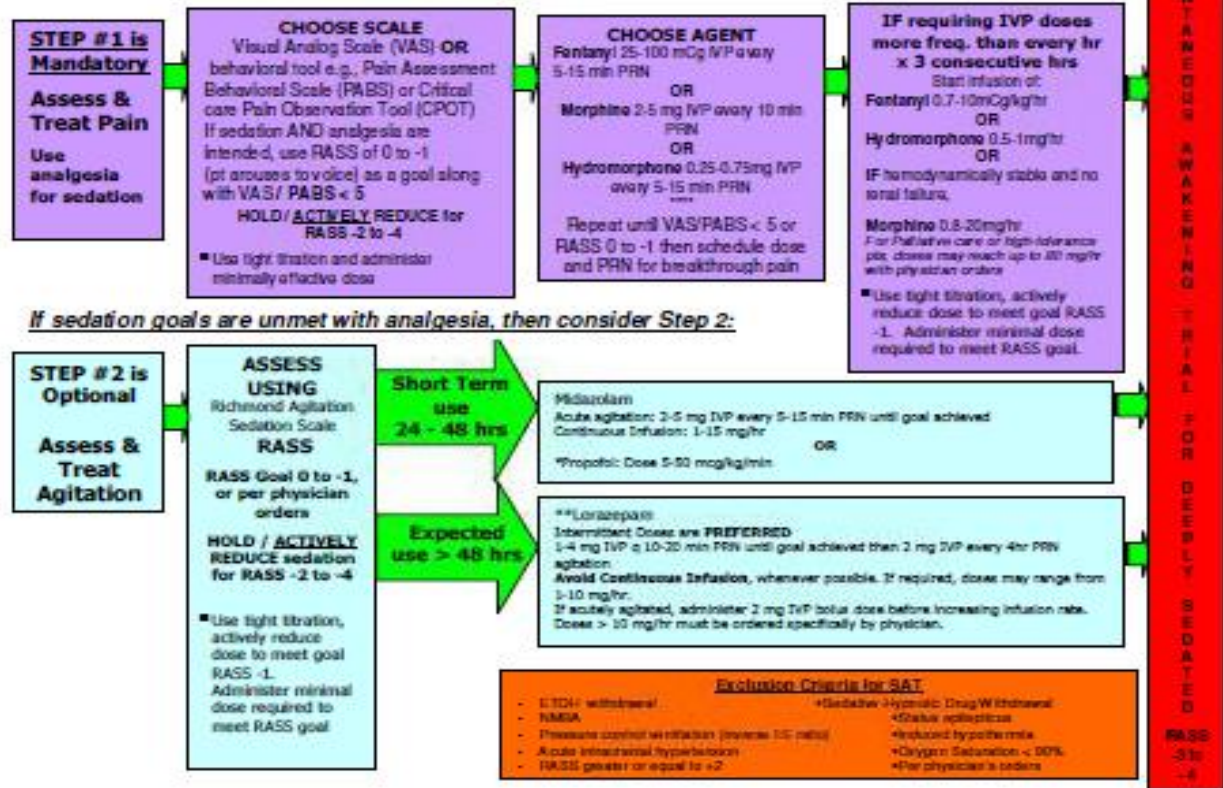
**Patient  
Oriented  
&  
Goal Directed**



## Vanguard/ DMC Analgesia, Sedation and Delirium Guidelines

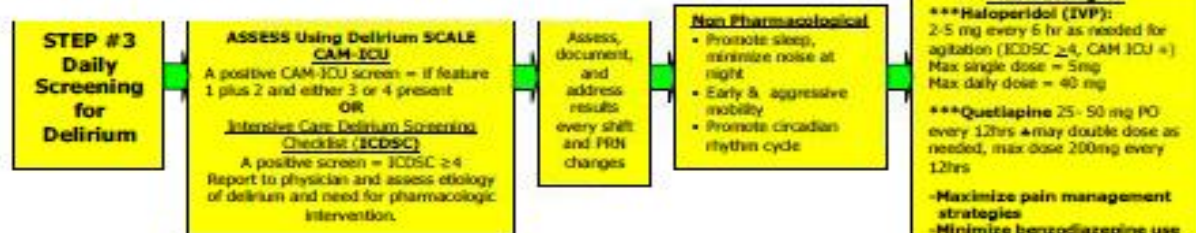
### Adult ICU Patients Requiring Mechanical Ventilation

Use analgesic medication as first line for sedation. Administer IVP boluses instead of continuous infusions. Avoid use of benzodiazepines. Continually titrate to lowest dose to meet the target goal for sedation and pain control. In certain emergent situations, continuous intravenous route may be more clinically relevant. Treat pain and perform delirium screening prior to sedation therapy. Implement Spontaneous Awakening Trial (SAT) if sedation therapy is warranted and RASS -3 to -4. Coordinate SAT prior to Spontaneous Breathing Trial (SBT). See Exclusion Criteria for SAT



