Preventing Patient Falls through Telemonitor Use

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Problem

- Our institution initially purchased 12 telemonitors
- Upon purchasing 12 additional cameras, we struggled to meet our goal of having 10% of inpatient census utilizing cameras instead of human patient activity attendants
- Nursing staff was the most resistant to implementing cameras so the decision was made to provide education to leadership
- This presentation is the educational program created

Objectives

Upon completion of this module, learners will be able to…

1. Name Morse Fall risk criteria
2. Describe fall risk factors that are not Morse Fall risk criteria
3. Describe patient populations who may benefit from use of a telemonitor for fall prevention
4. Explain negative impacts of falls
5. Discuss best practice in fall prevention in the hospital setting

Objectives

Upon completion of this module, learners will be able to…

6. Apply effective problem solving strategies to fall prevention practices
7. Analyze methods of increasing safety through telemonitor use
8. Analyze perceived barriers to telemonitor use
9. Evaluate essential components of patient education about telemonitor
10. Provide input to assist with creation of a safe workflow design between units and telemonitor staff

Fall Statistics

- Each year in America, an estimated **700,000-1,000,000** in-patients fall while hospitalized (AHRQ, 2013)
- The Joint Commission estimates **30-50%** result in injury
- **6-44%** result in fractures, subdural hematomas or severe bleeding
- **0.2%** of all injuries are fatal= up to 20,000 individuals
- Avg. cost to treat = **$14, 000** per fall
- CMS no longer provides hospitals with reimbursement for injuries resulting from falls

Bouldin et al., 2014, para 14

Quigley & White, 2013, para 2

National Database of Nursing Quality Indicators'

Definition of a Fall

- An unplanned patient descent to the floor or other surface where one would not expect a patient to land
- The patient can be assisted or unassisted by staff during the descent
- The cause can be physiological or environmental

Types of Falls

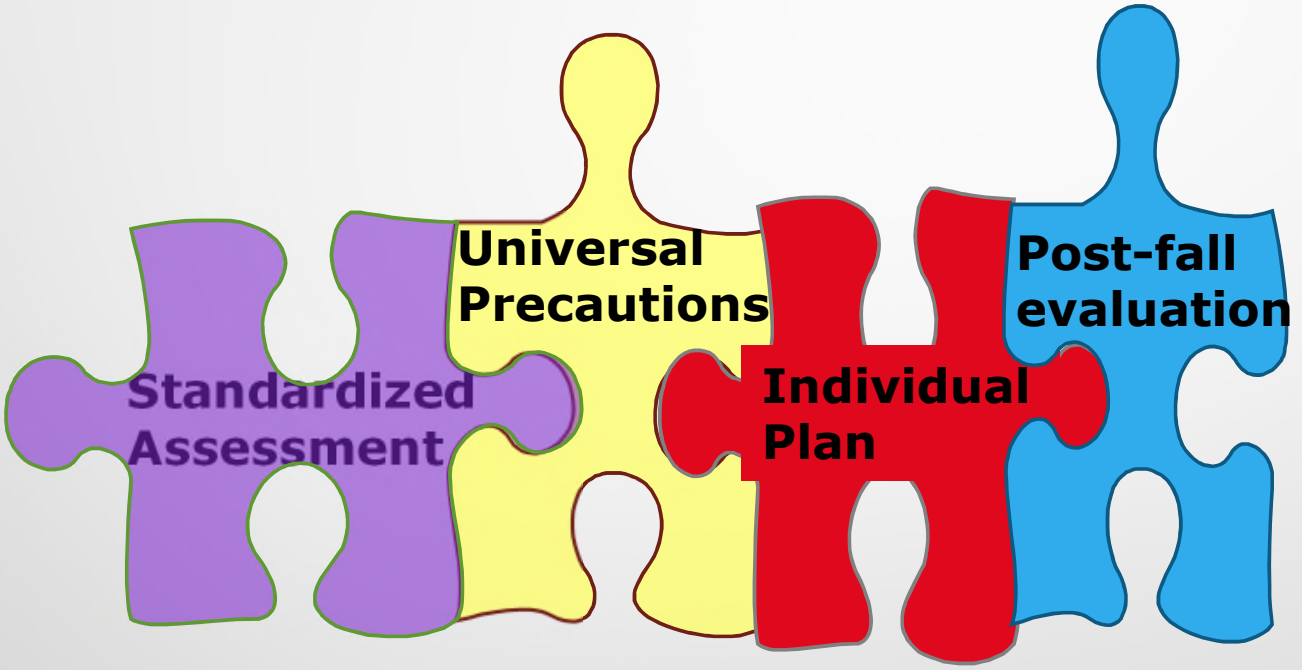
- **Physiological (anticipated)-** falls in patients with high risk factors
- **Physiological (unanticipated)**- falls in patients with low risk factors
- **Accidental**- falls of low fall risk patients related to an environmental factor
- **Behavioral or intentional-**related to behaviors of patients who are "acting out"

