Enhancing Compliance to the Seated Portion of a Hospital Mobility Bundle to Improve Safety: A Mixed Method Case Study

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2016 American Nurses Association Annual Conference
Lake Buena Vista, FL
March 10, 2016

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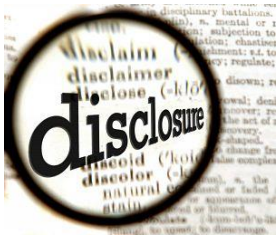
Disclosure

- Presenters declare no financial relationships



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Objectives

Following this presentation, participants will be able to describe:

- Potential Health and Quality Risks to an Upright, Seated Patient
- Value of Mobility
- Impact of Mobility as Frontline Defense Against HAC's

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Why Mobility?

- Promotes Quality
  - "Up & Out without doubt" rather than "Down & In with less hope to win"

- Ensures SAFETY!!

Calarco, M.M. (2013). Critical Care Nursing Quarterly: Volume 36 - Issue 1 - p 17-27. doi:10.1097/CNQ.0b013e3182750767

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Show of Hands….

- How many of YOU…

Turn Q 2H?

Reposition in Chair?

Lift-Free Env?

Early OOB?

Mobility Protocols?

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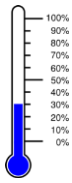

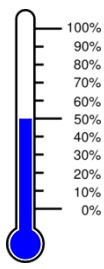

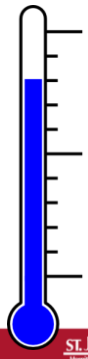

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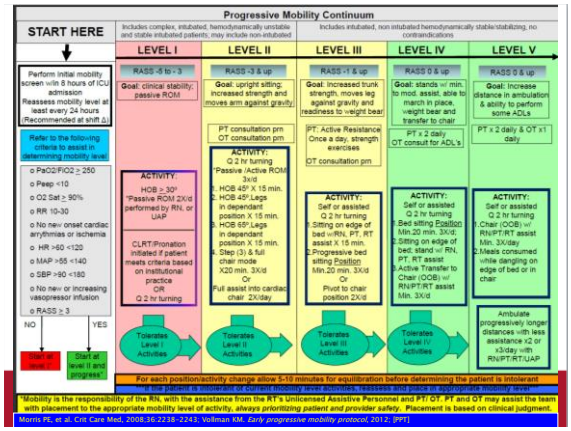
What is your Continuum of Care?



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Challenges
How Many of you Have….?

- Reduced LOS
- Prevented readmissions
- Proactively promoted quality outcomes
  - early extubation
  - reduce HAC's (falls, skin, etc.)
  - improve HCAHPS

American Association of Critical Care Nurses. (2014). *CSI academy database.* Available from www.aacn.org

Evidence-based Outcomes Found…

EXPECTED OUTCOMES

- Decreased intensive care unit (ICU) length of stay by more than one day
- Reduced mechanical ventilation days up to 35 percent
- Reduced VAP up to 60 percent
- Decreased pressure ulcers up to 20 percent
- Reduced readmission rates
- Increased HCAHPS scores

American Association of Critical Care Nurses. (2014). *CSI academy database.* Available from www.aacn.org

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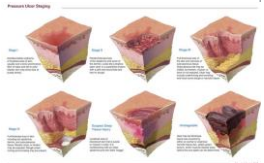
At What Risk?????????

- Patient Risk (...for Injury)
  - HAC's:

Infection	Delirium / Anxiety
Fall	Inc LOS
Sarcopenia	PU

  - Deconditioning
  - Depression / Anxiety



Brown CJ, Friedkin RJ, Inouye SK. *Prevalence and outcomes of low mobility in hospitalized older patients.* J Am Geriatr Soc. 2004;52:1263–1270.