SPONTANEOUS AWAKENING TRIAL FOR DEEPLY SEDATED RASS -3 to -4

### For ALL patients receiving analgesia AND / OR Sedation



\*Propofol Criteria: Benzodiazepine failure, rapid awakening or anticipated time to extubation < 24 hr. Check triglyceride level if on for > 48 hr  
\*\*Lorazepam: Contains polyethylene glycol. Consider monitoring pH, lactic acid, serum osmolality < 2- 1 mg/kg/day or 50 mg  
\*\*\*Haloperidol and Quetiapine: monitor QTC interval s/s of EPS, NMS and QTC on 12 ECG every day x 2

# PAD DMC Guidelines



# Vanguard/ DMC Analgesia, Sedation and Delirium Guidelines

## For Adult ICU Patients Requiring Mechanical Ventilation

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- In certain emergent situations, continuous intravenous route may be more clinically relevant.
- Treat pain and perform delirium screening prior to sedation therapy.
- Implement Spontaneous Awakening Trial (SAT) if sedation therapy is warranted and RASS -3 to -4.
- Coordinate SAT prior to Spontaneous Breathing Trial (SBT).



# Assess & Treat Pain

- Use non narcotic agents e.g., Acetaminophen, Ibuprophen
- If sedation AND analgesia are intended, use RASS of 0 to -1 (pt arouses to voice) as a goal along with VAS / PABS < 5
- HOLD / ACTIVELY REDUCE for RASS -2 to -4
- Use tight titration and administer minimally effective dose  
**CHOOSE AGENT**
  - Fentanyl 25-100 mCg IVP q 5-15 min PRN OR
  - Morphine 2-5 mg IVP every 10 min PRN OR
  - Hydromorphone 0.25-0.75mg IVP every 5-15 min PRN
- Repeat until Visual Analog Scale (VAS) OR behavioral tool e.g., Pain Assessment Behavioral Scale (PABS) < 5 or RASS 0 to -1  
**then schedule dose and PRN for breakthrough pain**

(SCCM Pain, Analgesia, & Delirium Guidelines 2013)





# Analgesic Agents

- IF requiring IVP doses more frequently than every hour x 3 consecutive hrs, start infusion of :
  - Fentanyl 0.7-10mCg/kg/hr  
OR
  - Hydromorphone 0.5-1mg/hr  
OR
  - Morphine 0.8-20mg/hr
- Use tight titration, actively reduce dose to meet goal RASS -1. *Administer minimal dose required to meet RASS goal.*



# Assess & Treat Agitation

- **ASSESS USING:** Richmond Agitation Sedation Scale (RASS)
- **RASS Goal 0 to -1** or per physician orders
- **HOLD / ACTIVELY REDUCE** sedation for **RASS -2 to -4**
- Use tight titration, actively reduce dose to meet goal RASS -1. Administer minimal dose required to meet RASS goal



***If sedation goals are unmet with analgesia,  
then consider Step 2:***

**Short Term use 24 - 48 hrs**

**➤ Midazolam**

- **Acute agitation: 2-5 mg IVP every 5-15 min PRN until goal achieved**
- **Continuous Infusion: 1-15 mg/hr**

**OR**

**➤ Propofol: Dose 5-50 mcg/kg/min**



# Expected Sedation Use > 48 hrs

## ➤ Lorazepam

- Intermittent Doses are PREFERRED
  - 1-4 mg IVP q 10-20 min PRN until goal achieved then 2 mg IVP every 4hr PRN agitation
- Avoid Continuous Infusion, whenever possible. If required, doses may range from 1-10 mg/hr
- If acutely agitated, administer 2 mg IVP bolus dose before increasing infusion rate.
- Doses > 10 mg/hr must be ordered specifically by physician



# “A” = Awakening

## Spontaneous Awakening Trials (SAT)

- SAT if not contraindicated
- Turn off continuous sedation DAILY if RASS -3 to -4.
- SATs facilitate a reduction in benzodiazepine/opioid use and fewer vent-dependent days → modifies risk for delirium!