National Database of Nursing Quality Indicators [NDNQI] (2012)

Meet Mr. Smith

Best Practices for Fall Prevention

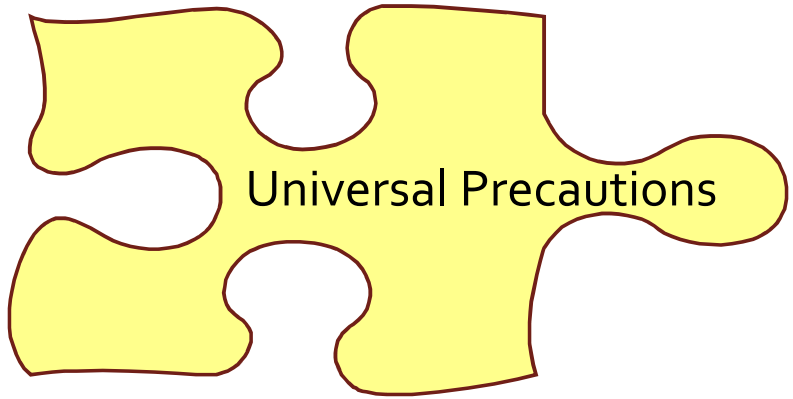
Successful fall prevention programs are created by "bundling" best practices including:



Morse Fall Score	
High Risk	45 and higher
Moderate Risk	25 - 44
Low Risk	0 - 24

Morse Fall Risk Assessment

Risk Factor	Scale	Score
History of Falls	Yes	25
	No	0
Secondary Diagnosis	Yes	15
	No	0
Ambulatory Aid	Furniture	30
	Crutches / Cane / Walker	15
	None / Bed Rest / Wheel Chair / Nurse	0
IV / Heparin Lock	Yes	20
	No	0
Gait / Transferring	Weak	10
	Normal / Bed Rest / Immobile	0
Mental Status	Forgets Limitations	15
	Oriented to Own Ability	0



- **Familiarize the patient with the environment.**
- **Have the patient demonstrate call light use and keep within reach**
- **Keep the patient's personal possessions within patient safe rea**
- **Place the hospital bed in low position when a patient is resting in bed**
- **Keep bed brakes locked.**
- **Fall risk arm band**

Universal Precautions

- Keep wheelchairs in "locked" position when stationary.
- Nonslip, comfortable, well-fitting footwear
- Night lights or supplemental lighting
- Keep floor surfaces clean, dry, and free of clutter
- Follow safe patient handling practices.
- Hourly rounds focused on “5P’s” pain, personal needs, positioning, placement of items, prevention of falls