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Risk…

- Employee Risk (...for Injury)
  - Physical Injury
    - Unplanned Time Off
    - Financial Impact
    - Potential Job Loss
  - Psychological / Behavioral Injury
    - Depression
  - Social Injury
    - Loss of Freedom
- Time
- Proper Process / Plan
- Self(...ish)-worth

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- Every single day in the United States, 9000 healthcare workers sustain a disabling injury while performing work-related tasks.
- Disabling back injury and back pain affect 38% of nursing staff

Brown, D. X. (2003). Am J Crit Care vol. 12 no. 5 400-401

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Solution…

- Consistent, Standardized, Reproducible, & Transformational / Translational Practice
  - Same
  - Always
  - Everywhere
  - All the Time
  - Only Innovatively Conformed to Unique Situations

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Evidence & Research

- Plenty of in-bed equipment
- Many ambulation equipment & protocols
  - Vent-Walking
  - PMR
  - Lift teams, etc.
- How to promote quality and safety with enhanced seating as part of a mobility bundle
- Worthwhile for patients and staff

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What Do We Do?

- Variable Methods in Practice:
  - One- and two-person lift-move-pull
  - Use whatever equipment is available
    - Is it appropriate & safe for all
  - Multiple sliding approaches: chair linen, tugging on patient extremities

INJURY RISK!
D/T practice variability, inconsistency, and incidents of "work-arounds"

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Research Study Proposal

- Could colleagues investigate medical device approaches to safety for the seated patient and the caregiver?
  - In med-surg-trached patients, how does use of a medical safety device versus current practice impact SPHM and quality outcomes over a 4-week period?

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Purpose / Background

- Characterize & Describe nursing perceptions surrounding new medical device use

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- Using proper Equipment: diminish patient and employee injury risk and improve SPHM
- Seated patient safety risks:
  a) Falls: transferring, slouching, or poor compliance sitting upright;
  b) Oxygenation & Aspiration: chair-slouching can lead to difficulties in breathing, swallowing, and oxygenating; and
  c) Compliance: following safety protocols when sitting OOB ("Please call but do not get up by yourself.")

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Literature Review

- The literature is sparse with research on standardization of practice or technology in this area
  - Minimal discussion of bundled approaches toward promoting multiple, risk-reduction practices in singular activities in care
- Seated positioning devices promote less caregiver exertion, safety, and proper body mechanics
- Bundling care promotes better care compliance

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What is a Chair Positioning Device (CPD)?

- **Promotes SPHM for caregivers and maximum upright (90-degree) sitting of patients**
- **Anti-slouch** technology: Reduces risk of difficulty breathing, aspiration, and falls
  - One-way, fabric-adhesive keep patients from sliding forward and onto floor
- **Pressure-reduction capability**: Air-inflated cushion provides support, comfort, & pressure-reducing, skin-healthy microclimate for seated patients

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Chair Positioning Device:

for Upright, OOB, Seated Positioning

- **Protect, Boost, Reposition**

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Setting and Study Design

- Two areas of care: CS step-down & med-surg-trach clinical nursing units
- A mixed method, case study: pre- and post-interventional design was conducted
  - Qualitative data: Focus group interviews
    - How you treat patients pre-intervention
    - How you treat patients with CPD
  - Quantitative data: Survey questions
    - Ease of use, strain, comfort, effort, HACs…

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Method

- QUALITATIVE: *Pre-intervention Interview Questions*:

1. What is it like to get a patient OOB to the chair?
2. How do you keep a patient safe from harm when they are up in a chair?
3. Do you find patients sit upright by themselves when they are in a chair?
4. How often do you have to pull a patient up into a seated position in the chair?
5. Do patients ever fall out of a chair?
6. Tell me about a time when you ever injured yourself pulling a patient up in the chair.

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Method

- QUALITATIVE: *Post-intervention Interview Questions*:

1. When you first heard about the CPD, what was your reaction?
2. What was it like for you when you used the CPD?
3. What benefits exist by using a CPD?
4. What barriers or challenges exist when using the CPD?
5. Can you describe how using the CPD will be viewed by healthcare?
6. If you were talking to another co-worker about using a CPD, what would you tell them?