*Mehta et al 2012, Vasilevskis et al., 2010; Kress et al., 2000; Brook et al., 1999*



# Exclusion Criteria for SAT

- ETOH or Sedative-Hypnotic Drug Withdrawal
- NMBA
- Status epilepticus
- Pressure control ventilation (inverse I:E ratio)
- Induced hypothermia
- Acute intracranial hypertension
- Oxygen Saturation < 90%
- RASS greater or equal to +2
- Per physician's orders



# “B” = Breathing

- ***Daily Spontaneous Breathing Trials (SBT)***
  - **↓vent-dependent days**
  - **May prevent or modify occurrence due to risk factor modification (mechanical ventilation)**
  - **Must be coordinated with daily SAT for patients receiving continuous sedation**

# “C” = Choice of Sedation

- Selection of agents is a modifiable risk factor for preventing delirium
- Incidence of delirium rises with ↑ use of benzodiazepines
- Treating agitation with a benzodiazepine can exacerbate delirium!

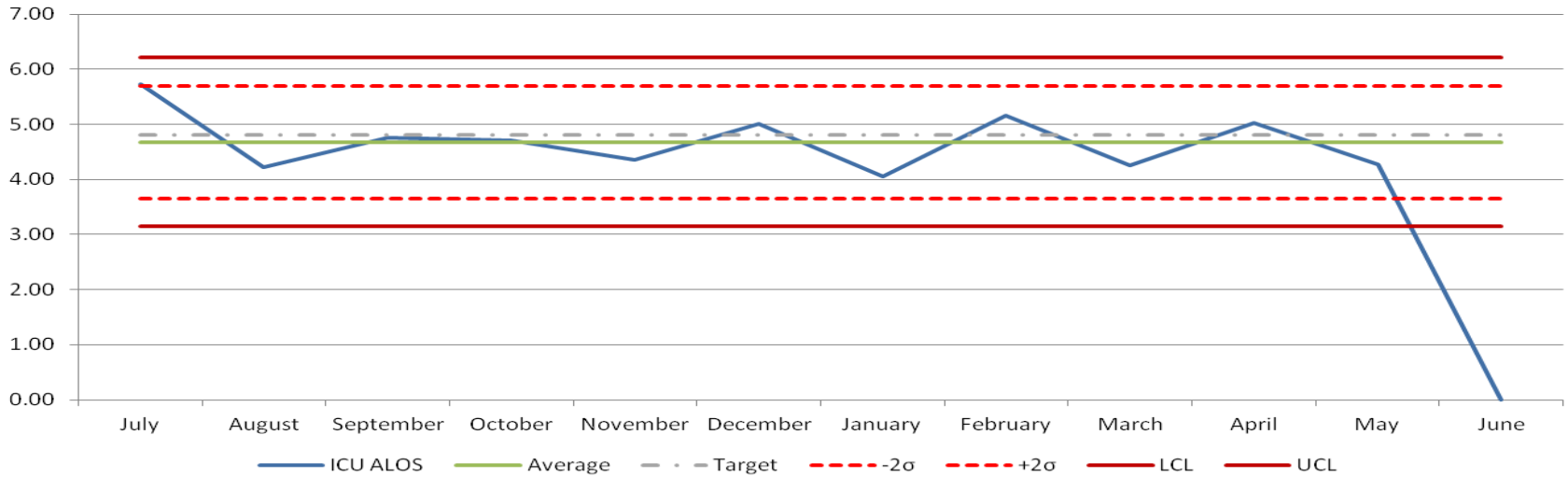
*Vasilevskis et al., 2010; Girard, Pandharipande, & Ely, 2008*  
*Pandharipande et al., 2006*