Nurses consider needs of patients as an individual

Examples	
Patient problem	**Interventions to Consider**
Altered Mental Status	Frequent safety checks Med review Sitter or telesitter
Impaired Mobility or Gait	Mobility programs Proper equipment Equipment near patient
Frequent toileting	Create toileting schedule
Visual Impairment	Keep corrective lenses within reach
Frequent Falls	Conduct risk for injury Assess environment for safety

Other factors to consider:

- Location of patient on unit
- Patients may fail to self report prior falls at home
- Male patients "don't want to bother nurses" > female patients
- Consider patients at increased risk for injury related to falls
    - Patients > age 80
    - Patients on anti-coagulants
    - Patients with osteoporosis

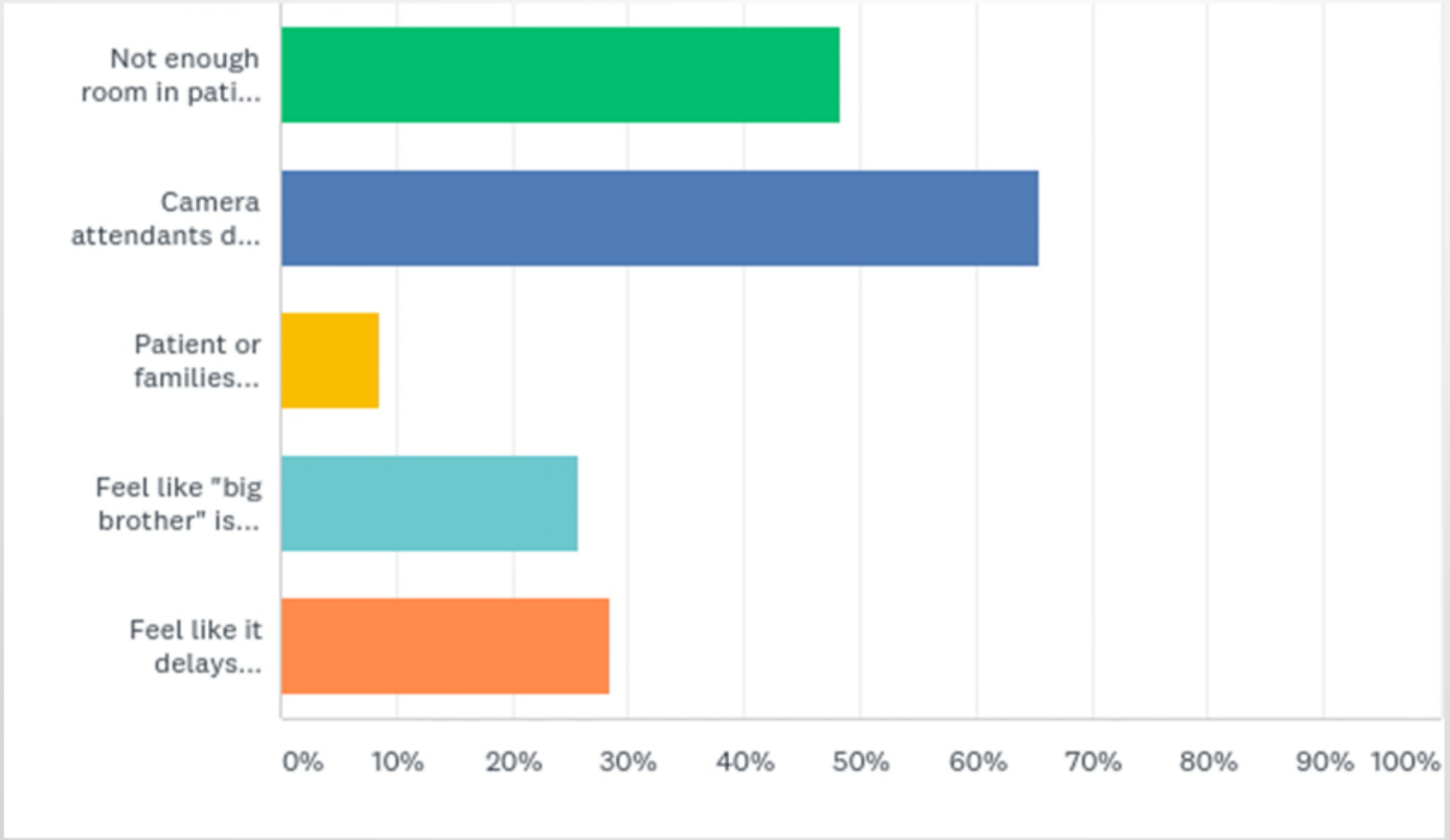
- If patient fall does occur complete a post-fall evaluation
- Purpose is not to assign blame, but to identify potential improvements to fall prevention program