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❑ QUANTITATIVE: *Item-ratings*

The Chair Positioning Device(CPD) device:

1....prevents patients from sliding out of the chair position
2....reduces strain on my wrists, shoulders, and back while repositioning a patient in their chair
3....promotes fall-prevention
4....gives patients a sense of feeling more comfortable
5....promotes a pressure ulcer-reducing environment
6....reduces the need for frequent boosting of patients up in their chairs
7....reduces the physical effort required to reposition my patient back in the chair
8....increases the ease in following my facility's patient transfer and mobility protocol

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Data Analytics

- ❑ Narratives collected
  - ➢ Content analysis was applied to the interview dialogue to track for code repetition, thematic emergence, dominant patterns, and categorical relationships
- ❑ Descriptive and inferential statistics
  - ➢ Pearson correlations were applied to survey data

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Pre-Intervention Focus Group Interviews-(N = 38)

Themes	Exemplars
Chronic risk of injury with [regular] patient handling	"We saw him sliding out of the chair and onto the floor. We got him to stop sliding, but he was willfully being resistant because he would not let us [physically] help him up].... Whatever is underneath them is what is used to boost [and that is not always helpful nor safe]."
Effect of personal injury on caring practice	"Oh, I won't [lift] anymore after hurting myself.... Nope. I will never boost someone in their bed from now on, unless their head: it is pointed down to the ground [(Trendelenburg)] so I do not hurt myself.... My back is my job."
Counter-productive care and the OOB experience	"Yeah, it is easier to get them back to bed rather than pull them around and try to keep them safe."
Caring for the non-compliant and combative patient	"Restrain them....[If they are] agitated, trying to move, or get out [of bed on their own], I try to put them back [lounging in a recliner] where they are not going to slouch forward."

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Post-Intervention Focus Group Interviews-(N = 36)	
Theme	**Exemplars**
Better SPHM as a result of using a CPD in nursing practice	"It was **easy to slide patients** [up in their chair, and they] **could not slide out of the seat**….I think it will be good…for patients….Makes your **job easier**….We have more leverage so we are **not going to get hurt**….It is better for us as well….It **saves your back** [from injury]."

Pearson Correlations

Item A	Item B	r(37); p = .00
The more patients did not slouch in their chair from using the CPD…	the greater the nurse's comfort level: likelihood to not strain or injure themselves using the product increased	.80
	the more fall prevention increased	.84
	the more nurses felt the CPD was easy to use	.82
The greater the nurse's comfort level: likelihood to not strain or injure themselves when using the CPD increased…	the less they needed to reposition patients in their chair	.89
	the greater their compliance in following facility transfer protocols	.86
	the easier it was to reposition a patient back in their chair	.82
As fall prevention increased …	the more nurses felt the CPD was easy to use	.84
The more nurses did not have to reposition the seated patient…	the greater their compliance in following facility transfer protocols	.88
	the more nurses felt the CPD was easy to use	.81
The more compliant nurses were in following facility mobility and transfer protocols…	the more nurses felt the CPD was easy to use	.82

Interpretation of Findings

- Repositioning the seated patient <u>without a mobility device</u> (especially non-compliant patients) <u>puts the employee at more risk for injury</u> and is viewed as counterproductive to nursing's perception of better practice
- Repositioning seated patients <u>with a CPD is physically easier</u>: it provides nurses with a more consistent, standardized, reproducible, and dependable way to promote compliance in care, practice, mobility, SPHM, and outcomes—with less risk for injury to nurses

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Discussion

- Triangulation of converging data (All eight survey items scored favorably with at least 68% of respondents) suggests:
  - **Nurses prefer the use of a CPD over traditional efforts of lifting and pulling: less effort is required and fewer staff are needed**
  - **Nurses felt greater compliance in following organizational SPHM and patient mobility policies because the CPD was easier to use**
  - **When using the CPD, nurses felt it contributed to preventing falls and pressure ulcers**

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Conclusion

- Nurses are more likely to use a CPD in practice, because it is easier to use, and it promotes SPHM in a bundled or **"trifecta" approach in safety for both patients and staff**: **falls prevention, pressure ulcer prevention, and employee injury prevention**
- Proposed **adjunct to better nursing practice, using an CPD can improve SPHM, ease and efficiency of patient care** and compliance with organizational policy and procedure: **focusing on injury reduction and outcome improvement for every party involved**

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Clinical Implications

- 3-in-1 is better than 1, 2, 3
- Better evidence empowers the end-user into becoming a quality advocate & better caregiver
- Potential to impact many quality indicators (depending on hospital initiatives)
- Ease of use and less frequent repositioning of seated patients improves compliance to organizational mobility protocols
- Less seated patients slouch, greater nursing comfort

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Thank You!

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