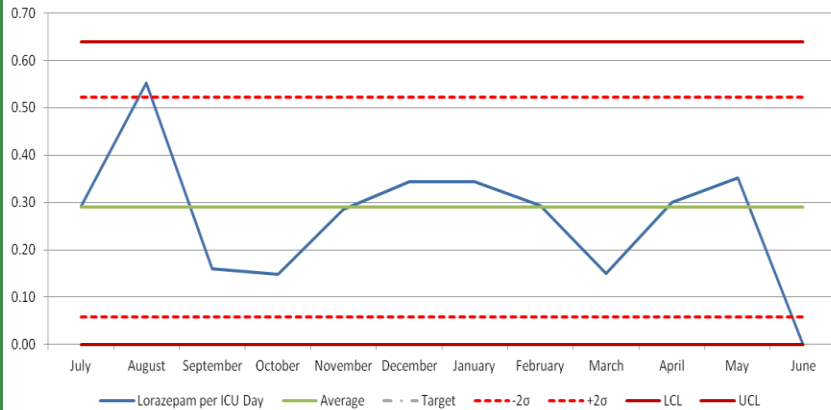


# SGH Data

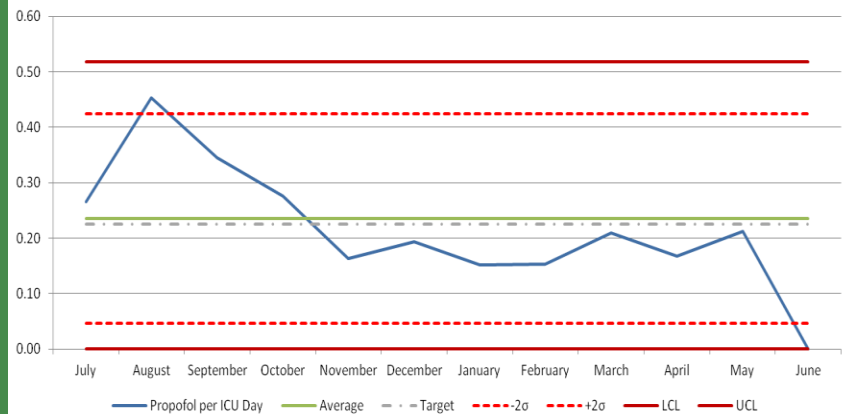
## ICU ALOS



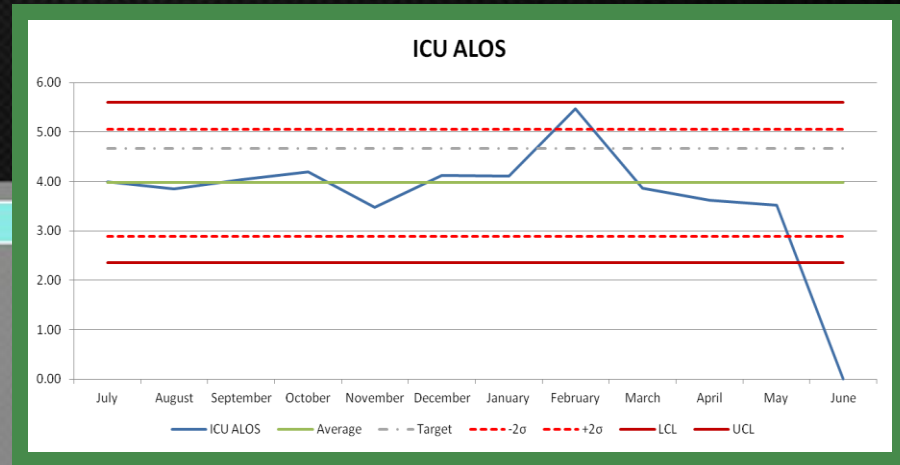
## Lorazepam Utilization per ICU Day



## Propofol Utilization per ICU Day



# HUH Data



**Propofol Utilization**



0.21  
**0.21**



**Fentanyl Utilization**



3.06  
**1.12**



**Morphine Utilization**



0.51  
**0.52**



**Hydromorphone Utilization**



0.67  
**0.79**



**Lorazepam Utilization**



0.29  
**0.19**



**Midazolam Utilization**



0.68  
**0.70**



# “D” = Delirium Screening

*CAM-ICU or ICDSC*

- Delirium is a red flag for an underlying pathological process
- Undiagnosed or misdiagnosed in up to 65 % of cases
- “Each additional day with delirium is independently associated with a 10% increased risk of death at 6 months.”
- Screening facilitates investigation of modifiable risk factors
- It can easily be incorporated into the bedside assessment, and takes an average of 2 minutes to complete



*Vasilevskis et al. 2010; Ely et al., 2001; Truman & Ely, 2003*

# Risk Factors for Delirium

- D** Drugs (continuous drips, Na<sup>+</sup>, Ca<sup>+</sup>, BUN/Cr, NH<sub>3</sub><sup>+</sup>)
- E** Environmental factors (hearing aids, eye glasses, sleep/wake cycle)
- L** Labs (including Na<sup>+</sup>, K<sup>+</sup>, Ca<sup>+</sup>, BUN/Cr, NH<sub>3</sub><sup>+</sup>)
- I** Infection
- R** Respiratory status (ABGs-PaO<sub>2</sub> and PCO<sub>2</sub>)
- I** Immobility
- O** Organ failure (renal failure, liver failure, heart failure)
- U** Unrecognized dementia
- S** Shock (sepsis, cardiogenic)/Steroid

**These risk factors can be modified to reduce  
a patient's risk for delirium!**



# Screen For Delirium

## ➤ Use a tool to assess

- Without a validated tool delirium is undetected by healthcare providers in > 65% of ICU pts (Pun et. al., 2005; Devlin et al., 2007; Spronk et al, 2009)
  - **Confusion Assessment Method for the Intensive Care Unit (CAM-ICU) \***
  - **Intensive Care Delirium Screening Checklist (ICDSC) \***
  - **NEECHAM Confusion Scale**
  - **Cognitive Test for Delirium (CTD) and Abbreviated CTD**
  - **Delirium Detection Score (DDS)**