Telemonitors

Benefits

Safety	Multiple studies have shown decreased rates of patient falls
Staffing	One monitor tech can watch up to 12 patients which allows unit staff to remain on floor to provide patient care
Financial	Decreasing use of human sitters reduces costs to hospital

What do you feel are barriers preventing you from using telesitter cameras for fall risk patients?(Please select all that apply)



Barriers/ Potential Solutions

Size of Room	Attempt to place camera where it will not be in the way Camera operator can see patient regardless of location unless blocked by T.V., I.V. pole, etc.
Delays Discharges To Facilities	If documentation supports use for fall prevention, there should be no delays due to use

Barriers/ Potential Solutions

Staff worried about being watched	Monitor techs are not nurses and do not report any concerns about nursing care unless impacting their ability to watch patient
Monitor staff does not alert staff quickly	Nursing does not always communicate with monitor staff exactly what is going on with patient or changes in condition (i.e. new lines, removal of lines, changes to ambulatory restrictions) Unit staff do not answer phones or may be off unit when notified about an issue Monitor staff may have to triage which patient is biggest risk (i.e. fall vs. I.V.) Be aware of need for low level light at night to improve visibility

Other Considerations

- Telesitters can redirect patients in other languages (Spanish/Chinese)
- Confused patients may benefit from having monitor tech call nurse instead of talking to patient directly
- Can watch patients at risk for elopement or other safety issues
- Cameras can be used with patients meeting Level 2 suicide criteria
  - No attempt in past 48 hours
  - No auditory hallucinations of suicidal nature
  - No recent discharge from mental health facility
  - Patient does not have a specific plan for harm