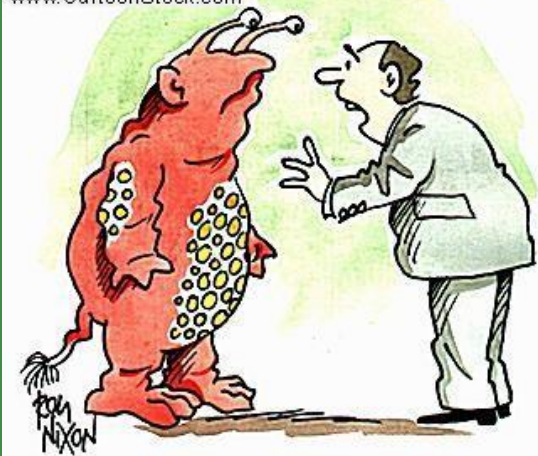
\*Currently used at Vanguard facilities



# Intensive Care Delirium Screening Checklist (ICDSC)

- Validated in ICU and mechanically ventilated patients
- 8-item list based on DSM-IV criteria
- High interrater reliability
- Used at the DMC

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"I'VE BEEN HAVING HALLUCINATIONS  
AGAIN, DOCTOR."

search ID : m10036



Item	Score
Altered level of consciousness (if A or B, do not complete patient evaluation)	
A: No response	0
B: Response to intense and repeated stimulation (loud voice, pain)	0
C: Response to mild or moderate stimulation	1
D: Normal wakefulness	0
E: Exaggerated response to normal stimulation	1
Inattention	0 to 1
Disorientation	0 to 1
Hallucination-delusion-psychosis	0 to 1
Psychomotor agitation or retardation	0 to 1
Inappropriate speech or mood	0 to 1
Sleep/wake cycle disturbance	0 to 1
Symptom fluctuation	0 to 1

**\*Total score  $\geq 4$  indicates delirium**

- **Non-verbal assessment tool**
- **Validated in ICU and mechanically ventilated patients**
- **2-step process**
- **High interrater reliability**

**Cannot use if patient too sedated**





# CAM-ICU

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

### 1. Acute Change or Fluctuating Course of Mental Status:

- Is there an acute change from mental status baseline? OR
- Has the patient's mental status fluctuated during the past 24 hours?

NO →

CAM-ICU negative  
NO DELIRIUM

↓ YES

### 2. Inattention:

- "Squeeze my hand when I say the letter 'A'."  
Read the following sequence of letters: S A V E A H A A R T  
ERRORS: No squeeze with 'A' & Squeeze on letter other than 'A'
- If unable to complete Letters → Pictures

0 - 2  
Errors →

CAM-ICU negative  
NO DELIRIUM

↓ > 2 Errors

### 3. Altered Level of Consciousness

Current RASS level

RASS other  
than zero →

CAM-ICU positive  
DELIRIUM Present

↓ RASS = zero

### 4. Disorganized Thinking:

1. Will a stone float on water?
2. Are there fish in the sea?
3. Does one pound weigh more than two?
4. Can you use a hammer to pound a nail?

Command: "Hold up this many fingers" (Hold up 2 fingers)  
"Now do the same thing with the other hand" (Do not demonstrate)  
OR "Add one more finger" (If patient unable to move both arms)

> 1 Error →

CAM-ICU positive  
DELIRIUM Present

0 - 1  
Error →

CAM-ICU negative  
NO DELIRIUM

# Non Pharmacological Treatment of Delirium

- Promote sleep, minimize noise at night
- Early & aggressive mobility
- Promote circadian rhythm cycle

**There are more things that  
cause delirium than those  
that treat it 😞😞**



# Pharmacological Treatment of Delirium

- Avoid benzo especially continuous drips
- Antipsychotics -**Haloperidol, Quetiapine**
  - Must monitor QTc intervals
- **Haloperidol (IVP):** 2-5 mg every 6 hr as needed for agitation (ICDSC  $\geq 4$ , CAM ICU +)
  - Max single dose = 5mg
  - Max daily dose = 40 mg
- **Quetiapine** 25- 50 mg PO every 12hrs ♣ may double dose as needed, max dose 200mg every 12hrs
  - **Maximize pain management strategies**
  - **Minimize benzodiazepine use**
  - **Assess prevention needs and benzodiazepine use**



➤ Mandatory screening in EMR

➤ Monthly report to track if delirium positive screens reducing in frequency

### Delirium Measure

Run Date: 7/3/2013

Run For: \* Last Month

Unit	Total Patients	# Patients with Positive Result	Percentage
DR - 4Q	72.00	9.00	13%
DR - 4T	8.00	3.00	38%
DR - 5P	34.00	9.00	26%
DR - 5R	87.00	19.00	22%
DR - 5T	48.00	21.00	44%
HA - 4ICU	70.00	9.00	13%
HA - 5ICU	60.00	7.00	12%
HA - 6ICU	42.00	7.00	17%
HA - 9ICU	64.00	5.00	8%
HA - IMCU	74.00	4.00	5%
HV - ICU	53.00	10.00	19%
SG - CMIC	33.00	6.00	18%
SG - MIC1	50.00	10.00	20%
SG - MIC2	46.00	6.00	13%
SG - SIC1	15.00	2.00	13%
SG - SIC2	38.00	8.00	21%

# Successful Implementation

- **Assure the staff that the assessment is FAST**
- **Implementation Strategies**
  - Case based scenarios
  - Spot checking and discussion during rounds and hand over
- **Team work**
  - Interprofessional collaboration
  - Engagement
- **Communication**
  - Checklist
- **Patient & Family Education**
- **ENGAGE**



# “E” = Early (& Progressive) Mobility

- Evaluation and aggressive progression of mobility in a sequential manner
- GOAL returning to baseline



# Who, what, when, how.....why?



Critical care advance practice nurses (APRNs), staff RNs, physicians, respiratory therapists, and physical /occupational therapists (PT/ OT) developed and implemented an early and progressive protocol in conjunction with an enterprise modification of sedation and delirium practices. Goal to reduce delirium and improve outcomes.



# DMC Early Mobility Basics



## Mobility Progression

- Phase 1- Reposition side to side
- Phase 2- Cardiac Chair position / Dangle
- Phase 3- Stand and Transfer to Chair
- Phase 4- Walk with assistance
- Phase 5- Walk independently





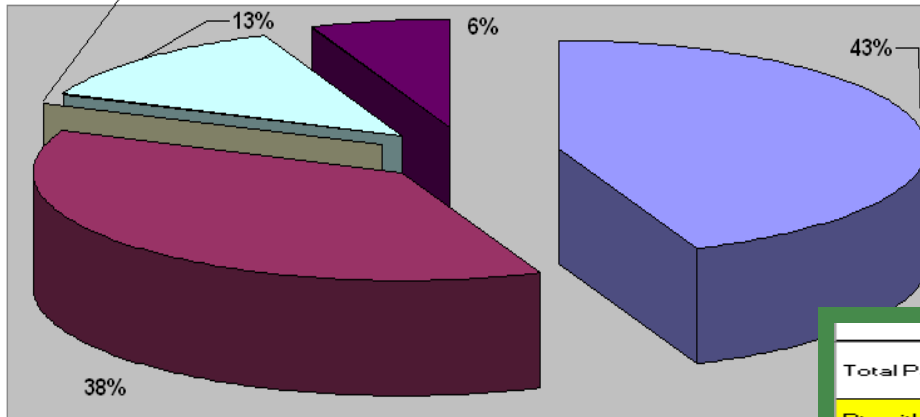
# Collaboration

- Consults are placed PT/ OT for patients who have greater therapy needs
  - Strengthening
    - ❖ Core
    - ❖ Limbs
  - Ambulation
  - Improve ADLs