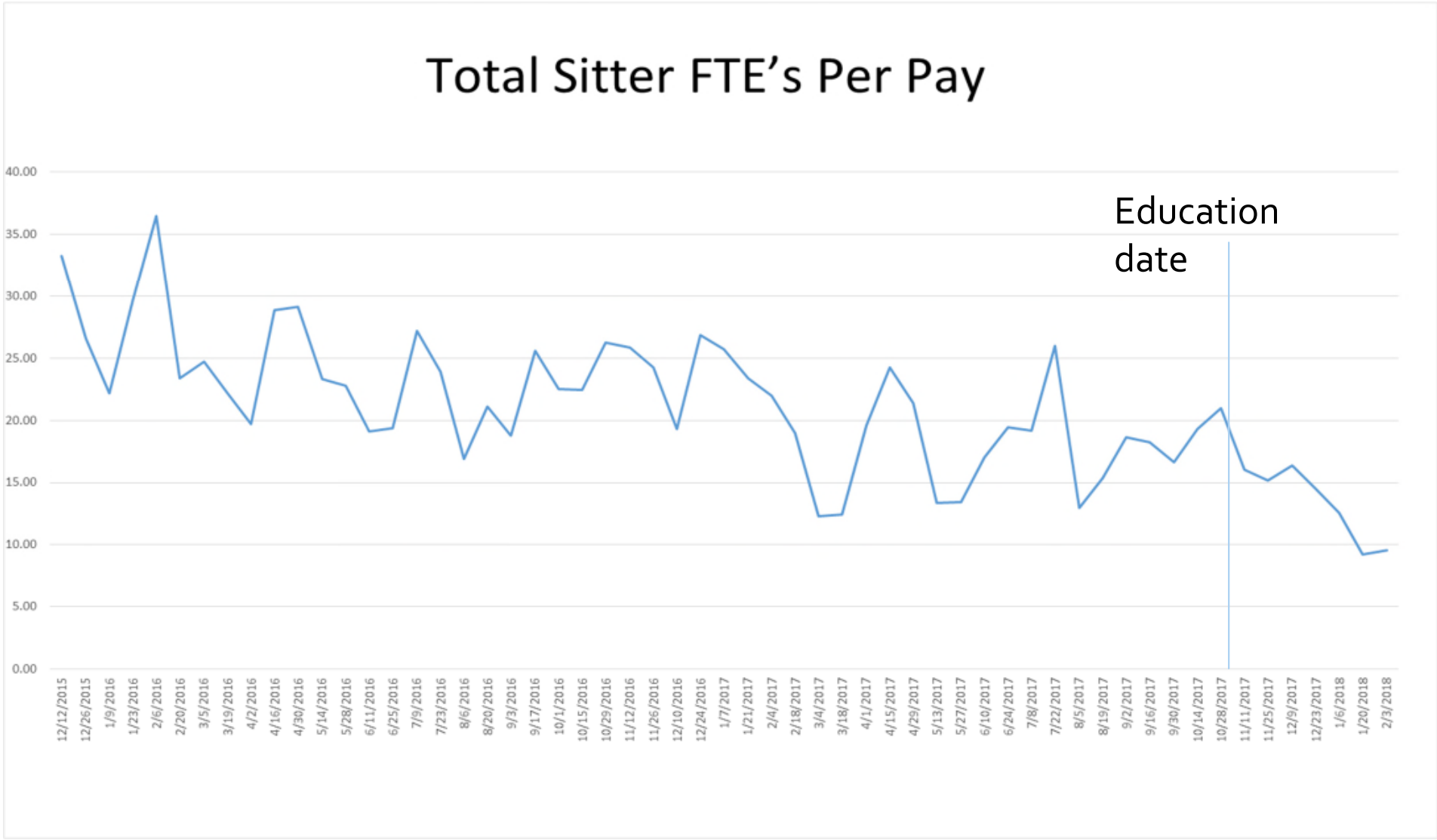
Recommendations

- Communication is key
- Unit staff needs to tell monitor tech exactly what to watch for. The better prepared, the better the outcome
- Remember there is a person on the other end trying to keep your patient safe, please respond to calls and treat with respect
- Working to develop a better communication process so please provide suggestions in feedback

Post Education

EVALUATION			
Outcome Measure	Determined by	Results	Met
Baseline knowledge level	Pretest $\bar{x} \leq 70$ overall	Overall $\bar{x}$ = 67%	Yes
Knowledge gain after completing the project	Gain in scores from pre to posttest overall and for each individual question: $\Delta \bar{x} \geq 10\%$,	Overall $\bar{x}$ = 17%	Yes Yes
Knowledge retention after completing the project	Posttest score overall and by each individual question: $\bar{x} \geq 80\%$	Overall $\bar{x}$ = 84%	Yes
LOs were met	Posttest score overall and by each individual question: $\bar{x} \geq 80\%$	Overall $\bar{x}$ = 90% minimum=53% maximum=100% median=84% mode=83,100	Yes

Results


Total Sitter FTE's Per Pay
Education date
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35.00
30.00
25.00
20.00
15.00
10.00
5.00
0.00
12/12/2015
12/26/2015
1/9/2016
1/23/2016
2/6/2016
2/20/2016
3/5/2016
3/19/2016
4/2/2016
4/16/2016
4/30/2016
5/14/2016
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11/11/2017
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12/9/2017
12/23/2017
1/6/2018
1/20/2018
2/3/2018

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