# DMC Early Mobility Data

Patients in Phase 1-5



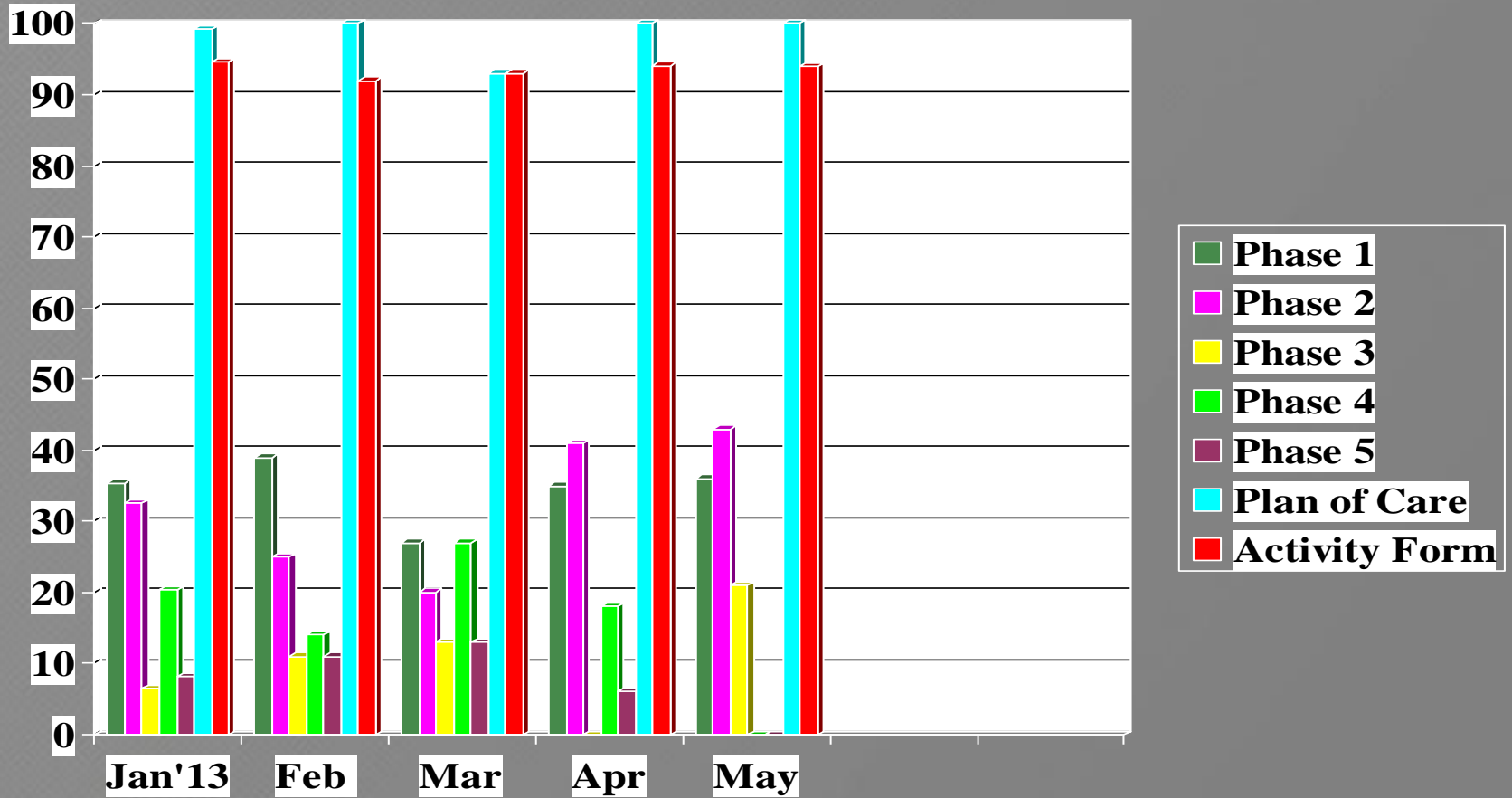
- Number of patients in Phase 1
- Number of patients in Phase 2
- Number of patients in Phase 3
- Number of patients in Phase 4
- Number of patients in Phase 5

Chart Area

	Percentage	Total	4ICU	5ICU	6ICU	9ICU
Total Patients Audited		16	5	5	0	6
Pts with Mobility Phase identified in Activity Form	100.0%	16	5	5	0	6
Number of patients in Phase 1	43.8%	7	2	3	0	2
Number of patients in Phase 2	37.5%	6	2	1	0	3
Number of patients in Phase 3	0.0%	0	0		0	0
Number of patients in Phase 4	12.5%	2	1	1	0	0
Number of patients in Phase 5	6.3%	1	0		0	1
Patients that were mobilized on days (Phase 2-5)	100.0%	9	3		3	4
Patients that were mobilized on nights (Phase 2-5)	100.0%	9	3		3	4
NIGHT SHIFT: Number of pts with at least 1 Activity Form completed.	87.5%	14	5	4	0	5
DAY SHIFT: Number of pts with at least 1 Activity Form completed.	93.8%	15	4	4	0	5
Patients with a Mobility Plan of Care	100.0%	16	5	5	0	6



# Mobility Data



# Mobilization = Less Delirium

Variable	Intervention n = 49	Control n=55	P value
<b>ICU / Hosp Delirium Days</b>	2 days	4 days	0.03
<b>Time in ICU with Delirium</b>	33%	57%	0.02
<b>Time in Hosp with Delirium</b>	28%	41%	0.01

*Schwelckert et al, 2009*



# “F”=Feeding

- The earlier the better
- Get them to goal ASAP (25 kcal/kg)
- Most formulas 1.2 to 1.5 kcal/mL
- Promotility agents
- Nurse driven feeding protocols



**“G”=Gotta Get it Out**

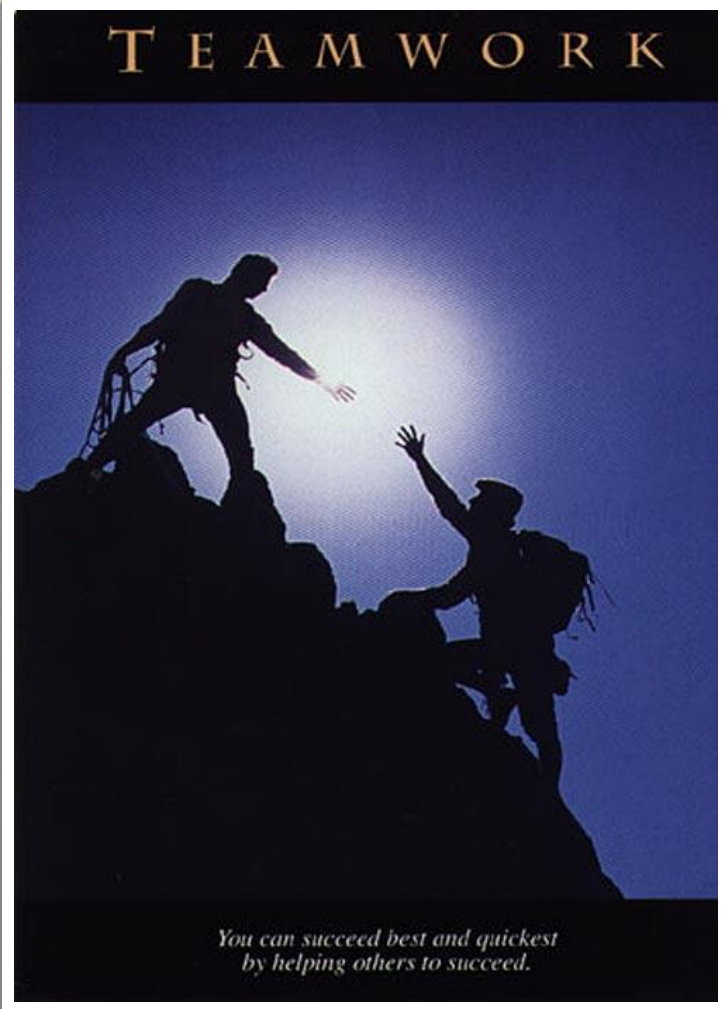
**Lines & Tubes are the enemy**



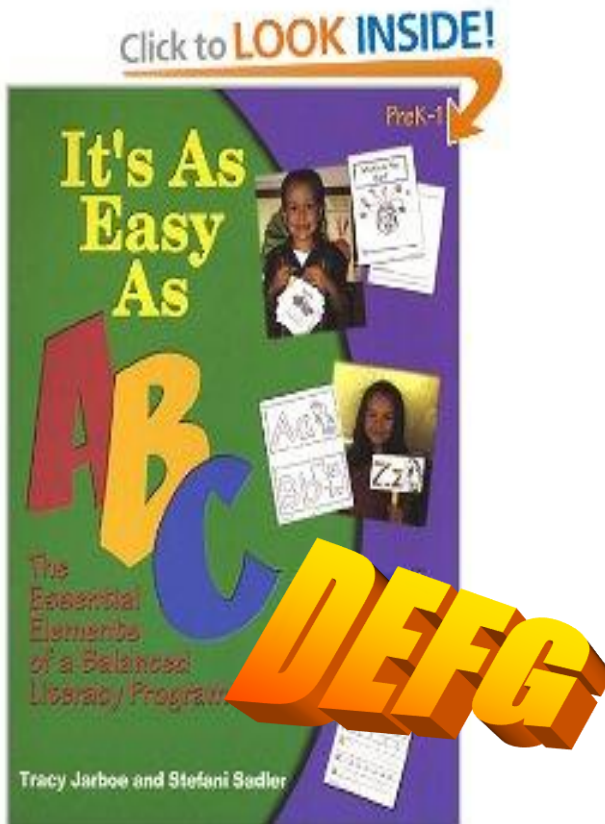
**Remove Foleys & central venous access**



# No one is alone in the effort to accomplish these goals....



# Improving ICU Outcomes, Easy As ABCDEFG



- Delirium: If you don't look you can't find it- ASSESS, ASSESS, ASSESS,
- ENGAGE / Incorporate prevention strategies and interventions into daily rounds, Rounding Checklist, RN Hand Over
- Identify & treat causes of delirium e.g. infection, IV gtt's of benzos, sleep
- Use Haloperidol, Quetiapine, to treat
- Educate & discuss the ABCDEFGs EVERYDAY- PUSH!
- Monitor progress for early mobility, delirium, sedation care & documentation
- Document and celebrate success





All 4 legs of the stool are important for stability- the stool may be able to stand without one of the legs but not assume stability

All four aspects of **care-mobility, sedation, delirium, sleep** are important to improve outcomes.

Improvements can be made without all four, but cannot assume stability...



“It is no longer a matter how  
we keep them alive...”

“but rather *how well* we keep  
them alive.”



WES ELY, MD, MPH



**Questions?**



**Thank you!!**



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